

**South Carolina Department of Transportation
On Behalf of the Federal Highway Administration – South Carolina Division Office**

**PROCESSING FORM FOR PROGRAMMATIC CATEGORICAL EXCLUSIONS
NON MAJOR FEDERAL ACTIONS**

County	Route	PIN	File Number
Fairfield	SC-200	39094_RD03	20.039094.3

Programmatic Type: CE B

Project Name: Proposed Bridge Replacement on SC-200 (Great Falls Highway) over Wateree Creek in Fairfield County, South Carolina.

Proposed Action: The South Carolina Department of Transportation (SCDOT) proposes to replace the SC-200 (Great Falls Highway) bridge over Wateree Creek in Fairfield County South Carolina (see **Figure 1**). The bridge is located northeast of the Patrick Road intersection with SC-200, approximately 11 miles north of Winnsboro, South Carolina. In addition, Wateree Creek (4.8 miles downstream of the project) is included on the S.C. Department of Health and Environmental Control (SCDHEC) 303(d) list of impaired waters. The proposed project would include replacement of the existing two-lane bridge (one lane in each direction) in the same location with a new modern structure, while maintaining the existing roadway alignment and approaches. The existing bridge is 286 feet in length and 35.7 feet in width. The existing bridge has a clearance height (low chord elevation) of 15 feet from low steel to normal water elevation. A cattle gate/fence is located under the existing bridge for livestock access. The bridge is located within a Federal Emergency Management Agency (FEMA) regulated floodplain and preliminary hydraulic analysis recommends that the elevation be raised approximately 3 feet above the existing height (low chord). The proposed project is part of a design-build contract and funds for the project are reasonably expected to be available. The proposed project is included in the State Transportation Improvement Plan (STIP) with funding for the years 2010-2015 (STIP District 4 Fairfield County – Page 1) as a federal-aid project. Based on conceptual engineering, it is anticipated that the new bridge would measure approximately 325 feet in length and 44 feet in width and consist of five, 65-foot spans (**Figure 2**). Preliminary design indicates that piles would be located within Wateree Creek (a jurisdictional stream) and approximately 88 linear feet of stream would be impacted. The new bridge would accommodate two, 12-foot travel lanes with 10-foot shoulders on both sides (**Figure 3**). It is anticipated that an additional 0.10 acres of right-of-way would be required. However, no displacements would occur as a result of the proposed project. The bridge would need to be closed during demolition and reconstruction and a detour route (approximately .32 miles in length) would be provided during this time (**Figure 1**). Replacement of the bridge on a new alignment was considered; however, realignment of the roadway would require additional right-of-way acquisition. In addition, a utility corridor is located east of the bridge. As a result, the replacement of the bridge in the existing location has been deemed the most reasonable alternative. The proposed project would include replacement of the existing two-lane bridge (one lane in each direction) in the same location with a new, modern structure while maintaining the existing roadway alignment and approaches.

Purpose and Need: The purpose of the proposed project is to replace a functionally obsolete and structurally deficient bridge. The bridge accommodates two lanes of traffic on SC-200, which is classified as a Rural Minor Arterial roadway. Existing (2008) average daily traffic (ADT) on SC-200 is approximately 1,550 vehicles per day (vpd). By 2028, the ADT on SC-200 is expected to increase to 2,465 vpd. The existing bridge was built in 1928 and reconstructed in 1963. The existing bridge has a sufficiency rating of 35.3 out of 100, classifying the bridge as

functionally obsolete and structurally deficient, making it eligible for replacement through the Federal Highway Bridge Replacement and Rehabilitation Program. The aging structure is nearing the end of its useful life and replacement of the bridge will increase the safety of the crossing and provide for long-term functionality.

Findings: The project has been assessed for possible effects on the human and natural environment with a determination that no significant environmental impact would occur. The class of action and impact determination documented by this statement would qualify this project as a categorical exclusion under 23 CFR 771, Section 115(b).

In consultation with the State Historic Preservation Office (SHPO), as appropriate, the project would not affect historic properties or archeological sites under 36 CFR 800. Concurrence from the SHPO and the Tribal Historic Preservation Offices (THPOs) for the Catawba Indian Nations and the Eastern Band of Cherokee Indians is included in **Appendix A**.

Wetlands were not identified within the project study area (PSA). The project would cross Wateree Creek (a jurisdictional stream). A Preliminary Jurisdictional Determination (JD) has been made concurring with the delineations (**Appendix A**). Two bents would be located within Wateree Creek and result in approximately 88 linear feet of impacts (**Figure 4**). It is anticipated that the proposed project would be processed as a General Permit (GP) and that any required compensatory mitigation requirements for permanent project impacts would be attained through purchase of mitigation credits from an approved mitigation bank.

The proposed project is located within Zone A of a Federal Emergency Management Agency (FEMA) floodplain. As a result, this project would involve encroachment within floodplains. However, a preliminary hydraulic assessment has determined that the bridge replacement would meet the "No Rise" requirement (see Bridge Replacement Scoping Trip Risk Assessment in **Appendix B**). Therefore, under Executive Order 11988, it has been determined that no practicable alternative to this involvement is considered and all practicable measures to minimize harm have been incorporated. A coordination letter with the Fairfield County Floodplain Manager was sent on November 29, 2011 (**Appendix A**).

The project is not expected to jeopardize the continued existence of any listed endangered or threatened species or destroy or adversely modify critical habitat. Therefore, no further investigation under Section 7 of the Endangered Species Act is necessary (see **Appendix C** for Biological Assessment).

Additionally, the proposed project would have no effect on land use, hazardous materials, farmlands, air quality or noise.

Environmental Commitments:

- Construction within the floodplain will be consistent with FEMA regulations. The bridge will be replaced as part of a design/build contract. If necessary, a detailed hydraulic analysis will be performed during the final design phase. The contractor will be required to construct a minimum structure length, minimum low chord and minimum channel opening. A letter of concurrence will be obtained from the Fairfield County Floodplain Manager prior to construction and a No-Rise Certification will also be obtained. A letter of coordination with the Fairfield County Floodplain Manager was sent November 29, 2011 (**Appendix A**). Coordination with the Floodplain Manager will continue throughout the process and they will be notified once the final hydraulic analysis is complete.
- The acquisition and disturbance of hazardous waste will be avoided, if possible. If avoidance is not a viable alternative, hazardous materials will be tested and removed

and/or treated in accordance with the United States Environmental Protection Agency and the South Carolina Department of Health and Environmental Control requirements.

- Impacts to jurisdictional waters will be permitted and appropriately mitigated, if required, under a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers. Based on preliminary engineering, it is anticipated that the proposed project will impact approximately 88 linear feet of stream and the project will be permitted under SCDOT's General Permit (GP). Any required compensatory mitigation requirements for permanent project impacts will be attained through purchase of mitigation credits from an approved mitigation bank.
- Stormwater control measures during construction and post-construction are required for SCDOT projects within the vicinity of SCDHEC designated "sensitive" waters. These include, but are not limited to: 303(d) impaired waters, waters with Total Maximum Daily Loads (TMDLs), Outstanding Resource Waters (ORW), Shellfish Harvesting Waters (SFH) and trout waters. Wateree Creek is listed on the SCDHEC 303(d) list for impaired waters. As a result, stormwater control measures for sensitive waters will be in accordance with SCDOT's MS4 Permit.
- As part of the proposed bridge replacement, the cattle gate/fence will be replaced, if necessary.

Categorical Exclusion Type B (Conditional Programmatic)

Projects of the type listed below would not automatically fall under the same programmatic clearance as the CE Type A. The regulations in 23 CFR 771.117(d) list additional types of projects which can meet the CE criteria only after FHWA approval. Several of these projects have been approved to be processed programmatically by FHWA-SC if certain conditions are met. These types are listed below.

Check appropriate project type:

- ☐ 1. Safety projects including but not limited to: placement of traffic barrier; energy attenuators; grading of slopes or gore areas to eliminate the need for guardrail, improve the clear zone, improve curves, or improve sight distance/ removal of fixed objects such as boulders or trees; lighting; glare screens; delineators; and safety modification of drainage structures.
- ☐ 2. Pavement resurfacing, restoration, rehabilitation, and reconstruction projects including related shoulder and ditch work.
- ☐ 3. Traffic operation type projects including but not limited to: freeway surveillance and control systems; intersection channelization; turn lanes, acceleration or deceleration lanes; construction, modification or elimination of curbs, raised median dividers or sidewalks; and widening less than a single lane width.
- ☒ 4. Bridge and culvert rehabilitation work and bridge replacement at the same location.

To be processed as a Categorical Exclusion Type B (CEB) the following conditions must be met in addition to the General Criteria (as outlined in the PA between FHWA-SC and SCDOT). Place a check in the appropriate box.

- | | Yes | No |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|
| 1. The acquisition of more than minor amounts of temporary or permanent strips of right-of-way and the acquisition will not require any residential or business displacements. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Use of Section 4(f) properties. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. An adverse effect determination under Section 106 of the Nation Historic Preservation Act. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Individual Coast Guard Permits. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Individual Corps of Engineer Permits, or and impact greater than three (3) acres of wetlands. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| a. Wetland Impacts (acres): <input style="width: 100px; height: 20px; border: 1px solid black;" type="text"/> | | |
| 6. Impacts to planned growth or land use, or significant impacts on travel patterns. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Work encroaching in a regulatory floodway, adversely affecting the base floodplain, or potentially adversely affecting a National Wild and Scenic River. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Changes in access control. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Any known or potential major hazardous waste sites within the right-of-way. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If the answer is yes to any of the above criteria, a documented Categorical Exclusion (CE-C) must be prepared and forwarded to FHWA for approval.

The above described project has been reviewed based on the information contained in the engineer's Project Planning Report (PPR) and it has been determined that the project meets the criteria set forth in the Programmatic Categorical Exclusion Agreement signed by FHWA and SCDOT. It is understood that any additions/deletions to the project may void environmentally processing the project as presently classified; consequently, any engineering changes must be brought to the attention of the SCDOT Environmental Section immediately. The project's CE Classification should be shown in the remarks section on the Letter of Request for Authorization

Form (PS Form 39) for right-of-way and/or construction for concurrence by FHWA. A copy of this form is included in the project file and one (1) copy has been provided to FHWA.

Prepared by: Stephanie Gallagher AICP, Environmental Planner
STV Incorporated

March 7, 2012
Date

PPMS: Yes ☐ No ☐

Supplemental Information

Acquisitions /Displacements

It is anticipated that the proposed project would be primarily constructed within the existing right-of-way. An additional 0.10 acres of right-of-way would be required for the bridge replacement. However, acquisitions would not be necessary and displacements would not occur as a result of the proposed project. A cattle gate/fence is located under the existing bridge for livestock access. It is anticipated that the gate/fence would be replaced, if necessary.

Section 4(f)

The proposed project would not impact publically-owned parks, recreational areas, or wildlife refuges. Therefore, a Section 4(f) evaluation/approval is not required for this project.

Section 106 - Cultural Resources (Archaeological/Historic)

In accordance with 36 CFR 800.4, an archaeological review and background research was conducted for the proposed project. In addition, the project site was visited on September 3, 2010 and the bridge was previously determined to be not eligible for the National Register of Historic Places (NRHP). There are no eligible archaeological sites or historic architectural resources within the Area of Potential Effects (APE).

Based on the project setting and the absence of any eligible or listed properties within the APE, an intensive cultural resources survey was deemed not necessary, and no further work is recommended. The State Historic Preservation Office (SHPO) has determined that the project would not affect historic properties or archeological sites under 36 CFR 800. Concurrence from the SHPO and the Tribal Historic Preservation Offices (THPOs) for the Catawba Indian Nations and the Eastern Band of Cherokee Indians is included in **Appendix A**.

Water Quality

The project study area (PSA) is located within the Catawba River Basin (USGS Hydrologic Unit Code [HUC] 03050104), which incorporates ten watersheds and 1,257 square miles. The Wateree Creek watershed (HUC 03050104-020), which consists primarily of Wateree Creek occupies 37,434 acres and accepts hydrology from Wall Creek, Willow Swamp Branch, Gaydens Creek, Scabblar Branch, and Hogfork Branch before forming an arm of Lake Wateree approximately 7.8 miles east-southeast of the project.

Wateree Creek at US 21 (Station CW-072) is located 4.8 miles downstream of the bridge and included on the S.C. Department of Health and Environmental Control (SCDHEC) 303(d) list of impaired waters for fecal coliform bacteria and turbidity. Stormwater control measures during construction and post-construction are required for SCDOT projects within the vicinity of SCDHEC designated “sensitive” waters. These include, but are not limited to: 303(d) impaired waters, waters with Total Maximum Daily Loads (TMDLs), Outstanding Resource Waters (ORW), Shellfish Harvesting Waters (SFH) and trout waters. As a result of Wateree Creek’s listing on the SCDHEC 303(d) list for impaired waters, stormwater control measures for sensitive waters would be in accordance with SCDOT’s MS4 Permit.

Wetlands and Streams

The PSA was field reviewed on September 2, 2010 to determine the presence of jurisdictional waters of the U.S., including wetlands and streams, and to delineate these resources. The PSA consisted of an area 1,000 feet long and 200 feet wide extending from the SC 200 Bridge over Wateree Creek. Potential jurisdictional waters of the U.S. identified in the PSA include one perennial relatively permanent water (RPW); Wateree Creek (Stream A). No wetlands were identified within the PSA. A Preliminary Jurisdictional Determination (JD) has been made concurring with the delineations (**Appendix A**).

Wateree Creek is approximately three to five feet wide with bank heights ranging from two to three feet. Within the PSA, Wateree Creek accepts drainage from the large surrounding upland forest, the maintained and disturbed roadside, and SC-200. The stream channel exhibited low flow, moderate sinuosity, and a substrate consisting of rock, cobble, sand, clay and silt. Aquatic life, including fish, amphibians and macroinvertebrates, was not observed within Wateree Creek.

It is anticipated that that impacts to Wateree Creek could occur as a result of the proposed project. A total of approximately 213 linear feet of stream are located within the PSA. Piles would be located within Wateree Creek and result in approximately 88 linear feet of impacts (**Figure 4**).

Permitting

A Clean Water Act Section 404 permit is required for impacts to jurisdictional waters of the U.S., including wetlands. Section 404 is administered by the USACE. Depending on the type and extent of jurisdictional waters of the U.S., including wetlands, to be impacted, Section 404 permitting requirements can range from activities that are considered exempt or preauthorized to those requiring pre-construction notification (PCN) for a Nationwide Permit (NWP) or Individual Permit (IP) from the USACE.

For SCDOT projects, USACE General Permit (GP) 2010-01346 may be applicable if impacts do not exceed 3.0 acres of freshwater wetlands, 0.5 acre of tidal wetlands, and/or 300 linear feet of stream. Wateree Creek downstream of the project study area is “impaired” and a 303(d) listed water. Depending on the type of impairment, extent of the project, and other factors, SCDHEC may require additional water quality protection and stormwater treatment measures during and after construction. Based on preliminary engineering and an estimated 88 linear feet of stream impacts, it is anticipated that the aforementioned GP would be required for this project.

Quantitative water quality sampling within the project study area (PSA) was not conducted. The proposed project is not expected to have long term impacts to water quality within the PSA or the Wateree Creek watershed. Short-term water quality impacts would be controlled through best management practices (BMPs). Wateree Creek is a SCDHEC 303(d) listed stream. See the *Water Quality* section for additional information. In addition, it is anticipated that the NPDES limits would be offset approximately 5 feet from the construction limits. NPDES limits would be included on permit drawings.

Compensatory Mitigation

Compensatory mitigation is normally required to offset unavoidable losses of waters of the U.S. The Council on Environmental Quality (CEQ) has defined mitigation in 40 CFR Part 1508.20 to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts. Three general types of mitigation include avoidance, minimization and compensatory mitigation. Compensatory mitigation consists usually of the restoration of existing degraded wetlands or waters, or the creation of wetlands/waters of equal or greater value than those to be impacted. This type of mitigation is only undertaken after avoidance and minimization actions are exhausted and should be undertaken, when practicable, in areas near the impact site (i.e., on-site compensatory mitigation). The USACE typically requires compensatory mitigation for any wetland impacts greater than 0.10 acre and/or streams impacts greater than 100 linear feet.

It is anticipated that any compensatory mitigation requirements for permanent project impacts would be attained through purchase of mitigation credits from a USACE approved mitigation bank. Specific mitigation requirements will be established during the Section 404 permitting process.

Floodplains

The proposed project is located within Zone A of Federal Emergency Management Agency (FEMA) floodplain map (Panel 45039C0225C). Zone A is a high risk area for flooding and Zone A areas have a 1% annual chance of flooding. A preliminary hydraulic assessment was performed in September 2011 to determine possible impacts to the floodplain from the proposed project (see the Bridge Replacement Scoping Trip Risk Assessment Form in **Appendix B**). The proposed project would raise the bridge elevation by three feet and reduce the number of bents located within the stream bed. As a result, the proposed project is not expected to increase the Base Flood Elevation of Wateree Creek and a No-Rise Certificate would be obtained in accordance with FEMA regulations. A coordination letter with the Fairfield County Floodplain Manager was sent November 29, 2011 (**Appendix A**). Coordination with the Floodplain Manager will continue throughout the process and they will be notified once the final hydraulic analysis is complete.

The level of risk analogous with the probable area of flooding and its consequences attributed to this encroachment is not expected to be any greater than that associated with the present roadway and bridge. Also, the project is not expected to have any increased potential for impact on those critical elements that would constitute a significant risk under 23 CFR 650A. The project's construction within these floodplains would be consistent with FEMA regulations. As part of the design/build contract, the contractor selected will be required to construct a minimum structure length, minimum low chord and minimum channel opening. Once the design/build contract has been established, the proper hydraulic design and analysis will be performed according to FEMA regulations. If the detailed hydraulic analysis is deemed necessary and fails to verify that the proposed project would not significantly impact the floodplain, the project would require re-evaluation prior to proceeding with construction.

Hazardous Materials

It is anticipated that an additional 0.10 acres of right-of-way would be required for this project. The project would primarily take place within existing right-of-way. In addition, the area directly adjacent to the bridge predominately consists of undisturbed land with low potential for

underground storage tanks (USTs). Therefore, there is low potential for uncovering USTs or other hazardous-material-containing sites during construction activities. A Phase I Environmental Site Assessment was not conducted; however, the SCDHEC databases for hazardous materials were examined and no documented concerns are located within the vicinity of the bridge.

It is SCDOT's practice to avoid the acquisition of USTs and other hazardous waste materials, if at all possible. If soils that appear to be contaminated with petroleum products were encountered during construction, the South Carolina Department of Health and Environmental Controls (DHEC) would be informed. If avoidance were not a viable alternative, tanks and other hazardous materials would be tested and removed and/or treated in accordance with the United States Environmental Protection Agency (EPA) and South Carolina DHEC requirements. Costs necessary for clean up would be taken into consideration during the right-of-way appraisal and acquisition process.

Threatened and Endangered Species

Pursuant to Section 7 of the Endangered Species Act, the list of protected species known to occur in Fairfield County was reviewed, and evaluations were performed regarding the likelihood of the presence of each species within the project area. A search of the United States Fish and Wildlife Service (USFWS) database provided existing information concerning the potential occurrence of threatened or endangered species within Fairfield County. This database identifies federally threatened or endangered species known to occur or to have formerly occurred in Fairfield County. **Table 1** lists these species.

Table 1
Fairfield County Endangered/Threatened Species

Federally Protected Species		Protection Status	
Common Name	Scientific Name	Federal	State
Georgia aster	<i>Aster georgianus</i>	C	-
Carolina darter	<i>Etheostoma collis</i>	-	E
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA	E
Carolina heelsplitter	<i>Lasmigona decorata</i>	E	E

Source: South Carolina Department of Natural Resources, April 2010

T = Threatened, E = Endangered, C = Candidate, R = Recovery, BGEPA = Bald and Golden Eagle Protection Act

Field reviews were conducted in September 2010 and none of the protected species were observed within the PSA during the field reviews. The field review did, however, reveal potential habitat for Carolina darter and Carolina heelsplitter (**Appendix C**). A review of the SCHT Geographic Database of Rare and Endangered Species did not reveal the presence of any known individuals or populations of Carolina darter within one mile of the PSA and no individuals were observed during the field review. See **Appendix C** for additional details on the Biological Assessment.

A survey for freshwater mussels was also conducted in October 2010. A November 2010 report concluded that this reach of Wateree Creek is extremely poor freshwater habitat for freshwater mussels, and provides inappropriate habitat for the Carolina heelsplitter (see **Appendix C**). Based on the findings of the report, it is determined that the project will have “no effect” on the Carolina heelsplitter.

Air Quality

The purpose of this project is to replace a functionally obsolete and structurally deficient bridge. This project has been determined to generate minimal air quality impacts for Clean Air Act Amendments (CAAA) criteria pollutants and has not been linked with any special Mobile Source Air Toxins (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050 while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Noise

The proposed project does not represent improvements on new location, the addition of through traffic lanes or significant changes in alignment. Therefore, the requirements for conducting noise studies under 23 CFR 772 do not apply.

References

Federal Emergency Management Agency. May 3, 2011. FIRM Flood Insurance Rate Map, Fairfield County, South Carolina, Panel Number 45039C0225C. Available at: <http://map1.msc.fema.gov> Accessed September 2011.

Federal Highway Administration. 2009. *Interim Guidance on Air Toxic Analysis in NEPA Documents*. Available at: <http://www.fhwa.dot.gov/environment/airtoxic/100109guidmem.htm> Accessed April 2011.

Brockington and Associates, Inc. November 4, 2010. *No Need for Archaeological or Historic Architectural Survey for the Proposed SC 200 Wateree Creek Bridge Replacement Project, Fairfield County, South Carolina*. Prepared for the South Carolina Department of Transportation.

South Carolina Department of Health and Environmental Control. *Online Databases*. Available at: <http://www.scdhec.gov/environment/lwm/databases.htm> Accessed January 2012.

STV/RWA. January 2011. *Natural Resources Technical Memorandum – SC 200 Bridge Replacement Over Wateree Creek*. Prepared for the South Carolina Department of Transportation.

Figure 1: Site Location

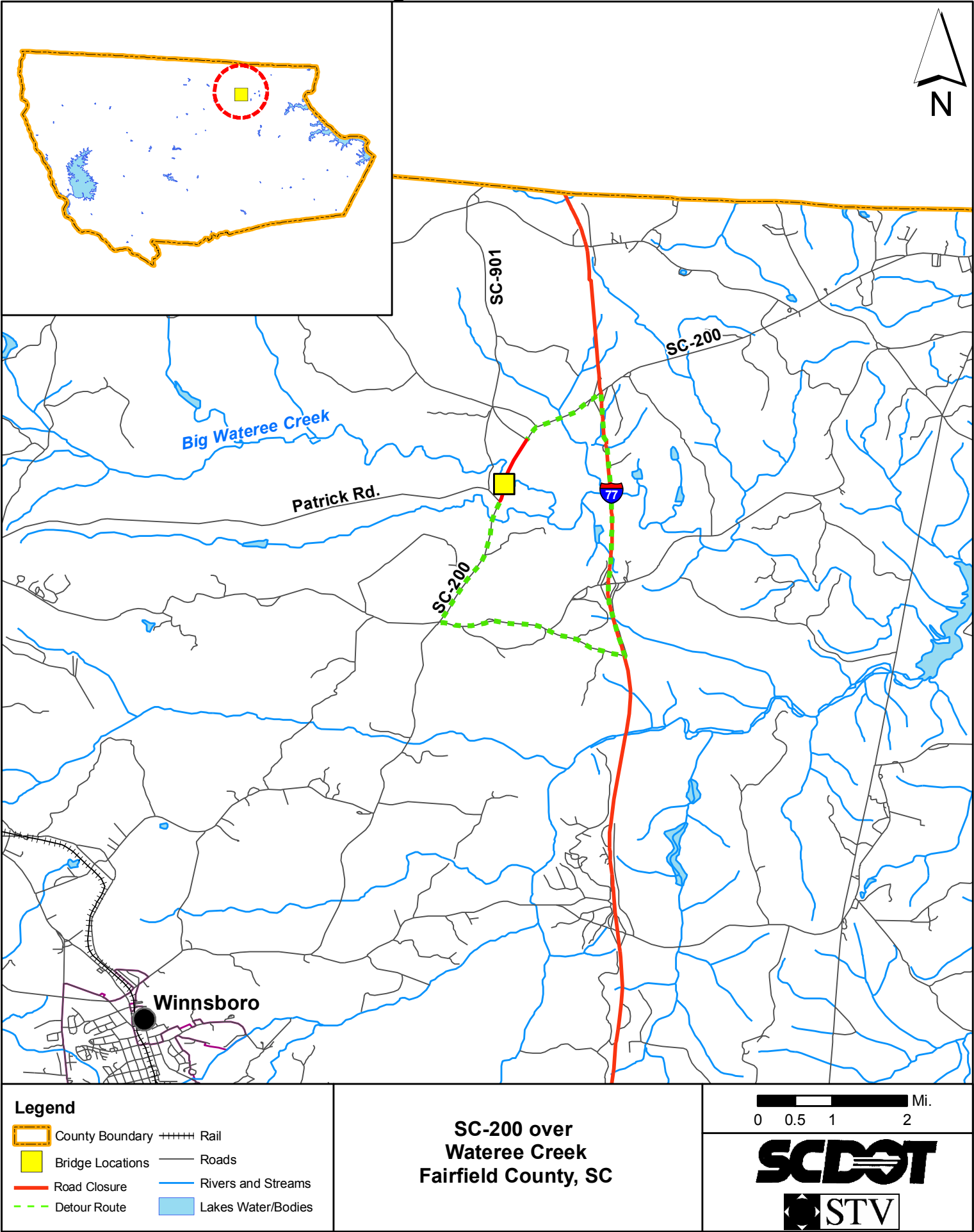
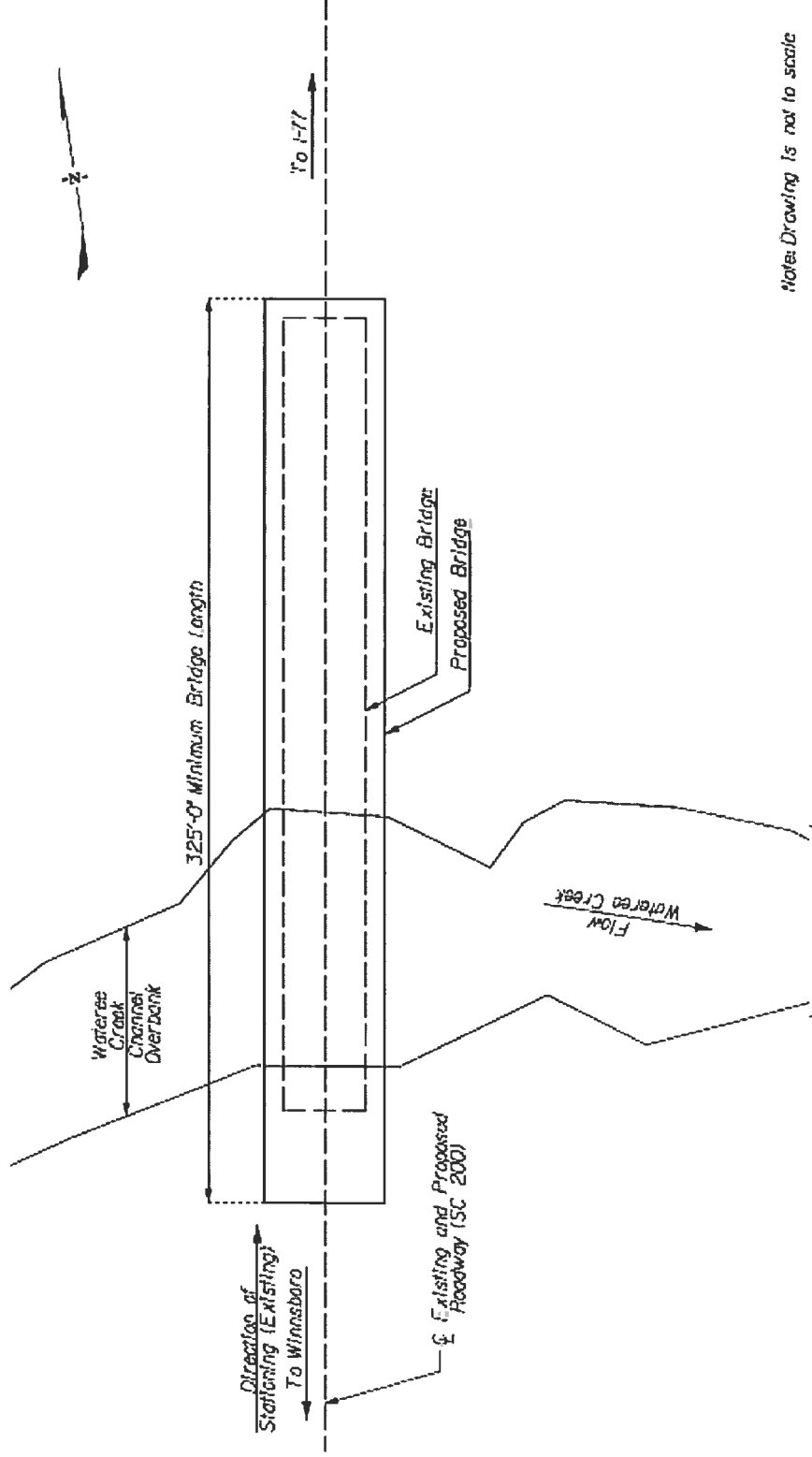


Figure 2: Plan View

ROUTE SC 200 OVER WATREE CREEK
FAIRFIELD COUNTY
PRELIMINARY BRIDGE LAYOUT

SUBJECT TO CHANGE BASED ON DESIGN



Note: Drawing is not to scale

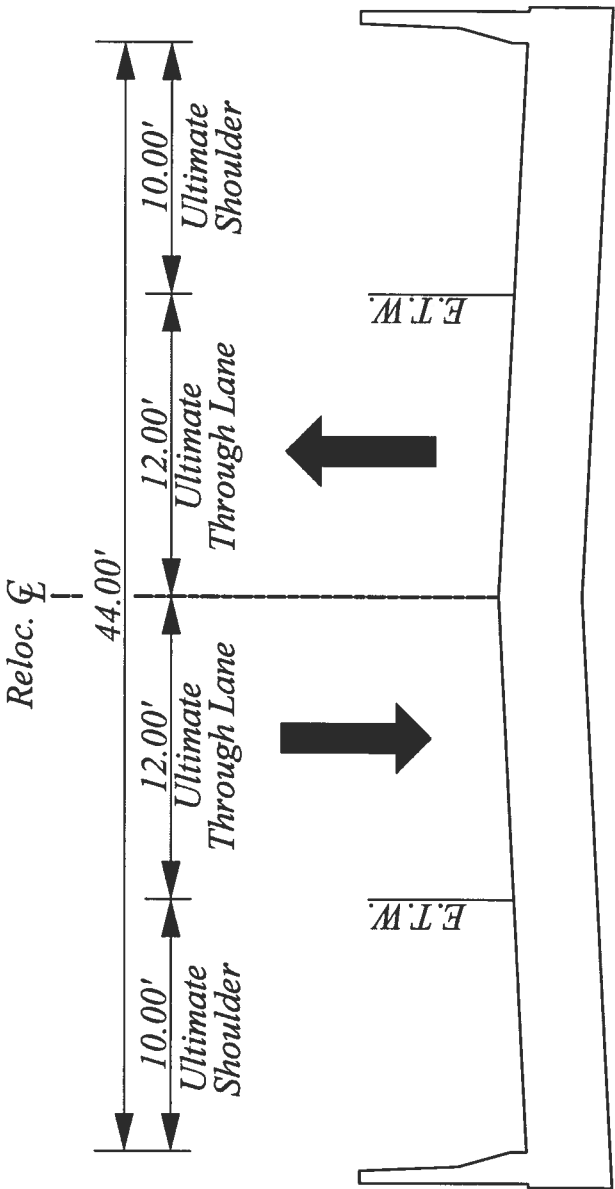
*Preliminary Design

SC 200 over
Watree Creek
Fairfield County, SC



Figure 3: Typical Section

ROUTE SC 200 OVER WATeree CREEK
FAIRFIELD COUNTY
PRELIMINARY BRIDGE TYPICAL SECTION



TYPICAL SECTION NO. 1

USE THIS SECTION ON
SC 200 BRIDGE

NOTE: DRAWING IS NOT TO SCALE


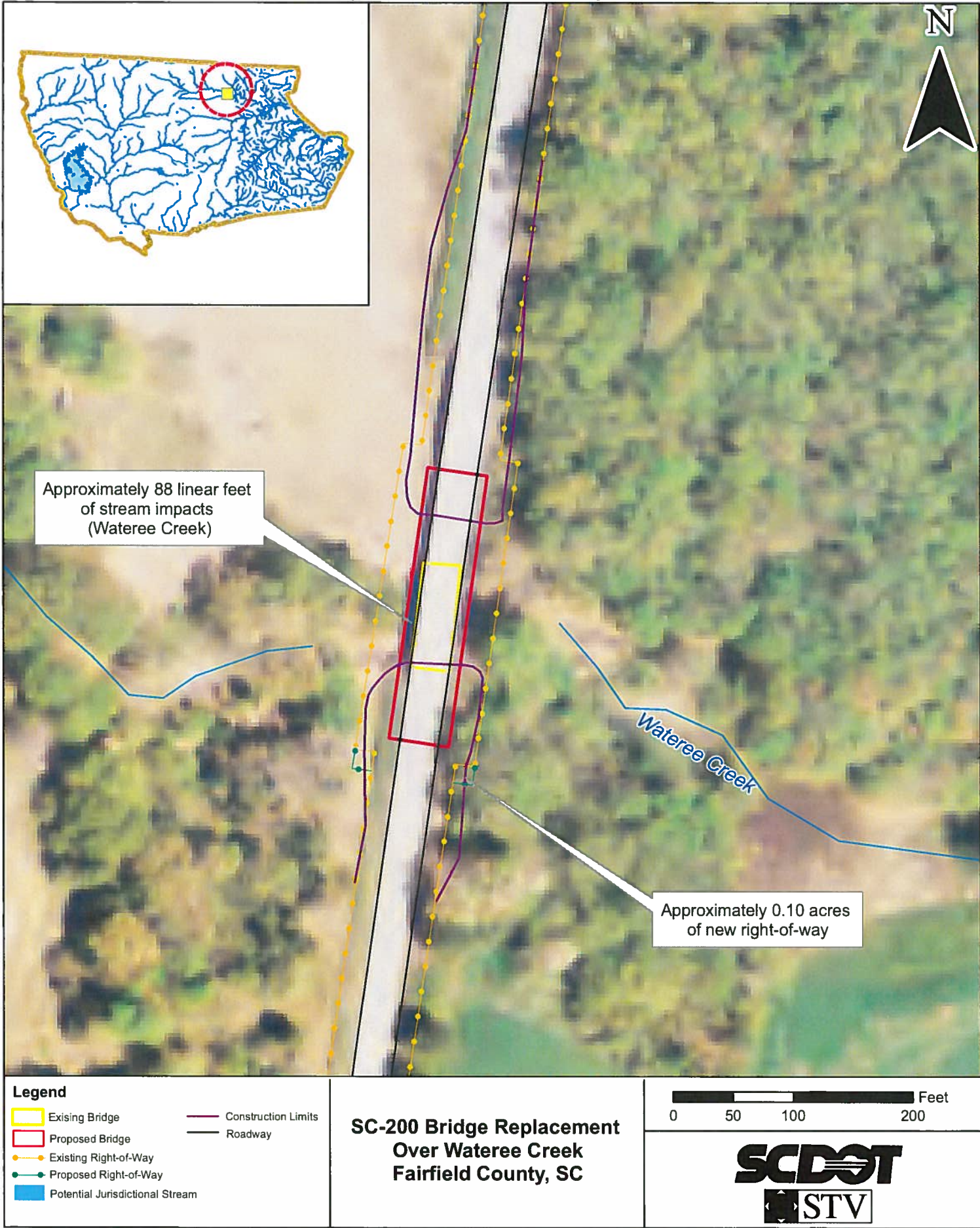
*Preliminary Design	SC 200 over Wateree Creek Fairfield County, SC	
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Figure 4: Potential Impacts



Appendix A

Agency Correspondence



STV/Ralph Whitehead Associates

1000 West Morehead Street, Suite 200
Charlotte, North Carolina 28208
(704) 372-1885 fax: (704) 372-3393

November 29, 2011

Mr. Philip Hinely
Fairfield County Floodplain Manager
P.O. Box Drawer 60
Winnsboro, SC 29180

RE: No Impact Intent Statement for the Bridge Replacement Project on SC 200 over Wateree Creek in Fairfield County.

Dear Mr. Hinely

The South Carolina Department of Transportation is preparing to replace the above referenced bridge in Fairfield County. The bridge will be replaced through a design/build contract where the contractor must construct a minimum structure length, minimum low chord and minimum channel opening equal to or greater than the existing structure. This letter attests that the referenced bridge lies within Zone A of a FEMA regulated floodplain. A preliminary hydraulic assessment has been performed and the bridge replacement is not expected to cause any increases within the base flood elevation nor increase the flooding potential for the surrounding area during 100-year storm events. Once the design/build contract has been established, the final hydraulic design and analysis will be performed according to FEMA regulations. You will be notified of the study findings for the bridge once it is completed.

Please feel free to contact me at (704) 372-3393 if you have any questions or require additional information about the proposed project.

Sincerely,

Stephanie J. Gallagher, AICP
Environmental Planner
STV, Inc.

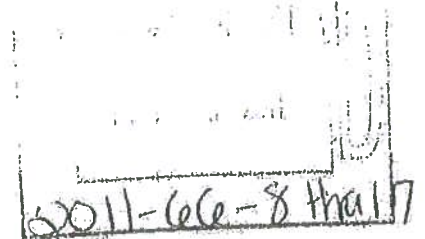
Ec: Heather Robbins, SCDOT NEPA Manager



South Carolina
Department of Transportation

February 7, 2011

Ms. Elizabeth Johnson
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905



RE: Ten Design Build Bridge Replacement Projects

Dear Ms. Johnson:

The Department plans to hire a design build contractor to replace ten structurally deficient bridges in various counties throughout the state. Brockington and Associates conducted background research and/or field surveys for each of the proposed bridge replacement projects. Copies of the survey reports and letters recommending no need for survey are provided for your review and comment.

Based on the results of background research and field surveys, it is the Department's determination that no historic properties will be affected by the following undertakings:

- 2011-66-8 1) Proposed S-26-24 Pawleys Swamp Bridge Replacement Project, Horry County
File No. 26.040460.1 PCN: 40460_BR01
- 2011-66-9 2) Cultural Resources Survey of the S-13-22 Thompson Creek Bridge Replacement Project,
Chesterfield County, File No. 13.040460.3 PCN: 40460_BR03
- 2011-66-10 3) Cultural Resources Survey of the SC 41 Marsh Creek Bridge Replacement Project, Marion
County, File No. 34.040460.2 PCN: 40460_BR02
- 2011-66-11 4) Cultural Resources Survey of the SC 9 Catawba River Bridge Replacement Project, Chester
and Lancaster Counties, File No. 1229.039094 PCN: 39094_BR04
- 2011-66-12 5) Proposed SC 72 Cane Creek Bridge Replacement Project, Union County,
File No. 44.039441.2 PCN: 39441_BR02
- 2011-66-13 6) Cultural Resources Survey of the S-12-77 Fishing Creek Bridge Replacement Project,
Chester County, File No. 12.039094.1 PCN: 39094_BR01
- 2011-66-14 7) Cultural Resources Survey of the S-12-141 Rocky Creek Bridge Replacement Project,
Chester County, File No. 12.039094.2 PCN: 39094_BR02
- 2011-66-15 8) No Need for Archaeological or Historic Architectural Survey for the Proposed SC 200
Wateree Creek Bridge Replacement Project, Fairfield County
File No. 20.39094.3 PCN: 39094_BR03
- 2011-66-16 9) Cultural Resources Survey of the SC 200 Cane Creek Bridge Replacement Project, Lancaster
County, File No. 29.039094.5 PCN: 39094_BR05

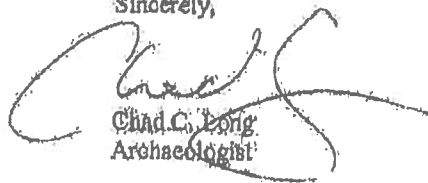


2011-06-17

- 10) No Need for Archaeological or Historic Architectural Survey for the Proposed I-85 SBL
Southern Railroad Bridge Replacement Project, Cherokee County
File No. 11.022094.11 PCN: 22094_BRI I

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1999, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act. It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,



Chad C. Long
Archaeologist

Enclosures

I ~~(do not)~~ concur in the above determination.

Signed: Caithlin Pottier for Wenonah Haire Date: 5/17/11

cc: Shane Belcher, FHWA
Russell Townsend, EBCL
Lisa LaRue-Stopp, United Keetowah
Dr. Wenonah Haire, CIN-THRO
Keith Derting, SCIAA

File: Env/CCL



South Carolina
Department of Transportation

February 7, 2011

11-DKO
NHPA

Ms. Elizabeth Johnson
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905

RECEIVED

FEB 14 2011

SC Department of
Archives & History

RE: Ten Design Build Bridge Replacement Projects

Dear Ms. Johnson:

The Department plans to hire a design build contractor to replace ten structurally deficient bridges in various counties throughout the state. Brockington and Associates conducted background research and/or field surveys for each of the proposed bridge replacement projects. Copies of the survey reports and letters recommending no need for survey are provided for your review and comment.

Based on the results of background research and field surveys, it is the Department's determination that **no historic properties will be affected** by the following undertakings:

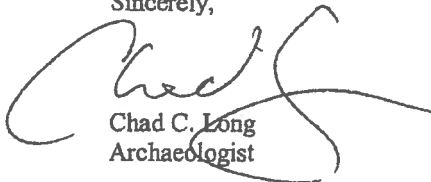
- 1) Proposed S-26-24 Pawleys Swamp Bridge Replacement Project, Horry County
File No. 26.040460.1 PCN: 40460_BR01
- 2) Cultural Resources Survey of the S-13-22 Thompson Creek Bridge Replacement Project, Chesterfield County, File No. 13.040460.3 PCN: 40460_BR03
- 3) Cultural Resources Survey of the SC 41 Marsh Creek Bridge Replacement Project, Marion County, File No. 34.040460.2 PCN: 40460_BR02
- 4) Cultural Resources Survey of the SC 9 Catawba River Bridge Replacement Project, Chester and Lancaster Counties, File No. 1229.039094 PCN: 39094_BR04
- 5) Proposed SC 72 Cane Creek Bridge Replacement Project, Union County,
File No. 44.039441.2 PCN: 39441_BR02
- 6) Cultural Resources Survey of the S-12-77 Fishing Creek Bridge Replacement Project, Chester County, File No. 12.039094.1 PCN: 39094_BR01
- 7) Cultural Resources Survey of the S-12-141 Rocky Creek Bridge Replacement Project, Chester County, File No. 12.039094.2 PCN: 39094_BR02
- 8) No Need for Archaeological or Historic Architectural Survey for the Proposed SC 200 Wateree Creek Bridge Replacement Project, Fairfield County
File No. 20.39094.3 PCN: 39094_BR03
- 9) Cultural Resources Survey of the SC 200 Cane Creek Bridge Replacement Project, Lancaster County, File No. 29.039094.5 PCN: 39094_BR05



10) No Need for Archaeological or Historic Architectural Survey for the Proposed I-85 SBL
Southern Railroad Bridge Replacement Project, Cherokee County
File No. 11.039094.11 PCN: 39094_BR11

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act. It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,


Chad C. Long
Archaeologist

Enclosures

I (~~do not~~) concur in the above determination.

Signed: 

Date: 2/23/11

cc: Shane Belcher, FHWA
Russell Townsend, EBCI
Lisa LaRue-Stopp, United Keetowah
Dr. Wenonah Haire, CIN-THPO
Keith Derting, SCIAA

File: Env/CCL



Eastern Band of Cherokee Indians
Tribal Historic Preservation Office
P.O. Box 455
Cherokee, NC 28719
Ph: 828-554-6852 Fax 828-488-2462

DATE: April 6, 2011

TO: FHWA, SC Division
Robert L. Lee
Division Administrator
1835 Assembly St.
Suite 1270
Columbia, SC 29201



PROJECTS: Comments concerning:

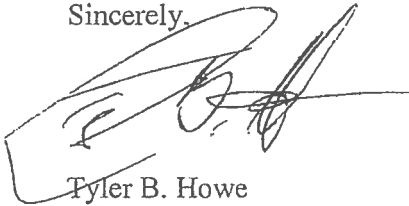
- 1.) (File # 40.039333A; Pin: 39333). Phase I Cultural Resources Survey of the Hardscrabble Road Widening Project, Richland County, SC.
- 2.) (File # 29.039094.5; PCN: .39094_BR05). Cultural Resources Survey of the SC 200 Cane Creek Bridge Replacement Project, Lancaster County, SC.
- 3.) (File # 20.39094.3 PCN: 39094_BR03). No Need for Archaeological or Historic Architectural Survey for Proposed SC 200 Wateree Creek Bridge Replacement Project, Fairfield County, SC.
- 4.) (File # 12.039094.2 PCN: 39094_BR02). Cultural Resources Survey of the S-12-141 Rocky Creek Bridge Replacement Project, Chester County, SC.
- 5.) (File # 12.039094.1 PCN: 39094_BR01). Cultural Resources Survey of the S-12-77 Fishing Creek Bridge Replacement Project, Chester County, SC.
- 6.) (File # 44.039441.2 PCN: 39441_BR02). No Need for Archaeological or Historic Architectural Survey for the Proposed SC 72 Cane Creek Bridge Replacement Project, Union County, SC.
- 7.) (File # 1229.039094 PCN: 39094_BR04). Cultural Resources Survey of the SC 9 Catawba River Bridge Replacement Project, Chester and Lancaster Counties, SC.
- 8.) Cultural Resources Survey of the Celriver/Red River Road Improvements Project, York County, SC. City of Rock Hill Project.

The Tribal Historic Preservation Office of the Eastern Band of Cherokee Indians (EBCI THPO) would like to thank you for the opportunity to comment on this proposed section 106 activities under §36 C.F.R. 800.

The EBCI THPO concurs with the archeologist's recommendations that no sites eligible for inclusion on the National Register of Historic Places were encountered during the recent phase I archaeological field surveys. As such, the EBCI THPO believes that the proposed projects may proceed as planned. In the event that project plans change, or cultural resources or human remains are discovered, all work should cease, and this office should be contacted to continue government to government consultation as defined under Section 106 of the National Historic Preservation Act of 1966, as amended.

If we can be of further service, or if you have any comments or questions, please feel free to contact me at (828) 554-6852.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tyler B. Howe', with a large, stylized initial 'T' and 'H'.

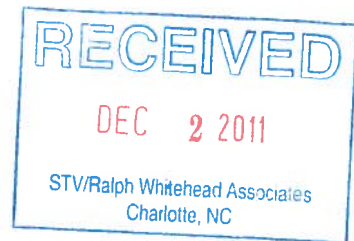
Tyler B. Howe
Tribal Historical Preservation Specialist
Eastern Band of Cherokee Indians

C: Wayne D. Roberts



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107



April 27, 2011

Regulatory Division

Mr. Sean Connolly
Environmental Permit Manager
South Carolina Department of Transportation
P.O. Box 191, 955 Park Street
Columbia, South Carolina 29202

39094-BRO3

Dear Mr. Connolly:

This is in response to a letter from STV/Ralph Whitehead received January 3, 2011, requesting a Jurisdictional Determination, on behalf of South Carolina Department of Transportation, for a 4.6 acre tract, located along **SC-200 across Wateree Creek (SCDOT PIN: 39094)** located in Fairfield County, South Carolina. The project area is depicted on the enclosed sketch (Sheet 1 of 1) entitled "SC-200 Bridge Replacement over Wateree Creek, Fairfield County, SC" dated September 7, 2010, that depict the project location, soils mapping, project boundaries, and delineated Waters of the U.S. A preliminary jurisdictional determination is used to indicate that this office has identified wetlands or other waters on the property and believes these waters may be jurisdictional waters of the United States. Since the Preliminary does not verify the actual jurisdictional status of wetlands and/or waters of the United States on the property, it relies on the presumption of jurisdiction for the purpose of expediting the request for a Preliminary.

Based on an on-site inspection, a review of aerial photography, topographic maps, National Wetland Inventory maps and soil survey information and information which you provided, it has been concluded that the boundaries shown on the referenced sketch or plat are a reasonable approximation of the location and boundaries of the waters found on this site. The property in question contains a total of approximately **213 linear feet** of federally defined freshwater wetlands or other waters. **Specifically, your project contains 213 linear feet of Wateree Creek.** You are cautioned that this delineation is approximate, subject to change, and should be used for planning purposes only. This office should be contacted prior to performing any work in or around these wetlands or other waters. In order for a definitive determination to be provided, these areas should be located and marked on-site, sketched or surveyed, platted on a map, and should be accompanied by a request for an Approved Jurisdictional Determination. Upon receipt of such a request, this office can then issue an approved determination as to jurisdiction (rather than the presumption of jurisdiction). You should also be aware that the areas identified as wetlands or other waters may be subject to restrictions or requirements of other state or local government entities.

Please note that since this jurisdictional determination is a Preliminary, it is subject to change and therefore is not an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR 331. If a permit application is forthcoming as a result of this Preliminary, a copy of this letter, as well as the attached sketch or plat should be submitted as part

of the application. Otherwise, a delay could occur in confirming that a preliminary jurisdictional determination was performed for the permit project area.

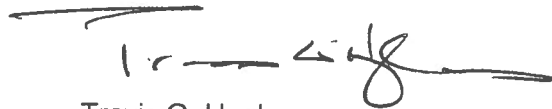
This preliminary jurisdictional determination is a non-binding action and as such has no expiration until it is superseded by an Approved Jurisdictional Determination. If you intend to request an Approved Jurisdictional Determination in the future, you are advised not to commence work in these wetlands and/or waters prior to receiving the Approved Jurisdictional Determination.

In future correspondence concerning this matter, please refer to SAC 2011-00023-DJS. You may still need state or local assent.

Enclosed are two copies of the Preliminary Jurisdictional Determination Form which have been prepared for your signature. Please sign each copy and return to this office in the enclosed self-addressed envelope.

If you have any questions concerning this matter, please contact Stephen A. Brumagin at 803-253-3445.

Sincerely,

A handwritten signature in black ink, appearing to read "Travis G. Hughes", with a long horizontal line extending to the right.

Travis G. Hughes
Chief, Special Projects Branch

Enclosures:
Preliminary Jurisdictional Determination Form

Copy Furnished:

Mr. Michael Iagnocco, PWS
STV/Ralph Whitehead Associates
1000 West Morehead Street, Suite 200
Charlotte, North Carolina 28208



SC 200

Perennial RPW Stream A (Waterree Creek) (213 lf)

Upland Data Point 1

Project Study Area (4.63 Ac.)

Legend

- Project Study Area
- Potential Jurisdictional Stream
- Wetland Determination Data Point

0 62.5 125 250 375 500 Feet

Note

- 1 Potential jurisdictional waters of the U.S. were delineated by STV/Ralph Whitehead Associates on September 2, 2010. Potential jurisdictional boundaries were marked in the field with blue and white striped tape and mapped using a Trimble GEOXT hand-held GPS unit capable of submeter accuracy. This map is intended for planning purposes only.
- 2 Jurisdictional boundaries of waters of the U.S. have not been verified by the U.S. Army Corps of Engineers and are subject to change following verification.

Ref. SCDNR GIS Data Clearinghouse, 2006 Aerial Photography

SC 200 Bridge Replacement Over Waterree Creek
Fairfield County, SC

STV/Ralph Whitehead Associates



Approximate Waters of the U.S.
and Wetlands Boundary Map

FIGURE 4

BJP	AWN	BJP	MAI	9/7/10
DELINEATED BY	PREPARED BY	CHECKED BY	APPROVED BY	DATE
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JOB/PHASE NO	SCALE			1 1

Appendix B

Preliminary Hydraulic Assessment

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

COUNTY: Fairfield

DATE: 26 September 2011

ROAD #: SC 200

STREAM CROSSING: Wateree Creek

Purpose & Need for the Project:

Project replaces a structurally deficient and functionally obsolete 1928/1963 structure. Replacement increases safety and provides for long-term functionality of SC 200 (Great Falls Highway).

- I. FEMA Acknowledgement Wateree Creek's floodplain is an unnumbered Zone A; a floodplain boundary is mapped, no BFEs are determined, no floodway has been mapped.

Is this project located in a regulated FEMA Floodway? ☐ Yes ☒ No

Panel Number: 45039C0225C Effective Date: May 3, 2011 (See Attached)

- II. FEMA Floodmap Investigation Wateree Creek is an unnumbered Zone A; no BFEs are determined and no profile is published.

FEMA Flood Profile Sheet Number _____ illustrates the existing 100 year flood:

- ☐ Passes under the existing low chord elevation.
☐ Is in contact with the existing low chord elevation.
☐ Overtops the existing bridge finished grade elevation.

III. No Rise/CLOMR Preliminary Determination

- ☒ Preliminary assessment indicates this project may be constructed to meet the "No-Rise" requirements. A detailed hydraulic analysis will be performed to verify this assessment.

Justification: Recommended hydraulic opening will maintain or increase in size and grade is recommended to be raised 3'

- ☐ Preliminary assessment indicates this project may require a CLOMR/LOMR. Impacts will be determined by a detailed hydraulic analysis.

Justification: _____

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

IV. Preliminary Bridge Assessment

A. Locate Existing Plans

a. Bridge Plans ☒ Yes File No. 20.329 Sheet No. 12 (See Attached)
☐ No

b. Road Plans ☒ Yes File No. 20.131B.01 Sheet No. 7 (See Attached)
☐ No FAP 370C 9

B. Historical Highwater Data

a. USGS Gage ☐ Yes Gage No. _____ Results: _____
☒ No

b. SCDOT/USGS Documented Highwater Elevations

☒ Yes Results: 492.98
☐ No

c. Existing Plans ☐ Yes See Above
☒ No

V. Field Review

A. Existing Bridge

Length: 286 ft. Width: 35.7 ft. Max. span Length: 22 ft.

Alignment: ☒ Tangent ☐ Curved

Bridge Skewed: ☐ Yes ☒ No Angle: _____

End Abutment Type: Spill-through

Riprap on End Fills: ☒ Yes ☐ No Condition: eroded

Superstructure Type: CIP concrete tee beams

Substructure Type: Interior bents: concrete prestressed 14" square piles, end bents: creosote treated timber piles. CIP concrete pile caps

Utilities Present: ☒ Yes ☐ No

Describe:

power overhead, telecom underground, no utilities attached

Debris Accumulation on Bridge: Percent Blocked Horizontally: 5 %
Percent Blocked Vertically: 5 %

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

Hydraulic Problems: ☐ Yes ☒ No

Describe:

V. Field Review (cont.)

B. Hydraulic Features

a. Scour Present: ☒ Yes ☐ No Location: _____

b. Distance from F.G. to Normal Water Elevation: 16.6 ft.

c. Distance from Low Steel to Normal Water Elev.: 15.0 ft.

d. Distance from F.G. to High Water Elevation: 6.7 ft.

e. Distance from Low Steel to High Water Elev.: 5.1 ft.

f. Channel Banks Stable: ☐ Yes ☒ No

Describe:

In immediate vicinity of the bridge, livestock traffic has disturbed bed and banks.

g. Soil Type: brown silty medium to coarse sand and small gravel

h. Exposed Rock: ☐ Yes ☒ No Location: _____

i. Give Description and Location of any structures or other property that could be damaged due to additional backwater.

C. Existing Roadway Geometry

a. Can the existing roadway be closed for an On-Alignment Bridge Replacement

☒ Yes ☐ No

Describe: Close and detour

If "yes", does the existing vertical and horizontal curves meet the proposed design speed criteria?

BRIDGE REPLACEMENT SCOPING TRIP RISK ASSESSMENT FORM

If "No", will the proposed bridge be

- ☐ Staged Constructed
☐ Replaced on New Alignment

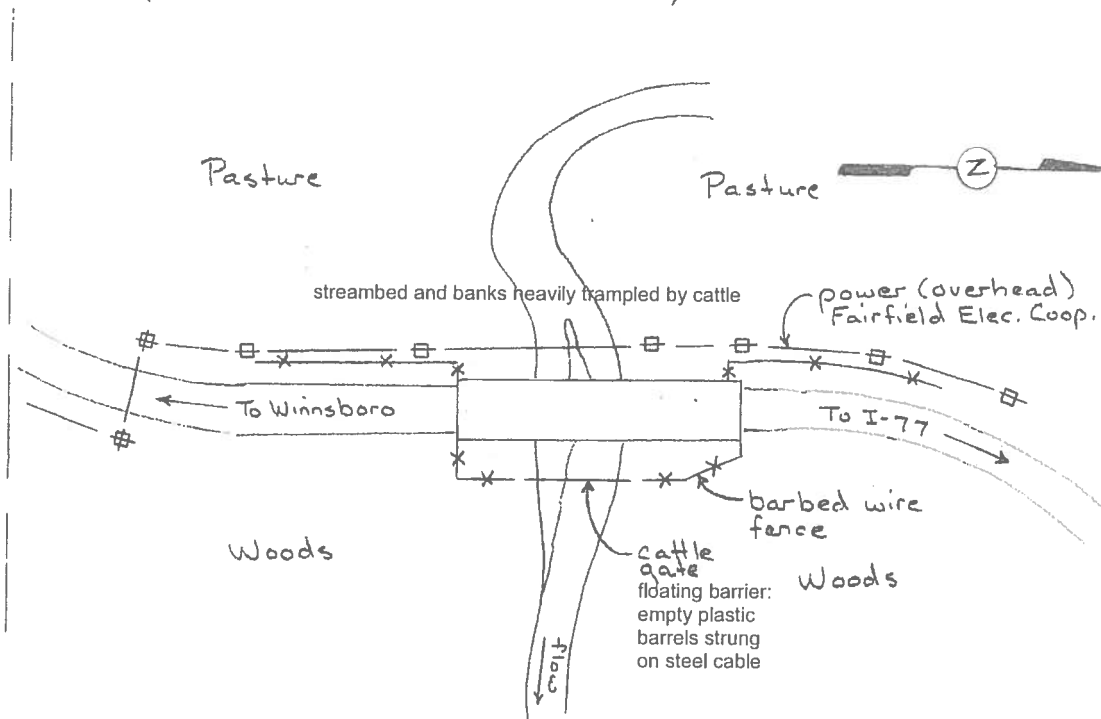
VI. Field Review (cont.)

A. Proposed Bridge Recommendation:

Length: 325 ft. Width: 44 ft. Elevation: raise 3' above existing ft.
Span Arrangement: 5 @ 65'

Notes: Type III prestressed concrete girders.

DIAGRAM: (Show North Arrow and Direction of Flow)



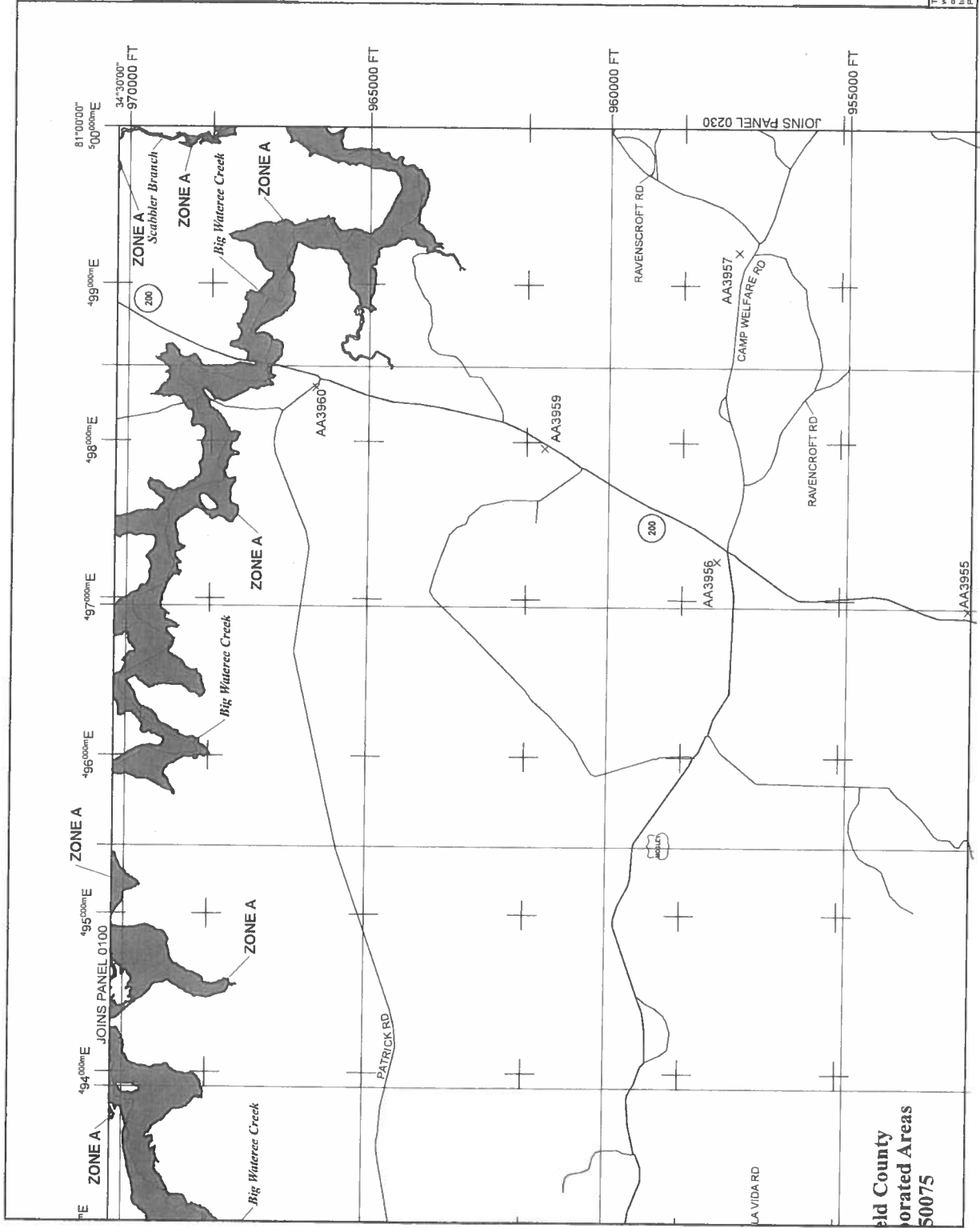
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Harry P. Patton

Page 5 of 5



MAP SCALE 1" = 2000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0225C

FIRM

FLOOD INSURANCE RATE MAP
FAIRFIELD COUNTY,
SOUTH CAROLINA
AND INCORPORATED AREAS

PANEL 225 OF 525

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINING:
COMMUNITY: FAIRFIELD COUNTY
FIRM NUMBER: 45039C0225C
EFFECTIVE DATE: MAY 3, 2011

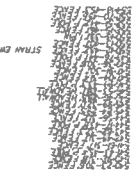
MADE TO ORDER: This map number shows areas around the world
which have been made subsequent to the date on the
map. It is based on insurance applications for the subject
community.



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using FIRM On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the map. For the most current information about National Flood Insurance Program flood maps, click the FEMA Flood Map Store at www.fema.gov

SC-200



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PUT 10+00 CREEK

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WATEREE CREEK

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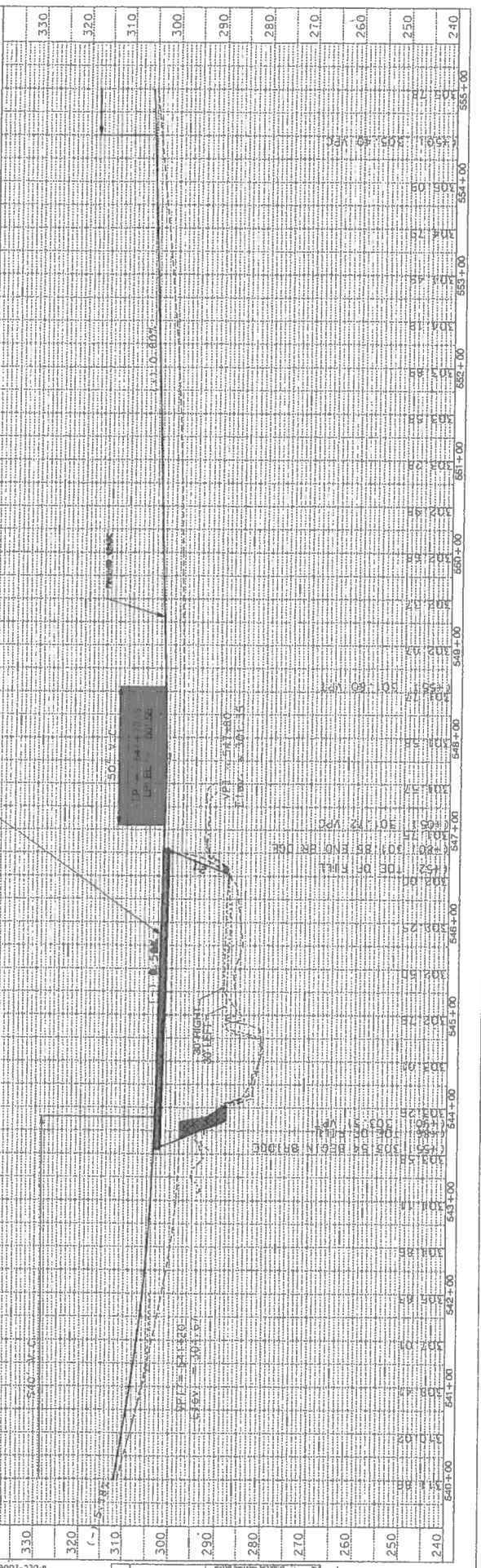
WATEREE CREEK

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ALIGNMENT CONTROL CAN BE FOUND ON REFERENCE SHEET

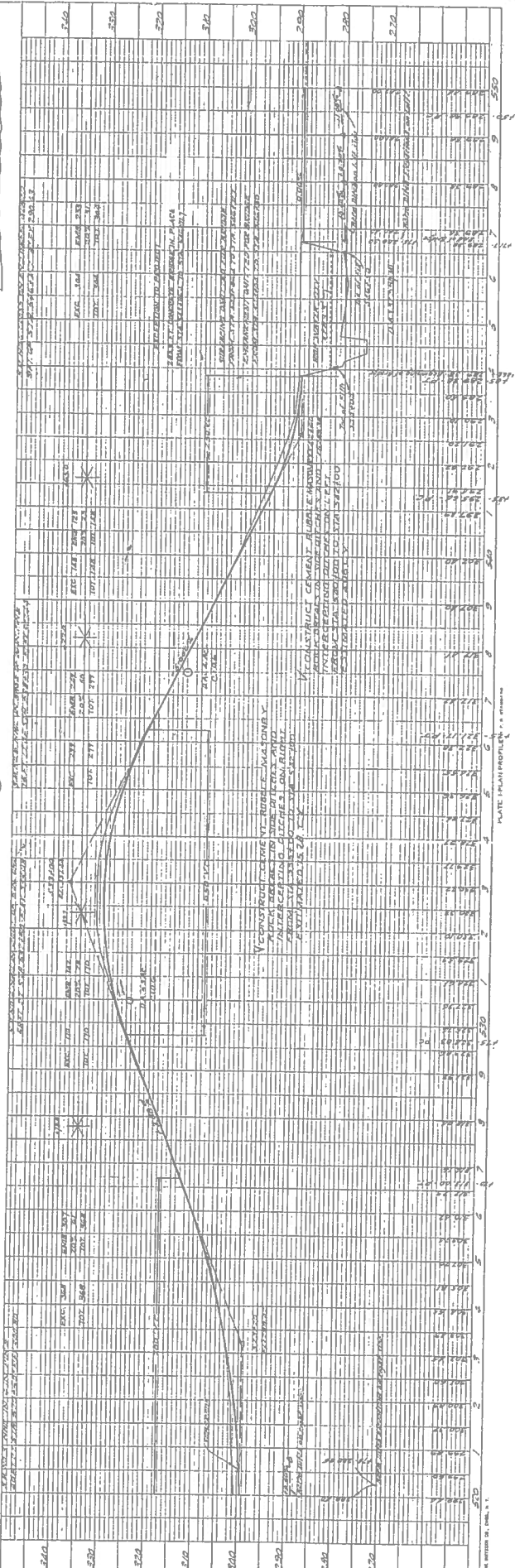
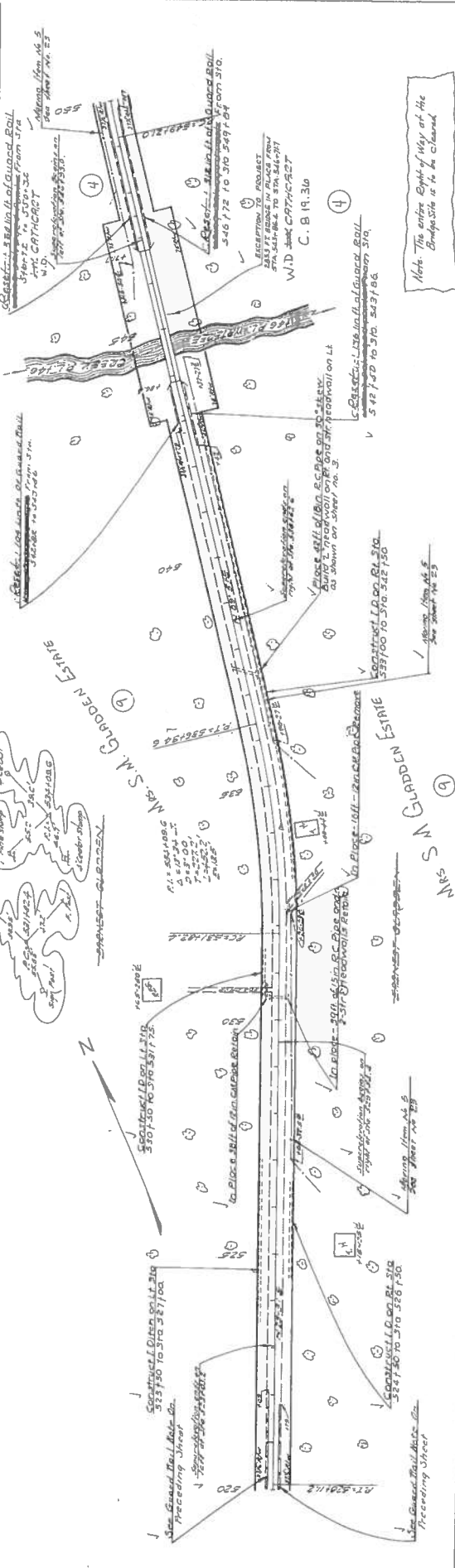


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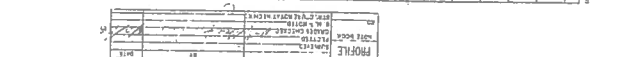
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SECTION	DATE	COUNTY	PROJECT	NO.	DATE
15	15	15	15	15	15



SECTION	DATE	COUNTY	PROJECT	NO.	DATE
15	15	15	15	15	15



Appendix C

Biological Assessment and Mussel Survey

**Biological Assessment
Federal and State Threatened and Endangered Species
SC 200 Bridge Replacement over Big Wateree Creek
Fairfield County, South Carolina
PIN 39094
File No. 20.039094.3**

The South Carolina Department of Transportation (SCDOT) is proposing to replace the SC 200 Bridge over Wateree Creek located approximately 8.5 miles northeast of the town of Winnsboro in the northeast portion of Fairfield County, South Carolina. The proposed project would involve the replacement of the existing SC 200 Bridge over Big Wateree Creek with a new bridge and associated roadway approach improvements. It is anticipated that the new bridge structure would be built on the existing roadway alignment and traffic would be temporarily detoured. The existing SC 200 Bridge over Big Wateree Creek was built in 1928, reconstructed in 1963, and has a sufficiency rating of 35.3 out of 100, classifying the structure as structurally deficient. The existing bridge is 35.7 feet in width and 286 feet in length, consisting of thirteen 22-foot spans of cast-in-place concrete caps supported on concrete piles. It is anticipated that the replacement bridge will be designed and constructed as part of a pending SCDOT Design-Build contract. Consequently, the proposed bridge dimensions and other design details are unknown at the time of this writing.

Because of the federal nexus of the project, consultation with the U.S. Fish and Wildlife Service (USFWS) is required under Section 7 of the Endangered Species Act (ESA), as amended (16 USC 1531-1534) for proposed projects that "may affect" federally endangered and threatened species. This Biological Assessment (BA) analyzes potential impacts to federally and/or state endangered and threatened species for the proposed project, and is intended to initiate informal consultation as needed.

The following list (Table 1) of federal and/or state endangered (E) and threatened (T) species for Fairfield County was obtained from the South Carolina Department of Natural Resources (SCDNR) Rare, Threatened, and Endangered Species Inventory (updated March 2, 2010) and the U.S. Fish and Wildlife Service (USFWS) protected species database (updated March 2010). The table includes bald eagle (*Haliaeetus leucocephalus*) which is no longer federally protected by the Federal Endangered Species Act but is afforded protection through the Bald and Golden Eagle Protection Act (BGEPA).

**TABLE 1. FAIRFIELD COUNTY FEDERAL AND/OR STATE
ENDANGERED AND THREATENED SPECIES**

Protected Species		Protection Status	
Common Name	Scientific Name	Federal	State
Animal			
Carolina darter	<i>Etheostoma collis</i>	-	E
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA	E
Carolina heelsplitter	<i>Lasmigona decorata</i>	E	E
Plant			
Georgia aster	<i>Aster georgianus</i>	C	-

E = Endangered, C = Candidate, BGEPA = Bald and Golden Eagle Protection Act

Methods

On behalf of SCDOT, the list of federal and/or state protected species for Fairfield County was reviewed, and evaluations were performed regarding the likelihood of the presence of each species within the project study area (PSA) and potential project-related impacts. A field survey for federal and/or state-listed protected species was conducted by STV/Ralph Whitehead Associates (STV/RWA) on September 2, 2010. STV/RWA environmental scientist Brandon Phillips, C.H.M.M. reviewed a project study area generally centered on the SC 200 Bridge over Big Wateree Creek and roadway approaches, and conducted a pedestrian survey of the PSA for the presence of potential habitat for the above-listed species.

STV/RWA reviewed a PSA approximately 1,000 feet long and 200 feet wide extending from a center located at the SC 200 Bridge over Big Wateree Creek and roadway approaches.

In addition, the South Carolina Heritage Trust (SCHT) Geographic Database of Rare and Endangered Species, updated January 17, 2006, was also reviewed to determine the presence of protected species

SC 200 Bridge Replacement over Big Wateree Creek
Biological Assessment for Federal and/or State Threatened and Endangered Species
February 1, 2011

within or in close proximity to the project study area.

Results

According to the SCHAT database, no occurrences of protected species have been documented within a one-mile radius of the project study area.

Based on STV/RWA's field review, the project area largely consists of undeveloped woodland, maintained R/Ws, and pastureland.

None of the protected species were observed within the PSA during the field review. The field review did, however, reveal potential habitat for Carolina darter and Carolina heelsplitter. Biological conclusions for the protected species that have potential habitat within the PSA follows.


Carolina darter prefers warm pools and slow runs in streams, over sand and gravel. Potential habitat for Carolina darter exists in Big Wateree Creek within the PSA. A review of the SCHAT Geographic Database of Rare and Endangered Species, however, did not reveal the presence of any populations of Carolina darter within one mile of the PSA. Additionally, no individuals were observed in the PSA during the field review. Based on the field and literature reviews, it is determined that the project 'may affect but is not likely to adversely affect' the Carolina darter.

Biological Conclusion: May Affect – Is Not Likely to Adversely Affect

There is no potential nesting or foraging habitat for the bald eagle within the PSA. No individuals were observed during the field review. Additionally, reviews of the SCHAT Geographic Database of Rare and Endangered Species did not reveal the presence of any known individuals or populations of bald eagle within one mile of the PSA. Due to the removal of the bald eagle from the federal threatened and endangered species list, effective August 8, 2007, the bald eagle is no longer protected by the Endangered Species Act. Since the USFWS no longer conducts consultations regarding this species, a biological conclusion regarding potential project-related impacts is not provided.

A survey for freshwater mussels was conducted on October 30, 2010 by Alderman Environmental Services, Inc. In a report dated November 17, 2010, Alderman Environmental Services, Inc., concluded that this reach of Big Wateree Creek has a very heavy sediment load, with cattle throughout the stream and provides no habitat for the Carolina heelsplitter. Based on the findings of the report, it is determined that the project will have "no effect" on the Carolina heelsplitter. The findings report of this mussel survey is attached to this BA.

Biological Conclusion: No Effect



SCDOT Authorized Agent's Signature

02 / 10 / 2011

Date



Alderman Environmental Services, Inc.

November 17, 2010

PROJECT: Freshwater mussel survey for STV Incorporated; SC 200 Bridge Replacement over Big Wateree Creek, Fairfield Co., SC

TARGET SPECIES: Federally listed endangered Carolina heelsplitter (*Lasmigona decorata*)

BIOLOGISTS: John Alderman
Joseph Alderman
Kim Hicks

SCDNR Endangered Mussel Survey Permit Authorization: November 25, 2002

U.S. FISH AND WILDLIFE SERVICE ES PERMIT: TE065756-1

LOCATION: Big Wateree Creek, Santee-Cooper River Basin; within 400+ m downstream and 100+ m upstream from SC 200; see Figure 1

SURVEY DATES: October 30, 2010

COMMENTS: Very heavy sediment load; cattle in stream throughout; no Carolina heelsplitter habitat

HABITAT:

WATERBODY TYPE:	Stream
FLOW:	Almost dry; few pools
RELATIVE DEPTH:	Very shallow
DEPTH (%<2 FEET):	100
SUBSTRATE:	Clay, silt, sand , gravel, pebble, cobble, boulder, bedrock
COMPACTNESS:	Normal and unconsolidated
SAND/GRAVEL BARS:	Abundant
WOODY DEBRIS:	Average

HABITAT (CONTINUED):

BEAVER ACTIVITY:	Evidence (gnawed sticks)
WINDTHROW:	Low
TEMPORARY POOLS:	None documented
CHANNEL WIDTH:	10+ meters
BANK HEIGHT:	2+ meters
BANK STABILITY:	Some erosion/undercutting
BUFFER WIDTH:	Mostly narrow
RIPARIAN VEGETATION:	Wooded, shrub-brush, grass (mostly)
LAND USE:	Pastureland mostly
PERCENT COVER:	40+
WOODLAND EXTENT:	Intermediate to not extensive
NATURAL LEVEES:	At least one
VISIBILITY:	Light tannic, clear
WATER LEVEL:	Low
WEATHER:	Sunny, cold

TECHNIQUES: Visual/tactile

SURVEY TIME: 6 person-hours

FRESHWATER MUSSELS:

No evidence of freshwater mussels

OTHER DOCUMENTED TAXA:

Corbicula fluminea

CAROLINA HEELSPLITTER BIOLOGICAL DETERMINATION:

For direct effects on the Carolina heelsplitter: No Effect

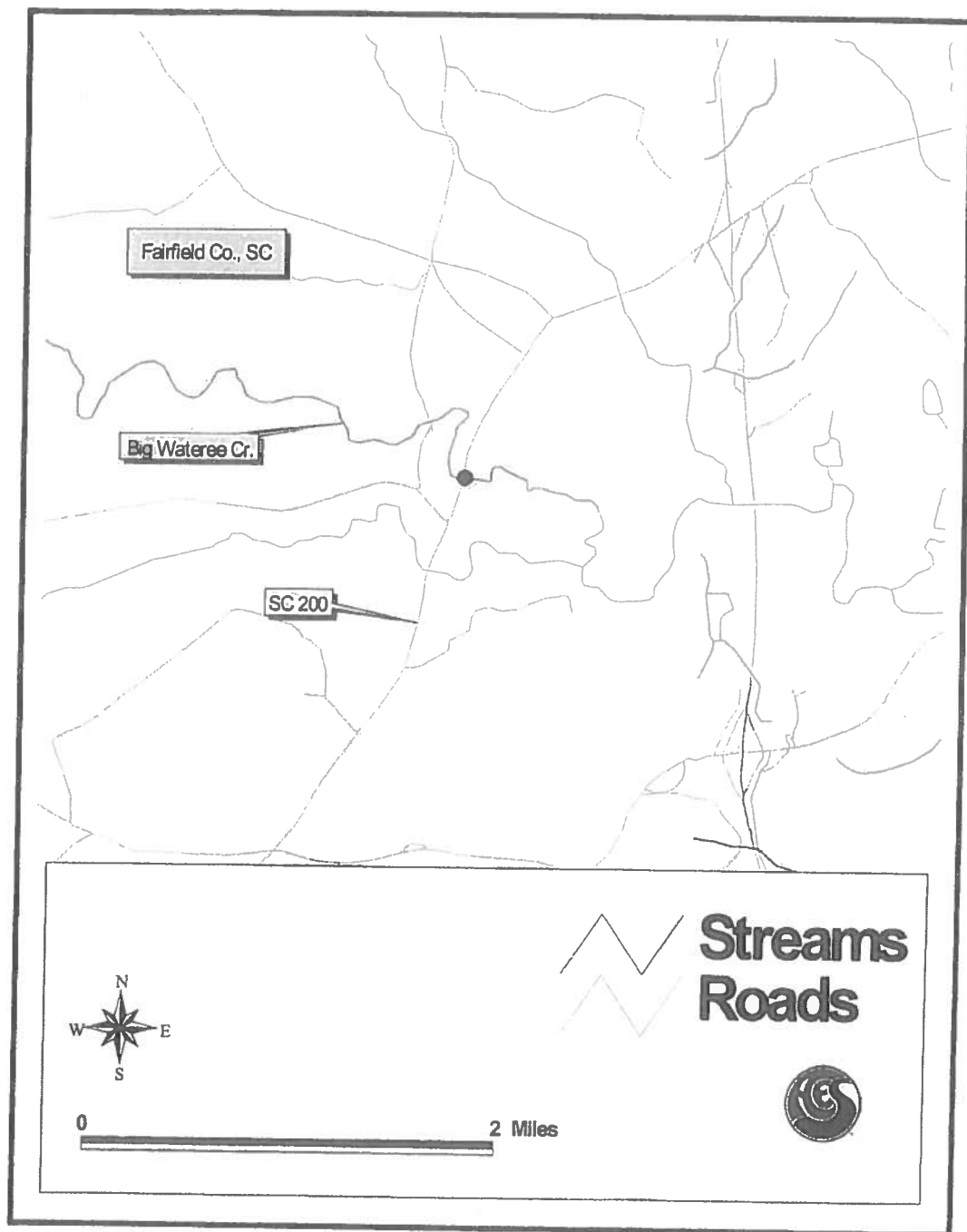


Figure 1. Big Wateree Creek freshwater mussel survey reach: 400+ m downstream to 100+ m upstream of SC 200 bridge crossing, Fairfield Co., SC