

**North Carolina Department of Transportation
PROJECT ENVIRONMENTAL CONSULTATION FORM
I. D. No. B-3868**

I. GENERAL INFORMATION

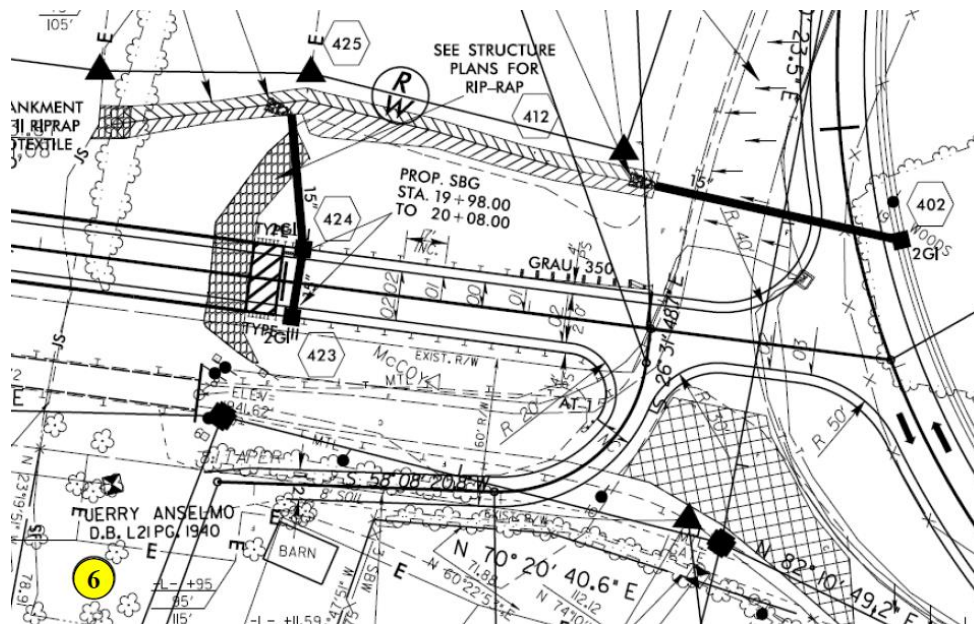
- a. Consultation Phase: Construction
- b. Project Description: Replace Bridge 172 over Little Tennessee River on SR 1456.
- c. State Project: WBS# 3313.1.1
Federal Project: BRZ-1456(6)
- d. Document Type: Categorical Exclusion 5/29/13
Date

II. CONCLUSIONS

The above environmental document has been reevaluated as required by 23 CFR 771. It was determined that the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted below in Section III. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

III. CHANGES IN PROPOSED ACTION AND ENVIRONMENTAL CONSEQUENCES

At the time of the Categorical Exclusion, it was anticipated that there would be no relocatees. Since that time, the barn associated with Parcel 6 shown below serves as the take out location for a local rafting business. It will be displaced by the project. A right of way relocation report has been completed (see attached) and indicates there are adequate opportunities for relocation in the vicinity.



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Water classifications within the project area have not changed since the 2013 Categorical Exclusion (CE).

As of July 24, 2015, the USFWS lists ten federally protected species for Macon County (Table 1). Through formal Section 7 consultation, the USFWS issued a Biological Opinion on March 9, 2015 and concurred with the biological conclusions listed in Table 1.

Table 1. Federally protected species listed for Macon County.

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Glyptemys muhlenbergii</i>	Bog turtle	T(S/A)	No	Not Required
<i>Glaucomys sabrinus coloratus</i>	Carolina northern flying squirrel	E	No	No Effect
<i>Myotis sodalis</i>	Indiana bat	E	No	No Effect
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	MANLAA
<i>Erimonax monachus</i>	Spotfin chub	T	Yes	MALAA
<i>Alasmidonta raveneliana</i>	Appalachian elktoe	E	Yes	MALAA
<i>Pegias fabula</i>	Little-wing pearl mussel	E	Yes	MALAA
<i>Isotria medeoloides</i>	Small whorled pogonia	T	No	No Effect
<i>Spiraea virginiana</i>	Virginia spiraea	T	Yes	No Effect
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	No Effect

MANLAA – May Affect, Not Likely to Adversely Affect

MALAA – May Affect, Likely to Adversely Affect

T(S/A) - Threatened due to similarity of appearance

T - Threatened

E - Endangered

IV. LIST OF ENVIRONMENTAL COMMITMENTS

See attached Project Commitments (Greensheet).

V. COORDINATION

PDEA personnel have discussed current project proposals with others. Please note who was coordinated with and the date. This section is to be filled out by the project manager and does not require signatures.

Design Engineer:	<u>Steve Kendall</u>	<u>9/02/15</u> Date
FHWA Engineer:	<u>N/A</u>	<u> </u> Date
NEU-PM:	<u>Erin Cheely</u> (Construction Consultations only)	<u>8/28/15</u> Date

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VI. NCDOT CONCURRENCE


Project Planning Engineer

9-21-15
Date


Manager, Project Development and Environmental
Analysis Branch

9/21/15
Date

VII. FHWA CONCURRENCE


Federal Highway Administration
Division Administrator

9-22-15
Date

PROJECT COMMITMENTS

T.I.P Project No. B-3868
Bridge No. 172 on SR 1456 over the Little Tennessee River
Macon County
Federal Project No. BRZ-1456(6)
WBS Element 33313.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Division 14 Construction/Resident Engineer's Office – Offsite Detour

While traffic should remain on the existing bridge during most of construction, there will likely be a period of about a month near the end of construction where road closure is required for tie-in. In order to have time to adequately plan for the closure, Macon County Schools and Macon County Emergency Services will be contacted at least one month prior to road closure.

All Design Groups – Endangered Species/Biological Assessment

The proposed project is located within a critical habitat area for the federally protected Appalachian elktoe mussel and spotfin chub. NCDOT and FHWA are currently developing a Biological Assessment (BA) which will contain many commitments regarding construction. At this time the following two are known:

Therefore, NCDOT will implement erosion and sedimentation control measures, as specified by NCDOT's "Design Standards in Sensitive Watersheds" (15A NCAC 04B.0124). Detailed plans for the placement of appropriate hydraulic drainage structures will be determined during the final design of the project.

A moratorium on all in-water work will be in place from April 1 to July 15 of any given year to protect the reproduction for spotfin chub and Appalachian elktoe.

The BA as part of the Section 7 process with US Fish and Wildlife Service will be complete prior to submission of the permit application.

A copy of the completed BA will be provided to FHWA's Pre-Construction and Environment Specialist prior to construction authorization.

On March 9, 2015, the USFWS submitted their Biological Opinion for the proposed project. Please see additional endangered species related commitments from permitting below.

Hydraulic Unit/Division Office - FEMA

The Hydraulics Unit will coordinate with the Federal Emergency Management Agency (FEMA) to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of

Map Revision (LOMR) are required for the project. If required, the Division will submit sealed as-built construction plans to the Hydraulics Unit upon project completion certifying the project was built as shown on construction plans.

Roadway Design, Structure Design – Bicycle Accommodations

Bicycle accommodations will be provided on the bridge and approaches. On both sides of the bridge, 4-foot offsets with bicycle safe 54-inch bridge railing will be provided.

This accommodation has been included in the plans.

Right of Way/Archaeology/Roadway Design – Schedule

An archaeological survey is required once right of access has been gained. The R/W Certification Date is set for 11-15-14 to allow for approximately 1 year for recovery to occur prior to the Let date set for 11-17-15.

Archaeological site 31MA684 will be adversely affected by the proposed project and will require data recovery investigations. During the initial archaeological investigation access was denied to portions of land parcels affected by the proposed bridge replacement's preferred alternative. Upon acquisition of Right of Way, NCDOT will complete the archaeological survey and site evaluation of the preferred alternative's Area of Potential Effects (APE) which may include additional investigations at site 31MA685. Should archaeological resources eligible for the National Register of Historic Places be present within the portions of the APE where access was denied, further consultation with the SHPO will be required. A Memorandum of Agreement will be developed in consultation with the SHPO and other consulting parties that may be identified including the Eastern Band of the Cherokee Indians in order to address adverse effects to site 31MA684 and the areas where access was denied. All archaeological investigations will be completed prior to letting the construction of TIP B-3868. A minimum of 9 months after right of way acquisition is completed will be required to finish all archaeological field investigations.

Archaeological Surveys were complete in early 2015 and the report is currently being finalized.

PDEA Archaeology – Section 106 Documentation

NCDOT will submit documentation to FHWA's Preconstruction and Environmental Specialist demonstrating completion of Section 106 coordination prior to requesting construction authorization. *This was completed spring 2015.*

Structure Design – TVA Permit

The proposed project is located in the Tennessee Valley Authority's (TVA) Land Management District. The project will require approval under Section 26a of the TVA Act. *Approval has been requested.*

Division 14 – Execution of MOA with County to transfer ownership of Bridge

NCDOT must execute the draft agreement attached to this document prior to construction authorization. *The agreement was signed January 2013.*

Division 14 – Cautionary Signs

Division will install advanced advisory signs on both approaches to the horizontal curve located on NC 28 once the project has been completed.

COMMITMENTS FROM PERMITTING

Division 14 Construction

BO Reasonable and Prudent Measure 1: The NCDOT will ensure that the contractor understands and follows the measures listed in the “Conservation Measures”, “Reasonable and Prudent Measures” and “Terms and Conditions” sections of this [Biological] Opinion.

404 Condition 2: This USACE permit does not authorize you to take a threatened or endangered species, in particular, the Appalachian elktoe (*Alasmidonta raveneliana*), littlewing pearl mussel (*Pegias fabula*), and spotfin chub (*Erimonax monachus*). In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., a Biological Opinion (BO) under the ESA, Section 7, with “incidental take” provisions with which you must comply). The U.S. Fish and Wildlife Service’s (USFWS’s) Programmatic BO titled “Biological Opinion, Proposed Replacement of Bridge No. 172 (TIP No. B-3868) over the Little Tennessee River in Macon County, North Carolina, and Its Effects on Federally Listed Endangered Species,” dated March 9, 2015, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that are specified in the BO. Your authorization under this USACE permit is conditioned upon your compliance with all the mandatory terms and conditions (incorporated by reference into this permit) associated with incidental take of the BO. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of listed species occurs, would constitute unauthorized take, and would also constitute non-compliance with your USACE permit. The USFWS is the appropriate authority to determine compliance with the terms and conditions of its BO and with the ESA.

404 Condition 3: The permittee shall ensure that all tree clearing activities occur from October 15-April 15 of any year in order to avoid direct take of Indian bats (*Myotis sodalis*) and Northern Long-eared Bat (NLEB) (*Myotis septentrionalis*).

404 Condition 4: The permittee shall conduct all work associated with this project in accordance with the Memorandum of Agreement titled “MEMORANDUM OF AGREEMENT BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND THE STATE HISTORIC PRESERVATION OFFICER, (sic) FOR THE REPLACEMENT OF BRIDGE NO. 172 ON SR

1456 OVER THE LITTLE TENNESSEE RIVER, FEDERAL AID PROJECT BRZ-1456(6), STATE PROJECT 8.2970701 MACON COUNTY, NORTH CAROLINA TIP B-3868.”

404 Condition 5: All conditions of the attached North Carolina Wildlife Resources Commission letter of May 26, 2015, are hereby incorporated as special conditions of this permit.

BO Condition 1: A Service biologist will be present at the preconstruction meeting to cover permit conditions and discuss any questions the contractor has regarding implementation of this project. After the contractor submits plans for various stages of the project, a Service Biologist will review and provide comments on the plans and will attend any meetings to discuss implementation of the plans.

BO Condition 3: Activities in the floodplain will be limited to those absolutely necessary to construct the proposed bridge. Areas used for borrow or construction by-products will not be located in wetlands or the 100-year floodplain.

BO Condition 4: The drill rig and crane can be refueled while inside the 100-year floodplain provided that spill response materials (such as spill blankets and fueling diapers) are used during the refueling. When weather forecasts indicate the potential for flooding, the NCDOT will immediately remove equipment, hazardous materials, fuel, lubricating oils, or other chemicals outside the 100-year floodplain or at least 200 ft from all water bodies (whichever distance is greater), preferably at an upland site.

BO Condition 5: Unconsolidated material (such as sand and dirt) will not be placed directly on the causeways since the material could be washed off or settle into the causeways and enter the river. If unconsolidated material must be placed on the causeways, a solid barrier will be placed on the causeways prior to the placement of the material. The barrier and unconsolidated material will be removed at any time throughout a work day when the water level rises to a point, or is expected to rise overnight to a point, where material could wash off the causeways or during periods of inactivity (2 or more consecutive days). Also, any equipment that is placed on the causeways will be removed at any time throughout a work day when the water level rises to a point, or is expected to rise overnight to a point, where material could wash off the causeways or during periods of inactivity (2 or more consecutive days). The only exception to this measure is that the drill rig may be left in place for periods of inactivity; however, it must also be removed if the water rises to a point, or is expected to rise to a point, where the drill rig could be flooded.

BO Conservation Measure: No direct discharge of deck drains over water will be allowed. Discharge from the bridge will flow to inlets placed just off the end of the bridge into preformed scour holes in the floodplain, where discharge will be treated by floodplain vegetation before flowing into the river.

BO Conservation Measure: Machines will be refueled outside of the Environmentally Sensitive Area and inside a specific containment area designed to contain any spills and facilitate easy cleanup.

BO Conservation Measure: Machines will be inspected daily to catch and repair leaks of hydraulic fluid.

BO Conservation Measure: Extent and duration of causeways in the river will be kept to a minimum so as to avoid adverse effects to migrating fish.

Roadside Environmental Unit

BO Condition 6: Riparian vegetation will be maintained to the maximum extent possible, especially large trees.

BO Condition 7: If riparian areas are disturbed, they will be revegetated with native species as soon as possible.

BO Condition 8: Where possible, the NCDOT will plant trees that provide shade to impervious surfaces in order to reduce heat pollution in the river.

Geotechnical Unit/Division 11 Construction

BO Condition 9: The NCDOT will develop a plan for mitigating potential “hot rock” issues in the area so as to ensure that potential effects associated with disturbance of “hot rock” are minimized to the fullest extent practical. This plan will be provided to the Service for its review and approval prior to any disturbance by “hot rock” formations.

PDEA - Natural Environment Section

BO Conservation Measure: As part of the NCDOT and FHWA's section 7.a.1 regulatory requirement under the Act, and to offset the long-term effects to the Appalachian elktoe's habitat in the location of this bridge (B-3868), the NCDOT and FHWA (in consultation with the Service) have agreed to provide \$35,000 to the North Carolina Wildlife Resources Commission's Appalachian elktoe propagation program. This dollar amount was determined by a qualitative analysis of the area of temporary and permanent effects likely to occur as a result of this project. If land in this area were to be purchased as a conservation easement to offset these effects, the anticipated cost would be \$35,000 to \$40,000 (Macon County Schedule of Values 2015). This amount is approximately 1 percent of the overall project cost and is therefore deemed a reasonable amount. The Appalachian elktoe specimens propagated as a result of this effort will be used to boost the population numbers in the Little Tennessee River. The intent of this population boost is to have a positive effect on the baseline, which is greater than the perceived negative impact of the loss of habitat due to this bridge project.

EIS RELOCATION REPORT

**North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM**

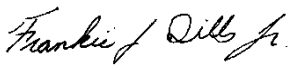

E.I.S. CORRIDOR DESIGN

WBS ELEMENT:	33313.1.1	COUNTY	Macon	Alternate 1 of 1 Alternate
T.I.P. No.:	B-3868	FOR PARCEL 6 ONLY		
DESCRIPTION OF PROJECT:	Replacement of bridge #172 on SR 1456 Over Little Tennessee River			

ESTIMATED DISPLACED					INCOME LEVEL							
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP			
Residential	0	0	0	0	N/A	N/A	N/A	N/A	N/A			
Businesses	1	0	1	0	VALUE OF DWELLING			DSS DWELLING AVAILABLE				
Farms	0	0	0	0	Owners		Tenants		For Sale	For Rent		
Non-Profit	0	0	0	0	0-20M	0	\$ 0-150	0	0-20M	0	\$ 0-150	0
					20-40M	0	150-250	0	20-40M	0	150-250	0
					40-70M	0	250-400	0	40-70M	0	250-400	0
					70-100M	0	400-600	0	70-100M	0	400-600	0
					100 UP	0	600 UP	0	100 UP	0	600 UP	0
					TOTAL	0		0		0		0

ANSWER ALL QUESTIONS		Explain all "YES" answers.
Yes	No	
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
	N/A	6. Source for available housing (list).
	N/A	7. Will additional housing programs be needed?
	N/A	8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
	N/A	11. Is public housing available?
	N/A	12. Is it felt there will be adequate DSS housing housing available during relocation period?
	N/A	13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? 12

REMARKS (Respond by number)	
3.	There are several rafting companies in this part of the State.
4.	One small rafting business will be displaced due to loss of access during construction, as discussed with Relocation Coordinator, Robert Woodard. 2-3 employees, no minorities
14-15	As mentioned above, business will lose access during construction and could temporarily move to new location along river.

	12-20-13		12/20/13
Frankie J. Dills Jr. Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E