U.S. 64 (Rosman Highway)
from Indian Creek to
SR 1147 (Flat Creek Valley Road)
Transylvania County

Federal Aid Project No. STP-0064
WBS Element 34428.1.1(PE)
STIP PROJECT NO. R-2409D

ADMINISTRATIVE ACTION
CATEGORICAL EXCLUSION

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND
N. C. DEPARTMENT OF TRANSPORTATION

Submitted pursuant to the National Environmental Policy Act 42 U.S.C. 4332(2)(c) and 49 U.S.C. 303

Approved:

12/31/2013
Date

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12-31-13
Date

for John F. Sullivan III, P.E., Division Administrator
Federal Highway Administration

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December 2013

Document prepared by:
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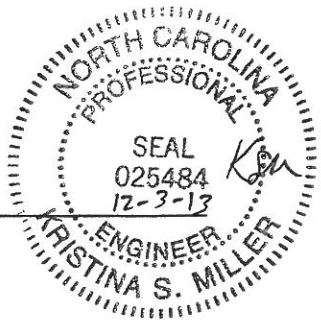

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Project Commitments

The following special project commitments have been developed through project development and design:

Division 14 / Roadway Design Unit

Only temporary construction easements (no new right of way) will be required from the historic Chapman House property.

Division 14 / Roadside Environmental / Roadway Design Unit

The project will require the removal of some trees and fence at the culvert and stream extension on the historic Chapman House property. In compliance with the conditions noted in the Section 106 NHPA consultation form, the Division will coordinate with the owner(s) of the historic Chapman House property to obtain input regarding stream area revegetation. NCDOT will restore the fence after construction.

Division 14 / Hydraulics Unit / Roadway Design Unit

There will be no concrete or rip rap in the stream extension on the historic Chapman House property.

This project involves construction activities on or adjacent to a FEMA-regulated stream. 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.

Coordination will be conducted with the NC Floodplain Mapping Program, the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement with NCFMP, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division 14

There will be no staging of construction within the historic boundary for the Chapman House.

Use of an off-site detour is anticipated for the proposed project. The Division will coordinate with emergency service providers and the Transportation Director of Transylvania County Schools regarding the use of off-site detour routes during construction. In addition, notifications will be provided to the local community via variable message signs, media releases, or other effective options.

A construction moratorium will be applied from October 15 to April 15 for Indian Creek; and a construction moratorium will be applied from January 1 to April 15 for Morton Creek. The moratoria will prohibit in-stream work and land disturbance within the 25-foot trout buffer along these streams within the designated time periods.

Division 14 / GeoEnvironmental Section

Two sites that may contain underground storage tanks were identified in the project limits. Preliminary site assessments for soil and groundwater contamination will be performed prior to right of way acquisition.

Division 14/ Natural Environment Section / Hydraulics Unit

NCDOT will obtain a United States Army Corps of Engineers (USCOE) Section 404 permit for impacts to streams and wetlands resulting from project construction. A NCDENR-DWQ Section 401 Water Quality Certification will also be required. A Nationwide Permit (NWP) No. 23 will likely be applicable.

One wetland, WB, is partially located within a construction easement. No earth moving activities are planned in this location, but temporary impacts resulting from the clearing of vegetation for construction access are anticipated. This wetland will be restored to preconstruction elevations, if needed, and reseeded with a native seed mix at the completion of construction activities.

A Tennessee Valley Authority (TVA) Section 26a Permit will be obtained for construction of the Morton Creek culvert.

Potential on-site stream mitigation opportunities will be investigated, as needed. If on-site stream mitigation is not feasible, mitigation will be provided by NCDENR Ecosystem Enhancement Program (EEP). In accordance with the "Memorandum of Agreement between the NCDOT and the USACE, Wilmington District," (MOA) July 22, 2003, the EEP will be requested to provide off-site mitigation to satisfy the federal Clean Water Act compensatory mitigation requirements for this project.

Project Commitments

Tables

Figures

Appendices

This Federal Highway Administration (FHWA) Administrative Action Categorical Exclusion (CE) has been prepared for 2012-2020 State Transportation Improvement Program (STIP) Project Number R-2409D in Transylvania County, North Carolina. This CE was prepared pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 USC 4321 et seq.); the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500–1508); and the FHWA Environmental Impact and Related Procedures (23 CFR 771).

1. Description of Proposed Action

The North Carolina Department of Transportation (NCDOT) proposes to improve US 64 (Rosman Highway) from Indian Creek to the easternmost intersection of Flat Creek Valley Road (SR 1147) with US 64. The project is located approximately 16 miles west of Brevard, in Transylvania County, North Carolina. It is included as Project No. R-2409D in the NCDOT 2012-2020 State Transportation Improvement Program (STIP), including amendments. The STIP description of Project No. R-2409 states "safety improvements and climbing lanes at selected locations," with Section D also including "widening and realignment." The project length is approximately 2.1 miles. The project location is shown on Figure 1 and the project area is shown on Figure 2. Project area photographs are provided in Figure 3.

The project is scheduled for right of way acquisition in July 2014 and for construction in July 2016 (revised schedule as of October 2013). The 2012-2020 STIP has allocated $1,000,000 for right of way acquisition and $5,000,000 for construction, totaling $6,000,000. As noted in Section 3.2 of this report, the total cost based on preliminary plans is roughly 123% higher than the total cost in the STIP.

STIP Project No. R-2409D is part of a larger project along US 64 (R-2409) from NC 107 at Cashiers in Jackson County to US 178 at Rosman in Transylvania County. STIP Project No. R-2409A (from Cashiers to the Jackson County line) and STIP Project No. R-2409B (from 1.1 miles east of Cashiers to 1.6 miles east of Cashiers) are complete. STIP Project No. R-2409C (from west of NC 281 near lake Toxaway to Indian Creek) is adjacent to STIP Project No. R-2409D and is scheduled for construction in FFY 2014, according to the STIP.

2. Purpose of and Need for the Project

2.1 Need for the Proposed Project

From the North Carolina/Tennessee state line to NC 280 northeast of Brevard, US 64 is identified by NCDOT as Corridor 2 in the Strategic Highway Corridor System. (NC 280 completes Corridor 2 to I-26 in Hendersonville.) US 64 is the only major east-west road in Transylvania County.

Currently, US 64 in the project area consists of two 10-foot travel lanes with minimal shoulders that are unpaved. The current posted speed limit is 35 to 45 miles per hour (mph) with frequent cautionary signs at 20 mph, 25 mph and 30 mph. The NCDOT functional classification of US 64 in the project area is a minor arterial.

The need for improvements to this section of US 64 is demonstrated by the following existing and projected conditions:

- An evaluation of this facility with the American Association of State Highway and Transportation Officials (AASHTO) policy guidelines (AASHTO 2011) indicates several areas of design deficiency. The deficiencies are primarily related to horizontal and vertical alignments, and substandard roadway width (i.e. narrow travel lanes and inadequate shoulder width). Based on a review of AASHTO policy guidelines for horizontal alignments, it was determined that many of the posted curves exceed the minimum recommended radii for this type of facility. Along with the tight radii, this section of US 64 has an inadequate cross-section. The narrow pavement width creates situations where wide vehicles, such as tractor-trailer trucks, cross the road centerline into the opposing travel lane when moving through these sharp curves. Finally, there are existing vertical sight distance deficiencies related to insufficient length of crests and sags, for the posted speed.

- There are several portions of the project corridor where automobile traffic has been observed in a line trailing behind truck traffic climbing the steep grades. Vehicles may experience hazardous driving conditions when approaching slower moving vehicles on sections of roadway, particularly roadways with limited sight distances. AASHTO policy guidelines state that "… safety consideration may justify the addition of climbing lanes regardless of traffic volumes."

- The 2007 Transylvania County Comprehensive Transportation Plan (TCCTP) considers improvements to US 64 West, from US 178 near the town of Rosman westward to the Jackson County line, to be a high priority project. This section of US 64 is designated as "Other Major Thoroughfare" in the TCCTP and includes the project corridor. The TCCTP notes that US 64 is the main travel corridor through the western portion of the county and that this portion of the county is very mountainous. It also states that "… this portion of US 64 is characterized by steep grades and sharp curves" and "improving the geometrics of this section of US 64 should also improve the safety in the corridor." The TCCTP recommends that the existing 2-lane roadway will need to be upgraded by straightening curves…, adding climbing lanes on extended uphill grades, and widening the roadway to provide two 12-foot travel lanes.

- The total crash rate for the five-year analysis period (September 1, 2008 to August 31, 2013) for US 64[1] exceeded the statewide crash rate and critical crash rate for a two-lane, undivided road under the category for "wet" conditions. The most common type of crash for the section of US 64 analyzed was "fixed object" accidents, accounting for more than 55 percent of the total number of mainline crashes. "Fixed object" crash types may be an indicator of driver behavior associated with unexpected changes in the horizontal or vertical roadway alignment, varying design speed along a segment of roadway, limited stopping sight distance, and/or inadequate clear zone width, among other factors.

[1] The specific section of US 64 analyzed was from Wetstone Gap Road to Flat Creek Valley Road (SR 1147).

2.2 Purpose of the Proposed Project

The primary purpose of the project is to correct facility deficiencies along US 64 within the project limits. Other desirable outcomes from improving this section of US 64 include improved safety and advancement of the goals identified in the Strategic Highway Corridor initiative as they apply to Strategic Highway Corridor 2. The purpose of the Strategic Highway Corridor initiative is to provide a safe, reliable, and high-speed network of highways that connect to travel destinations throughout and just outside North Carolina. As a Strategic Highway Corridor, US 64 is critical to statewide mobility and regional connectivity. The proposed project considers use of truck climbing lanes along with modifications to: the horizontal and/or vertical alignments, design speed, travel lane and shoulder widths, and/or clear zone distance.

2.3 Supporting Data

2.3.1 Existing Road Network

US 64 is the only major road in the project area. Approximately 10 miles to the east, US 64 connects to US 178 in the Town of Rosman. The only other major route in Transylvania County is US 276 which intersects with US 64 in Brevard. On a regional scale, US 64 is a major east-west route in southwestern North Carolina, serving as a truck and scenic route while also accommodating local traffic.

In the project area, US 64 consists of two 10-foot travel lanes with minimal shoulders that are unpaved. The current posted speed limit ranges from 35 to 45 miles per hour (mph) with frequent cautionary signs at 20 mph, 25 mph and 30 mph. The NCDOT functional classification of US 64 in the project area is a “minor arterial.” There are no pedestrian or bicycle accommodations along US 64 in the project area.

Based on survey information, the current right of way width for US 64 is 32 feet from edge of shoulder to edge of shoulder. Existing major drainage structures include culverts at the US 64 crossings of Indian Creek and Morton Creek.

Annual average daily traffic (AADT) on US 64 through the project area is 3,200 vehicles per day (vpd) west of Kim Miller Road and 3,800 vpd east of Kim Miller Road. The projected 2035 No Build traffic volumes along US 64 range from 4,000 vpd to 4,800 vpd.

Four Transylvania County school bus routes currently travel through the project area, including Route 105 from Rosman Elementary School, Route 116 from Rosman Middle and High Schools, and Routes 117 and 121 from T.C. Henderson Elementary School (Transylvania County Schools 2013).

2.3.2 Transportation Plans and Studies

2.3.2.1 US 64 Feasibility Study

A feasibility study for US 64 from Cashiers to Rosman was completed by the NCDOT in 1989. The study recommended that US 64 be upgraded to an improved two-lane roadway with climbing lanes at selected

locations. Realignments were also recommended in several locations to improve the curvature of the roadway.

2.3.2.2 Strategic Highway Corridors Concept

The North Carolina Board of Transportation adopted a Strategic Highway Corridors concept in September 2004. A formal policy on the concept was subsequently endorsed by the North Carolina Department of Commerce, the North Carolina Department of Environment and Natural Resources (NCDENR), the NCDOT and by the Governor's Office. The purpose of the Strategic Highway Corridors concept is to "protect the mobility and connectivity functions of critical highway facilities, while promoting environmental stewardship through maximizing the use of existing facilities to the extent possible and fostering economic prosperity by being able to move people and goods quickly and efficiently." US 64/NC 280 between the North Carolina/Tennessee state line and Hendersonville is identified by the NCDOT as Corridor 2 in the Strategic Highway Corridor System. The recommended facility type within the project limits is a "thoroughfare."

2.3.2.3 Transylvania County Comprehensive Transportation Plan

The Transylvania County Comprehensive Transportation Plan (CTP) was adopted in February 2007, and the accompanying Study Report was completed in May 2007. The CTP highway map classifies US 64 as "Other Major Thoroughfare." The CTP recommends improvements to US 64 between US 178 and the Jackson County line, which encompasses the proposed project. According to the CTP Study Report, the improvements are needed to accommodate existing and projected traffic volumes and improve safety along the roadway. The improvements that are recommended to US 64 west of Rosman include straightening curves, adding climbing lanes, and widening the roadway to provide 12-foot travel lanes. Another recommendation of the CTP Study Report is to include a safer on-road bicycle facility within the US 64 corridor. The report notes that this section of US 64 is a "logical place to provide a bicycle facility," although it is not currently signed or mapped as one.

2.3.3 Other STIP Projects

The proposed project is included in the NCDOT 2012-2020 STIP as Project No. R-2409D. An adjacent project, R-2409C, proposes to improve an approximately 1.5-mile segment of US 64 from west of NC 281 near Lake Toxaway to Indian Creek (at the western R-2409D terminus). The project consists of straightening the roadway alignment, providing standard-width travel lanes and shoulders, and adding a westbound climbing lane.

Other STIP projects located near the project area include:

- R-2702: US 64 Brevard Bypass (4.8 miles), two lanes on multi-lane right of way (feasibility study reevaluation in progress);
- R-2594: NC 215 (3.5 miles), from US 64 at Cherryfield to SR 1326 (Macedonia Church Road) south of Balsam Grove, two lanes on new location (planning/design in progress); and

- U-5104: US 64 Business (0.6 mile), from SR 1348 (Probart Street) to US 64 in Brevard, widen roadway (right of way in progress).

2.3.4 Logical Termini

FHWA regulations (23 CFR 771.111(f)) require that logical termini be established during the development of all highway improvement projects. Although the proposed improvements are part of an overall plan for US 64 in Jackson and Transylvania Counties, the proposed project will be a usable and reasonable improvement even if no additional transportation improvements are made. In addition, the project will not restrict the consideration of other transportation improvements in the foreseeable future. According to the FHWA, "for projects involving safety improvements, almost any termini (e.g., political jurisdictions, geographical features) can be chosen to correspond to those sections where safety improvements are most needed" (FHWA 1993).

2.3.5 Crash Analysis

A crash rate is a measure of the relative safety of a roadway or intersection and can indicate safety deficiencies. Crashes also contribute to delays, congestion, and driver frustration. Thus, an examination of crash data can help identify potentially hazardous roadways and intersections and reveal the need to provide a more efficient and safer facility.

The NCDOT Traffic Safety Unit provided crash data for a five-year period (September 1, 2008 to August 31, 2013) for US 64 from Wetstone Gap Road to Flat Creek Valley Road (SR 1147). Accident rates are based on average daily traffic, the length of the roadway, and the number of recorded accidents that occurred there. Accident rates are stated in the number of crashes per 100 million vehicle miles (MVM) of travel.

During the five-year analysis period, 34 mainline crashes were reported along this 2.5-mile section of US 64. Table 1 shows the comparison of the crash rates for the analyzed section of US 64 versus the 2009 to 2011 statewide crash rates and the calculated critical rate with a 95 percent level of confidence for a comparable route type and configuration. All of the categories in Table 1 for US 64 are below the critical crash rate[2] for similar type facilities except for the wet conditions category. In the wet conditions category, 49.67 crashes per 100 MVM occurred along US 64 during the analysis period as compared to 24.44 accidents per 100 MVM and 43.98 accidents per 100 MVM for the statewide rate and critical rate, respectively. No fatal crashes were reported during the five-year period. The total crash rate for this section of US 64 is equal to the total statewide crash rate at 153.53 per 100 MVM.

[2] The Critical Crash Rate is a statistically derived number, greater than the average rate, which serves as a screening measure to identify locations where crash occurrence is higher than should be expected for a given facility type and for which safety measures should be considered.

Table 1. US 64 Mainline Crash Rate Comparison

Categories	US 64 Crashes	US 64 Crashes per 100 MVM	Statewide Rate per 100 MVM*	Critical Crash Rate per 100 MVM**
Total	34	153.53	153.53	198.57
Fatal	0	0.00	1.35	7.67
Non-Fatal Injury	8	36.13	48.94	75.65
Night	7	31.61	54.82	82.96
Wet	11	49.67	24.44	43.98

* 2009-2011 statewide crash rate for rural 2-lane, undivided United States (US) routes.
** Based on the statewide crash rate (95% level of confidence).
Source: NCDOT Traffic Safety Unit (October 7, 2013) - September 1, 2008 to August 31, 2013 analysis period for US 64 from Wetstone Gap Road to Flat Creek Valley Road (SR 1147)

The most common type of crash for this section of the road was “fixed object” accidents, accounting for nearly 56 percent of the total number of mainline crashes. Crash types can be used to identify meaningful deficiencies that could be related to the accidents. “Fixed object” crash types may be an indicator of driver behavior associated with unexpected changes in the horizontal or vertical roadway alignment, varying design speed along a segment of roadway, limited stopping sight distance, and/or inadequate clear zone width, among other factors.

3. Proposed Improvements

The project proposes to correct facility deficiencies by straightening curves, increasing sight distance, adding climbing lanes on extended uphill grades, and expanding the roadway footprint to provide adequate travel lanes and shoulder widths. The US 64 cross section is proposed to be widened to a minimum of two 12-foot wide lanes with two-foot wide paved outside shoulders. Wider inside lanes are proposed at horizontal curve locations and 12-foot wide climbing lanes are proposed at steeper grade locations. In order to improve horizontal and vertical curves, the build alternative includes new location segments, as needed. The project will require additional right of way to accommodate the proposed improvements. The proposed right of way varies from a minimum of 32 feet to a maximum of 100 feet. Typical sections are shown on Figure 4 and a small-scale version of the preliminary design plans are illustrated in Figures 5a-5c.

3.1 Roadway Design Criteria

The roadway design criteria utilized during the development of the preliminary alternatives is presented in Table 2. Design criteria for the proposed preliminary alternatives meet the NCDOT and American Association of State Highway and Transportation Officials (AASHTO) standards.

Table 2. Design Criteria

Criteria	US 64 (Build Alternative)
Traffic Data Current Year (2012) ADT Design Year (2035)	 3,200 - 3,800 vpd 4,000 - 4,800 vpd
Classification	Minor Arterial
Type of Terrain	Mountainous
Speed Design Speed Posted Speed *	 40 mph 35 mph
Proposed R/W Width	100 feet
Control of Access	N/A
Typical Section Type	2-lane (with climbing lane)
Lane Width (minimum)	12 feet
Sidewalks	No
Bicycle Lanes	No
Median Width	N/A
Paved Shoulder	2 feet
Maximum Grade Minimum Grade	8.0 % 0.3 %

* - The posted speed limit would likely be 5 mph lower than the vertical design speed; however, that decision would be made by the local NCDOT Division Office after the project is constructed.

3.2 Cost

Based on preliminary designs, the total project cost is estimated to be $13,357,400 including $9,400,000 for construction, $3,367,900 for right of way and $589,500 for utilities.

3.3 Structures and Drainage Recommendations

There are two existing culverts in the project construction limits, one each at Indian Creek and at Morton Creek (Table 3). The existing reinforced concrete box culvert (RCBC) at Indian Creek is bottomless. The preliminary hydraulics design proposes to extend the existing Indian Creek culvert approximately 15 feet, on the downstream side, to accommodate project improvements. Morton Creek is also crossed by a RCBC. The existing culvert will be removed. The preliminary hydraulics design proposes to place a new RCBC approximately 60 feet downstream from the existing location on Morton Creek. The inverts on the new culvert will be buried 1 foot. No new stream crossings are proposed.

Table 3. Proposed Culverts

Stream Crossing	Stream Number	Existing Structure	Recommendations
Indian Creek	SA	Double 9' x 9' RCBC	Double 9' x 9' RCBC - extended
Morton Creek	SG	Double 6' x 6' RCBC	Double 7' x 7' RCBC - relocated

RCBC – Reinforced Concrete Box Culvert

3.4 Utilities

There are overhead power lines along the US 64 right of way. Additionally, there is overhead and buried cable, both telephone and TV/internet. However, there are no buried water or sewer lines along the roadway.

3.5 Maintenance of Traffic During Construction

In accordance with the Work Zone Safety and Mobility Rule, a Transportation Management Plan (TMP) appropriate to the proposed project will be developed. The TMP will identify a set of coordinated transportation management strategies for use in managing the work zone impacts caused by the proposed project. Transportation management strategies for a work zone could include temporary traffic control measures and public information and outreach.

Portions of US 64 may be closed to through traffic during some stages of construction. Potential off-site detour routes include Flat Creek Valley Road (SR 1147) and the combination of Reid Road (SR 1316) with Kim Miller Road (SR 1304/SR 1317). (See Figure 6). Flat Creek Valley Road is approximately 3.2 miles long and has a posted speed limit of 40 MPH. The potential detour route along Reid Road and Kim Miller Road totals approximately 1.5 miles and has a posted speed limit of 30 MPH. The additional travel time for the average road user to utilize either detour route (instead of traveling along US 64) is estimated to be less than ten minutes.

Emergency services and school buses will be able to travel along US 64 and have access to properties within the project limits while an off-site detour is in use for through traffic. Similarly, people accessing homes and businesses within the project limits will have access along US 64. However, depending on the location and type of construction activities, travel time to access properties along US 64 may increase within the construction limits depending on the roadway conditions and potential use of one-lane/one-way traffic through the construction area. Emergency services that would normally travel through the project limits to access properties beyond the construction area, may find that use of an off-site detour is a faster route than traveling through the construction area.

The duration of the off-site detour (for through traffic) is dependent on several factors, including the extent of blasting, the amount of rock excavation, volume of fill, culvert construction/extension, and pavement tie-ins (wedging). NCDOT will coordinate with emergency service providers and the Transportation Director of Transylvania County Schools regarding the use of off-site detour routes during construction. According to a

representative of Lake Toxaway Fire and Rescue, either detour route would be acceptable (West, pers. comm. 2013). The Transylvania County Schools Transportation Director stated that when a detour is in place, the school system would plan to consolidate bus routes through the area. Mr. Justice believes that with advanced notice of the detour schedule, he will be able to work with the anticipated detour routes with minimal disruption to students (Justice, pers. comm. 2013).

4. Other Alternatives Considered

4.1 No Build Alternative

The No Build Alternative would forego any improvements to US 64 with the exception of routine maintenance. The No Build Alternative would not improve vehicular mobility along US 64 or allow this portion of US 64 to function as envisioned in the referenced transportation plans. The No Build Alternative does not correct facility deficiencies along US 64, improve safety, or advance the goals identified in the Strategic Highway Corridor initiative as they apply to Strategic Highway Corridor 2. The No Build Alternative was eliminated from further consideration because it would not meet the purpose and need for the proposed project.

4.2 Build Alternatives 1 and 2

During this environmental study, several build alternatives were developed and evaluated. Functional design was completed for two build alternatives. The primary difference between the build alternatives was the realignment of horizontal curves. Alternative 1 primarily utilized existing location while Alternative 2 includes new location segments, as needed, to improve horizontal and vertical curves. To achieve a 40 mph design speed, Alternative 1 had design exceptions at the curves. Alternative 2 is designed to have a 40 mph design speed with no exceptions. Alternative 2 corrects facility deficiencies to a greater degree than Alternative 1 and best meets the project purpose and need; therefore, Alternative 1 was eliminated from further consideration.

4.1 Transportation Systems Management Alternative

Transportation Systems Management (TSM) alternatives include low-cost improvements designed to maximize the utilization and efficiency of the existing system. TSM improvements involve increasing the available capacity of the facility within the existing right of way with minimum capital expenditures. Items such as the addition of turn lanes, striping, signalization, and minor realignments are examples of TSM physical improvements. Traffic law enforcement, speed restrictions, access control and signal timing changes are examples of TSM operational improvements. TSM alternatives are usually considered in more urbanized areas or where the population may be over 200,000. In addition, TSM alternatives would not adequately improve deficiencies along US 64 and would not meet the project purpose and need. Therefore, TSM was not considered a reasonable and feasible alternative and was eliminated from further consideration.

5. Environmental Effects

This section summarizes the existing conditions of the project area and describes the potential impacts of the proposed project on the existing human, physical, and natural environment. Additional information is included in the following reports, appended by reference:

- Natural Resources Technical Report (NRTR), July 2012;
- Traffic Noise Analysis, October 2013; and
- Air Quality Technical Memorandum, October 2013.

Natural resources field investigations, documented in the NRTR, were conducted June 13-17, 2011; September 19-23, 2011; and June 16-18, 2012. A jurisdictional wetland field review with the United States Army Corps of Engineers (USACE) and the North Carolina Division of Water Quality (NCDWQ) was conducted on August 2, 2012. A preliminary jurisdictional determination was approved on October 29, 2013.

5.1 Land Use and Aesthetics

5.1.1 Existing Land Use, Character, and Visual Resources

Located in a rural area of Transylvania County, the project area is characterized by steep, wooded terrain with limited development. In addition to vacant or undeveloped property, land use includes some single-family residential and commercial uses. Single-family homes are mostly scattered along the US 64 corridor, including several homes with driveway access to US 64. There is a concentration of homes along US 64 at the eastern project terminus. This area includes a nine-unit mobile home park on Carefree Lane just outside the project corridor. In addition, Catatoga is a planned and partially-constructed community near the western project terminus. A gated entrance provides access from US 64. Limited home construction has occurred to date. Community amenities that have been constructed include a clubhouse, pool, and tennis courts.

Most of the commercial uses in the project area include businesses along US 64 near the western project terminus. These businesses include the Catatoga sales center, Freeman Gas and Electric Company, businesses in the Toxaway Business Center, Toxaway Lube Center, and Sapphire Landscaping. There are also several vacant businesses in the area. One church, Faith Baptist Church, is on the north side of US 64, just west of Kim Miller Road.

US 64, through the project area, is part of the Waterfall Byway, a scenic byway designated by the North Carolina Board of Transportation. The Waterfall Byway extends 98 miles from the US 64 intersection with NC 215 near Rosman (east of the project area) to the Town of Murphy in Cherokee County. By definition, North Carolina's scenic byways traverse areas of relatively high value from an aesthetic, recreation, historical, scientific or cultural standpoint. In addition to the state's designation, Transylvania County designated the NC byway as a scenic corridor, prohibiting off-premise advertising along the roadway.

5.1.2 Land Use Plans and Regulations

For planning and development purposes, the project area is within the jurisdiction of Transylvania County. Guidance for land use decisions is provided by the County's 2005 Comprehensive Plan, adopted February 2005. The Comprehensive Plan predicts that the County's mountainous terrain and extensive floodplain areas along the French Broad River will continue to influence development. Based on trends, the County is also expected to remain a predominately rural, residential County. The County's land use goal, as stated in the Comprehensive Plan, is to "Promote the best use of land while protecting citizen's property rights."

The Comprehensive Plan provides no specific recommendations for the study area. Based on historical and existing development trends, future development in the County is primarily expected in Brevard. East of Rosman, US 64 is identified as an industrial development corridor, meaning the area is suitable for future industrial development.

Limited development ordinances apply to the project area. Most of the County outside municipal planning jurisdictions, including the project area, is not zoned. Development-related regulations that apply within the project area include subdivision, mobile home park, and flood damage control ordinances.

5.1.3 Land Use Impacts

5.1.3.1 Local land use, character, and visual resources

Existing land use would be impacted by right of way acquisition and the relocation of homes and businesses, as described in Section 5.2.4.1. These impacts would occur primarily where curves are straightened. Otherwise, existing land use along US 64 is not expected to be affected by the proposed project.

While the Transylvania County Comprehensive Plan does not offer specific guidance for the project area, the proposed project is consistent with the overall goals of the plan. The proposed project is also consistent with the Transylvania County CTP which recommends improvements to US 64.

The proposed project would require some clearing and earthwork along the roadway, resulting in localized visual changes. The general character of the roadway would also be slightly altered by straightening curves. However, the scenic qualities of the byway would remain intact.

5.1.3.2 Indirect Land Use Impacts

Because of the limited scope of the proposed project and the negligible potential for transportation impact-causing activities, the proposed project is not likely to affect future land use in the project area vicinity. In addition, the project will not affect property access, travel patterns, or property exposure, and will not create a land use or transportation node. Land development in the project area will continue to be limited by steep terrain, lack of water and sewer service, and low development pressure (with or without the project). Therefore, the proposed project is not expected to induce development in this area or influence the location of development along the US 64 corridor.

5.2 Socioeconomic Conditions

For demographic data, the project area includes Census Tract 9606, Block Groups 2 and 3. The census block groups in this area are fairly large and include properties that are far removed from the project. Census information may not reflect the exact aspects surrounding the project, but it provides accurate information on area trends. Census boundaries are shown on Figure 7.

5.2.1 Population and Demographic Characteristics

5.2.1.1 Population – Trends and Composition

The population of the project area increased at a higher rate than Transylvania County from 2000 to 2010, but at a similar rate to the state. A review of census block data (the smallest geography for which population data is available) reveals that most (approximately 78 percent) of the project area population increase did not occur in proximity to US 64.

Table 4 provides population growth for North Carolina, Transylvania County, and the project area census tract and block groups.

Table 4. Population Trends for State, County, and Project Area (2000 – 2010)

	North Carolina	Transylvania County	Census Tract 9606	Block Group 2	Block Group 3
2000	8,049,313	29,334	2,263	751	912
2010	9,535,483	33,090	2,506	897	1,058
Change	1,486,170	3,756	243*	146	146
Percent Change	18.5%	12.8%	10.7%	19.5%	16.0%

*The change in the population for Census Tract 9606 is less than the sum of the change for Block Groups 2 and 3 because Block Group 1 of this Census Tract lost population during the period.
Sources: U.S. Census 2000, Summary File 1, Table P001. TOTAL POPULATION [Total population]; and U.S. Census 2010, P1 TOTAL POPULATION. Universe: Total Population 2010 Census Summary File 1.

The NC Office of Management and Budget projects that the county's population will decrease approximately 0.3 percent through 2033, or at an annualized rate of approximately 0.01 percent.

5.2.1.2 Racial and Ethnic Makeup

Overall, the populations of the project area and Transylvania County area are less racially diverse that the state overall. (See Table 5.) In the study area, as well as the County, the non-white population is largely comprised of persons that identify themselves as "Some Other Race" or "Two or More Races."

The Hispanic population in the project area comprises approximately 5.1 percent of the total population, which is greater than the county percentage (2.9 percent). In comparison, approximately 8.4 percent of the state's population is Hispanic. A predominately Hispanic population was identified in a mobile home park on Carefree Lane near the eastern project terminus.

Table 5. Race and Ethnicity (2010)

	North Carolina	Transylvania County	Census Tract 9606	Block Group 2	Block Group 3
Total	9,535,483	33,090	2,506	897	1,058
White alone	6,528,950 68.5%	30,577 92.4%	2,371 94.6%	812 90.5%	1,022 96.6%
Black or African American	2,048,628 21.5%	1,292 3.9%	12 0.5%	3 0.3%	9 0.9%
American Indian and Alaska Native	122,110 1.3%	95 0.3%	9 0.4%	3 0.3%	6 0.6%
Asian	208,962 2.2%	144 0.4%	5 0.2%	3 0.3%	1 0.1%
Native Hawaiian and Other Pacific Islander	6,604 0.1%	8 0.0%	0 0.0%	0 0.0%	0 0.0%
Some Other Race	414,030 4.3%	415 1.3%	71 2.8%	57 6.4%	14 1.3%
Two or More Races	206,199 2.2%	559 1.7%	38 1.5%	19 2.1%	6 0.6%
Hispanic or Latino	800,120 8.4%	964 2.9%	102 4.1%	63 7.0%	37 3.5%

*"Some other race alone" refers to respondents who were unable to identify with the five Office of Management and Budget race categories.
** "Hispanic or Latino" is considered to be an ethnicity by the 2010 Census. Persons of this ethnic group may be of any race.
Sources: U.S. Census 2010, Summary File 1, Table P3. RACE [Total Population] and Table P4. HISPANIC OR LATINO ORIGIN [Total Population].

5.2.1.3 Limited English Proficiency Populations

Limited English Proficiency (LEP) populations are defined as individuals who do not speak English as their primary language and have a limited ability to read, speak, write, or understand English. If certain LEP population thresholds set by the Department of Justice's Safe Harbor guidelines are surpassed, written translations of vital documents must be provided for the LEP language group in addition to other measures assuring meaningful access. The federal LEP threshold for a project is either 5 percent of the population likely to be affected or 1,000 persons, whichever is less.

Based on a review of census data, there are no LEP populations in the project area. (See Table 6.) According to administrators at local schools (T.C. Henderson Elementary School and Rosman Middle and High School), there are students within the project area identified as speaking English as a second language; however, they speak fluent English and have at least one parent who is also fluent in English (Owen, pers. comm. 2012).

There are no language groups within the DSA in which more than 5 percent of the adult population or 1,000 persons speak English less than "Very Well." Therefore, demographic assessment does not indicate the presence of LEP language groups that exceed the Department of Justice's Safe Harbor threshold. However, NCDOT included notice of Right of Language Access for the September 23, 2013 public meeting

and will also do so if additional meetings are planned in the future. Thus, the requirements of Executive Order 13166 appear to be satisfied.

Table 6. Limited English Proficiency

	Total Adult Population	Primary Language Group of Persons Who Speak English Less than Very Well							
		Spanish		Other Indo-Euro		Asian/Pacific		Other	
		#	%	#	%	#	%	#	%
North Carolina	7,156,319	284,405	4.0%	32,126	0.4%	47,239	0.7%	9,283	0.1%
Transylvania County	26,942	385	1.4%	50	0.2%	181	0.7%	0	0.0%
Census Tract 9606	2,599	0	0.0%	13	0.5%	4	0.2%	0	0.0%
Block Group 2	982	0	0.0%	0	0.0%	4	0.4%	0	0.0%
Block Group 3	1,059	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Source: U.S. Census, American Community Survey 5-year estimates 2007-2011, Table B16004: AGE BY LANGUAGE SPOKEN AT HOME BY ABILITY TO SPEAK ENGLISH FOR THE POPULATION 5 YEARS AND OVER

5.2.2 Economy

5.2.2.1 Income and Poverty Status

The median income in the project area is higher than the median income for Transylvania County, but lower than the median income statewide. (See Table 7.) The median income for the census tract that encompasses the project area is higher than the median for all geographies analyzed, indicating higher incomes beyond the project area. The percentage of the population living below the poverty level is lower in the project area, census tract and county, compared to the state. However, census data indicates that 188 persons in the project area are "very poor," or under 50 percent of the poverty level. For Census Tract 9609, Block Group 2, the percentage (9.5) is slightly higher than the percentage for the state overall (9.2).

Table 7. Median Household Income and Poverty Status

	Median Household Income	Population (for whom Poverty Status is determined)	Population below Poverty Level		Very Poor: Under 50% of Poverty Level		Near Poor: Between 100% and 150% of Poverty Level	
			#	%	#	%	#	%
North Carolina	$46,291	9,162,147	1,473,556	16.1%	838,749	9.2%	951,549	10.4%
Transylvania County	$41,103	31,826	4,163	13.1%	2,437	7.7%	4,015	12.6%
Census Tract 9606	$50,431	3,005	312	10.4%	208	6.9%	401	13.3%
Block Group 2	$43,250	1,182	165	14.0%	112	9.5%	235	19.9%
Block Group 3	$44,792	1,141	127	11.1%	76	6.7%	102	8.9%

Source: U.S. Census, American Community Survey 5-year estimates 2007-2011, Table B19013: Median Household Income in the Past 12 Months (in 2011 inflation-adjusted dollars) and Table C17002: Ratio of Income to Poverty Level in the Past 12 Months

5.2.2.2 Leading Industries and Employment Centers

Tourism is a major industry in Transylvania County, which is referred to as the "Land of Waterfalls." The Transylvania Development Authority estimated that more than 710 jobs in the county were directly

attributable to travel and tourism in 2011. Table 8 presents employment by industry for Transylvania County. Based on the 2010 annual employment, leading industries in Transylvania County are health care and social assistance, retail trade, and accommodation and food services. These three industries together provided more than 48 percent of the county's employment opportunities in 2010. The Health Care and Social Assistance industry added the most jobs (405) from 2000 to 2010, while the Manufacturing industry experienced the largest decline in number of jobs (2,296) during that period.

Table 8. Employment in Transylvania County by Industry Sector

Industry	2000	2010	Percent Change
Total Federal Government	186	168	-9.7%
Total State Government	146	148	1.4%
Total Local Government	1065	1178	10.6%
Total Private Industry	8873	6914	-22.1%
Total All Industries	10270	8407	-18.1%
Agriculture Forestry Fishing & Hunting	70	12	-82.9%
Mining	*	*	*
Utilities	49	*	*
Construction	705	430	-39.0%
Manufacturing	2684	388	-85.5%
Wholesale Trade	205	281	37.1%
Retail Trade	1274	1373	7.8%
Transportation and Warehousing	123	170	38.2%
Information	144	104	-27.8%
Finance and Insurance	238	196	-17.7%
Real Estate and Rental and Leasing	78	86	10.3%
Professional and Technical Services	179	190	6.2%
Administrative and Waste Services	220	275	25.0%
Educational Services	888	964	8.6%
Health Care and Social Assistance	1174	1579	34.5%
Arts Entertainment and Recreation	153	193	26.1%
Accommodation and Food Services	1157	1129	-2.4%
Other Services Ex. Public Admin	255	253	-0.8%
Public Administration	665	757	13.8%
Unclassified establishments	**	4	**

* indicates disclosure suppression
** this industry classification did not exist in 2000
Source: Transylvania County Insured Employment in North Carolina for Aggregate of all types by Sector (2 digit) for 2000 and 2010. North Carolina Department of Commerce, Division of Employment Security, Labor Market Information.

The Transylvania County Planning and Economic Development Department website indicates that the unemployment rate for the county is 9.6 percent, slightly below the state rate of 9.8 percent. The NC

Division of Employment Security projects that employment in the four-county region that includes Transylvania County[3] will increase 13.4 percent from 2008 to 2018, or at an annualized rate of 0.9 percent.

According to the Executive Director of the Brevard/Transylvania Chamber of Commerce, the largest employers in the county include Transylvania Regional Hospital, Transylvania County Schools, Gaia Herbs, and MB Industries (Freeman, pers. comm. 2012). The NC Division of Employment Security lists additional major employers: Transylvania County, Ingles Markets, Inc., Brevard College, and the Town of Brevard. There are no major employers within or near the project area.

5.2.3 Housing Characteristics

From 2000 to 2010, 293 housing units were added to the project area. Data at the block group level reveals that almost all of these housing units were added to Block Group 3, Census Tract 9606, resulting in an increase of approximately 33.1 percent. This increase reflects recent second home construction in the Lake Toxaway area.

Table 9 provides growth in housing units for North Carolina, Transylvania County, and the project area census tract and block groups.

Table 9. Housing Trends for State, County, and Study Area (2000 – 2010)

	North Carolina	Transylvania County	Census Tract 9606	Block Group 2	Block Group 3
2000	3,523,944	15,553	2,164	422	810
2010	4,327,528	19,163	2,587	447	1,078
Change	801,584	3,610	423	25	268
Percent Change	22.8%	23.2%	19.6%	5.9%	33.1%

Sources: U.S. Census 2000, Summary File 1, Table H001. HOUSING UNITS [Total population]; and U.S. Census 2010, Summary File 1, Table H1. HOUSING UNITS.

5.2.4 Socioeconomic Impacts

5.2.4.1 Right of Way and Relocation Impacts

Based on preliminary design, the construction of the proposed project would require approximately 29.40 acres of right of way. It is estimated that eight homes and three businesses would be relocated (two of the business relocations are based on removal of parking). The relocation report is included in Appendix A.

[3] In addition to Transylvania County, the Mountain Area Workforce Development Board serves Buncombe, Henderson, and Madison Counties.

5.2.4.2 Community / neighborhood cohesion and stability

The proposed project is not expected to impact neighborhood cohesion and stability of the area overall, as the project does not propose new location segments that pass through a neighborhood or community. Through informal interviews, during field work and a review of property records, several areas were identified where family members live and own property in proximity to one another. One home would be relocated in one of these areas. It is not known if these displaced residents could relocate on an adjacent or nearby property. Therefore, improvements to the existing roadway have the potential to minimally impact the cohesion of one extended family.

5.2.4.3 Impacts to Mobility and Access

The project is expected to enhance mobility and access through the area. One of the project outcomes is to further the mobility and regional connectivity goals of the state's Strategic Highway Corridor concept. Within the project area, the proposed project will modify access to several properties. While some access points (driveways) will be relocated, no existing access will be eliminated.

Bicycle and pedestrian accommodations do not exist in the project area along US 64 and are not proposed as part of the project.

5.2.4.4 Economic and business resources

The proposed project will result in a safer roadway, which will benefit area businesses. The project improvements are not expected to negatively impact the area's economy or business resources overall. However, the project may require the relocation of the Catatoga sales center and several businesses on US 64.

As discussed in Section 3.5, during some stages of construction, there may be times that US 64 is closed to through traffic, which could increase travel time to project area businesses.

5.2.4.5 Impacts to Community Facilities

The proposed project is not expected to impact community facilities.

5.2.4.6 Impacts to Community Safety and Emergency Response

Safety benefits for motorists are expected from the proposed project. Existing facility deficiencies (detailed in Section 2.1) will be corrected with improvements to the horizontal and vertical alignments. Also, a wider typical section addresses narrow travel lanes and inadequate shoulder width. Finally, the proposed project provides climbing lanes that allow faster-moving traffic to pass slower-moving traffic, adequate stopping sight distance and a consistent design speed while eliminating sharp horizontal curves.

Quebec EMS is the primary ambulance to serve the project area and all areas west of the project area. The Quebec Base is located on US 64, just east of the eastern project terminus (adjacent to T.C. Henderson

Elementary School). The majority of EMS transports for the area go to Transylvania Regional Hospital in Brevard (Cooper, pers. comm. 2012). Lake Toxaway Fire and Rescue, a non-profit volunteer organization, is the primary first response and fire agency in the area. The closest station is located in Lake Toxaway, northwest of the proposed project. US 64 is the only major east-west road in this area.

The proposed project would enhance mobility for emergency vehicles traveling on US 64 (Rosman Highway) through the area. The potential detour route of Kim Miller Road/Reid Road would provide a shorter detour (approximately 1.5 miles) than Flat Creek Valley Road (approximately 3.2 miles); however, the Kim Miller Road/Reid Road detour includes a stop sign, steeper grades, and tighter curves. According to a representative of Lake Toxaway Fire and Rescue, either detour route would be acceptable (West, pers. comm. 2013). (Detours are also addressed in Section 3.5.)

5.3 Environmental Justice

5.3.1 Environmental Justice Regulations

Title VI of the Civil Rights Act of 1964, protects individuals from discrimination on the grounds of race, age, color, religion, disability, sex, and national origin. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," provides that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations. Special populations may include the elderly, children, the disabled, low-income areas, American Indians and other minority groups. Executive Order 12898 requires that Environmental Justice principles be incorporated into all transportation studies, programs, policies and activities. The three environmental principles are to: (1) ensure the full and fair participation of all potentially affected communities in the transportation decision-making process; (2) avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority or low income populations; and (3) fully evaluate the benefits and burdens of transportation programs, policies, and activities upon low-income and minority populations.

5.3.2 Affected Population

One population that potentially meets Environmental Justice criteria was identified in the project area vicinity. This predominately Hispanic population is located in a mobile home park on Carefree Lane (a private drive off Kim Miller Road) at the eastern project terminus. The mobile home park may also include low-income populations. This community is not expected to be impacted by the proposed project. There may be temporary access impacts at the US 64 intersection with Kim Miller Road.

5.4 Cultural Resources

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified as 36 CFR Part 800. Section 106 requires agencies to take into account the effect of their undertakings (federally-funded, licensed, or permitted) on properties included in or eligible for

inclusion in the National Register of Historic Places and to afford the Advisory Council a reasonable opportunity to comment on such undertakings.

A Historic Architectural Resources Survey Report was completed in June 2012. Thirteen properties over fifty years of age were identified. Based on a review of the findings by NCDOT and the State Historic Preservation Office (HPO), an intensive historic resources evaluation was completed for one property, the Chapman House. Based on this additional research, the approximately 16-acre Chapman House property was determined to be eligible for listing in the National Register of Historic Places. The property is eligible under Criterion C for architecture as representative and intact examples of a rural vernacular dwelling in Transylvania County.

An Archaeological Survey and Evaluation, completed in November 2012, concluded that no National-Register listed or study listed archaeological sites are located within the project's area of potential effects. Two previously identified isolated finds were assessed and determined not to be eligible for the National Register of Historic Places. No other archaeological sites are present or affected by the project. All compliance for archaeological resources with Section 106 of the National Historic Preservation Act has been completed for this project.

Based on the current design, no permanent property acquisition is needed from the National Register-eligible boundary for the Chapman House. However, temporary easement includes approximately 0.37 acres to allow for a stream channel relocation (based on an existing 32-foot roadway right of way) and minor grading of the existing shoulder along the southern property boundary.

On April 14, 2013, representatives of the NCDOT, FHWA, and HPO concurred that the proposed project would have "no adverse effect" on the Chapman House property. This finding is based on the following conditions: only temporary construction easement and no new right of way will be required along the property; removal of trees and fencing will be limited and generally in the vicinity of the culvert and stream extension; there will be no concrete or rip rap in the stream extension; the stream area will be replanted if the property owner wishes; the fence will be restored after construction; and there will be no construction staging within the historic boundary. A copy of the concurrence form signed by NCDOT, FHWA, and HPO representatives is included in Appendix B.

5.5 Section 4(f) Resources

Section 4(f) of the Department of Transportation (DOT) Act, as amended, stipulates that the FHWA will not approve any program or project which requires the use of publicly owned park land, recreation area, wildlife or waterfowl refuge, or land of a significant historic site unless there is no feasible and prudent alternative and all possible planning to minimize harm resulting from such use is included.

Section 4(f) of the DOT Act applies to the historic Chapman House property. However, according to the DOT Act, the temporary construction easement is not considered a "use" of the property. In concurring with the Section 106 determination of "no adverse effect," representatives of the NCDOT, FHWA, and HPO also concurred that there is no 4(f) impact.

5.6 Section 6(f) Resources

Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LWCF) protects grant-assisted areas from conversions to uses other than the original intended purpose. No public parks or recreation areas funded with LWCF monies were identified in the project area. Therefore, there is no impact to Section 6(f) resources.

5.7 Farmland Impacts

The Farmland Protection Policy Act (FPPA) of 1981 requires all federal agencies or their representatives to consider the impact on prime and important farmland of all construction and land acquisition projects. The purpose of the FPPA is "to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses." According to the FPPA, "farmland" includes prime farmland, unique farmland, and farmland that is determined to be of local or statewide importance.

According to Geographical Information System (GIS) data layers from the NRCS, there are farmland soils within and around the existing project area. Less than 0.01 acres of prime farmland and approximately 14.8 acres of statewide or local important farmland would be impacted by construction of and land acquisition for the proposed project. Parts III and VI of the NRCS Farmland Conversion Impact Rating Form were completed. The project site was awarded a maximum of 36 of 160 points, below the 60 point threshold. This indicates a notable impact on protected farmland soils is not anticipated as a result of the proposed project. Therefore no further analysis is needed.

No properties participating in Transylvania County's Voluntary Farmland District program were identified in the project area.

5.8 Air Quality

A summary of air quality issues in the project area is presented in this section. Details on the complete air quality analysis can be found in the Air Quality Technical Memorandum for STIP Project No. R-2409D (ARCADIS October 2013), appended by reference.

5.8.1 Existing Conditions

Based on the available monitoring data from NC Department of Environment and Natural Resources (NCDENR), the project area is located in an area classified as being in "attainment" of the standards for all criteria pollutants. For potential CO emissions, a local detailed microscale dispersion modeling analysis is not required per FHWA NC Division Guidance because the area is in attainment for CO. This project is located in the ozone attainment area. The project area is designated as being in attainment for PM2.5 and PM10. Subsequently, a qualitative hot-spot analysis for determining potential project impacts is not required per FHWA and EPA guidance.

The US 64 Corridor Improvements Project is part of the NCDOT's Strategic Highway Corridor policy that will not only enhance connectivity and improve safety, but it is a project that is consistent with North Carolina's plan for improving air quality conditions in the area.

5.8.2 Qualitative Mobile Source Air Toxics (MSATs) Impact Discussion

FHWA's guidance for MSAT analyses in NEPA documents recommends a tiered approach for determining the level of sophistication when examining MSATs that is appropriate for a given project. Depending on the project specifics, FHWA has identified three levels of analysis:

- Tier I: No analysis for projects with no potential for meaningful MSAT effects;
- Tier II: Qualitative analysis for projects with low potential MSAT effects; or
- Tier III: Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

The primary purpose of the project is to correct facility deficiencies along US 64 within the project limits. No additional capacity will be added because of the proposed safety improvements. This project has been determined to generate minimal air quality impacts for criteria pollutants and has not been linked with any special 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.

5.8.3 Transportation Conformity

Section 176(c) of the Clean Air Act Amendments (CAAA) requires that transportation plans, programs, and projects conform to the intent of air quality goals in the state implementation plan (SIP) which establishes regulations and emission control measures for improving air quality in the State. Transportation conformity is required for federally funded or approved transportation projects in areas that have been designated by EPA as "nonattainment" for not meeting the National Ambient Air Quality Standards (NAAQS). Generally, the SIP is the methodology by which the State will attain the NAAQS and improve air quality. Conformity to the SIP means that transportation activities will not cause new violations of the NAAQS, worsen existing violations, or delay timely attainment or achievement of interim emissions reductions or other milestones associated with the relevant standard.

Transylvania County where this project is located is currently designated as an attainment area for all criteria pollutants. The attainment status indicates the historical pollutant levels are below the NAAQS. Because this project occurs within an area that is neither a nonattainment area nor a maintenance area, the transportation conformity requirements do not apply.

5.8.4 Construction Air Quality

Construction activities may cause minor short-term air quality impacts in the form of dust from earthwork and unpaved roads and potentially smoke from open burning. These impacts will be minimized by adherence to all State and local regulations. Construction equipment and associated work practices and procedures will have to meet the NCDOT Standard Specifications and NC Division of Air Quality emission standards that govern activities such as open burning (15A NCAC 2D .1900). It is beyond the scope of this analysis to evaluate potential impacts from construction activities.

5.9 Noise

A preliminary noise analysis was conducted in accordance with FHWA Noise Abatement Criteria (NAC) set forth in Title 23 CFR Part 772, and the NCDOT Traffic Noise Abatement Policy, effective July 13, 2011. This analysis is documented in the Traffic Noise Analysis Report (September 2013), appended by reference. A summary of the report findings is presented in this section.

5.9.1 Existing Noise Conditions

A major step in performing a traffic noise analysis is recognizing all potential noise-sensitive land uses within the vicinity of the project, and properly identifying them as receptors according to the FHWA NAC criteria. Prior to performing any fieldwork, land-use maps and aerial maps were used to initially identify these potential noise-sensitive receptors; which were then confirmed through field verification. At the culmination of this analysis, 111 receptors were identified as being contained within the project area limits of potential noise impacts, classified as FHWA Activity Categories B, C, E, F, and G; as defined by the NCDOT Traffic Noise Abatement Policy. Receptors classified as Categories F and G were not analyzed for impacts.

A majority of the receptors within the project area fall under Category B (Residential). There are two Category C sites identified within the project area, one of which is the Chatman Property which is a Section 4(f) home, and the other is the Faith Baptist Church.

Ambient noise is comprised of existing noise sources from both natural and manmade events. It includes our household gadgets, commercial operations, grass mowing, and natural events such as the sounds of wind, thunderstorms, and wildlife. It is noise that is considered to be currently existing and typically present in a particular area. Existing traffic noise exposure is variable in the vicinity of the proposed US 64 Improvement project due to the relatively low traffic volumes through the corridor. A majority of the existing noise sources are from the natural environment.

To assess baseline existing noise levels, noise measurements were collected at five locations within the vicinity of the project area to capture a representative number of identified land uses, plus one to capture the minimum existing ambient noise level where noise sources were not evident. The measured ambient 15 minute Leq noise level, ranged from 40 to 61 dB(A).

5.9.2 Traffic Noise Impacts

Traffic noise impacts occur when the predicted traffic noise levels either: [a] approach or exceed the FHWA noise abatement criteria (with "approach" meaning [a] within 1 dB(A) of the NAC listed values, or [b] substantially exceed the existing noise levels). FHWA and NCDOT require that feasible and reasonable measures be considered to abate traffic noise at all predicted traffic noise impacts. Measures considered include highway alignment selection, traffic systems management, buffer zones, proper use of land controls, noise walls, and earthen berms.

Per FHWA guidance, the predictions are based upon the potential project Design Year 2035 build-condition traffic resulting in the loudest predicted hourly-equivalent traffic noise levels for each receptor. The Design Year 2035 No-Build and Build-conditions are not predicted to impact any receptors within the project area due to traffic noise.

5.9.3 Potential Traffic Noise Abatement

If traffic noise impacts are predicted, examination and evaluation of alternate feasible and reasonable noise abatement measures for reducing or eliminating the noise impacts is required by FHWA and NCDOT. Consideration for noise abatement measures must be given to all impacted receptors in the project area.

No traffic noise impacts were predicted as a result of this analysis; therefore no noise abatement measures were investigated for this project.

5.9.4 Construction Noise

The predominant construction activities associated with this project are expected to be earth removal, hauling, grading, bridge erection, and paving. Temporary and localized construction noise impacts will likely occur as a result of these activities. During daytime hours, the predicted effects of these impacts will be temporary speech interference for passers-by and those individuals living or working near the project. During evening and nighttime hours, steady-state construction noise emissions such as from paving operations will be audible, and may cause impacts to activities such as sleep. Sporadic evening and nighttime construction equipment noise emissions such as from backup alarms, lift gate closures (“slamming” of dump truck gates), etc., will be perceived as distinctly louder than the equivalent acoustic environment, and will likely cause severe impacts to the general peace and usage of noise-sensitive areas – particularly residences, hospitals, and hotels.

Relatively loud construction noise activities such as usage of explosives, pile-drivers, and impact-hammers (jack hammer, hoe-ram) will create sporadic, temporary, and significant construction noise impacts in the near vicinity of those activities.

Generally, low-cost and easy-to-implement construction noise control measures should be incorporated into the project plans and specifications. Although construction noise impact mitigation should not place an undue burden upon the financial cost of the project or the project construction schedule, pursuant to the requirements of 23 CFR 772.19, it is the recommendation of this traffic noise analysis that:

- Earth removal, blasting, grading, hauling, and paving activities in the vicinity of residences should be limited to weekday daytime hours.

- If meeting the project schedule requires that earth removal, blasting, grading, hauling and / or paving must occur during evening, nighttime and/or weekend hours in the vicinity of residential properties, the Contractor shall notify NCDOT as soon as possible. In such instance(s), all reasonable attempts shall be made to notify and to make appropriate arrangements for the mitigation of the predicted construction noise impacts upon the affected property owners and/or residents.

- If construction noise activities must occur during context-sensitive hours in the vicinity of noise-sensitive areas, discrete construction noise abatement measures including, but not limited to portable noise barriers and/or other equipment-quieting devices shall be considered.

- If there will be any pile driving activities associated with the construction of permanent or temporary walls, it will pose an extreme noise impact to any nearby residences for distances up to one-quarter of a mile (estimated to be between 66 dB(A) and 76 dB(A) at a distance of 1,600 feet). It is the recommendation of this traffic noise analysis that provisions be made for alternative temporary living accommodations (e.g., hotel rooms) for those impacted residences during all evening and/or nighttime periods (6:00 p.m. – 6:00 a.m.) throughout which pile-driving activities might occur.

5.10 Topography, Geology, Soils

The project area lies in south central Transylvania County in the Blue Ridge Mountain physiographic region of North Carolina. The topography consists of rolling to steep terrain, bisected by numerous perennial streams. Elevations in the project area range from 2,720 to 2,920 feet above mean sea level. The predominant soil types in the area is the Ashe-Edneyville complex (AnF), and Evard loam. Both soils are characterized having steep slopes with rocky or stony qualities.

As a result of earthwork (cut/fill) and various other construction activities, the construction would result in localized alterations of topography, geology, and soils. However, the alterations would generally be confined to the construction site and the project is expected to have a negligible overall impact to the area's topography, geology, and soils.

5.11 Hazardous Material and Geotechnical Impacts

The NCDOT Geotechnical Engineering Unit investigated the project to assist in early identification of hazardous material and geotechnical issues that might impact the project's planning, design, or construction. The main purpose of the investigation was to identify properties within the project area that are or may be contaminated and therefore result in increased project costs and future liability if acquired by NCDOT. Geoenvironmental impacts may include, but are not limited to, active and abandoned underground storage tank (UST) sites, hazardous waste sites, regulated landfills, and unregulated dumpsites.

GIS technology was utilized to identify sites with known or potential geoenvironmental impacts in proximity to the project corridor. In addition, NCDOT Geotechnical Engineering Unit personnel conducted a field reconnaissance survey of the project corridor on October 12, 2011. A search of appropriate environmental agency databases was performed to assist in evaluating sites identified during this survey.

Two sites that may contain petroleum USTs were identified. (See Figures 5a-c.)

- Herbert Powell General Contracting, 13539 Rosman Hwy (US 64). Currently the site operates as a general contracting construction yard. Historically the site operated as a gas station. The site is located on the south side of Rosman Highway approximately 100 feet northwest of the intersection with Reid Road. According to NCDENR's UST Section Registry, there are no known Facility Ids or Groundwater Incidents associated with this site. The appearance of two possible USTs was observed.

- Toxaway Business Center, 13481 Rosman Hwy. Currently this site is an office complex. The site is located on the south side of Rosman Highway approximately 200 feet southeast of the intersection with Reid Road. A business occupant indicated the site may have operated as a gas station at one time. According to NCDENR's UST Section Registry, there are no known Facility Ids or Groundwater Incidents associated with this site. A 55 gallon drum was observed in the northeast corner of the property at the bottom of a slope. It was unclear if the drum contained any material.

Both of these properties are expected to be impacted by the project; however, the sites are anticipated to present low geoenvironmental impacts to the project.

No hazardous waste sites, landfills, or other geoenvironmental concerns were identified.

5.12 Water Resources

The water resources in the eastern three-quarters of the project area are part of the French Broad River basin [U.S. Geological Survey (USGS) Hydrologic Unit 06010105]. The water resources in the western quarter of the project area are part of the Savannah River basin [U.S. Geological Survey (USGS) Hydrologic Unit 03060101]. Fourteen streams and three impoundments were identified in the project area. Six streams will potentially be impacted by project construction and information regarding those six streams is included subsequent (Tables 10 and 11). Details on all the streams and impoundments identified in the project area can be found in the Natural Resources Technical Report for STIP Project No. R-2409D (ARCADIS February 2012) and In the Request for a Preliminary Jurisdictional Determination of Water of the United States for STIP Project No. R-2409D (ARCADIS March 2013), both appended by reference. The location of each water resource is shown in Figure 5a-c.

Table 10. Water Resources

Stream Name	Map ID	NCDWQ Index Number	Best Usage Classification
Indian Creek	SA	4-5-(1)	B; Tr
UT to Morton Creek,	SH	6-2-10-2-1	C; Tr
Morton Creek	SG	6-2-10-2-1	C; Tr
UT to Morton Creek	SF	6-2-10-2-1	C; Tr
UT to Morton Creek	SD	6-2-10-2-1	C; Tr
UT to South Fork Flat Creek	SL	6-2-10-2	C; Tr

Table 11. Physical Characteristics of Water Resources

Map ID	Bank Height (ft)	Bankful Width (ft)	Water Depth (in)	Channel Substrate	Velocity	Clarity
Indian Ck (SA)	2-3	25-30	18-30	Bedrock, cobble, gravel, sand	Fast	Clear
SH	2	5-6	6-18	Cobble, gravel, sand, silt	Moderate	Clear
Morton Ck (SG)	3-4	15-18	12-24	Bedrock, cobble, gravel, sand	Moderate	Clear
SF	0.5-1	3	2-6	Cobble, gravel, sand	Slow	Clear
SD	0.5-1	3	2-6	Cobble, gravel, sand	Moderate	Clear
SL	1	4-5	4-8	Cobble, gravel, sand, silt	Moderate	Clear

There are no designated anadramous fish waters or Primary Nursery Areas (PNA) present in the project area. There are no designated High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within 1.0 mile downstream of the project area. No waters in the project area or within 1.0 mile downstream are identified on the North Carolina 2012 Final 303(d) list of impaired waters. In the western portion of the project area (Savannah River Basin), there is a benthic macroinvertebrate community monitoring station at Indian Creek and US 64. The bioclassification rating at this site improved from Good in 1999 to Excellent in 2004. There are no water quality sampling sites within 1.0 mile downstream of the eastern portion of the project area in the French Broad River basin.

Potential impacts associated with construction of the proposed project include increased sedimentation, scouring of streambeds, soil compaction, filling of wetlands, and loss of shading as a result of vegetation removal. Increased sedimentation from lateral flows is also expected. Measures to minimize these potential impacts include the formulation of an erosion and sedimentation control plan, provisions for waste materials and storage, stormwater management measures, and appropriate road maintenance measures. NCDOT's Best Management Practices for Protection of Surface Waters will be strictly enforced during project construction. Under the conditions described herein, permanent impacts to water quality associated with this project would be negligible.

Construction activities, especially those associated with the new location roadways, may impact water quality through culvert construction, vegetation removal, soil relocation, and compaction. Precautions should be taken to minimize impacts to water resources in the project area during construction. Aquatic organisms are very sensitive to discharges and inputs resulting from construction. Appropriate measures must be taken to avoid spillage of chemicals or unconsolidated materials and to control runoff. Temporary land disturbance during construction would be restricted to that necessary to conduct the work and would be defined in the construction plans.

Detailed descriptions of jurisdictional streams and wetlands in the project area and potential impacts to these jurisdictional waters are included in Section 5.9.

5.13 Floodplains

Transylvania County is a participant in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA). Indian Creek and Morton Creek are mapped with the 100-year flood zone and each has a designated base flood elevation [Flood Insurance Rate Map (FIRM) No. 3700852200J and No. 3700853200J, respectively]. Floodplains are shown on Figure 5a-c. In addition, both streams are located in Limited Detailed Study areas.

The project proposes to extend the culvert at Indian Creek and replace the culvert at Morton Creek. The proposed culverts are described in Section 3.3. The proposed hydraulic structures will provide equivalent or greater conveyance than that of the existing structures. It is anticipated that these crossings will be covered under NCDOT'S Memorandum of Agreement with NC Floodplain Mapping Program (NCFMP) (dated April 22, 2013). However should a rise in the base flood elevation be unavoidable, a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR) will be required. The Hydraulics Unit will coordinate with the NCFMP, the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT's Memorandum of Agreement with NCFMP, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

This project involves construction activities on or adjacent to a FEMA-regulated stream. 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.

5.14 Biotic Resources

5.14.1 Terrestrial Communities

Eight terrestrial communities were identified in the project area: Residential/Commercial, Agriculture/Pasture, Chestnut Oak Forest, Montane Oak—Hickory Forest, Acidic Cove Forest, White Pine Forest, Canada Hemlock Forest and Montane Alluvial Forest. A brief description of each community type and a map showing the location of each community type are included in the Natural Resources Technical Report (July 2012), appended by reference.

Terrestrial communities in the project area may be impacted by project construction as a result of grading and paving of portions of the project area. The proposed project would impact a total of approximately 29.40 acres of terrestrial communities, including approximately 12.90 acres of Acidic Cove Forest, 7.56 acres of Montane Oak—Hickory Forest, 5.38 acres of Residential/Commercial, 2.04 aces of Canada Hemlock Forest, and less that 1.0 acre each of Agriculture/Pasture, Chestnut Oak Forest, and Montane Alluvial Forest.

5.14.2 Terrestrial Wildlife

Terrestrial communities in the project area are comprised of both natural and disturbed habitats that may support a diversity of wildlife species (those species actually observed are indicated with an asterisk [*]). Mammal species that commonly exploit forested habitats and stream corridors found within the project area include species such as eastern cottontail, raccoon*, Virginia opossum*, grey squirrel*, chipmunk*, grey fox and striped skunk. Birds that commonly use forest habitats include the yellow-billed cuckoo*, piliated woodpecker* and white-breasted nuthatch*; and those that use forest edge habitats include the American crow*, brown thrasher*, blue jay*, Carolina chickadee*, tufted titmouse*, ruby-throated hummingbirds* and Carolina wrens*. Birds that may use the open habitat or water bodies within the project area include American robin*, turkey vulture, mourning doves* and belted kingfisher. Reptile and amphibian species that may use terrestrial communities located in the project area include the eastern gartersnake*, eastern ratsnake, eastern box turtle, eastern American toad, northern fence lizard*, five-lined skink and red-spotted newt*.

Temporary fluctuations in the population of animal species that utilize these communities are anticipated during the course of construction. Slow-moving, burrowing, and/or subterranean organisms will be directly impacted by construction activities, while mobile organisms will be displaced to adjacent communities.

5.14.3 Aquatic Communities

Aquatic communities in the project area consist of perennial mountain streams, as well as small, in-stream impoundments and several marshy wetlands. The perennial streams in the project area could support trout, mottled sculpin, central stoneroller, rosyside dace, bluehead chub, and creek chub. Smaller streams in the project area support aquatic communities of crayfish*, dusky salamanders*, northern green frog and various benthic macroinvertebrates. In a letter dated December 13, 2011 (Appendix C), the NC Wildlife Resources Commission (NCWRC) noted that Indian Creek upstream of US 64 supports a wild brook trout population that may extend to near the highway. Additionally, according to recent surveys, Morton Creeks does not support trout upstream of US 64, but is likely support wild rainbow trout populations near the highway and downstream towards South Fork Flat Creek. These are not Hatchery Supported waters.

Aquatic organisms are acutely sensitive to changes in their environment, and environmental impacts from construction activities may result in long-term or irreversible effects. Impacts usually associated with in-stream construction include increased channelization and scouring of the streambed. In-stream construction alters the substrate and impacts adjacent streamside vegetation. Such disturbances within the substrate lead to increased siltation, which can clog the gills and/or feeding mechanisms of benthic organisms, fish, and amphibian species. Siltation may also cover benthic macroinvertebrates with

excessive amounts of sediment that inhibit their ability to obtain oxygen. Once the stream has been severely impacted, these organisms are slow to recover and are unlikely to return to pre-impact population levels. However, because of the minimal in-stream construction attributed to the proposed project, impacts to aquatic communities are expected to be negligible.

Due to the trout populations, the NCWRC has recommended a construction moratorium from October 15 to April 15 for Indian Creek, and a construction moratorium from January 1 to April 15 for Morton Creek, prohibiting in-stream work and land disturbance within the 25-foot trout buffer (email 06/29/12 in Appendix C).

5.14.4 Invasive Species

Seven species from the NCDOT Invasive Exotic Plant List for North Carolina were found to occur in the project area. Three species were identified as a Severe Threat including Chinese privet, multiflora rose and Japanese grass. Three species were identified as a Moderate Threat. These species include Japanese meadowsweet, English ivy and Japanese honeysuckle. And, finally, one species, bigleaf periwinkle, was identified as a watch list species. NCDOT will manage invasive plant species as appropriate.

5.15 Jurisdictional Issues

5.15.1 Clean Water Act Waters of the U.S.

5.15.1.1 Streams

Fourteen jurisdictional streams were identified in the project area. The location of these streams is shown on Figure 5a-c. (USACE and NCDWQ stream delineation forms are included in Appendix C of the July 2012 NRTR, appended by reference.) The physical characteristics and water quality designations of the jurisdictional streams potentially impacted by the project are detailed in Section 3.2. All jurisdictional streams in the project area have been designated as cold water streams for the purposes of stream mitigation.

Based on the current design, which includes a 25-foot offset from the design's slope stake lines except at the National Register-eligible boundary for the Chapman House where the current design's temporary easement was used, it is estimated that 890 linear feet of perennial stream will be impacted by project construction. Table 12 identifies the streams potentially impacted by this project and the type of potential impact. The roadway design will be reviewed as the design is finalized for opportunities to reduce the stream impacts.

Table 12. Potential Stream Impacts

Stream Name	Map ID	Classification	*Length of Impact (feet)	Type
Indian Creek	SA	perennial	205	crossing
UT to Morton Creek	SH	perennial	250	parallel encroachment
Morton Creek	SG	perennial	150	crossing
UT to Morton Creek	SF	perennial	100	crossing
UT to Morton Creek	SD	perennial	110	parallel encroachment
UT to South Fork Flat Creek	SL	perennial	75	crossing
		Total	**890**	

*Potential impacts above are based on a 25-foot offset from the current design's slope stake lines except at the National Register-eligible boundary for the Chapman House (MAP ID: SH, SG, and SF) where the current design's temporary easement was used. The impact area for the current design's temporary easement is smaller than that of the 25-foot offset. Calculations utilized temporary easement due to the advanced level of design, addressing streams and considering utilities in order to determine potential impacts to the historic property in compliance with the National Historic Preservation Act.

5.15.1.2 Wetlands

Eight jurisdictional wetlands, totaling 0.99 acres, were identified within the project area. (See Figure 5a-c). All wetlands in the project area are within the French Broad River basin (USGS Hydrologic Unit 0610105). Wetland classification, USACE wetland delineation forms and NCDWQ wetland rating forms for each site are included in Appendix C of the July 2012 NRTR, appended by reference. Descriptions of the terrestrial communities at each wetland site are also presented in the July 2012 NRTR.

No permanent impacts to jurisdictional wetlands are expected. One wetland, WB, is partially located within a construction easement. No earth moving activities are planned in this location. Temporary wetland impacts to wetland WB are estimated to be 213 square feet or 0.005 acre. These wetlands will be restored to preconstruction elevations, if needed, and reseeded with a native seed mix at the completion of construction activities.

5.15.1.3 Clean Water Act Permits

The proposed project has been designated as a Categorical Exclusion (CE) for the purposes of National Environmental Policy Act (NEPA) documentation. As a result, a Nationwide Permit (NWP) No. 23 will likely be applicable. A NWP No. 33 may also apply for temporary construction activities such as stream dewatering and or work bridges. The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required then a Section 401 Water Quality Certification (WQC) from the NCDWQ will also be needed.

5.15.1.4 North Carolina Riparian Buffer Rules

There are no applicable buffer rules for either the Savannah River basin or for the French Broad River basin.

5.15.1.5 Mitigation

The NCDOT will investigate potential on-site stream mitigation opportunities, as needed. If on-site mitigation is not feasible, mitigation will be provided by NCDENR Ecosystem Enhancement Program (EEP). In accordance with the "Memorandum of Agreement between the NCDOT and the USACE, Wilmington District," (MOA) July 22, 2003, the EEP will be requested to provide off-site mitigation to satisfy the federal Clean Water Act compensatory mitigation requirements for this project.

5.15.2 Rivers and Harbors Act, Section 10 Navigable Waters

There are no navigable waters, as defined under Section 10 of the Rivers and Harbors Act, within the project area.

5.15.3 Tennessee Valley Authority Act – Shoreline Construction

The TVA Act is the legislation passed by Congress in 1933 that established the Tennessee Valley Authority. Section 26a of that act requires that TVA approval be obtained before any construction activities can be carried out that affect navigation, flood control or public lands along the shoreline of the TVA lakes or in the Tennessee River or its tributaries. The portion of the project area that is contained within the French Broad River basin falls under the jurisdiction of the TVA. Removal and repositioning of the RCBC at Morton Creek will require approval by the TVA under Section 26a under the TVA Act. A Section 26a permit will be applied for once design plans have been finalized.

5.15.4 Endangered Species Act - Protected Species

As of December 26, 2012, the United States Fish and Wildlife (USFWS) listed nine federally protected species for Transylvania County (Table 13). A brief description of each species' habitat requirements follows, along with the Biological Conclusion rendered based on survey results in the study area. Habitat requirements for each species are based on the current best available information from referenced literature and/or USFWS.

Table 13. Federally Protected Species Listed for Transylvania County

Science Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
Clemmys muhlenbergii	Bog Turtle	T (S/A)	Yes	Not required
Glaucomys sabrinus coloratus	Carolina northern flying squirrel	E	No	No effect
Alasmidonta raveneliana	Appalachian elktoe	E	Yes	No effect
Sarracenia rubra ssp. jonesii	Mountain sweet pitcher-plant	E	Yes	No effect
Isotria medeoloides	Small whorled pogonia	T	Yes	No effect
Geum radiatum	Spreading avens	E	No	No effect
Helonias bullata	Swamp pink	T	Yes	No effect
Spiraea virginiana	Virginia spiraea	T	Yes	No effect
Gymnoderma lineare	Rock gnome lichen	E	No	No effect

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

* - Historic record (the species was last observed in the county more than 50 years ago)

Bog turtle

USFWS optimal survey window: April 1 – October 1 (visual surveys); April 1-June 15 (optimal for breeding/nesting); May 1-June 30 (trapping surveys)

Habitat Description: Bog turtle habitat consists of open, groundwater supplied (springfed), graminoid dominated wetlands along riparian corridors or on seepage slopes. These habitats are designated as mountain bogs by the NCNHP, but they are technically poor, moderate, or rich fens that may be associated with wet pastures and old drainage ditches that have saturated muddy substrates with open canopies. Plants found in bog turtle habitat include sedges, rushes, marsh ferns, herbs, shrubs (tag alder, hardhack, blueberry, etc.), and wetland tree species (red maple and silky willow). These habitats often support sphagnum moss and may contain carnivorous plants (sundews and pitcherplants) and rare orchids. Potential habitats may be found in western Piedmont and Mountain counties from 700 to 4500 feet elevation in North Carolina. Soil types (poorly drained silt loams) from which bog turtle habitats have been found include Arkaqua, Chewacla, Dellwood, Codorus complex, Hatboro, Nikwasi, Potomac – Iotla complex, Reddies, Rosman, Tate – Cullowhee complex, Toxaway, Tuckasegee – Cullasaja complex, Tusquitee, Watauga, and Wehadkee.

Biological Conclusion: Not Required

Species listed as threatened due to similarity of appearance do not require Section 7 consultation with the USFWS. Suitable wetland habitats on poorly drained, silty soils are available in the project area. However, no known populations of bog turtles have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013).

Northern Flying Squirrel

USFWS Recommended Survey Window: May-October; coldest days in coldest winter months (nest box surveys)

Habitat Description: There are several isolated populations of the Carolina Northern flying squirrel in the mountains of North Carolina. This nocturnal squirrel prefers the ecotone between coniferous (red spruce, Fraser fir, or hemlock) and mature northern hardwood forests (beech, yellow birch, maple, hemlock, red oak, and buckeye), typically at elevations above 4,500 feet mean sea level. In some instances, the squirrels may be found on narrow, north-facing valleys above 4,000 feet mean sea level. Both forest types are used to search for food and the hardwood forest is used for nesting sites. Mature forests with a thick evergreen understory and numerous snags are most preferable. In winter, squirrels inhabit tree cavities in older hardwoods, particularly yellow birch.

Biological Conclusion: No Effect

This project will not affect the northern flying squirrel, since suitable high elevation habitats are not available in the project area. No known populations of northern flying squirrels have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013).

Appalachian Elktoe

USFWS Recommended Survey Window: year round

Habitat Description: The Appalachian elktoe is known from the French Broad River watershed in North Carolina. The Appalachian elktoe has been observed in moderate- to fast-flowing water, in gravelly substrates often mixed with cobble and boulders, in cracks of bedrock and in relatively silt-free, coarse, sandy substrates. Apparently, stability of the substrate is critical to this species, as it is seldom found in stream reaches with accumulations of silt or shifting sand, gravel, or cobble.

Critical Habitat for the Appalachian elktoe has been designated in the mainstem of the Little River in Transylvania County. The Critical Habitat is not located within or downstream of the project area.

Biological Conclusion: No Effect

Indian Creek is part of the Savannah River basin, which is not within the known range for this species. Morton Creek and its tributaries are part of the French Broad River basin which is within the known range for this species. However, based on analysis by NCDOT biologists (e-mail, April 20, 2012), Morton Creek and its tributaries are too small and too high gradient streams to support a population of this species. No populations of Appalachian elktoe have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013). No mussel surveys were conducted in the project area.

Mountain sweet pitcher-plant

USFWS Optimal Survey Window: April-October

Habitat Description: Mountain sweet pitcher-plant, endemic to the Blue Ridge Mountains of North and South Carolina, is found along stream banks and in shrub/herb-dominated, seepage-fed mountain bogs (Southern Appalachian Bog- Southern Subtype). Both stream bank and bog habitats are usually situated along intermittently exposed to intermittently flooded level depressions associated with valley floodplains. These habitats, typically on soils of the Toxaway or Hatboro series, contain deep, poorly drained, saturated soils of loam, sand, and silt with a high organic matter content and medium to high acidity. A few occurrences of the pitcher plant also grow in cataract bogs, either in thin strips along the edges of waterfalls or on soil islands over granite rock faces, where sphagnum and other bog plant species line the sides. This early successional species relies on natural disturbance (e.g., drought, water fluctuation, periodic fire, ice damage) to maintain its habitat by preventing the establishment of later successional woody seedlings.

Biological Conclusion: No Effect

Wetlands over saturated loamy soils are available in the project area. Four wetlands are marshy wetlands with minimal shrubby cover or are boggy wetlands with open, herb-dominated areas, which provide suitable habitat for this species. The remaining wetlands and the stream banks are primarily in forested communities that would not be suitable habitat for this pitcher-plant. No known populations of mountain sweet pitcher-plant have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013). Plant-by-plant surveys for this pitcher-plant were conducted by M. Register and K. Bukowy, during June 16 to 18, 2012 in appropriate habitats and no individuals of this species were observed.

Small whorled pogonia

USFWS Optimal Survey Window: mid May-early July

Habitat Description: Small whorled pogonia occurs in young as well as maturing (second to third successional growth) mixed-deciduous or mixed-deciduous/coniferous forests. It does not appear to exhibit strong affinities for a particular aspect, soil type, or underlying geologic substrate. In North Carolina, the perennial orchid is typically found in open, dry deciduous woods and is often associated with white pine and rhododendron. The species may also be found on dry, rocky, wooded slopes; moist slopes; ravines lacking stream channels; or slope bases near braided channels of vernal streams. The orchid, often limited by shade, requires small light gaps or canopy breaks, and typically grows under canopies that are relatively open or near features like logging roads or streams that create long-persisting breaks in the forest canopy.

Biological Conclusion: No effect

Suitable habitat for the small whorled pogonia is available in the majority of forested upland communities in the project area. Plant-by-plant surveys were conducted in suitable habitats in the project area during the week of June 13, 2011 by M. Register, R. Lepsic, K. Bukowy and P. Cass.

The surveys utilized evenly-spaced, flexible transects. Prior to conducting the surveys the team visited a known population of this orchid in the project vicinity and they reviewed the identifying characteristics. No populations of this orchid were located during the surveys. One known population of this orchid has been indentified from within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013).

Spreading avens

USFWS Optimal Survey Window: June-September

Habitat Description: Spreading avens occurs in areas exposed to full sun on high elevation cliffs, outcrops, and bases of steep talus slopes. This perennial herb also occurs in thin, gravelly soils of grassy balds near summit outcrops. The species prefers a northwest aspect, but can be found on west-southwest through north-northeast aspects. Forests surrounding known occurrences are generally dominated by either red spruce-Fraser fir, northern hardwoods with scattered spruce, or high-elevation red oaks. Spreading avens typically occurs in shallow, acidic soil (such as the Burton series) in cracks and crevices of igneous, metamorphic, or metasedimentary rocks. Soils may be well drained but almost continuously wet, with soils at some known occurrences subject to drying out in summer due to exposure to sun and shallow depths. Known populations occur at elevations ranging from 4,296 to 6,268 feet above mean sea level. Blue Ridge goldenrod, Heller's blazing star, and Roan Mountain bluet are a few of its common associate species.

Biological Conclusion: No effect

This project will not affect spreading avens since suitable high elevation habitats are not available in the project area. No known populations of spreading avens have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013).

Swamp pink

USFWS Optimal Survey Window: April-May

Habitat Description: Swamp pink occurs in clonal clumps in a variety of groundwater influenced wetland habitats including southern Appalachian bogs and swamps, Atlantic white cedar swamps, swampy forests bordering meandering small streams, boggy meadows, headwater wetlands, and spring seepage areas. The perennial herb requires a constantly saturated, but not flooded, substrata. The plant often grows on hummocks formed by trees, shrubs, and sphagnum moss, and exhibits varying degrees of shade tolerance. Swamp pink occurs in acidic soils that contain a very thin layer of decomposed organic matter over a dark silt loam and a subsoil of sand, loam, and gravel.

Biological Conclusion: No Effect

All the wetlands in the project area are underlain by saturated loamy soils and are suitable habitat for this species. The exception is wetland WB, which is maintained in a mowed state. No populations of swamp pink have been identified within a 1-mile radius of the project area (Natural

Heritage Element Occurrences GIS database; downloaded October 9, 2013). Plant-by plant-surveys for this species were conducted by M. Register and K. Bukowy, during June 16 to 18, 2012 in appropriate habitats and no individuals of this species were observed

Virginia spiraea

USFWS Optimal Survey Window: May-early July

Habitat Description: Virginia spiraea occurs in flood-scoured, high-gradient sections of rocky river banks of second and third order streams, often in gorges or canyons. This perennial shrub grows in sunny areas on moist, acidic soils, primarily over sandstone. The shrub tends to be found in thickets with little arboreal or herbaceous competition along early successional areas that rely on periodic disturbances such as high-velocity scouring floods to eliminate such competition. Virginia spiraea also occurs on meander scrolls and point bars, natural levees, and other braided features of lower stream reaches, often near the stream mouth. Scoured, riverine habitat sites are found where deposition occurs after high water flows, such as on floodplains and overwash islands, rather than along areas of maximum erosion. Occurrences in depositional habitats are found among riparian debris piles, on fine alluvial sand and other alluvial deposits, or between boulders.

Biological Conclusion: No Effect

Flood-scoured, high-gradient sections of rocky river banks of second and third order streams occur along Indian Creek in the project area. No populations of Virginia spiraea have been identified within a 1-mile radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013). Plant-by-plant surveys for this species were conducted by M. Register and K. Bukowy, during June 16 to 18, 2012 in appropriate habitats and no individuals of this species were observed.

Rock gnome lichen

USFWS Optimal Survey Window: year round

Habitat Description: Rock gnome lichen occurs in high elevation coniferous forests (particularly those dominated by red spruce and Fraser fir) usually on rocky outcrop or cliff habitats. This squamulose lichen only grows in areas with a great deal of humidity, such as high elevations above 5,000 feet mean sea level where there is often fog, or on boulders and large outcrops in deep river gorges at lower elevations. Habitat is primarily limited to vertical rock faces where seepage water from forest soils above flows only at very wet times. The species requires a moderate amount of sunlight, but cannot tolerate high-intensity solar radiation. The lichen does well on moist, generally open sites with northern exposures, but requires at least partial canopy coverage on southern or western aspects because of its intolerance to high solar radiation.

Biological Conclusion: No Effect

This project will not affect rock gnome lichen since suitable high elevation habitats are not available in the project area. No known populations of this species have been identified within a 1-mile

radius of the project area (Natural Heritage Element Occurrences GIS database; downloaded October 9, 2013).

5.15.5 Bald and Golden Eagle Protection Act

Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water.

A desktop-GIS assessment of the project area, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on January 30, 2012 using 2011 color aerials. No water bodies large enough or sufficiently open to be considered potential feeding sources were identified. Since there was no foraging habitat within the review area, a survey of the project area and the area within 660 feet of the project limits was not conducted. There are no known populations of bald eagles in Transylvania County. Due to the lack of habitat, lack of known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect this species.

5.15.6 Endangered Species Act Candidate Species

As of December 26, 2012, the USFWS does not list any candidate species as potentially occurring in Transylvania County.

5.16 Cumulative Impacts

STIP Project No. R-2409D is expected to correct facility deficiencies along US 64 within the area, and cumulatively with other R-2409 projects, would contribute to a safer roadway between Cashiers in Jackson County and Rosman in Transylvania County. Cumulatively, these projects may also slightly reduce travel time through the area. However, the proposed project is not expected to induce development. Because of the low potential for indirect impacts, the cumulative effect of this project, when considered with other past, present, and future actions (and the resulting impact on the notable human and natural features), would be negligible. Therefore, the contribution of the proposed project to cumulative impacts resulting from future development is expected to be negligible. Potential indirect and cumulative effects to downstream water quality would also be negligible.

Direct natural environmental impacts by NCDOT projects will be addressed by avoidance, minimization, or mitigation, consistent with programmatic agreements with the natural resource agencies during the Merger and permitting processes. All private developments will be required to follow local, state, and federal guidelines and permitting regulations.

6. Agency/Public Coordination

6.1 Comments Received from Federal, State, and Local Agencies

In preparation for the environmental document, input from the appropriate federal, state, and local agencies concerning potential effects of the proposed project on the environment was requested by NCDOT in a

scoping letter dated November 17, 2011. The agencies to which the scoping letter was sent are listed below. Written comments were received from agencies noted with an asterisk (*). These comments are provided in Appendix C.

U.S. Army Corps of Engineers
U.S. Department of Agriculture – Forest Service
U.S. Department of Interior – Fish and Wildlife Service
U.S. Environmental Protection Agency
Eastern Band of the Cherokee Indians
Federal Highway Administration
*Tennessee Valley Authority
*N.C. Department of Administration – State Clearinghouse
*N.C. Department of Agriculture and Consumer Services – Agricultural Services
N.C. Department of Cultural Resources – Division of Archives and History
*N.C. Department of Cultural Resources – State Historic Preservation Office
N.C. Department of Environment and Natural Resources – Natural Heritage Program
*N.C. Department of Environment and Natural Resources – Division of Water Quality
*N.C. Division of Parks and Recreation – Land and Water Conservation Fund
*N.C. Wildlife Resources Commission
City of Brevard
Lake Toxaway Fire and Rescue
*Land of Sky Rural Planning Organization
Town of Rosman
*Transylvania County
*U.S. 64 Improvement Coalition

6.2 Local Officials Meeting and Citizens Informational Workshop

A Local Officials Informational Meeting and a Citizens Informational Workshop was held on September 23, 2013.

Prior to the Citizens Informational Workshop, a project newsletter was distributed to property owners along US 64 within the project limits (mailed the week of September 2, 2013). The project mailing list included approximately 320 names, including local officials. In addition, a newspaper notice was posted in the Transylvania Times (September 9 and 12) and a press release was sent to local media. The president of the Quebec Community Center agreed to post the project newsletter and share it with others interested in the project and the principal of T.C. Henderson Elementary School agreed to include the workshop information as part of their regular parent communications call. Also, businesses, realtors, and other groups located in or near the project area were asked to consider sharing the newsletter with the public.

The Local Officials Informational Meeting was held from 1:30 to 2:30 p.m. at the Quebec Community Center, 11846 Rosman Highway (US 64). NCDOT invited local officials from Transylvania County, the Town of Rosman, the Town of Brevard, and the Land-of-Sky Rural Planning Organization. In addition to NCDOT staff and consultants, eight local officials attended the meeting. The purpose of the Local Officials Informational Meeting was to brief local officials on the proposed project and answer questions. The use of an off-site detour was of interest/concern to EMS representatives, especially regarding potential delays in response time during an emergency. Similarly, the use of an off-site detour was of interest/concern related to school bus routes through the study area. A Transylvania County Schools representative noted six to eight school bus stops in the area.

The Citizens Informational Workshop was held from 4:30 p.m. to 7:30 p.m. at the T.C. Henderson Elementary School gymnasium, 11839 Rosman Highway (US 64). Meeting notification was through a project newsletter and a public notice in the Transylvania Times. The purpose of the meeting was to present the project to the public and to solicit comments. Approximately 76 people attended the meeting. A handout, which included information about the project and an overall project map, was provided to meeting attendees. A comment sheet for public feedback was attached to the handout. Three letters and 11 comment forms were collected at or following the meeting. Comments were also received in 4 emails following the meeting. Generally, respondents were not supportive of the proposed project. A representative of the Coalition for Improvement of US 64 was very supportive of the project as well as the adjacent US 64 improvements project (R-2409C). Overall, the residents were interested in details regarding the potential use of off-site detour routes; noted concern about increases in traffic noise, traffic volumes, access to their homes during construction, and the number of heavy trucks along the potential detour routes; travel safety; and damage to the roads used for the detour.

7. Basis for Categorical Exclusion

According to the FHWA, “categorical exclusions [23 CFR 771.117] are actions which: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on the natural, cultural, recreational, historic, or other resources; do not involve significant air, noise, or water quality impacts; do not have significant impact on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.”

The proposed US 64 improvements would result in some impacts, including relocation of homes and businesses, stream impacts, potential floodplain changes, and temporary construction easements. However, these impacts are not considered significant.

Based on preliminary design, potential project impacts are quantified, where possible, in Table 14.

Table 14. Summary of Environmental Impacts

Project Length (miles)		2.7
Relocations	Residential	8
	Business/non-profit	3
	Total Relocations	11
Minority/Low Income Populations - Disproportionate Impacts*		No
Historic Properties (adverse effect)		0
Community Facilities Impacted		1 church (driveway relocation)
Section 4(f) Impacts		No
Noise Impacts (impacted properties)		0
Prime and Unique Farmlands (acres)		>0.01
Terrestrial Community Impacts (acres)		29.40
Wetland Impacts (acres)		0
Stream Impacts (linear feet)		890
Stream Impacts (number of new crossings)		0
Stream Impacts (number of altered crossings)		4
Floodplain (acres)		0.5
Riparian Buffers		No
Federally Protected Species		No effect
Cost	Right of Way Cost	$3,367,900
	Utilities Cost	$589,500
	Construction Cost	$9,400,000
	Total Cost **	$13,357,400

* Impacts defined as disproportionate adverse impacts to minority or low income populations. (See Section 5.4).

8. References

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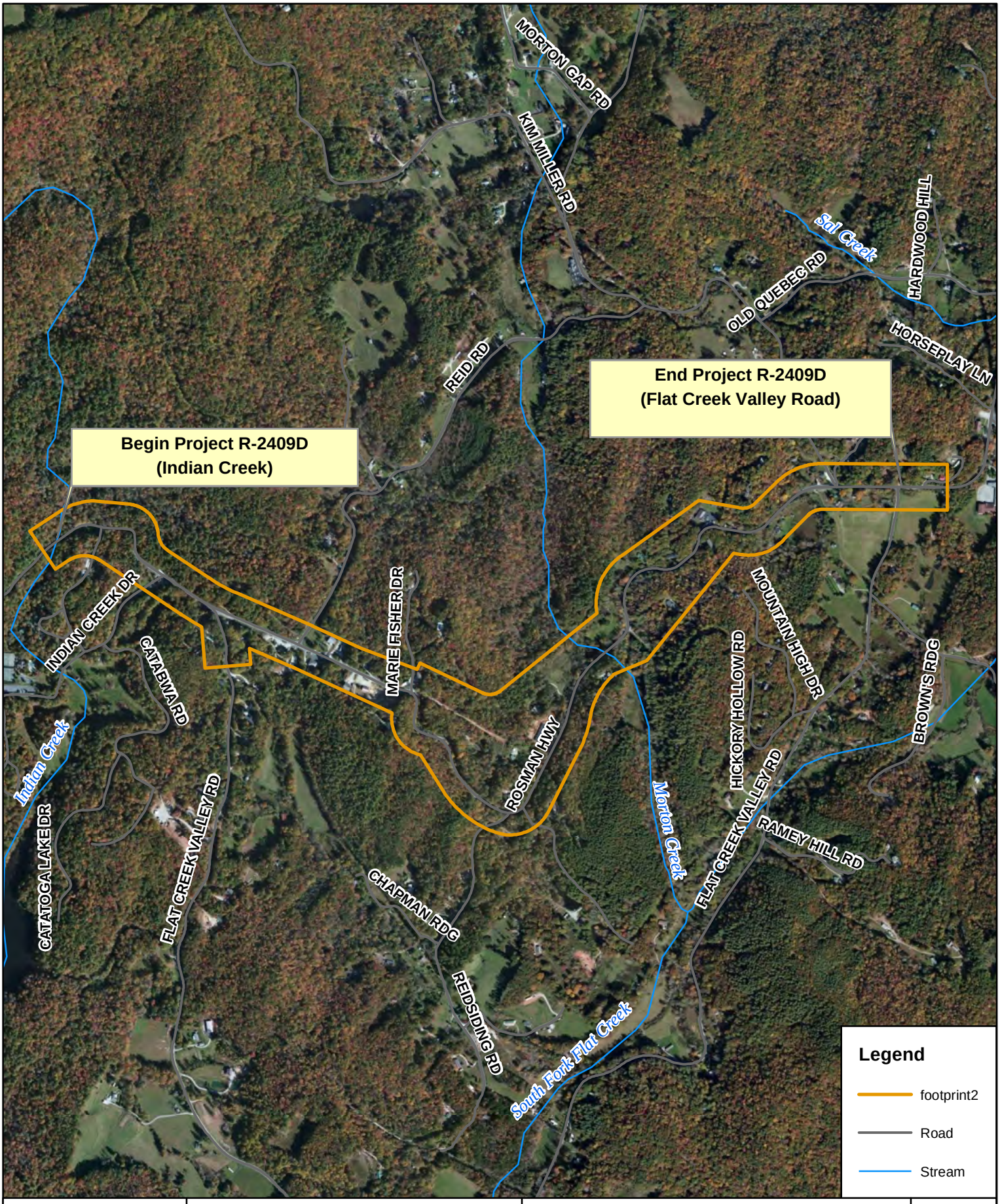
Figures

Vicinity Map

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, NC

Sources: CGIA, Transylvania County GIS Dept, & NCDOT

FIGURE 1



N

0 1,000 2,000 Feet

1 inch = 1,100 feet

Study Area

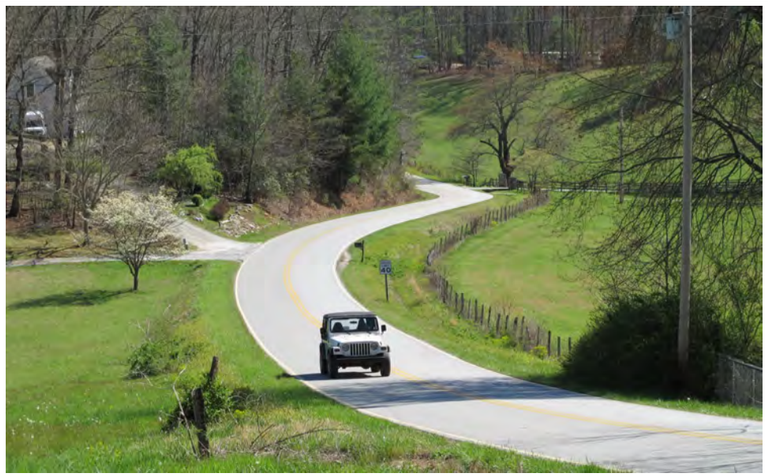
STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, NC

Sources: Transylvania County GIS, USGS 7.5-minute Quadrangle Maps: Reid, Lake Toxaway

FIGURE
2

1

2



3

4

5

6

7

8

9

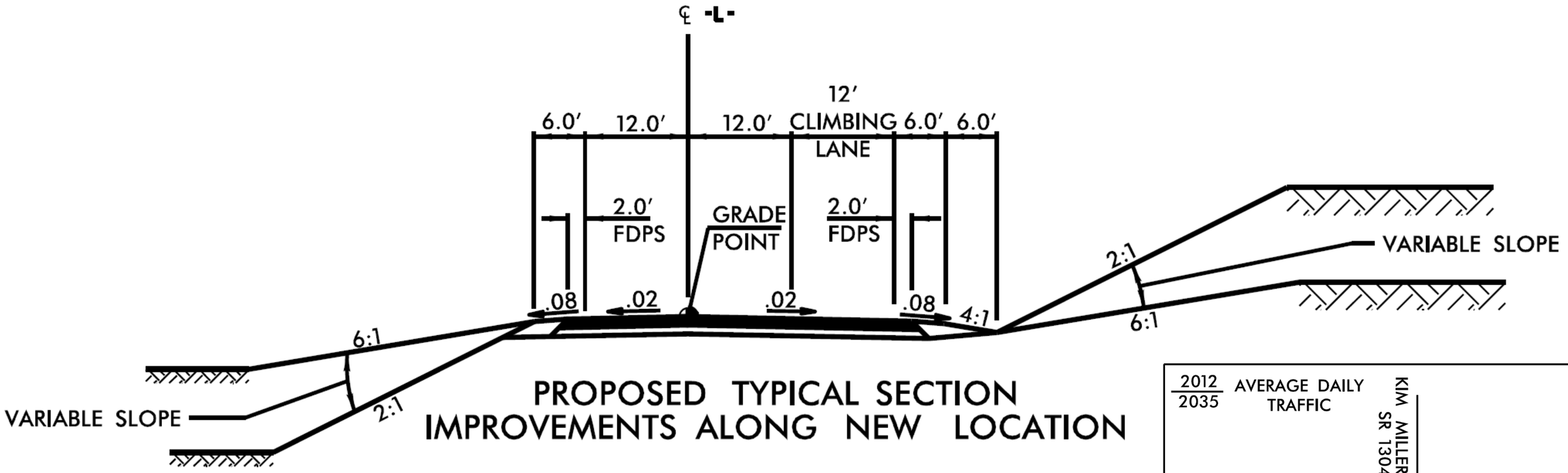
LEGEND

1 - US 64 near the eastern project terminus
2 - Flat Creek Valley Road (potential detour route)
3 - US 64 intersection with Kim Miller Road
4 - Sharp curves are common along this section of US 64
5 - Vehicles frequently cross travel lanes in tight curves
6 - Historic Chapman House
7 - US 64 near Marie Fisher Road
8 - US 64 at Catatoga
9 - US 64 near the western project terminus

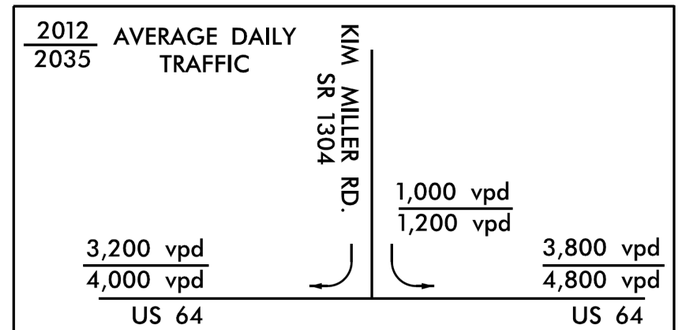
Photographs

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina
October 2013

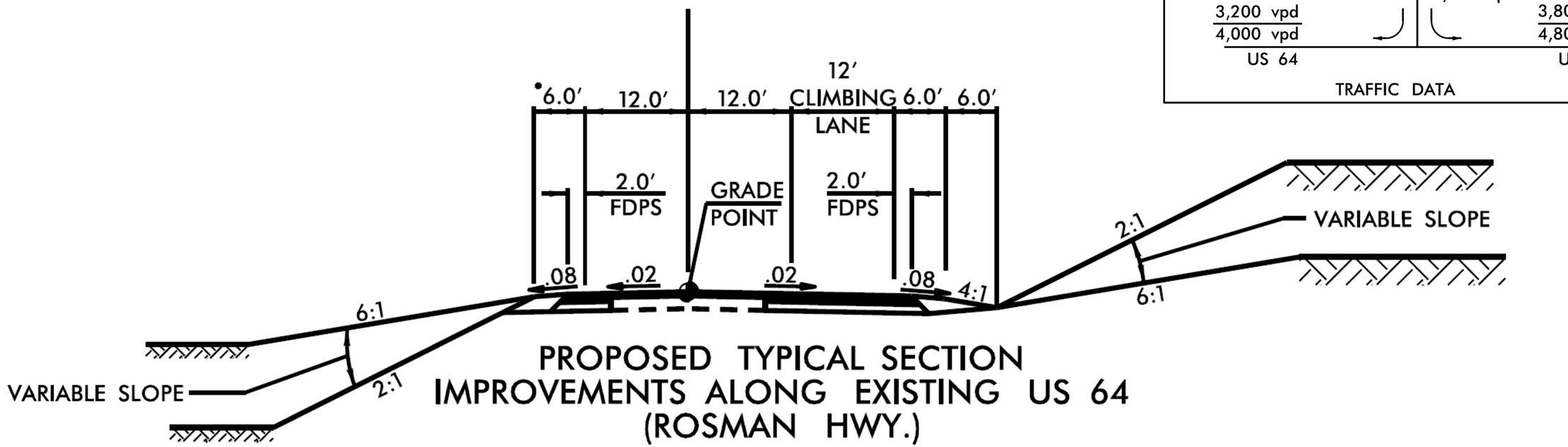
FIGURE
3



PROPOSED TYPICAL SECTION
IMPROVEMENTS ALONG NEW LOCATION



TRAFFIC DATA



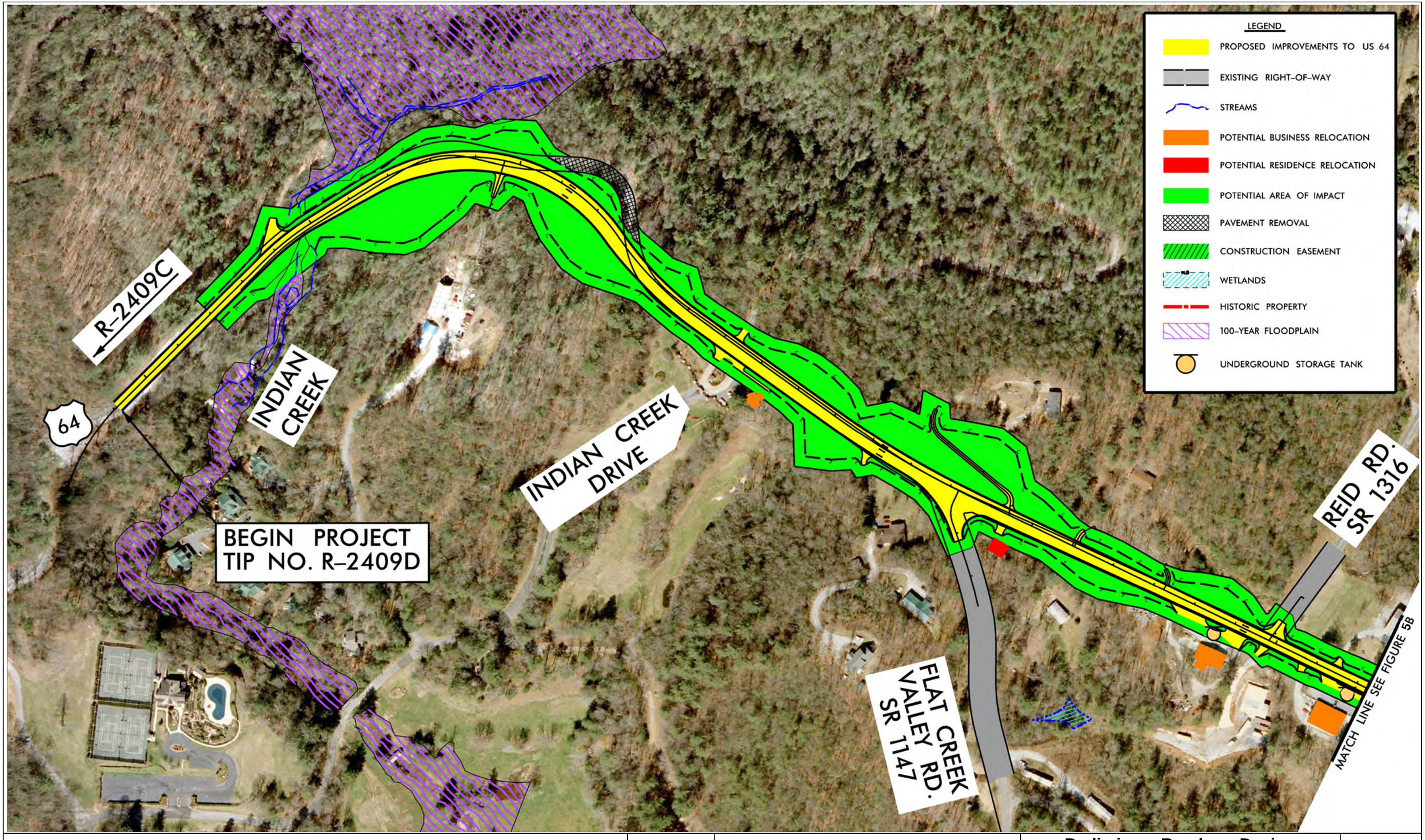
PROPOSED TYPICAL SECTION
IMPROVEMENTS ALONG EXISTING US 64
(ROSMAN HWY.)

Typical Sections and Traffic Data

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina

Source: ARCADIS [Date] 10/13

FIGURE
4



N

0 200 400

1 inch = 200 feet

Preliminary Roadway Design

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina

Source: ARCADIS [Date] 10/13

FIGURE **5a**

MATCH LINE SEE FIGURE 5A

MATCH LINE SEE FIGURE 5C

MORTON CREEK

JAMES M. CHAPMAN, SR.

64

REID SIDING RD.
SR 1148

LEGEND

- PROPOSED IMPROVEMENTS TO US 64
- EXISTING RIGHT–OF–WAY
- STREAMS
- POTENTIAL BUSINESS RELOCATION
- POTENTIAL RESIDENCE RELOCATION
- POTENTIAL AREA OF IMPACT
- PAVEMENT REMOVAL
- CONSTRUCTION EASEMENT
- WETLANDS
- HISTORIC PROPERTY
- 100–YEAR FLOODPLAIN
- UNDERGROUND STORAGE TANK

N

0 200 400

1 inch = 200 feet

Preliminary Roadway Design

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina

ARCADIS October 2013

FIGURE **5b**

KIM MILLER ROAD
SR 1304

64

END PROJECT
TIP NO. R–2409D

FLAT CREEK
VALLEY RD.
SR 1147

64

MATCH LINE
SEE FIGURE 5B

LEGEND

- PROPOSED IMPROVEMENTS TO US 64
- EXISTING RIGHT–OF–WAY
- STREAMS
- POTENTIAL BUSINESS RELOCATION
- POTENTIAL RESIDENCE RELOCATION
- POTENTIAL AREA OF IMPACT
- PAVEMENT REMOVAL
- CONSTRUCTION EASEMENT
- WETLANDS
- HISTORIC PROPERTY
- 100–YEAR FLOODPLAIN
- UNDERGROUND STORAGE TANK

N

0 200 400

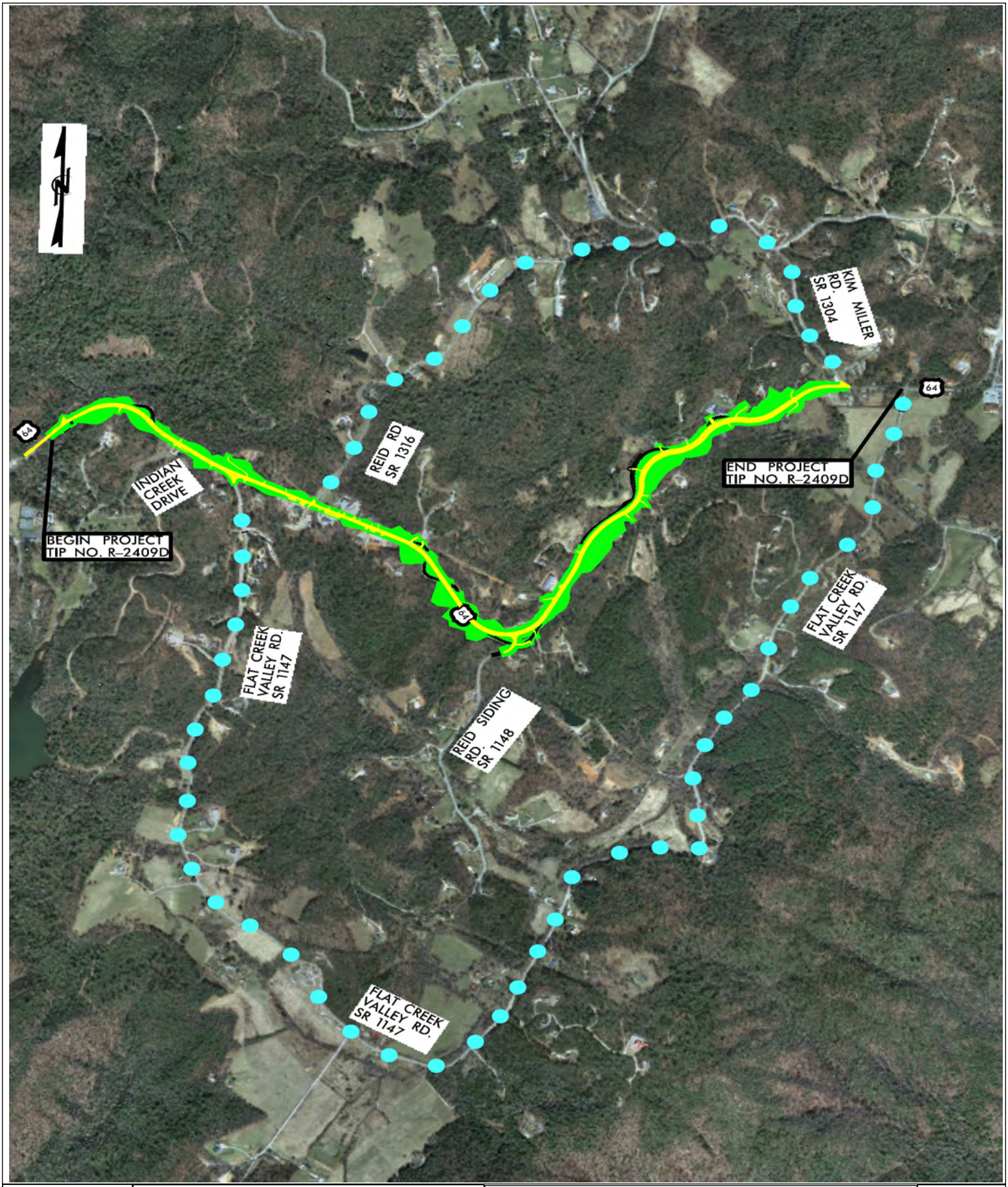
1 inch = 200 feet

Preliminary Roadway Design

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina

Source: ARCADIS October 2013

FIGURE
5c



N

0 1800 3600

1 inch = 1800 feet

Potential Detour Routes

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, North Carolina

FIGURE **6**

N

0 2.6 Miles

1 in = 2 miles

Demographic Study Area

STIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, NC

Sources: NCDOT, US Census 2010

October 2013

FIGURE
7

Path: G:\TRA\609005_NCDOT Division On Call 2009\609005.1401_Div 14_US 64\GIS\MXDs\CE\Figure 7_Demographic Study Area.mxd

Appendix A

Relocation Report

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS ELEMENT:	34428.1.1	COUNTY	Transylvania	Alternate 1 of 1 Alternate
T.I.P. NO.:	R-2409 D			
DESCRIPTION OF PROJECT:	US 64 Rosman Hwy From R-2409 C to SR 1147 Flat Creek Valley Road			

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	8	-	8	-
Businesses	1	-	1	-
Farms	-	-	-	-
Non-Profit	-	-	-	-

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
-	-	2	4	2

VALUE OF DWELLING

Owners		Tenants	
0-20M	-	$ 0-150	-
20-40M	-	150-250	-
40-70M	2	250-400	-
70-100M	3	400-600	-
100 UP	3	600 UP	-
TOTAL	8		-

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	-	$ 0-150	-
20-40M	-	150-250	-
40-70M	5+	250-400	-
70-100M	5+	400-600	-
100 UP	10+	600 UP	-
	20+		-

ANSWER ALL QUESTIONS

Yes	No		
			Explain all "YES" answers.
	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?
X		6.	Source for available housing (list).
	X	7.	Will additional housing programs be needed?
X		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?
X		11.	Is public housing available?
X		12.	Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13.	Will there be a problem of housing within financial means?
X		14.	Are suitable business sites available (list

REMARKS (Respond by Number)

3. Business services will still be available.

4. 1 Small business which employees 1-2 people, 0 minority.
Real Estate Sales Office for gated community. Right of way could Potentially move off this structure.
The preliminary plans-r/w show taking the parking of two Additional sites as well. One building is a two story, although Buildings are vacant at this time, could lead to 1-3 more Business relocates.

6. Transylvania County MLS, local papers

8. Last resort housing will be made available if necessary.

11. HUD

12. Plenty of available housing, Bill Nichols with REMAX Realty stated there were numerous houses and sites available in all price ranges. 828-743-6445

14. Transylvania County MLS and Board of Realtors

	source).			
	15. Number months estimated to complete RELOCATION?	24		

Frankie J Dills Jr.

9/17/13

Frankie J. Dills Jr. Right of Way Agent	Date	9-06-13	Relocation Coordinator	Date

FRM15-E

Note: The final Relocation Report is to be provided by NCDOT.

Appendix B

Historic Resources Coordination

HISTORIC ARCHITECTURAL RESOURCES SURVEY REPORT
Intensive Evaluation: Chapman House

US 64 from Indian Creek to SR 1147
Transylvania County
North Carolina Department of Transportation
TIP No. R-2409D
WBS No. 34428.1.1

Prepared for:
Human Environment Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, NC 27699-1583

Prepared by:
Acme Preservation Services, LLC
825C Merrimon Avenue, #345
Asheville, NC 28804
828-281-3852

June 2012

HISTORIC ARCHITECTURAL RESOURCES SURVEY REPORT
Intensive Evaluation: Chapman House

US 64 from Indian Creek to SR 1147
Transylvania County
North Carolina Department of Transportation
TIP No. R-2409D
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Asheville, NC 28804
828-281-3852

June 2012

Clay Griffith, Principal Investigator — Date
Acme Preservation Services, LLC

Mary Pope Furr, Supervisor — Date
Historic Architecture Section
North Carolina Department of Transportation

US 64 from Indian Creek to SR 1147, Transylvania County
North Carolina Department of Transportation
TIP No. R-2409D / WBS No. 34428.1.1

MANAGEMENT SUMMARY

The North Carolina Department of Transportation (NCDOT) proposes to improve US 64 from Indian Creek to SR 1147 (Flat Creek Valley Road) in Transylvania County. The improvements, which extend for approximately two miles, include widening existing lanes to 12 feet, adding climbing lanes, adding 6-9 foot shoulders, and alignments on new location. The Area of Potential Effect (APE) was delineated at to encompass the full extent US 64 within the project area and any proposed new alignments.

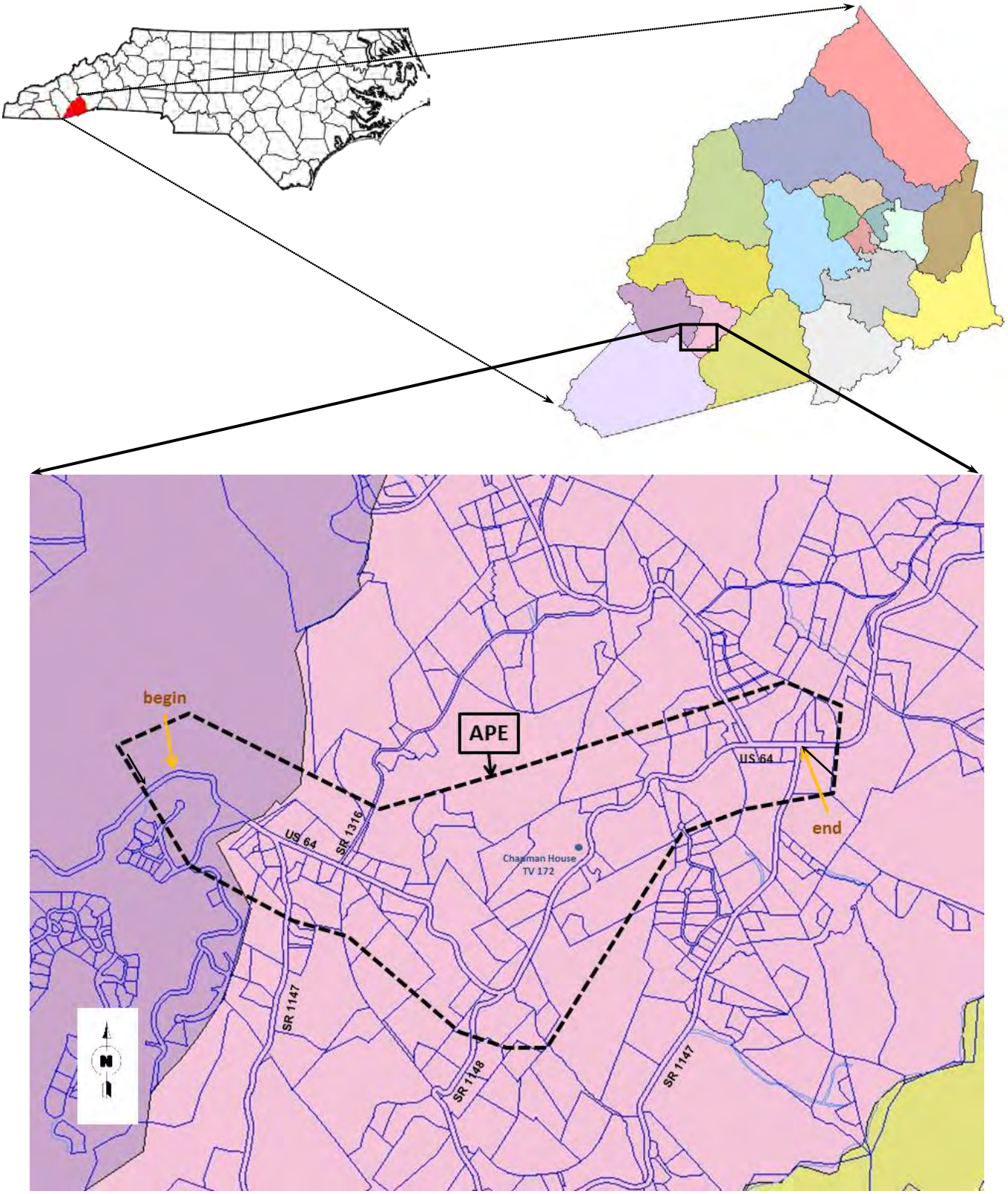
NCDOT contracted with Acme Preservation Services, LLC (APS) in February 2012 to complete reconnaissance-level historic architectural resources survey for the project and prepare a historic resources inventory for presentation to the North Carolina State Historic Preservation Office (HPO). APS conducted a survey of the APE on March 7, 2012, and recorded thirteen properties over fifty years of age within the APE. Representatives of NCDOT and HPO reviewed the findings of the survey at a meeting on March 20, 2012, and additional information was requested for one property, the Chapman House (TV 172) located at 12660 Rosman Highway.

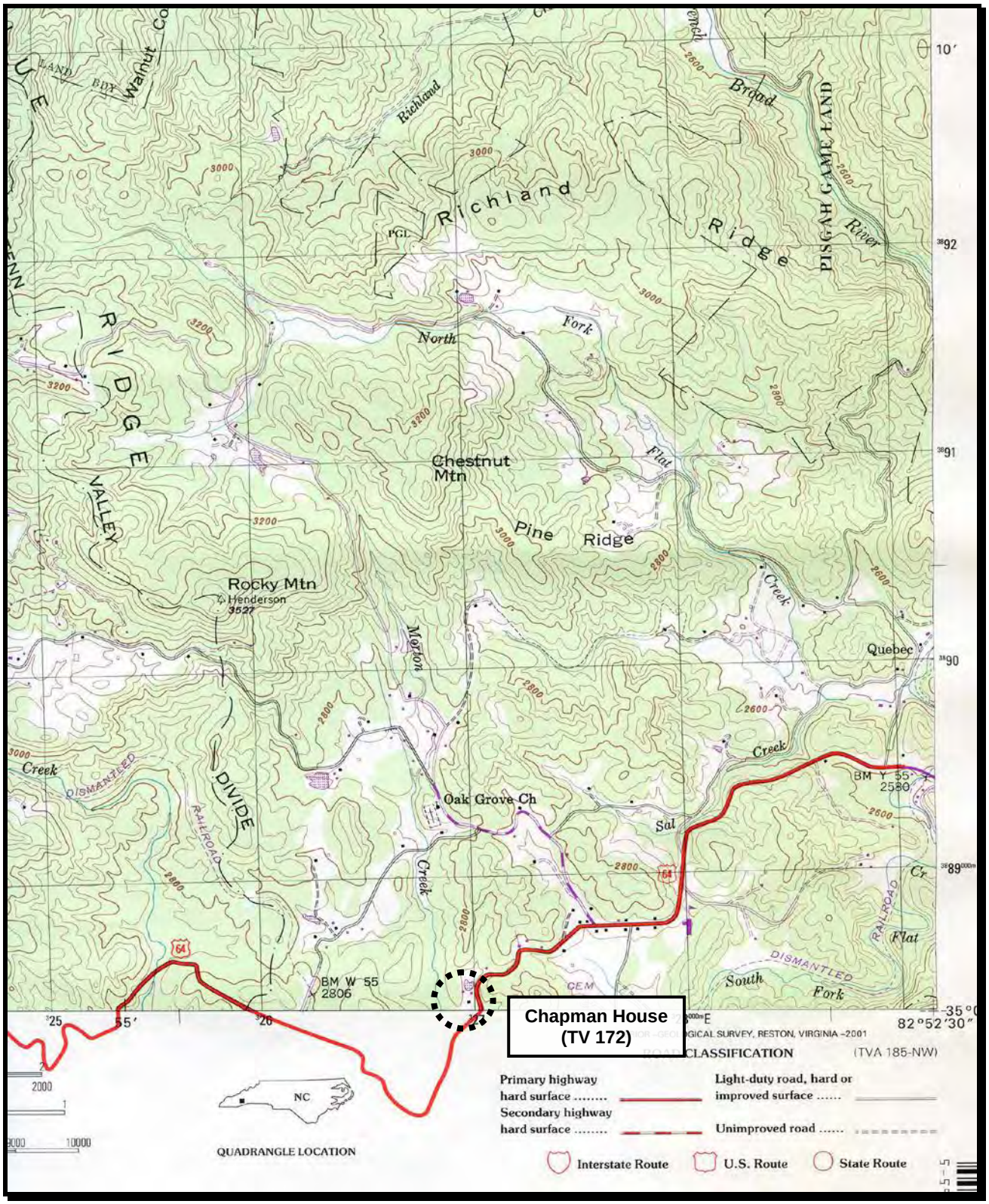
NCDOT subsequently contracted with APS in April 2012 to complete an intensive historic resources evaluation of the Chapman House. Architectural historian Clay Griffith conducted the fieldwork on May 13, 2012, photographing and mapping the property, and authored the report. Charles Chapman, resident of the house along with his mother, Lillian Chapman, the owner, spoke with the author and provided a considerable amount of history about his family and the property. Primary source investigation included research at the Transylvania County Courthouse, Transylvania County Public Library, and Pack Memorial Library in Asheville. The HPO's Transylvania County survey files at the Western Office of Archives and History in Asheville were searched to provide some architectural context.

APS conducted the survey and prepared this report in accordance with the provisions of the Federal Highway Administration (FHWA) Technical Advisory T 6640.8A (Guidance for Preparing and Processing Environmental and Section 4(f) Documents); the Secretary of the Interior's Standards and Guidelines for Archaeological and Historic Preservation (48 FR 44716); 36 CFR Part 60; 36 CFR Part 800; and the NCDOT document entitled *Historic Architectural Resources: Survey Procedures and Report Guidelines* (2003). This property evaluation meets the guidelines of NCDOT and the National Park Service.

TABLE OF CONTENTS

Project Location Map





Location Map – *Lake Toxaway, NC* USGS topographic quadrangle map (1997, revised 2001)

Chapman House (TV 172)

12660 Rosman Highway, Quebec vic., Transylvania County
PIN 8532-43-3327-000

Chapman House, oblique front view to northwest

Recorded by Deborah Thompson in 1991 for the Transylvania County Historic Architecture Survey, the Chapman House occupies a residual fifteen-acre tract on the west side of US 64 (Rosman Highway) that is mostly wooded. The house and associated outbuildings are generally located in a cleared, grassy area at a sharp curve in the road. A gravel driveway enters at the north end of the property and terminates in a gravel parking area with a modern taxidermy shop located on its north side. An unpaved driveway continues to the south from the parking area to the house. Norton Creek passes through the property, generally flowing in a north-to-south direction. A large garden plot is located in the eastern section of the property.

The one-and-a-half-story side-gable frame Chapman House was constructed of lumber sawn on a portable saw mill in the front pasture; the timber was cut on the Chapman's farm. The single-pile house is covered with wood shingles and capped by a standing-seam metal roof. A later alteration, the metal roofing replaced original wood shakes. The house features exposed rafter ends, a rebuilt exterior brick end chimney, gable-roof rear kitchen ell, and two-over-two double-hung sash windows. The windows on the southwest elevation have bracketed shed awnings. An attached hip-roof porch extends the full width of the three-bay façade. The peeled log posts and concrete block foundation replaced the original materials in the 1950s or early 1960s, after the original porch had deteriorated. The porch shelters a single-leaf central entrance with a glazed-

and-paneled multi-light door. A shed-roof L-shaped porch on the southwest side of the rear ell has been enclosed with wood paneling. A secondary entrance on the northeast elevation of the rear ell contains a single-leaf five-panel wood door. A gable-roof stoop present at the time of the previous survey has been removed and the entrance is accessed from an uncovered wood deck. A metal shed-roof lean-to on peeled log posts projects at the rear of the ell. The exterior brick chimney on the northeast elevation of the house was rebuilt by Gary Chapman, one the current owner's sons, in the 1970s. At the same time a brick end chimney on the rear elevation of the ell was dismantled.

The three-room first-floor interior is a hall-parlor plan with a kitchen in the ell. Two bedrooms are located in the upper half-story. The interior is plainly finished with beaded-board ceilings. Until 1975 the house was served by an outhouse, but a bathroom was added inside the house around this time.

The Chapman House was built by carpenters Tolvin Miller and Alfred Owen for Henry Plott and Ida Elizabeth Chapman around 1910. Henry Chapman (1882-1942), eldest son of James and Martha Chapman, purchased the property, consisting of thirty acres, from John and Sarah Reid on June 13, 1907. The Reids were the parents of Chapman's wife, Ida (1881-1949); Henry and Ida Chapman married in 1903. In the first decade of the twentieth century the families are listed in the census as living on the Rosman-Toxaway Road. Henry, who was one of eight children, still lived at home at the time of the 1900 census, but was recorded as the head of household with his wife and daughter Wilma in 1910. The next family entered in the 1910 census after Henry and Ida Chapman was Tolvin Miller, who is listed with his wife and two daughters. Miller was the son of Gideon and Mary Ann Miller, who also lived nearby and whose ca. 1900 log house (TV 163) was recorded during the 1991 county survey.

Henry Chapman worked as a maintenance man for Southern Railway, which passed approximately one-quarter mile to the southeast of the house on its route between Brevard and Lake Toxaway. In the first decades of the twentieth century, Southern ran at least two trains daily to the resort at Lake Toxaway. Trains continued to run regularly from Rosman to Lake Toxaway into the 1960s, but soon after operation ceased and the tracks were removed. Chapman and his wife also farmed. Tolvin Miller later worked as caretaker at the Toxaway Inn.

Following the deaths of Henry and Ida Chapman, their son, James Medford Chapman (1916-1986), acquired the family homeplace from his siblings, buying out their interests. James and his wife, Lillian (b. 1918), raised their ten children in the house. James Chapman logged and farmed for much of his career but also worked for Transylvania County Schools. In his early twenties he worked for the Ecusta Paper Company, which had opened a large plant in Pisgah Forest in 1938. The Chapman's owned approximately forty acres, raised cattle and hogs, and kept a large garden. Roughly half the acreage was sold off or transferred to several of their children. Lillian Chapman still owns the property and resides in the house. A bachelor son, Charles, also lives in the family home.

According to Charles Chapman, an open shed supported on log posts and capped by a metal roof is located in the woods to the southwest of the house. Visible on aerial tax maps of the property, the shed was not visible to the author during the fieldwork.

Chapman House, façade, view to northwest

Chapman House, southwest elevation, view to northeast

Chapman House, northeast elevation, view to southwest

Chapman House, overall view to northwest from US 64 (Rosman Highway)

View to southeast from the Chapman House porch across meadow toward US 64

View to west from Chapman House

View to east from driveway toward garden plot with US 64 in the distance

Chapman House outbuildings, view to north along driveway

US 64, view to north from driveway of 12561 Rosman Hwy.

US 64, view to southwest from driveway of 12561 Rosman Hwy.

Meat House, oblique view to northwest

Meat House, ca. 1910

A one-story, shed-roof frame building used for storing meat is located to the west of the rear ell of the house. The building is covered with vertical plank siding and capped by a standing-seam metal roof on exposed rafters. Two solid wood doors are positioned at either end of the façade. The bay at the north end of the meat house, which rests on a concrete block foundation, appears to have been added at a later date and is partially clad with plywood and metal sheathing.

Barn, oblique front view to northwest

Barn, ca. 1910

A small barn, built at the same time as the house, is located northeast of the house on a sloping site above the bankhouse. Resting on a stone foundation, the one-story front-gable frame barn is covered with vertical plank siding and capped with a standing-seam metal roof. An open passage runs along the north side of the structure. A shed-roof extension to the south is at a lower elevation and is enclosed on the side and rear with salvaged boards.

According to Charles Chapman the main barn stood on the east side of the present garden plot, near the west edge of US 64; it was torn down in the second half of the twentieth century. The small barn was later used as a woodshed, for storage, and as an apple house. Before the bankhouse was constructed, the family dug out a hole at the rear of the barn, which they lined with hay and used to store apples.

Bankhouse, oblique front view to north

Bankhouse, ca. 1975

James and Lillian Chapman built the bankhouse around 1975 to keep canned goods and other food. Built into the hillside below the small barn, the one-story one-room structure is constructed of concrete block with a metal-clad front-gable roof. A single-leaf two-panel wood door centered on the façade provides access to the interior. The gable end is covered with wide, flush boards. A small, screened vent is cut into the gable end.

As noted by Deborah Thompson during the county survey, bankhouses were one of the most common agricultural building types found in the Transylvania County. The masonry structures were dug into a hillside or bank and were used for dry food storage. Apples, root vegetables, and canned goods were typically stored in a bankhouse, which utilized the temperature of the ground to keep items cool. Many bankhouses in Transylvania County included a second story that served as a smokehouse for curing meat.

Shed, front view to north

Storage Shed, ca. 1980

This one-story storage shed was constructed around 1980 from salvaged materials. It stands on the east side of the unpaved driveway across from the barn and bankhouse. Built on a frame of small logs, the shed is covered with metal siding and capped by a shed roof. One panel of metal sheathing serves as a single-leaf door to the interior. The metal sheathing came from a family member's business in Jackson County that closed. The salvaged material was used to construct the shed and for roofing on other buildings on the property.

Well House, oblique view to southeast

Well House, ca. 1975

A low, square-plan well house constructed of concrete block is located on the east side of the driveway to the northeast of the house. The simple structure is capped by a metal-clad shed roof. A square wood door provides access to the interior.

Shed, oblique side view to the northeast

Shed, ca. 1995

This one-story open frame shed is located at the head of the driveway, on the south side of the taxidermy shop's parking area. The structure is supported on unpeeled log posts with haphazardly-placed diagonal braces. The standing-seam metal roof is carried on exposed rafters.

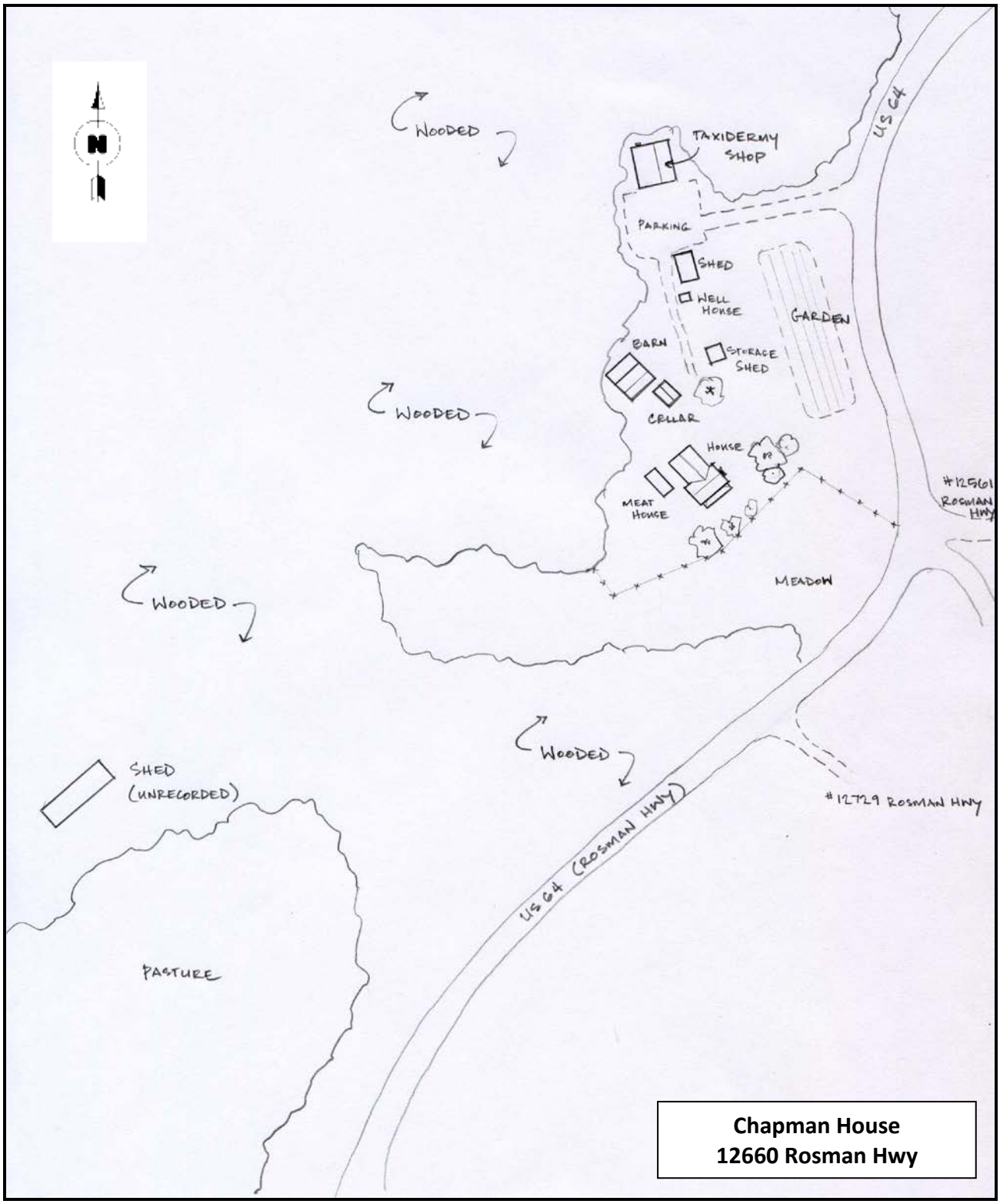
During the 1991 survey a small, single-pen cabin of saddle-notched logs stood in this general location, but it has been demolished. The cabin was built in the 1950s by James Chapman as a playhouse. As shown in the survey photographs, the playhouse had attached shed extensions on either side of the log structure. It seems likely that the present shed is one of the surviving extensions or constructed of materials salvaged from the shed extensions.

Taxidermy Shop, view to north

Taxidermy Shop, ca. 1990

On the north side of a gravel parking area at the north end of the property, a one-story frame taxidermy shop was erected in the late 1980s. The front-gable building with a side shed extension is clad with board-and-batten siding and is capped by a metal roof. A concrete block chimney rises against the rear (north) wall of the building. A concrete entrance stoop under a deep overhanging eave is located at the southwest corner of the building, which is entered through a single-leaf door on the west elevation.

Gary Chapman, one of James and Lillian Chapman's sons, built the taxidermy shop and operates the business. Gary Chapman and his wife live in a modern house on an adjacent parcel to the south of his parents' homeplace.



Site plan (not to scale)

Historical Background

The historic contexts for the Chapman House and similar rural domestic properties in Transylvania County are established and presented in the Multiple Property Documentation Form (MPDF) entitled *Historic and Architectural Resources of Transylvania County, North Carolina, including the incorporated towns of Brevard and Rosman, ca. 1820-1941* (NR, 1993). The Multiple Property Documentation Form addresses the early settlement and formation of Transylvania County in the nineteenth century and the periods of economic growth and prosperity that influenced development throughout the county in the twentieth century. The county seat of Brevard remained a small village until the arrival of the Hendersonville and Brevard Railroad in 1895, which opened the county's abundant forest resources to increased tourism, recreation, and industrialism.[1]

Transylvania County was formed in 1861 from portions of Henderson and Jackson counties, and Brevard, the county seat, was laid out on fifty acres of land given by Alexander English, Leander Gash, and B. C. Lankford. As the county seat, Brevard emerged as the center of government and commerce in the late nineteenth century, but trading and industry existed primarily at the local level. Agriculture, too, remained largely at the subsistence level. Inadequate transportation hindered the county's growth in the years between its formation and the completion of the railroad to Brevard in 1895. The railroad provided access to new commercial markets, population growth, and popular architectural styles.[2]

Northern entrepreneurs such as J. F. Hayes and Joseph Silversteen brought new capital into the region that directly influenced development and initiated the first of three distinct periods of growth in the county during the twentieth century. Hayes, a Pennsylvania industrialist and entrepreneur who had come to the area in 1890 for his health, purchased the bankrupt Hendersonville and Brevard Railroad in 1898, reorganized the company, and immediately began planning to extend the line ten miles to Rosman. In 1895 Hayes helped form the Toxaway Company with the purpose of building fine resorts in Transylvania and Jackson counties. The Toxaway Company erected the Fairfield Inn on Lake Fairfield, Sapphire Valley Inn on Lake Sapphire, and the Franklin Hotel in Brevard—all lavish, modern hotels. The company, however, needed rail service in order to transport guests to their remote hotels.[3]

After completing the railroad extension to Rosman in 1900, the Toxaway Company entered into an agreement with the Southern Railway that allowed the railroad company to assume all

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[1] Deborah J. Thompson and Davyd Foard Hood, *Historic and Architectural Resources of Transylvania County, North Carolina, including the incorporated towns of Brevard and Rosman, ca. 1820-1941* (Multiple Property Documentation Form, National Register of Historic Places, 1993), E-20-23.

[2] Transylvania County Heritage Book Committee, *Transylvania County Heritage, North Carolina, 1995*, 3rd printing (Brevard, NC: Don Mills, Inc. and the Transylvania County Heritage Book Committee, 2003), 1 and 105. Laura A. W. Phillips and Deborah Thompson, *Transylvania: The Architectural History of a Mountain County* (Brevard, NC: The Transylvania County Joint Historic Preservation Commission, 1998), 17-22.

[3] Phillips and Thompson, 31-38.

passenger and freight service from Hayes' Transylvania Railway Company. In return the Toxaway Company agreed to construct at the terminus of the tracks a lake with no less than fifteen miles of shoreline and a lakeside hotel costing at least $50,000. In accordance with their agreement the rail line was completed to Toxaway in 1903 and a modern 490-room hotel was erected on the shores of an artificial lake created by a 485-foot earthen dam across the Toxaway River.[4]

Joseph Silversteen, a fellow Pennsylvanian, came to the area in 1902 and soon became one of the county's wealthiest and most influential individuals. He established the Toxaway Tanning Company, Gloucester Lumber Company, and the Rosman Tanning Extract Company and purchased over 20,000 acres of forest land from Asheville resident George Vanderbilt to supply the raw materials for his industries. Vanderbilt's extensive land holdings in the county encompassed vast amounts of forested mountains, and through his efforts the influential Biltmore School of Forestry was established in 1898 under the direction of German forester Carl A. Schenck. The development of scenic mountain resorts, progressive forest conservation practices, and substantial timber and tanning industries attracted new residents and visitors to the area. Tying up vast acres of forests for conservation or timbering, however, meant that the county's small farmers were generally relegated to smaller farms located in the river and creek valleys.[5]

During the early twentieth century, the Transylvania County's reputation among tourists and summer visitors began to spread. Brevard's population climbed from approximately 500 residents at the turn of the century to more than 1,600 by 1920. In addition to its year-round population, Brevard's population swelled during the summer with tourists and seasonal residents, which were accommodated by a number of hotels, boarding houses, and resorts. The Toxaway Inn alone could accommodate 500 guests. New attractions and accommodations emerged after World War I with the establishment of the Pisgah National Forest, youth summer camps, and tourist cabins. Beginning in the 1910s, Transylvania County became the center of youth summer camps in western North Carolina.[6]

The promising future of the Toxaway resort came to an abrupt end in 1916 when severe flooding brought on by convergent storm systems caused the dam to give way, leaving only a narrow channel in place of the mountain lake. Fortunately the area below the dam was relatively uninhabited and no human life was lost to the torrent of water released downstream. Following the disaster, guests fled the lake-less resort. An Asheville newspaper article neatly summarized the situation, "With the chief attraction gone, there is little left to detain the visitors."[7]

During the Depression, federal relief agencies stepped in to provide additional jobs and public improvement projects that benefitted the county as a whole, including the extensive Brevard College Stone Fence and Gate (NR, 1993), post office, country club, and numerous

[4] Alyse Parker, "The Development of Tourism in the Beautiful Sapphire Country: A History of the Toxaway Inn, 1903-1947" (Senior thesis, University of North Carolina at Asheville, 2007), 9-12.

[5] Phillips and Thompson, 39-45.

[6] Ibid., 68-73. Sybil Bowers, "Main Street Historic District" National Register Nomination, 2002, Survey and Planning Branch, Historic Preservation Section, North Carolina Department of Cultural Resources, Raleigh.

[7] "Big Toxaway Dam to be Rebuilt is Belief," *Asheville Citizen-Times* (August 17, 1916).

improvements in Pisgah National Forest. Of the various federal programs the Civilian Conservation Corps (CCC), which put young men to work rehabilitating the nation's ravaged agricultural and forest lands, had the biggest impact in Transylvania County. With roughly one-third of the county designated as national forest, the CCC provided jobs to numerous local men on a variety of improvement and infrastructure projects of lasting value. Construction of the Blue Ridge Parkway became one of the most important federally-sponsored projects begun in the 1930s, and since its completion, the scenic road has drawn countless numbers of visitors and vacationers to the area.[8]

A second period of definable growth began in 1938 when Harry Straus, a salesman and inventor from New York, announced plans to build a paper mill on the Davidson River in the community of Pisgah Forest, east of Brevard. Construction of the Ecusta Paper Mill effectively signaled the end of the Depression in Brevard and Transylvania County. Straus developed a new process for producing cigarette paper that significantly aided the tobacco industry and brought some diversity to the local economy. The plant opened with 900 employees but grew to 3,000 employees by 1947. In 1949, Olin Industries purchased the Ecusta company and erected a cellophane plant adjacent to the paper mill. The Ecusta plant provided much needed jobs in the late 1930s and 1940s. [9]

Following World War II the increase in manufacturing jobs corresponded with a decline in the number of farms. In addition to the Ecusta plant, several textile operations opened in the post-war period, along with the DuPont Company's new silicon plant near Cedar Mountain and the NASA satellite tracking station in Balsam Grove. Accordingly the number of manufacturing and high-paying skilled-labor jobs in Transylvania County more than doubled between 1940 and 1960. Post-war prosperity also resulted in the construction of a new county high school, rural community hospital, and several medical clinics. Citizens Telephone Company enlarged its operations, and US Highway 64 between Hendersonville and Brevard was relocated and improved. Brevard College spent more than one million dollars during the 1950s on new facilities to serve its growing student body and faculty. Of course, the summers brought throngs of vacationers and seasonal residents, families bringing their children to summer camp, or students and concert-goers attending the Brevard Music Center, which was organized in the late 1940s. During the 1950s three new motels were built and two existing inns were renovated and enlarged.[10]

Toxaway Inn, which had survived the 1916 flood, continued to stand until 1947, when it was demolished. In 1960, workers began rebuilding the dam. The Lake Toxaway Company acquired more than 9,000 surrounding acres with plans to refill the lake, develop a new resort, construct an 18-hole golf course, and subdivide lots for new residential development. The lake and dam were completed in 1961[11]

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[8] Phillips and Thompson, 73-77.

[9] Ibid., 117-119.

[10] Bill Sharpe, A *New Geography of North Carolina*, Vol. IV (Raleigh, NC: Sharpe Publishing Company, Inc., 1961), 2102. *Transylvania County Centennial, 1861-1961*, Historic Souvenir Program (North Carolina Collection, Transylvania County Public Library, Brevard), n.p. Phillips and Thompson, 87-90.

[11] Jan C. Plemmons, *Ticket To Toxaway* (Fernandina Beach, FL: published by author, 2004), 144-148.

In the later part of the twentieth century many of the manufacturing jobs have been lost, but the local economy still relies heavily on tourism, cultural activities, outdoor recreation, and forest resources. A third period of substantial growth began in the late-twentieth century with a marked an increase in resort developments and golf course communities. New developments at Lake Toxaway, Connestee Falls, Glen Cannon, and Sherwood Forest have helped to attract numerous second-home owners and retirees to the area. The last two decades of the twentieth century brought an influx of retirees to Brevard, which frequently ranks among the top retirement areas in the southeast.

Architecture Context

Architectural historian Deborah Thompson conducted a comprehensive survey of historic architectural resources in Transylvania County between September 1990 and September 1991, with the objective of identifying and recording properties over fifty years of age that possessed some degree of architectural and historic integrity. Ms. Thompson's survey recorded more than 500 properties, containing approximately 735 buildings or structures. Roughly 385 of the recorded buildings and structures are located outside the incorporated towns of Brevard and Rosman. She presented the findings of the survey in a multiple property documentation form (MPDF) entitled "Historic and Architectural Resources of Transylvania County, North Carolina, ca. 1820-1941" (NR, 1993). The survey results were subsequently published in *Transylvania: The Architectural History of a Mountain County* (1998). Thompson recorded the Chapman House (TV 172) in February 1991 and interviewed the owner, Lillian Chapman.

Based on her survey, Thompson recommended a number of properties for the Study List and more than fifty properties were approved based on their apparent eligibility for the National Register. The Chapman House was not included in the properties approved for the Study List. The MPDF outlines registration requirements for vernacular houses at the turn of the twentieth century, including integrity of form, materials, and associated outbuildings from the period of construction. Presumably the Chapman House was not included among the Study List properties due to the loss of original outbuildings. The Chapman House, however, retains vestiges of its rural setting and agricultural function and, in accordance with the registration requirements of the MPDF, alterations to the house are generally more than fifty years of age and unobtrusive.

At present there are twenty-one properties listed in the National Register including two historic districts and one boundary expansion. The vast majority of listed properties are located in or around Brevard. Only two listed properties are located in the Lake Toxaway vicinity. The listed sites are the 1912 Lake Toxaway Methodist Church (TV 167) and Hillmont (TV 8), a large two-story frame house built for Lucy Camp Armstrong on the shores of Lake Toxaway in 1915. Her house was one of only four not vacated after the dam broke in 1916 and the lake dried up. It presently serves as the Greystone Inn, a small luxury hotel on Lake Toxaway.

In addition to the MPDF and survey publication, the principal investigator searched the survey files at the Western Office of the Office of Archives and History in Asheville to establish

some context for evaluating the Chapman House. Comparable properties were identified from the survey files based on their general age, style, and location in the southwestern sections of the county—Hogback, Gloucester, Estatoe, and Catheys Creek townships. The principal investigator undertook a cursory windshield survey to check on the survival and present condition of several previously recorded properties, as well as attempt to establish an idea about the presence of any other comparable, unrecorded historic properties. The windshield survey yielded little additional information since the majority of historic resources noted while driving through the area were previously recorded properties. Reviewing the survey files revealed that a good number of previously recorded and comparable properties had modern exterior materials, substantial alterations, or additions less than fifty years of age that compromised their integrity. Demolition of resources and the loss of outbuildings was checked either in the field or using aerial GIS mapping.

As described in the MPDF, vernacular dwellings from the period 1895-1916 were abundant throughout the county. Vernacular dwellings accounted for more than half of the 200 properties from the period 1895-1916 recorded by Ms. Thompson during the 1991 county survey and of this number approximately three-quarters are located outside of the towns of Brevard and Rosman. These vernacular resources are defined as typically simple frame dwellings with minimal decoration and a standard I-house plan (i.e. three-bay, single-pile). Small rural houses from this period are representative of the predominantly agricultural lifestyle and are important as continuations of the farming and folk traditions. The MPDF states that the rural vernacular houses are most significant as part of a farmstead.[12]

The Chapman House is a good, intact example of a one-story frame house with a traditional form and habitable attic. The house utilizes a common form that gained popularity during the late nineteenth century with the increased availability of factory-produced lumber and millwork. The basic three-bay, one-room-deep form was constructed throughout North Carolina in either one- or two-story variants and typically included a kitchen ell at the rear. Builders then added as much or as little decoration as taste and budget would allow. As noted in the MPDF, rural dwellings in Transylvania County typically displayed minimal decoration or embellishment, despite the increasing influence of late Victorian and Craftsman-style houses in and around Brevard.[13]

Searches of the county survey files produced a number of recorded properties for comparison purposes although few examples closely matched the Chapman House in terms its integrity of design, setting, feeling, and association. Many of the one- or one-and-a-half-story, side-gable dwellings recorded during the survey were constructed of log, either entirely or partially, or were built in the late 1800s. The Reece House (TV 498), located on Old Quebec Road approximately one mile northeast of the Chapman House, is a one-and-a-half-story, side-gable frame dwelling that was built in 1891. Resting on a stone pier foundation and covered with weatherboards, the house occupies a 45-acre tract and is set well back from the road so that it is not visible in passing. The Reece House is fairly typical of rural vernacular frame houses from the pre-railroad period in Transylvania County, and its similarity to the Chapman House demonstrates

[12] Thompson and Hood, F-47, F-49-51.

[13] Ibid., F-47-49. Catherine W. Bishir, *North Carolina Architecture* (Chapel Hill, NC: University of North Carolina Press, 1990), 287-295.

the persistence of local building traditions through the late-nineteenth and early twentieth centuries.

Reece House (TV 498), N side of Old Quebec Road (SR 1318) [PIN 8532-67-5451-000], view to north (September 1991)

Two recorded houses located near the Chapman House and in the general vicinity of the proposed improvements to US 64 are no longer standing. The one-story Willy Reid House (TV 138), built in 1901 and partially unfinished on the interior, stood on the east side of Flat Creek Valley Road (SR 1147) featured board-and-batten siding, standing-seam metal roof, rear ell, attached hip-roof porches, and a fieldstone chimney. The house, badly deteriorated at the time of the county survey, was located roughly three-quarters of a mile south of the Chapman House. The Thomas-Whitmire House (TV 136) was located on the west side of Flat Creek Valley Road (SR 1147) and consisted of the one-and-a-half-story, side-gable, center-hall plan house and a number of related outbuildings. The wooded site is now cleared of standing structures.

Another nearby property, the John and Mamie Reid House, is located approximately two miles northeast of the Chapman House and occupies a wooded knoll to the west of the intersection of Old Quebec Road (SR 1318) and Homer McCall Road (SR 1319). Built around 1920, the one-and-a-half-story, side-gable frame dwelling is two-rooms deep and displays the influence of the Craftsman style with wood shingle gable ends over weatherboarded walls, exposed rafter tails, and triangular eave brackets.

John & Mamie Reid House (TV 500), N side of Old Quebec Road (SR 1318) [PIN 8532-98-5059-000], view to northeast (September 1991)

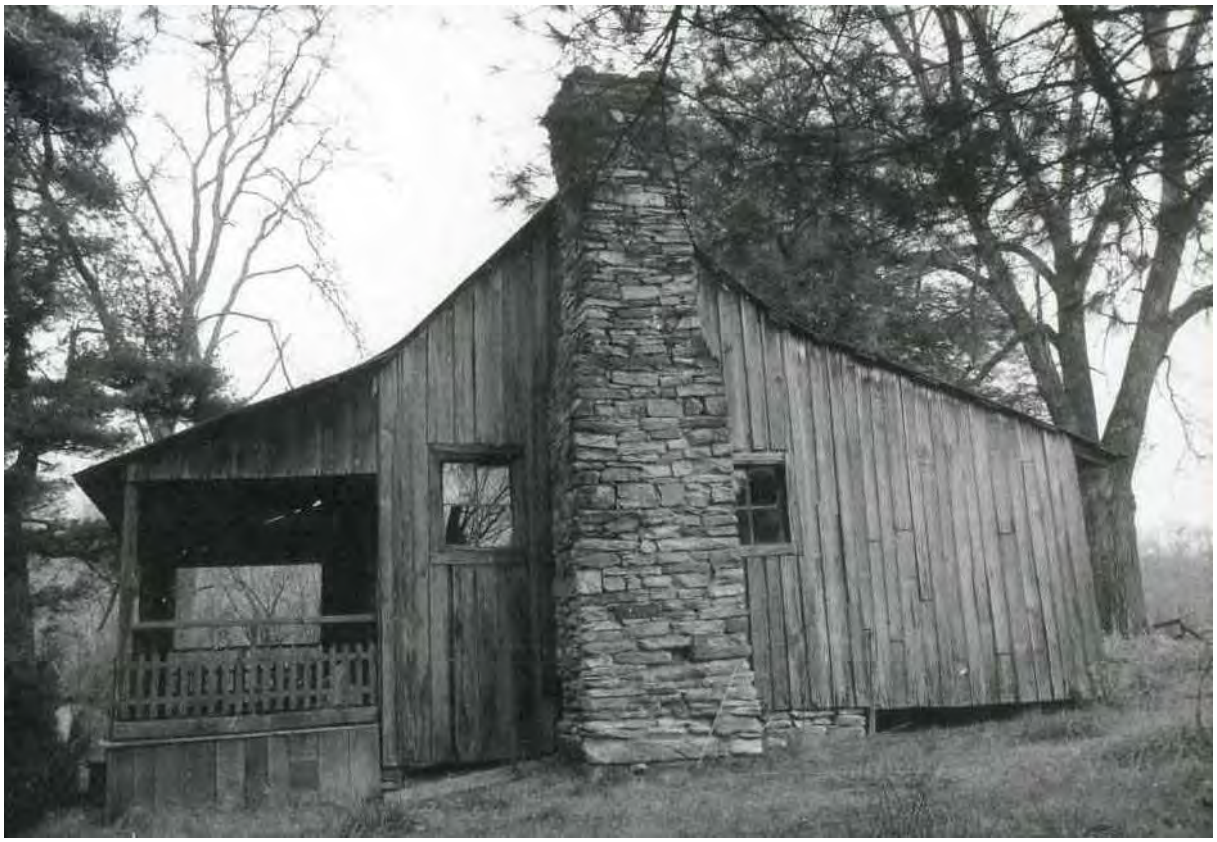
Among the properties approved for the Study List at the end of the county survey, a couple of examples are comparable to some degree with the Chapman House. The Jason McCall Farm (TV 161) is one of the largest surviving early twentieth-century farm complexes in the southwest section of the county. The 40-acre property is located on Golden Road (SR 1313) approximately three miles north of the Chapman House. Situated near the top of a ridge and overlooking an expansive pasture, the farm is imposing in its siting and scale. Beginning around 1924, McCall started worked on the farmstead, which includes a one-and-a-half-story, double-pile frame house and an assortment of large, well-detailed log and frame agricultural buildings. The farmhouse, which was photographed during the 1991 survey with rolled asphalt siding, is now covered with board-and-batten siding. Among the outbuildings are a log barn, large corn crib, chicken house, stone bankhouse, and a frame barn. The farm, which was placed on the Study List in 1992, does not appear to be occupied at the present time, but the buildings appear to be maintained.

Jason McCall Farm (TV 161), May 2012, view to southwest

Jason McCall Farm (TV 161), Golden Road (SR 1313) [PIN 8533-71-1024-000], farm house (February 1991), view to northwest

Jason McCall Farm (TV 161), farm house (May 2012), view to northwest

The Lance-Raines Cabin (TV 69) in East Fork township is thought to have been built in the mid-1880s, although Joe Lance did not purchase the one-story, side-gable frame house until 1917. The house is notable for its box or plank construction with minimal framing, board-and-batten siding, and unfinished interior. The house features a shed-roof front porch, shed extension at the rear, four-light windows, and an exterior fieldstone chimney. The Raines brothers acquired the house in the 1940s and erected the outbuildings. Now used as part of a Girl Scout camp, the house was placed on the Study List in 1992.



Lance-Raines House (TV 69), 570 Girl Scout Camp Road [PIN 8573-11-0005-000], view to north (November 1990)

Located in a remote section of the county on the north side of Tanasee Gap Road (SR 1324), the ca. 1920 Burton and Roxie McCall House (TV 141) near Gloucester was constructed by Rev. Dillard Owen. Like many men in the northern part of the county, McCall was a farmer and a logger. The one-and-a-half-story, side-gable frame dwelling rests on a foundation of stone piers and is covered with German siding. An attached hip-roof porch wraps around two sides of the house and is supported on peeled log posts. The house is clad with board-and-batten siding above the porch roof. According to the survey file, the house consists of only one interior room and the board-and-batten shed-roof rear addition was built in the 1980s. A two-story, front-gable bankhouse constructed of stone and frame stands near the house. Two stone-lined spring boxes are located in the woods beyond the bankhouse.

Burton & Roxie McCall House (TV 141), N side of Tanasee Gap Road (SR 1324) [PIN 8525-89-4546-000], view to northwest (February 1991)

Originally begun around the turn of the twentieth century, the Bryson Farm (TV 123) to the southwest of Lake Toxaway near the Jackson County line was acquired in the 1920s by the Brysons, who subsequently altered the one-story, side-gable frame house. It is covered with rolled asphalt siding and capped by a standing-seam metal roof. The house exhibits enclosed shed extensions on the front and rear, an inset porch, six-over-six sash, and an exterior fieldstone chimney.

The Brysons added the stone-and-frame bankhouse and frame corn crib to the property. The two-story bankhouse, which was deteriorated at the time of the county survey, is stone on the first story and weatherboarded on the second. The long, one-story, front-gable corn crib is finished with latticed diagonal wood slats on the main walls and horizontal slats in the gable ends. The overhanging roof on the narrow front and rear elevations are supported by triangular brackets. A shed extension covered with vertical plank siding projects to the side.

Bryson Farm (TV123), W side of Rainey Knobs Road (SR 1154) [PIN 8501-54-3280-000], view to south (January 1991)

Located in Cherryfield, the Rufe Owen House (TV 89) was built around 1912 as a one-story, side-gable dwelling with a habitable attic. Original weatherboards were covered with vinyl siding in the late 1980s. According to a neighbor, Owen built numerous additions to the house as his family grew and then tore them off as his children moved out.

Rufe Owen House (TV 89), 310 Passmore Road [PIN 8563-29-8880-000], view to northwest (October 1990)

Jordan & Corrine Whitmire Rental House (TV 56), W side of Pickens Hwy (US 178) [PIN 8552-77-3179-000], view to northwest (November 1990)

Jordan & Corrine Whitmire Rental House (TV 56), May 2012

The Jordan and Corrine Whitmire Rental House is located on the west side of US 178 southwest of the town of Rosman. It is a one-story, side-gable frame house built around 1910. The house exhibits weatherboard siding, standing-seam metal roof, attached hip-roof porch, two-over-two double-hung sash windows, and two single-leaf entrances on the façade. The unoccupied house remains standing but has become somewhat deteriorated. The collection of outbuildings that stood across the driveway to the south have been demolished.

O.L. Erwin House (TV 73), 1054 Catheys Creek Church Road [PIN 8563-14-7031-000], view to east (May 2012)

Built in the 1890s, the O. L. Erwin House (TV 73) is a tall, one-and-a-half-story, side-gable frame house with a long gable-roof rear ell. Located in Calvert, east of Rosman, the house has been altered with asbestos shingle siding, replacement porch elements, and multiple rear additions.

A small cluster of dwellings built in the early twentieth century were recorded during the county survey in the community of Balsam Grove. Located along winding NC Highway 215 and surrounded by Pisgah National Forest, Balsam Grove remained fairly isolated until the second half of the twentieth century, although it remains relatively undeveloped. Modern development, however, has diminished some of its unspoiled charm. The Rufus and Elvira McCall House (TV 10) on the west side of Shoal Creek Road (SR 1327) in Balsam Grove was built in 1901. The façade of this tall, one-and-a-half-story, side-gable frame house displays more embellishment than other similar examples, including carved rafter ends, sawtooth porch skirt, and sidelights that frame the entry. It has been altered, however, with the addition of asbestos shingle siding. The setting has also been compromised with the construction of two large, modern houses on either side of the historic resource.

Rufus & Elvira McCall House (TV 10), W side of Shoal Creek Road (SR 1327) [PIN 8546-75-7216-000], view to southwest (November 1990)

The Elzie and Sonora McCall House (TV 12) in Balsam Grove is a fairly typical small farmhouse found in Transylvania County. The one-story, side-gable frame dwelling is covered with weatherboards and features an attached hip-roof porch, metal-clad roof, shed extension at the rear and four-over-four windows. The exterior chimney consists of a rebuilt concrete block flue on a fieldstone base. The continued existence of the house, however, could not be confirmed.

Elzie & Sonora McCall House (TV 12), E side of Brucene Drive [PIN 8546-71-7059-000], view to north (October 1990)

Robby McCall House (TV 19), Old CCC Camp Road (SR 1377) [PIN 8546-33-0190-000], view to west (November 1990)

Robby McCall, who worked for both Vanderbilt's and Silversteen's logging operation, built this modest one-story frame house near Balsam Grove on the North Fork of the French Broad River around 1900. The side-gable dwelling is similar to several other houses in Balsam Grove and features a four-bay façade, weatherboards, interior brick chimney, exterior concrete block flue, and two-over-two double-hung sash. The attached shed roof porch is partially enclosed at one end and some of the original chamfered wood posts have been replaced with log supports. McCall's son built the one-bay side wing and added the shed-roof rear addition, which are covered with board-and-batten and flush vertical board siding.

The Robby McCall House includes an unusual assortment of outbuildings that have been added to the property over time. The front-gable frame corn crib was probably built around the same time as the house but has been moved. McCall's grandson, Newland, who owned the house at the time of the 1991 survey, reported that he had built the concrete block springhouse and a frame woodshed.

Talmadge & Ida Chastain House (TV 9), 1591 Shoal Creek Road (SR 1327) [PIN 8546-86-8709-000], view to south (October 1990)

The Talmadge and Ida Chastain House (TV 9), built in 1924, has been altered with the addition of aluminum siding over weatherboards. The one-and-a-half-story, side-gable house has a tin-shingle roof, hip-roof porch carried on square wood posts, two-over-two double-hung sash, and a rebuilt concrete block chimney flue. The Chastain's were one of two families that obtained a concrete and steel dynamite storage structure from the Civilian Conservation Corps camp in Gloucester and relocated the building to their property for use as a bankhouse.

The Clarence and Ella Greene House (TV 116) stands on the east side of NC 215 a short distance south of Balsam Grove. The one-story, side-gable frame house has an attached, partially-enclosed, shed-roof porch. Built in the 1920s, the house is covered with rolled asphalt siding and has a rebuilt exterior brick chimney on a fieldstone base. The enclosed room at one end of the porch served as the post office in the 1930s and 1940s. Since it was recorded for the 1991 survey a manufactured house has been erected directly adjacent to the older structure and the associated outbuildings—a barn and chicken house—appear to have been demolished. As Transylvania County has become a popular retirement and recreation area in the late twentieth century, the loss of outbuildings and construction of modern homes in close proximity to the historic resources is an unfortunate, but not uncommon occurrence in the rural sections of the county.

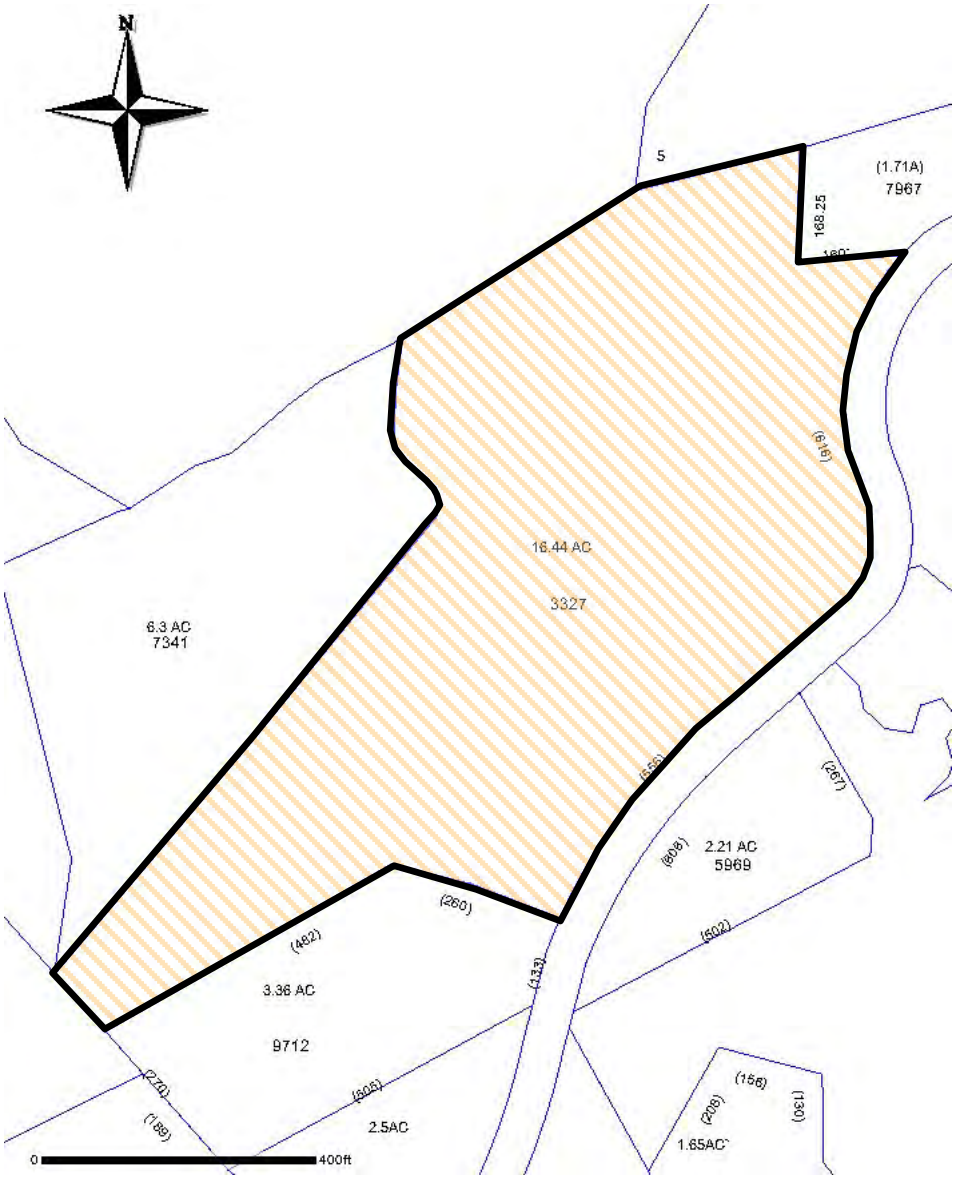
Evaluation

The Chapman House is eligible for National Register listing under Criterion C for architecture as representative and intact examples of a rural vernacular dwelling in Transylvania County. The house represents the common one-story, side-gable form with a habitable attic and rear kitchen ell. The Chapman House retains a good degree of integrity with its wood shingle siding, attached hip-roof porch, and two-over-two double-hung sash. Principal alterations to the house, including new porch posts and foundation and replacement metal roofing, were completed approximately fifty years ago. The rebuilding of the brick end chimney, removal of the rear chimney, addition of an indoor bathroom, and construction of the side deck do not substantially detract from the overall integrity of the property. Similarly the oldest surviving outbuildings of the Chapman House retain a high degree of integrity, while the newer outbuildings do not significantly detract from the overall character of the site. The integrity of the Chapman House's setting contributes to the significance of the property, which remains heavily wooded with cleared pastures and a garden plot interspersed around the house. Unlike many of the surrounding properties, the Chapman House site has not been altered with modern landscape features or intrusive outbuildings, which helps to strongly convey the historic conditions that influenced its development and use as a small mountain farm. The property's relatively high degree of historic integrity distinguishes it from other comparable examples found in the area.

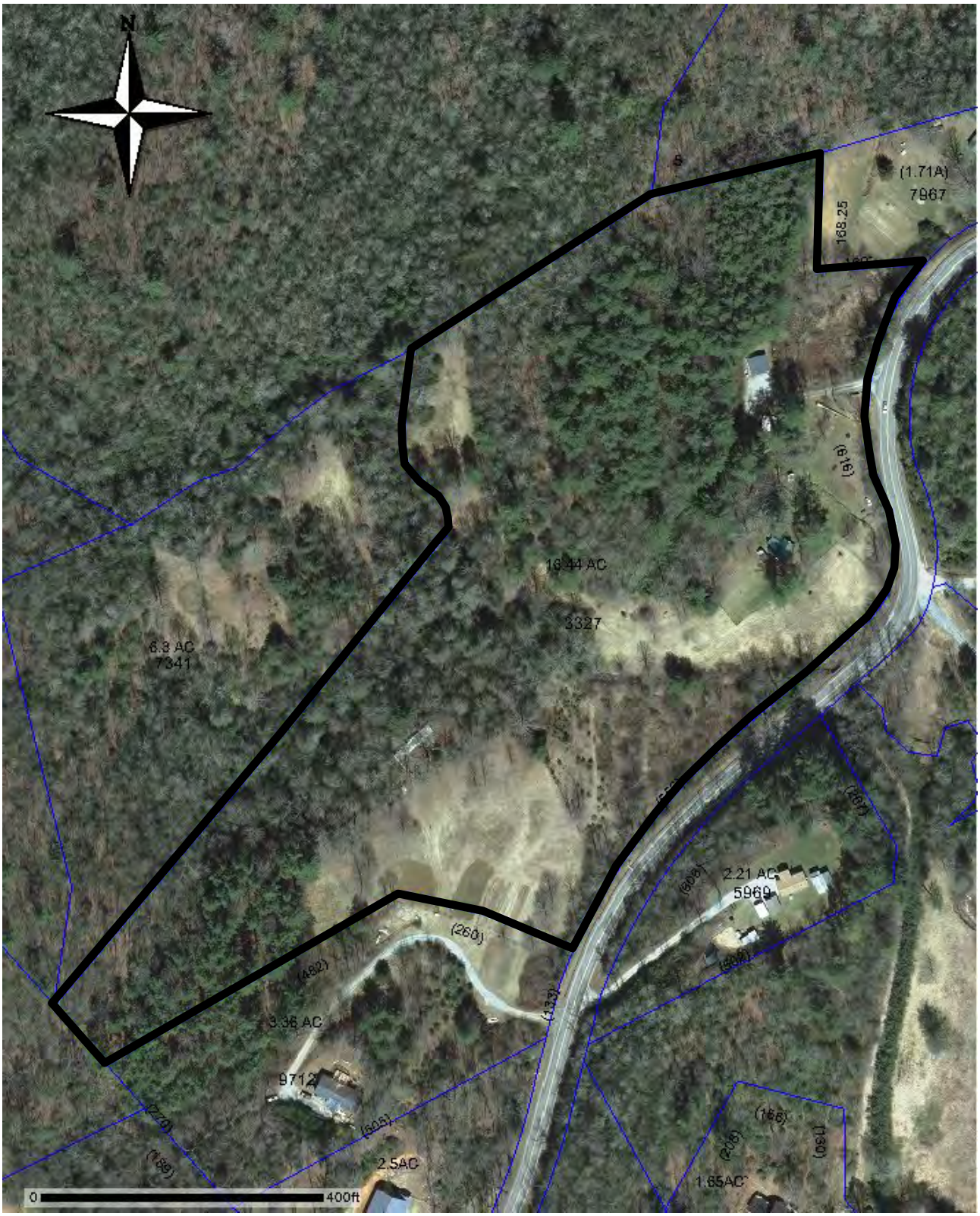
The Chapman House is not recommended as eligible under any other National Register criteria. The property is typical of a small mountain farmstead in Transylvania County, with a few associated outbuildings, garden plot, pastures, and wooded timberland. There is no documented evidence, however, to suggest that the property functioned as more than a modest subsistence farm. Due to the loss of agricultural facilities and farm patterns, it is not eligible under Criterion A for agriculture. The Chapmans were one of several extended families residing in this section of the county, but they did not attain the level of prominence and significance required for National Register listing under Criterion B. The property is unlikely to yield information about our past not otherwise accessible from other extant resources and written records, making it ineligible for the National Register under Criterion D.

Boundary Description and Justification

The proposed boundary of the Chapman House includes the full extent of the residual 15.5 acres historically associated with the property, which is its current tax parcel. Tax maps for Transylvania County tax parcel number 8532-43-3327-000, which lies on the west side of US 64 (Rosman Highway), show that the property contains 16.44 acres, but the tax records indicate that the size of the parcel is 15.5 acres.



Portions of the original 40-acre farm have been divided off for family members, specifically several of James and Lillian Chapman's ten children. An additional 5.8-acre undeveloped tract near the top of the ridge to the west of the Chapman House property is owned by Lillian Chapman.



Chapman House – Boundary Map [PIN 8532-43-3327-000]
(Source: Transylvania County GIS, May 15, 2012)

Reference Table of Surveyed Properties

HPO SSN	Property Name	Property Address	Parcel Number
TV 9	Talmadge & Ida Chastain House	1591 Shoal Creek Road Balsam Grove vic.	8546-86-8709-000
TV 10	Rufus & Elvira McCall House	Shoal Creek Road (SR 1327) Balsam Grove vic.	8546-75-7216-000
TV 12	Elzie & Sonora McCall House	Brucene Drive Balsam Grove vic.	8546-71-7059-000
TV 19	Robby McCall House	Old CCC Camp Road (SR 1377) Balsam Grove vic.	8546-33-0190-000
TV 56	Jordan & Corrine Whitmire Rental House	Pickens Hwy (US 178) Rosman vic.	8552-77-3179-000
TV 69	Lance-Raines Cabin	570 Girl Scout Camp Road East Fork vic.	8573-11-0005-000
TV 73	O. L. Erwin House	1054 Catheys Creek Church Road Calvert vic.	8563-14-7031-000
TV 89	Rufe Owen House	310 Passmore Road Cherryfield vic.	8563-29-8880-000
TV 116	Clarence & Ella Greene House	E side of NC 215 Balsam Grove vic.	8545-72-9935-000
TV 123	Bryson Farm	Rainey Knobs Road (SR 1154) Lake Toxaway vic.	8501-54-3280-000
TV 141	Burton & Roxie McCall House	Tanasee Gap Road (SR 1324) Gloucester vic.	8525-89-4546-000
TV 161	Jason McCall Farm	Golden Road (SR 1313) Lake Toxaway vic.	8533-71-1024-000
TV 498	Reece House	Old Quebec Road (SR 1318) Quebec vic.	8532-67-5451-000
TV 500	John & Mamie Reid House	Old Quebec Road (SR 1318) Quebec vic.	8532-98-5059-000

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Appendix A

Eligibility Form

Federal Aid # *TIP #* R-2409D *County*:Transylvania

CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

Project Description: Improve US 64 from Indian Creek to SR 1147 (Flat Creek Valley Rd)

On 3/20/2012, representatives of the

- ☑ North Carolina Department of Transportation (NCDOT)
- ☐ Federal Highway Administration (FHWA)
- ☑ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project at historic architectural resources photograph review session/consultation and

All parties present agreed

- ☐ There are no properties over fifty years old within the project's Area of Potential Effects (APE).
- ☑ There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's APE.
- ☑ There are properties over fifty years old within the project's APE, but based on the historical information available and the photographs of each property, the properties identified as 1-10, 12, 13 are considered not eligible for the National Register and no further evaluation of them is necessary. Photographs of these properties are attached.
- ☑ There are no National Register-listed or Study Listed properties within the project's APE.
- ☐ All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- ☑ More information is requested on properties 11.

Signed:

Mary Pope Furr — 3/20/2012

Representative, NCDOT — Date

Renee Gledhill-Earley — 3-20-12

Representative, HPO — Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

INVENTORY LIST

US 64 from Indian Creek to SR 1147, TIP No. R-2409D, WBS No. 34428.1.1

1. **House, 107 Reno Drive [PIN 8532-74-3886-000], ca. 1925**

   The property, which contains a house and detached garage, occupies an elevated site on the north side of US 64. It is accessed by an unpaved private road, Reno Drive, which continues past the house onto the adjacent property to the east where a mobile house trailer has been erected.

   The house is a heavily altered one-story side-gable frame house with asbestos shingles and vinyl siding, replacement metal roofing, exterior concrete block chimney, hip-roof side wings, and replacement one-over-one windows. An elevated wood deck serves as an uncovered front porch. A shed-roof porch is attached at the rear.

   A detached two-bay front-gable frame garage stands a short distance to the west of the house. It is covered with plywood sheathing and exhibits glazed-and-paneled overhead garage doors, exposed rafter tails, and replacement windows.

   The house and garage lack any specific historic or architectural significance. Both structures have been compromised by replacement materials.

2. **House, 39 Carefree Lane [PIN 8532-64-7964-000], ca. 1946**

   One-story Minimal Traditional frame house completely clad with vinyl siding. The side-gable roof features a prominent front-gable bay with an attached front-gable porch supported on replacement metal posts. A one-bay shed-roof carport is attached to the southeast side of the house. The house also displays an interior brick chimney, single-leaf entry door with three vertical lights over panels, and replacement one-over-one windows. A one-story front-gable masonry shed stands deteriorating to the east of the house. The shed appears to be constructed of concrete block with peeling paint. A central single-leaf entrance is flanked by square window openings; the windows and door have been removed. Wood siding in the gable end is partially removed. The six-acre property to the east and northeast of the house has been developed as a mobile home park.

   The house and shed lack any specific historic or architectural significance and lack historic integrity. The house, in particular, has been substantially compromised by later material alterations.

3. **House, 12131 Rosman Hwy [PIN 8532-64-7469-000], ca. 1955**

   One-story side-gable Minimal Tradition house constructed with an irregularly-course stone veneer. The house features a front-gable wing, shed-roof porch, interior concrete block chimney, exposed rafter tails, and replacement one-over-one windows. The porch is supported by tapered wood posts on stone piers. The sloping lot reveals a basement at the rear.

A low, stone, well house (?) with a metal shed roof is located on the edge of the generally flat front yard of the house to the west. A two-car pre-fabricated metal car shelter is located to the east of the house.

The house represents a common mid-twentieth century house type rendered in stone, which was plentiful and commonly used in Transylvania County, but the property lacks any specific historic or architectural significance. The replacement windows diminish the historic integrity of the house.

4. House, 12161 Rosman Hwy [PIN 8532-64-4499-000], ca. 1939

One-story side-gable frame house completely clad with aluminum siding and capped by modern metal roofing. The house rests on a concrete block foundation and features an interior concrete block chimney, one-bay side wing, original three-over-one double-hung windows, and metal-frame sliding basement windows. Thin replacement metal posts support the attached hip-roof porch, which shelters a 1970s replacement single-leaf entry door.

Capt. W. D. and Sara Black of Barnwell, South Carolina built this modest dwelling as the first of several summer houses in the immediate area. In several deeds dated August 1, 1936, the Blacks arranged for the various houses to be transferred to various family members or new owners upon the death of Capt. and Mrs. Black. This house was sold to Mrs. Anna Baker Wiggins of Birmingham, Alabama (Deed 79/162)

A front-gable frame crib is located to the south behind the house. The structure is covered with horizontal wood siding spaced to allow air to circulate through the walls, and the gable ends are covered with vertical wood slats. The standing-seam metal roof is partially collapsed.

A modern pre-fabricated metal building is located to the southeast of the house. The side-gable building has two garage bays and a third bay accessed through a single-leaf entry.

The house and outbuildings lack any specific historic or architectural significance and lack historic integrity.

5. House, 12210 Rosman Hwy [PIN 8532-55-8069-000], ca. 1935

Altered one-story front-gable Craftsman-influenced house with an attached shed-roof screened porch. Clad with vinyl siding, the house rests on a stuccoed foundation, but the porch foundation and front wall are brick veneer. Windows are replacement one-over-one sash and the doors are replacements. A one-story wing projects at the rear. The property also includes a pre-fabricated metal-roof car shelter to the east of the house and a small, front-gable frame storage shed to the rear. The shed is covered with aluminum siding.

A second shed stands a short distance north of the house in a wooded portion of the property. A standing-seam metal roof caps the weatherboarded structure.

The house, which has been substantially compromised by material changes, is an unremarkable example of a common house type and lacks any specific historic or architectural significance.

6. House, 12270 Rosman Hwy [PIN 8532-64-1649-000], ca. 1949

Difficult to determine for certain but the original house appears to have been a one-story side-gable frame dwelling with an attached shed-roof porch. The house has been enlarged with a two-car garage, now engaged on the west end of the original block; a second story; and a two-story section with a clerestory roof. The additions are clad with plywood sheathing and contain two-light sliding-sash windows. New metal roofing caps the whole house, including an altered shed-roof that extends the full-width of the façade.

The extent of the later alterations and additions obscure and overwhelm the original historic structure, rendering it ineligible for the National Register.

7. House, 12257 Rosman Hwy [PIN 8532-64-2005-000], ca. 1935

This one-story gable-roof frame dwelling is set back from the road and reached along a gravel driveway. At present the house appears to be a side-gable structure with two front-gable wings, but the wing on the northwest (right) side was constructed in the late 1990s. It appears that the house may have originally been designed as a side-gable residence with an engaged shed-roof porch and rear ell, but it is unclear due to the orientation of house following the addition. A pre-fabricated metal car shelter is located in front of the added wing.

This may have been the summer house that Capt. W. D. and Sara Black of South Carolina would occupy during their seasonal visits. It later passed to one of the Black's children, Louise, and her husband, Byron Wham (Deeds 79/165 and 87/158).

Completely clad with aluminum siding, the house exhibits an interior concrete block chimney, screened porch, six-over-one double-hung and sliding sash windows, and a wood deck attached at the rear. A one-story frame shed is located to the rear of the house.

The property features an open, grassy field lying to the east and southeast of the house. A pre-fabricated frame storage building is located in the northern part of the field.

The property lacks any specific historic or architectural significance and the house has been substantially compromised by material and design changes.

8. House, 12374 Rosman Hwy [PIN 8532-54-8525-000], ca. 1950

One-story front-gable house located close to the road with an ivy-covered stone retaining wall extending across the front of the property. A modern one-and-a-half-story residence is also located on the property, at the top of the hill northeast of the ca. 1950 house.

The historic structure is a one-and-a-half-story front-gable dwelling constructed of ashlar-faced concrete block. The upper story and gabled ends are covered with wood paneling. Square wood posts supported on a plain concrete block knee wall carry the attached shed-roof porch.

A one-and-a-half-story clipped-gable wing and a one-story gable-roof wing extend to the northwest of the house and are covered with wood paneling. Windows are typically six-over-six double-hung sash with a two-light fixed-sash window in the front-gable end. The doors are typically wood and composed with six lights over three panels.

A one-story front-gable storage shed set against the hillside is located to the southeast of the house. Constructed of concrete block, the building exhibits exposed rafter tails, wood paneling in the gable end, six-light fixed-sash windows, and a glazed-and-paneled wood entry door.

The house appears to be typical of mid-twentieth century vacation and seasonal homes built in Transylvania County and western North Carolina, combining modern and natural materials to a create a rustic aesthetic appropriate for the mountain landscape. Despite being well-maintained and possessing a fairly high degree of integrity, the house and shed lack any special historic or architectural significance.

9. Faith Missionary Baptist Church, 12440 Rosman Hwy [PIN 8532-54-4486-000], 1955

Built in 1955, following the organization of the congregation, the church sits at a sharp curve in US 64 and is notable for the riprap embankment bearing a cross and the words "Jesus Saves" created from log sections located in front of the property.

The church building is a plain one-story front-gable brick structure with an attached portico and gable-roof fellowship hall wing extending to the northeast. The building contains few historic elements save four one-over-one wood sash windows on the west elevation of the sanctuary and the metal-frame casements with round-arch fanlights on the side wing.

The building has a modern replacement metal roof. The gable ends, portico columns, and two-stage steeple base are clad with vinyl. The façade contains only a double-leaf entry.

Also located on the church property, a one-story side-gable frame parsonage occupies an elevated site to the northeast of the church. The house displays asbestos shingle siding, replacement metal roofing, replacement one-over-one windows, shed-roof side wing, and an enclosed front-gable porch. Two pre-fabricated storage sheds are located adjacent to the house. The church and parsonage lack any specific historic or architectural significance and the integrity of the church has been compromised by material changes.

10. House, 12486 Rosman Hwy [PIN 8532-43-7967-000], ca. 1961

Vegetation along the road frontage makes it difficult to photograph the façade of this one-story side-gable frame house, which is typical of mid-twentieth century vacation and seasonal homes built in Transylvania County and western North Carolina. The house

combines modern and natural materials to create a rustic aesthetic appropriate for the mountain landscape. Covered with wood paneling, the house features a front-gable wing, stone veneer on the lower façade wall, and a multi-light picture window.

A one-story side-gable wing added to the southeast elevation in the 1980s nearly doubles the size of the original house. The wing rests on a concrete block foundation and is covered with wood paneling. An engaged full-width porch is supported on square wood posts and is accessed from the two ends by wood steps. The house, both the original section and the addition, has a replacement metal roof and the windows are typically modern one-over-one sash.

The house lacks any special historic or architectural significance and has been compromised by material changes and the scale of the later addition.

11. Chapman House (TV 172), 12660 Rosman Hwy [PIN 8532-43-3327-000], ca. 1910

Recorded by Deborah Thompson in 1991 for the Transylvania County Historic Architecture Survey, the Chapman House was built by carpenters Tolvin Miller and Alfred Owen for Henry Plott and Ida Elizabeth Chapman around 1910. Henry Chapman worked as a maintenance man for Southern Railway, which passed nearby the house on its route between Brevard and Lake Toxaway. In the first decades of the twentieth century, Southern ran two trains daily to the resort at Lake Toxaway. He and his wife also farmed. Tolvin Miller later worked as caretaker at the Toxaway Inn.

The Chapman House occupies a fifteen-acre tract that is mostly wooded. The railroad tracks passed approximately one-quarter mile to the southeast of the house.

The one-story side-gable frame farmhouse was constructed of lumber sawn on a portable saw mill in the front pasture; the timber was cut on the Chapman's farm. The single-pile house is covered with wood shingles and capped by a standing-seam metal roof. It features exposed rafter ends, a rebuilt exterior brick end chimney, gable-roof rear ell, and two-over-two double-hung sash windows. The windows on the southwest elevation have bracketed shed awnings. An attached hip-roof porch extends the full width of the three-bay façade and is supported by peeled log posts on a concrete block foundation. A shed-roof porch on the southwest side of the rear ell has been enclosed with wood paneling.

A secondary entrance in the rear ell contains a single-leaf five-panel wood door. A gable-roof stoop present at the time of the previous survey has been removed and the entrance is accessed from an uncovered wood deck. A metal shed-roof lean-to on peeled log posts projects at the rear of the ell.

Several outbuildings are located on the property. A frame storage shed is located just southwest of the house. It is covered with vertical wood siding and capped by a standing-seam metal shed roof on exposed rafters.

A cluster of outbuildings is located to the north of the house. Among this group is a one-story front-gable frame outbuilding that Henry Chapman built for food storage. It is covered with vertical wood siding and capped by a standing-seam metal roof. An engaged shed

extends to the side. A concrete-block banked cellar constructed around 1980 now fills that role, and the adjacent frame outbuilding is now used for wood storage. A metal-sided shed was also added around 1980 across the unpaved driveway from the other two outbuildings.

A small, single-pen cabin of saddle-notched logs recorded during the survey has been demolished in recent years. The Chapman's son built the cabin in the 1950s and was used as a playhouse.

On the north side of the driveway at the north end of the property, a one-story frame taxidermy shop was erected in the 1980s. The front-gable building with a side shed extension is clad with board-and-batten siding and is capped by a metal roof.

As described in the multiple property documentation form (MPDF) entitled "Historic and Architectural Resources of Transylvania County, North Carolina, ca. 1820-1941" (NR, 1993), vernacular dwellings from the period 1895-1916 were abundant throughout the county. They are defined as typically simple frame dwellings with minimal decoration and a standard I-house plan (i.e. three-bay, single-pile). Small rural houses from this period are representative of the predominantly agricultural lifestyle and important as continuations of the farming and folk traditions. The MPDF states that the rural vernacular houses are most significant as part of a farmstead.

The Chapman House retains vestiges of its rural setting and agricultural function although the loss, and subsequent addition, of associated outbuildings has compromised the historic integrity of the property. Alterations to the house also diminish its integrity, but these changes alone would probably not be enough to render the property ineligible if it still retained a good complement of historic agricultural outbuildings. The Chapman House does not appear to possess the special historic or architectural significance required for National Register eligibility.

A point for additional consideration: the Chapman House was considered neither significant enough for placement on the Study List in 1992 at the end of the county-wide survey nor worthy of inclusion in the subsequent survey publication, which was published in 1998.

12. House, 12910 Rosman Hwy [PIN 8532-32-6367-000], ca. 1955

Set well back from the road, this one-story side-gable frame house has been recently rehabilitated. A pre-fabricated metal car shelter and storage building added to the site around 2007 stand to the north of the house, around a gravel parking area.

The house rests on a stone veneer foundation and is clad with aluminum siding. A modern replacement metal roof caps the building. Other features include an exterior concrete block chimney flue, gable-roof side wing, and six-over-six double-hung sash. Square wood posts support a front-gable entry porch, which shelters replacement French doors. A wood deck is attached on the southeast side of the house.

The house is an altered example of a common type and lacks any special historic or architectural significance.

13. Gas Station, 13539 Rosman Hwy [PIN 8532-13-7112-000], ca. 1963

According the current owner, Cecil Cantrell built this former gas station around 1963. Along with a partner, M. G. Almany, Cantrell purchased the property on July 1, 1962 (Deed 141/141).

Now used as an office and workshop for a contracting company, the one-story masonry building is capped by a broad front-gable roof with a secondary gable defining the office portion on the west side of the façade. Large plate-glass windows frame the replacement single-leaf entry door into the office and rest on brick knee walls. Two service bays retain original glazed overhead doors. The building is constructed of concrete block with a brick veneer façade. Wood sheathing extends from the service bays and office bay into the upper gable end. The owner reported that all of the pump equipment and underground tanks had been removed.

A one-story gable-roof ell projects from the basement level at the rear of the building. The stuccoed rear ell has an inset side porch, board-and-batten sheathing in the gable end, and replacement one-over-one windows.

An elevated concrete slab walkway extends along the north elevation and is supported on metal pipe columns. Two single-leaf doors at the west end of the side elevation accessed customer restrooms. A four-bedroom apartment is located on the lower level, with the walkway acting as a porch roof sheltering the north side entrance.

Though it retains its distinctive form and design, the property lacks any special historic or architectural significance, and its historic integrity is diminished by some material changes to the building.

1. House, 107 Reno Drive [PIN 8532-74-3886-000], view to northwest from US 64

2. House, 39 Carefree Lane [PIN 8532-64-7964-000], view to northeast

3. House, 12131 Rosman Hwy. [PIN 8532-64-7469-000], view to southeast from US 64

4. House, 12161 Rosman Hwy. [PIN 8532-64-4499-000], view to south from US 64

5. House, 12210 Rosman Hwy.[PIN 8532-55-8069-000], view to north from US 64

6. House, 12270 Rosman Hwy. [PIN 8532-64-1649-000], view to northwest from US 64

7. House, 12257 Rosman Hwy. [PIN 8532-64-2005-000], view to southwest from US 64

8. House, 12374 Rosman Hwy. [PIN 8532-54-8525-000], view to east from US 64

9. Faith Missionary Baptist Church, 12440 [PIN 8532-54-4486-000], view to north

10. House, 12486 Rosman Hwy. [PIN 8532-43-7967-000], view to north from US 64

12. House, 12910 Rosman Hwy. [PIN 8532-32-6367-000], view to northwest from US 64

13. Gas Station, 13539 Rosman Hwy. [PIN 8532-13-7112-000], view to southwest from US 64

Appendix B

Professional Qualifications

CLAY GRIFFITH
President/Architectural Historian

ACME PRESERVATION SERVICES, LLC
825C Merrimon Ave, #345
Asheville, NC 28804
Tel 828 281 3852
cgriffith.acme@gmail.com

EDUCATION

- Master of Architectural History (1993)
  University of Virginia

- Bachelor of Science, Architecture (1990)
  Georgia Institute of Technology

- Introduction to Federal Projects and Historic Preservation Law (1994)

EXPERIENCE

- **Acme Preservation Services, LLC, Asheville, NC**
  November 2007 – present

  Formed independent firm to provide historic preservation consulting services. Services provided include preparing National Register of Historic Places nominations, local landmark designation reports, rehabilitation tax credit applications, municipal historic architectural resources surveys, Section 106 compliance reports, and historical research.

- **Edwards-Pitman Environmental, Inc., Asheville, NC**
  January 2002 – October 2007

  Served as Senior Architectural Historian in Asheville office of private consulting firm. Responsibilities included preparing National Register of Historic Places nominations, local landmark designation reports, rehabilitation tax credit applications, municipal historic architectural resources surveys, Section 106 compliance reports, and historical research.

- **North Carolina Division of Archives and History, Western Office, Asheville, NC**
  July 1998 – January 2002

  Preservation Specialist serving the 25-county western region of North Carolina. Administered State Historic Preservation Office programs including statewide inventory of historic properties, survey and planning grant supervision, National Register of Historic Places nominations, environmental review, technical assistance, and public education.

- **North Carolina Department of Transportation, Raleigh, NC**
  June 1993 – June 1998

  Preservation Specialist with Historic Architectural Resources Section. Responsible for conducting and preparing documentation in accordance with Section 106 of the National Historic Preservation Act, as amended, and other state and federal environmental laws and regulations. Duties included conducting field work, identifying and documenting historic resources, evaluating National Register eligibility, and assessing effects to minimize impacts of NCDOT undertakings.

COMPLETED PROJECTS

- *Historic Architectural Resources Survey Report, Intensive Evaluation: Replace Bridge No. 115 on SR 1908 over Dan River (for NC Department of Transportation)*, Stokes County, North Carolina

- *Historic Architectural Resources Inventory Presentation for US 64 Improvements, TIP No. R-2409D (for NC Department of Transportation)*, Transylvania County, North Carolina

- *Historic Architectural Resources Survey Report, Intensive Evaluation: Johnson House and Store (for NC Department of Transportation)*, Wilkes County, North Carolina

- *Downtown Newton Historic District National Register Nomination*, Newton, Catawba County, North Carolina

- *Adams-Millis Corporation Plant No. 8 National Register Nomination and Part 1 Tax Credit Application*, Tryon, Polk County, North Carolina

- *Historic Architectural Reconnaissance Surveys for Division 11 Bridge Replacement Projects (for NC Department of Transportation)*, Alleghany, Ashe, Avery, Watauga and Wilkes Counties, North Carolina

- *Historic Architectural Reconnaissance Surveys for Division 14 Bridge Replacement Projects (for NC Department of Transportation)*, Graham, Henderson, Swain and Transylvania Counties, North Carolina

- *Downtown Asheville Historic District Boundary Increase III, Boundary Decrease and Additional Documentation*, Asheville, Buncombe County, North Carolina

- *Sunnydale National Register Nomination and Tax Credit Application* Tryon, Polk County, North Carolina

- *Asheville Supply & Foundry Company Part 1 Tax Credit Application*, Asheville, Buncombe County, North Carolina

- *Asheville Survey Update*, Asheville, Buncombe County, North Carolina

- *Spread Out Historic District National Register Nomination*, Waynesville, Haywood County, North Carolina

- *Dougherty Heights Historic District National Register Nomination*, Black Mountain, Buncombe County, North Carolina

- *Wayah Bald Lookout Tower Documentation (for USDA Forest Service)*, Nantahala National Forest, Macon County, North Carolina

- *Lynncote National Register Nomination*, Tryon, Polk County, North Carolina

- *South Montreat Road Historic District National Register Nomination*, Black Mountain, Buncombe County, North Carolina

- *Pink Beds Picnic Shelters and Wayah Bald Lookout Tower Documentation and National Register of Historic Places Evaluation (for USDA Forest Service)*, Pisgah National Forest, North Carolina

- *Biltmore High School National Register Nomination*, Asheville, Buncombe County, North Carolina

- *Claremont High School Historic District Boundary Increase and Additional Documentation National Register Nomination*, Hickory, Catawba County, North Carolina

- *East Main Street Historic District National Register Nomination*, Brevard, Transylvania County, North Carolina

- *Mill Farm Inn National Register Nomination*, Tryon, Polk County, North Carolina

- *Richard Sharp Smith House Local Designation Report and National Register Nomination*, Asheville, Buncombe County, North Carolina

- *Broyhill Conover Plant Redevelopment Determination of Eligibility and Recordation (for City of Conover)*, Conover, Catawba County, North Carolina

- *Tryon Downtown Survey and Trade Street Commercial Historic District Study List Application*, Tryon, Polk County, North Carolina

- *Monte Vista Hotel National Register Nomination and Local Landmark Designation Report*, Black Mountain, Buncombe County, North Carolina

- *Bank of Tryon National Register Nomination*, Tryon, Polk County, North Carolina

- *Wilson Lick Ranger Station Documentation and National Register of Historic Places Evaluation (for USDA Forest Service)*, Nantahala National Forest, Macon County, North Carolina (co-authored with Lynn Marie Pietak, Ph.D., Archaeologist)

- *Graham County Courthouse National Register Nomination*, Robbinsville, Graham County, North Carolina

- *Historic Workcenters Documentation and National Register of Historic Places Evaluation (for USDA Forest Service)*, Pisgah National Forest, North Carolina

- *Charles E. Orr House National Register Nomination*, Brevard, Transylvania County, North Carolina

- *Franklin-Penland House National Register Nomination*, Linville Falls, Burke County, North Carolina

- *West Asheville End of Car Line Historic District National Register Nomination*, Asheville, Buncombe County, North Carolina

- *West Asheville-Aycock School Historic District National Register Nomination*, Asheville, Buncombe County, North Carolina

- *Lookout Towers Documentation and National Register of Historic Places Evaluation (for USDA Forest Service)*, Nantahala and Pisgah National Forests, North Carolina

- *The Charlton Leland (Saluda Inn) National Register Nominatio*n, Saluda, Polk County, North Carolina

- *South Carolina Department of Transportation Cultural Resources Survey Report, US 21 Bridge over Catawba River (for Ralph Whitehead Associates)*, York County, South Carolina

- *Biltmore Hospital National Register Nomination*, Asheville, Buncombe County, North Carolina

- *South Carolina Department of Transportation Cultural Resources Survey Report, S-75 (Cherokee Road) over US 29 Bridge Replacement Project (for Kennedy Engineering and Associates)*, Anderson County, South Carolina

- *North Carolina Department of Transportation Historic Architectural Resources Survey Report, Replace Bridge 86 on SR 1328 over Howard Creek*, Watauga County, North Carolina

- *North Carolina Department of Transportation Historic Architectural Resources Survey Report, Replace Bridge 33 on SR 1335 over Meat Camp Creek*, Watauga County, North Carolina

- *Sunset Terrace Historic District National Register Nomination*, Asheville, Buncombe County, North Carolina

- *Mars Hill High School National Register Nomination*, Mars Hill, Madison County, North Carolina

- *Historic Architectural Resources Survey Report for Newfound Gap Road, Phase II, Great Smoky Mountains National Park (for Kimley-Horn and Associates, Inc.)*, Swain County, North Carolina

- *North Carolina Department of Transportation Phase II Survey Report, Replace Bridge 246 on SR 1503 over Laurel Creek, Evaluation of Ebbs Chapel School*, Madison County, North Carolina

- *Elk Park School National Register Nomination*, Elk Park, Avery County, North Carolina

- *Sawyer Motor Company Building Local Designation Report*, Asheville, Buncombe County, North Carolina

- *Bynum House Local Landmark Designation Report*, Asheville, Buncombe County, North Carolina

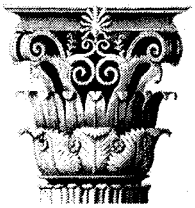
- *Grove Park Country Club Clubhouse Local Landmark Designation Report*, Asheville, Buncombe County, North Carolina

PUBLICATIONS

- Contributing author, "North Carolina Architects & Builders: A Biographical Dictionary" (Website: http://ncarchitects.lib.ncsu.edu)

- "Henry Bacon," "Douglas Ellington" and "Grove Arcade" in *The Encyclopedia of Appalachia*. University of Tennessee Press, 2006.

- "An Inventory of Douglas Ellington's Architectural Work in Western North Carolina," in *May We All Remember Well, Vol. 2*. Robert S. Brunk Auction Services, Inc., 2001



HISTORIC ARCHICTECTURE AND LANDSCAPES ELIGIBILITY EVALUATION 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:	R-2409D	***County***:	Transylvania
WBS No.:	34428.1.1	***Document Type***:	CE
Fed. Aid No:		***Funding***:	☐ State ☒ Federal
Federal Permit(s):	☒ Yes ☐ No	***Permit Type(s)***:	USACE
Project Description: Safety improvements to US 64 from Indian Creek to SR 1147 – includes wider lanes, additional lanes, and shoulder improvements.			

SUMMARY OF HISTORIC ARCHICTECTURE AND LANDSCAPES REVIEW

☐ There are no National Register-listed or Study Listed properties within the project's area of potential effects.

☒ The following properties within the area of potential effects have been evaluated for eligibility in the attached documentation: Chapman House (TV 172)

SUPPORT DOCUMENTATION

☐Map(s) ☐Previous Survey Info. ☐Photos ☐Correspondence ☒Report

EVALUATION BY NCDOT ARCHITECTURAL HISTORIAN

Property Name:	Chapman House	***Evaluation***:	☒ Eligible ☐ Not Eligible
Survey Site No.:	TV 172	***Criterion:***	C- architecture

Mary Pope Furr 11/21/2012

NCDOT Architectural Historian Date

REVIEW BY STATE HISTORIC PRESERVATION OFFICE

Renee Gledhill-Earley 1-3-13

HPO Representative Date

HPO Comments:

We concur that the Chapman House (TV172) is eligible for listing in the NRHP under Criterion C.

Federal Aid #: STP-0064 *TIP#:* **R-2409D** *County*: **Transylvania**

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Safety improvements to US 64 from Indian Creek to SR 1147- includes wider lanes, additional lanes, and shoulder improvements

On *April 16, 2013*, representatives of the

- [✓] North Carolina Department of Transportation (NCDOT)
- [✓] Federal Highway Administration (FHWA)
- [✓] North Carolina State Historic Preservation Office (HPO)
- [✓] Other Steve Williams Div. 14, Martha Register, Arcadis

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

[signature] 4/16/2013

Representative, NCDOT Date

[signature] 4-16-03

FHWA, for the Division Administrator, or other Federal Agency Date

Representative, HPO Date

Renee Gledhill-Earley 4.16.13

State Historic Preservation Officer Date

Federal Aid #: STP-0064 *TIP#:* **R-2409D** *County*: **Transylvania**

Property and Status	Alternative	Effect Finding	Reasons
Chapman House (DE, Criterion C)	Pref. Alt.	No Adverse Effect based on the	along property only Temp. Const. Easements- no new ROW - will require removal of some trees & fence ~~at~~ at culvert & stream extension (small)
		conditions shown here →	no concrete or rip rap in stream extension will replant stream area if property owner wishes - will restore fence after construction
			no staging of construction ~~on ft~~ within historic boundary

Initialed: NCDOT MPT FHWA _____ HPO PME

FHWA Intends to use the SHPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):

Project Tracking No. (Internal Use)

PA 11-11-0016

SURVEY REQUIRED FORM

PROJECT INFORMATION

Project No:	R-2409D	*County:*	Transylvania
WBS No:	34428.1.1	*Document:*	CE*
F.A. No:	STP-0064	*Funding:*	☐ State ☐ Federal

Federal (USACE) Permit Required? ☐ Yes ☐ No *Permit Type:* Unknown at this time

*Project Description: 2 mile section of US 64 from TIP R-2409C near Indian Creek to the second/eastern most intersection of US 64 and SSR 1147 (Flat Creek Valley Road. Road widening to 12 feet, a truck climbing lane may be involved and will consider the use of new location sections Project P and N is to improve safety. *The document type for this project has not been fully determined.*

SUMMARY OF CULTURAL RESOURCES REVIEW – *SURVEY REQUIRED*

Brief description of review activities, results of review, and conclusions:
Office of State Archaeology file search completed on 11/28/11 indicated the presence of at least 14 known sites within the project vicinity including 31TV198, 31TV614 and 31TV617. Additionally TRC investigations were completed on the C section of the R-2409 project at the request of the SHPO in 2006. While no sites were found due to large portions of excessive slope within the project limits, small areas did require subsurface testing. Given the similarity in terrain and the presence of other sites within the project vicinity an archaeological survey is required. This is especially true should the entire current study area be determined to be the Area of Potential Effects for archaeological resources. Design plans are needed in order to initiate the field portion of the required archaeological survey.

SUPPORT DOCUMENTATION

See attached: Map(s), Previous Survey Info, Photos, Correspondence, Photocopy of notes from county survey.

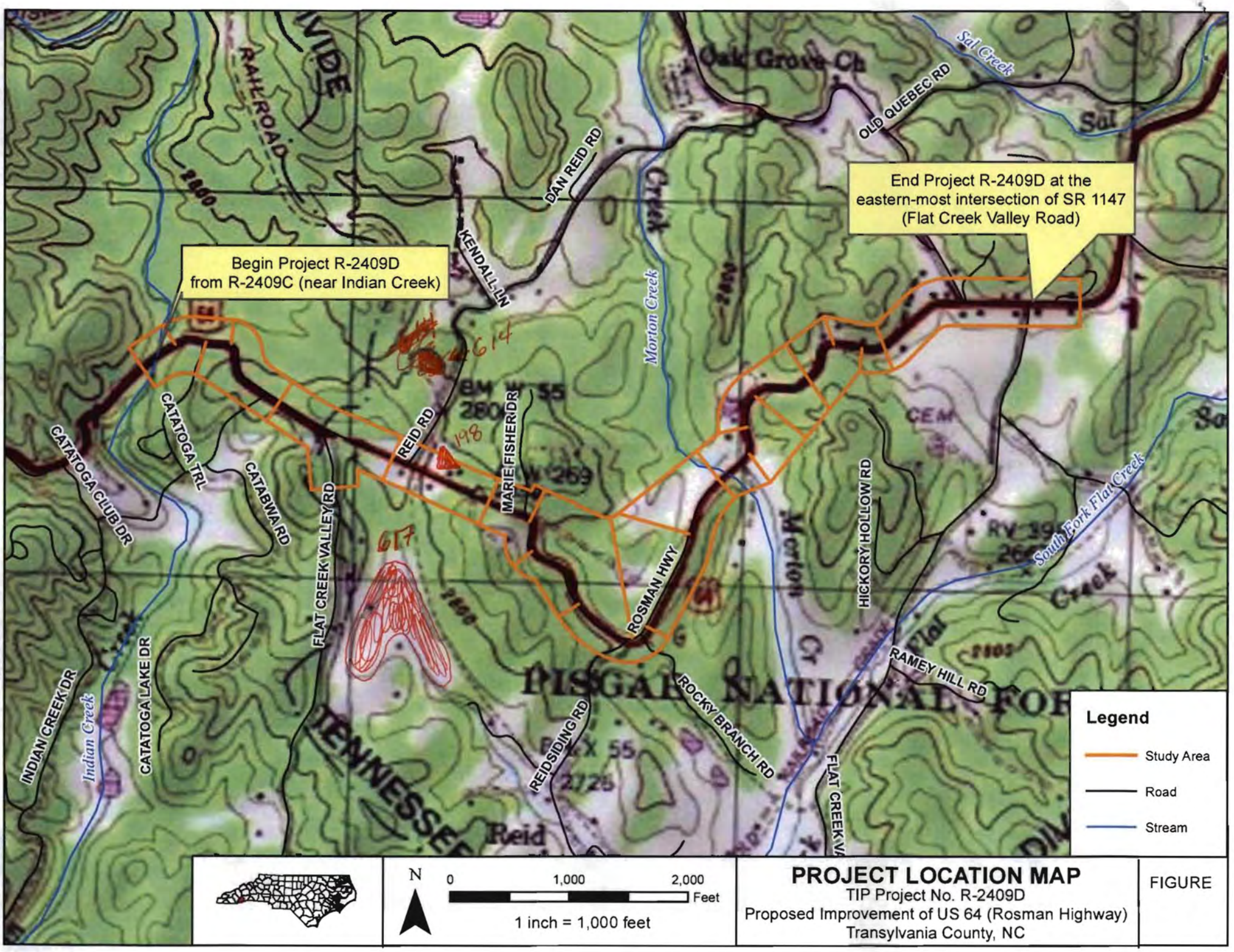
FINDING BY NCDOT CULTURAL RESOURCES PROFESSIONAL -- *SURVEY REQUIRED*

Archaeology Historic Architecture (circle one)

NCDOT Cultural Resources Specialist 12/7/11 Date

Contingent upon the availability of design plans

Proposed fieldwork completion date



PROJECT LOCATION MAP

TIP Project No. R-2409D
Proposed Improvement of US 64 (Rosman Highway)
Transylvania County, NC

FIGURE


INDIAN CREEK CROSSING
KENDALL LN
REID RD
ROSMAN HWY
MARIE FISHER DR
MATCH LINE
FLAT CREEK VALLEY RD
CATALOGA LAKE DR
CATAWBA RD
REDSIDING RD
CHAPMAN RDG
ROCKY BRANCH RD
N

FLAT CREEK VALLEY RD
KIMMILLER RD
CAREFREE LN
RENO DR
BROWNS HIDDEN VALLEY DR
MOUNTAIN HIGH DR
HICKORY HOLLOW RD
FLAT CREEK VALLEY RD
BROWNS RDG
RAMEY HILL RD
ROCKY BRANCH RD
REIDSIDING RD
MARIE FISHER DR
MATCH LINE
N

Project Tracking No. (Internal Use)
11-11-0016

NO PREHISTORIC OR HISTORIC PROPERTIES PRESENT/AFFECTED FORM

PROJECT INFORMATION

Project No:	R-2409D	*County:*	Transylvania
WBS No:	34428.1.1	*Document:*	CE
F.A. No:	STP-0064	*Funding:*	☐ State ☒ Federal

Federal (USACE) Permit Required? ☒ Yes ☐ No *Permit Type:* Possibly "yes" pending avoidance/impact evaluations

Project Description:
This project is for an intensive archaeological survey and evaluation of US 64 Road Improvements (TIP R-2409D) in Transylvania County, North Carolina. The project consists of widening of US 64 (Rosman Highway) and the use of new location from TIP R-2409C near Indian Creek east to the intersection of US 64 and SR 1147 (Flat Creek Valley Road). The project has a total length of approximately 2 miles (3.22 km). As specified by the NCDOT, the survey corridor (Area of Potential Effects [APE]) will extend 40 feet (ca. 12 m) outside of the stake lines for the project.

SUMMARY OF FINDINGS

The North Carolina Department of Transportation (NCDOT) reviewed the subject project and determined:

Archaeology

☒ There are no National Register-listed or Study Listed properties within the project's area of potential effects.
☐ No subsurface archaeological investigations are required for this project.
☐ Subsurface investigations did not reveal the presence of any archaeological resources.
☒ Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
☒ All identified Archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
☒ There are no historic properties present or affected by this project. (*Attach any notes or documents as needed*)

RECOMMENDATION

An archaeological survey and evaluation of proposed improvements to US 64 in Transylvania County (TIP R-2409D) was conducted from October 10–18, 2012, by TRC Environmental Corporation (TRC). During the course of the survey, two previously unidentified isolated finds (31TV1070 and 31TV1071) were located within the project APE. Both archaeological resources are recommended not eligible for the NRHP, and no further archaeological investigations are needed for this project. I concur with this recommendation since the proposed road improvements will not impact significant archaeological resources. If the project expands and impacts subsurface areas beyond the defined APE, further archaeological consultations will be necessary.

SUPPORT DOCUMENTATION

See attached: Map(s), Photos, and Cultural Review provided by TRC Environmental Corporation.

Signed:

11/2/12

C. Damon Jones
Cultural Resources Specialist, NCDOT — Date

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

TRC Environmental Corporation (TRC) has conducted an intensive archaeological survey and evaluation of the US 64 Road Improvement Corridor (TIP R-2409D) in Transylvania County, North Carolina. The project area is located approximately 2.0 miles (3.22 km) east of the community of Lake Toxaway and approximately 4.75 miles (7.64 km) west of the town of Rosman (Figures 1 and 2). The project includes widening and realignment along existing US 64 from just west of its intersection with Flat Creek Valley Road (SR 1147) southwest and then northwest to the eastern end of the TIP R-2409C corridor near Indian Creek. Most of the project area is located along wooded slopes or contains developed residential and business areas and associated buildings. The Area of Potential Effects (APE) for archaeology as designated by North Carolina Department of Transportation (NCDOT) extends approximately 2.0 miles (3.22 km) along the existing US 64; the width of the corridor varies according to the slope, but has a maximum width of 420 ft (128 m) and extends 40 ft (ca. 12 m) outside the stake lines for the project. Much of the APE is steeply sloped or disturbed by modern construction (Figures 3–8), and NCDOT estimated that only about 7 of the 39.1 acres within the APE would be suitable for shovel testing.

A map review and site files search was conducted by Erin Grantham of TRC at the Office of State Archaeology (OSA) on September 21, 2012, and updated a previous NCDOT review. This review identified six recorded archaeological sites (31TV196, 31TV198, 31TV592, 31TV614, 31TV617, and 31TV632) within a one mile radius of the project APE, including one site (31TV198) that was mapped just north of the APE. 31TV198 was recorded by Patricia Holden in 1966, but no information on associated components or artifacts is available on the site form, and the site is not discussed in her report (Holden 1966). 31TV196 was also recorded by Holden, but is well south of the APE and described as a "thin lithic site." The remaining four sites, which are well outside the APE, were recorded by Ruth Wetmore during her 1993 survey of Transylvania County. Wetmore (1993) considered 31TV592, 31TV617, and 31TV632 unassessed; 31TV614 was recommended not eligible for the National Register of Historic Places (NRHP).

The North Carolina State Historic Preservation Office (HPOWEB 2012) online database does not depict any NRHP eligible structures along the corridor, although a number of structures were recently surveyed in connection with the present project. There are no indications that any cemeteries are present within the APE, although the Whitmire Cemetery is located approximately 0.25 miles south of the APE off of Flat Valley Creek Road at the eastern end of the corridor. This cemetery was established in 1903 and is not associated with an adjacent church.

Topographic maps, United States Department of Agriculture (USDA) soil survey maps, aerial photographs, and historic maps were examined for information on natural or cultural variables that might have affected site locations.

The earliest map consulted was an 1868 Transylvania County map that shows little detail of the project area; a road that may be the forerunner of US 64 is shown in the approximate area of the county, but the map is at too small a scale and supplies too little detail to be useful in considering previous site locations. The earliest USGS map to show appreciable cultural detail in the area is the 1905 Pisgah (1:125,000) quadrangle (USGS 1905); that map shows the communities of Quebec and Lake Toxaway northeast and northwest of the project area, respectively, as well as a road following the general path of present-day Old Quebec and Reid roads through the area, north of the APE. A railroad follows the general path of Flat Creek south of the current APE. An apparent trail is depicted along the approximate route of the modern US 64, but no cultural detail is shown in that vicinity. The same road and trail are shown on the 1906

soils map (Hearn and MacNider 1906), which is clearly derived from the 1905 Pisgah quadrangle. The current US 64 (also labeled State Highway 28) is first shown at about its current location on the 1935 Reid and Lake Toxaway planimetric 1:24,000 quadrangles (USGS 1935a, 1935b). Neither map appears to depict buildings within the APE, although the former Southern Railroad is shown crossing the road. Subsequent topographic maps (USGS 1946a, 1946b) indicate that several structures were present along the current route by the 1940s.

Published soil reports indicate that there are four soil types present in the project's APE; the Ashe-Edneyville complex and Evard loam, Brevard loam, and Toxaway silt loam. Toxaway loam forms in depressions on floodplains. It frequently floods and is very poorly drained with slow or ponding runoff, and is located primarily along Morton Creek in the center of the corridor. The Ashe-Edneyville complex is a rocky soil found along slopes and is present throughout the corridor. Both Evard and Brevard loams are also present throughout the corridor. Evard loam is a stony soil found along ridges and slopes, while Brevard loam is a well-drained soil found along slopes and drainageways (King et al. 1974; NRCS 2012).

The archaeological field survey included a systematic walkover of the APE to search for above-ground features and the excavation of 75 transect and delineation shovel tests in areas exhibiting less than 15% slope and lacking signs of severe disturbance. The shovel tests measured 30 cm in diameter and were excavated to subsoil or at least 75 cm below surface (cmbs); all soils that were not obvious fill were dry screened through ¼-inch mesh. Auger tests were placed in the bases of select shovel tests to test for possible deeply buried cultural deposits.

The survey identified two archaeological resources, 31TV1070 and 31TV1071 (Table 1; see Figures 1 and 2). Each was identified by a single positive shovel test within the APE, and no additional artifacts were recovered despite 5-m interval shovel test delineation in cardinal directions. 31TV1070 (IF1) is located along the west bank of an unnamed tributary of South Fork Flat Creek (Figure 9) and consists of one eroded quartz tempered sherd and 11 quartz fragments, only three of which are considered likely to be cultural (Table 2). 31TV1071 (IF2) is located in the side yard of a modern residential structure and produced a single piece of quartz debitage. Due to the low artifact density and lack of evidence of intact cultural deposits, both 31TV1070 and 31TV1071 are recommended not eligible for the NRHP.

The survey did not encounter any evidence of previously identified site 31TV198. Based on the site form sketch map, this site was apparently situated north of the APE, in the area of or behind two standing structures.

Based on the results of the background research and field survey, there is no evidence that NRHP-eligible archaeological resources are situated within the R-2409D APE. Consequently, no additional archaeological investigations are recommended for this project as currently defined.

FOR

Michael Nelson

Archaeologist
TRC Environmental Corporation

REFERENCES CITED

Hearn, W. Edward, and G. M. MacNider
1906 *Soil Survey of Transylvania County, North Carolina.* U.S. Government Printing Office, Washington, D.C.

Holden, Patricia
1966 An Archaeological Survey of Transylvania County, North Carolina. Unpublished M.A. Thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

King, John M., John W. Turpin, and Daniel D. Bacon
1974 *Soil Survey of Transylvania County, North Carolina.* U.S. Government Printing Office, Washington, D.C.

National Resources Conservation Service (NRCS)
2012 Natural Resources Conservation Service, United States Department of Agriculture Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/ accessed October 25, 2012.

U.S. Geological Survey (USGS)
1905 Pisgah, N.C., 30-minute topographic map (1:125,000).
1935a Reid, N.C., 7.5-minute planimetric map (1:24,000).
1935b Lake Toxaway, N.C., 7.5-minute planimetric map (1:24,000).
1946a Reid, N.C., 7.5-minute topographic map (1:24,000).
1946b Lake Toxaway, N.C., 7.5-minute topographic map (1:24,000).

Wetmore, Ruth Y.
1993 *An Archaeological Survey of Transylvania County, North Carolina.* On file, Office of State Archaeology, Raleigh..

Table 1. Archaeological Resources Identified by the R-2409D Survey.

Site #	Component(s)	Shovel Tests			Artifacts				Recommendation
		Total*	Preh.	Hist.	Lithic	Ceramic	Historic	Total	
31TV1070	Prehistoric: Unknown	5	1	0	2	1	0	3	Not Eligible
31TV1071	Prehistoric: Unknown	5	1	0	1	0	0	1	Not Eligible

* Includes all shovel tests within 15 m of positive tests

Table 2. Artifact Inventory from R-2409D Survey.

Site	Bag	Provenience	Strat	Depth (cm)	ArtType	RawMat	Count	Wt (g)	Comments
31TV1070	1	ST 18	I	0-17	Debitage	Quartzite	2	8 4	
31TV1070	2	ST 18	III	37-45	ceramic		1	3 4	Eroded, quartz temper
31TV1071	3	ST 38	I	0-15	Debitage	Quartzite	1	0.8	

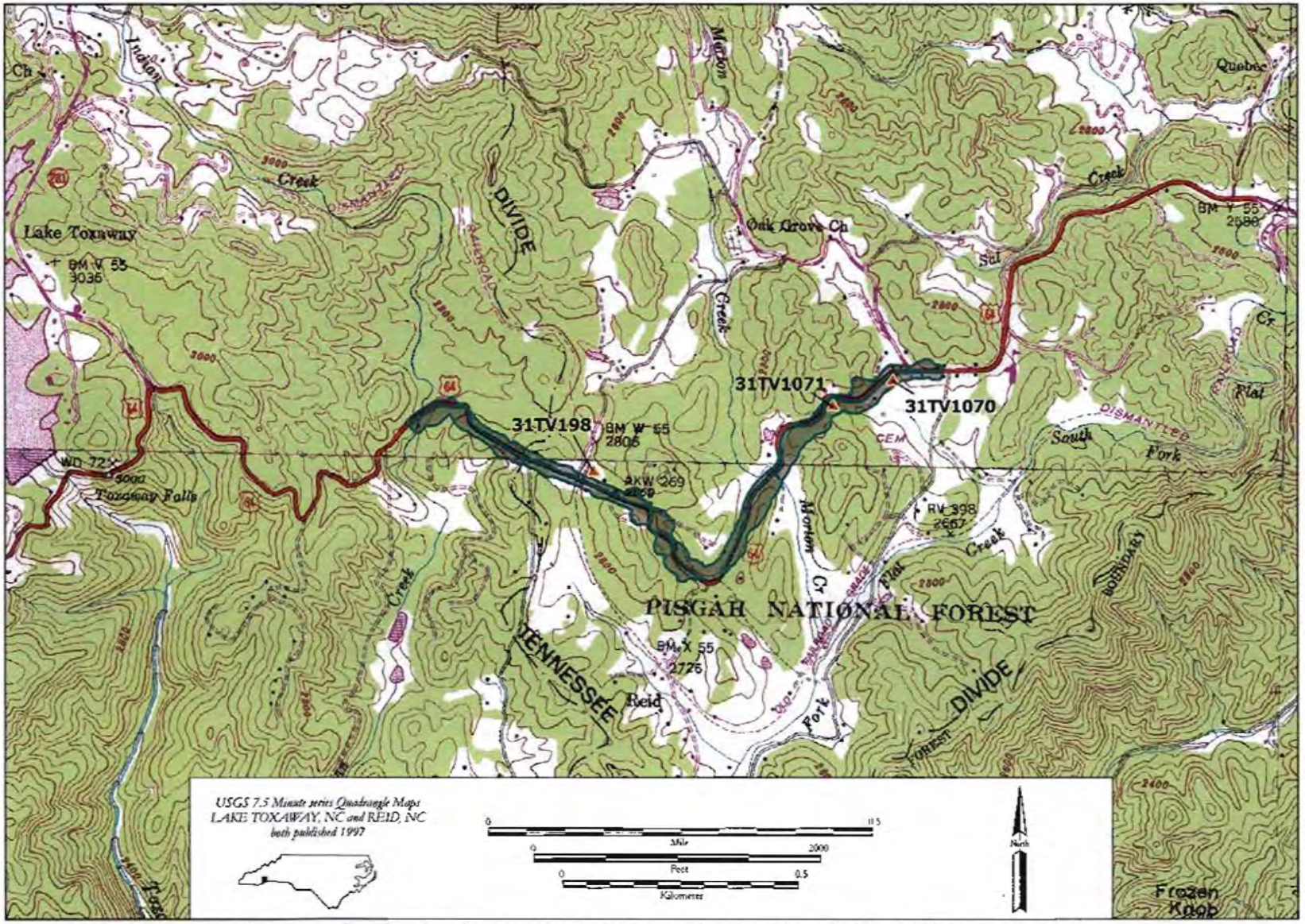


Figure 1. USGS Topographic map section showing the R-2409D APE and previously and newly identified archaeological resources.

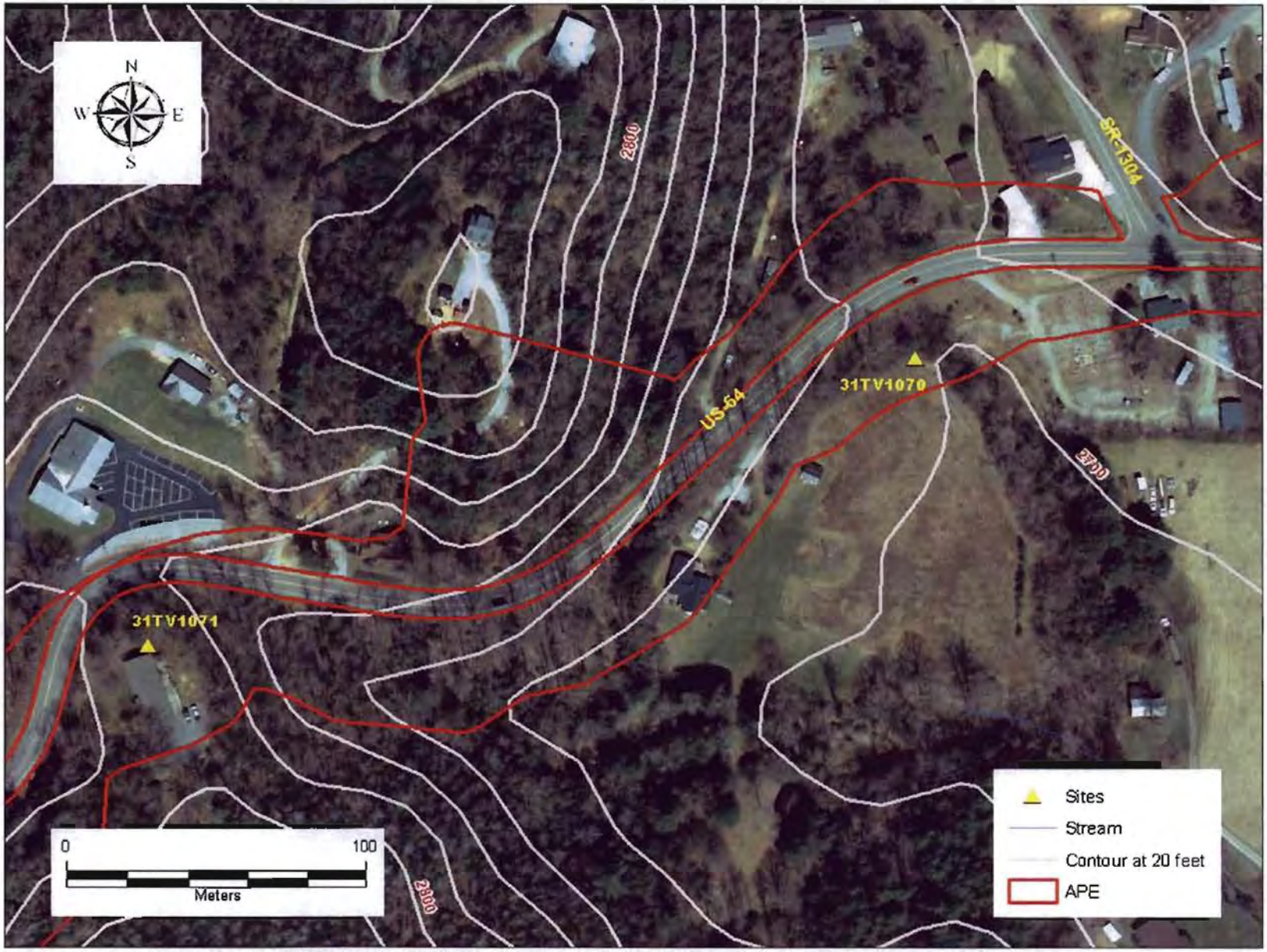


Figure 2. Aerial Photograph (NC Onemap 2010) showing the R-2409D APE and newly identified archaeological resources.

Figure 3. Artificial terrace along south side of US 64 at east end of R-2409D APE, view to east.

Figure 4. Representative disturbances along US 64, view to east.

Figure 5. Developed business areas along south side of US 64, view to east.

Figure 6. Cut bank along southwest side of APE, view to south.

Figure 7. Slope along northeast part of APE, view to south.

Figure 8. Modern road disturbance along northern edge of APE, view to west.

Figure 9. 31TV1070 location, view to north.

Appendix C

Agency Comments

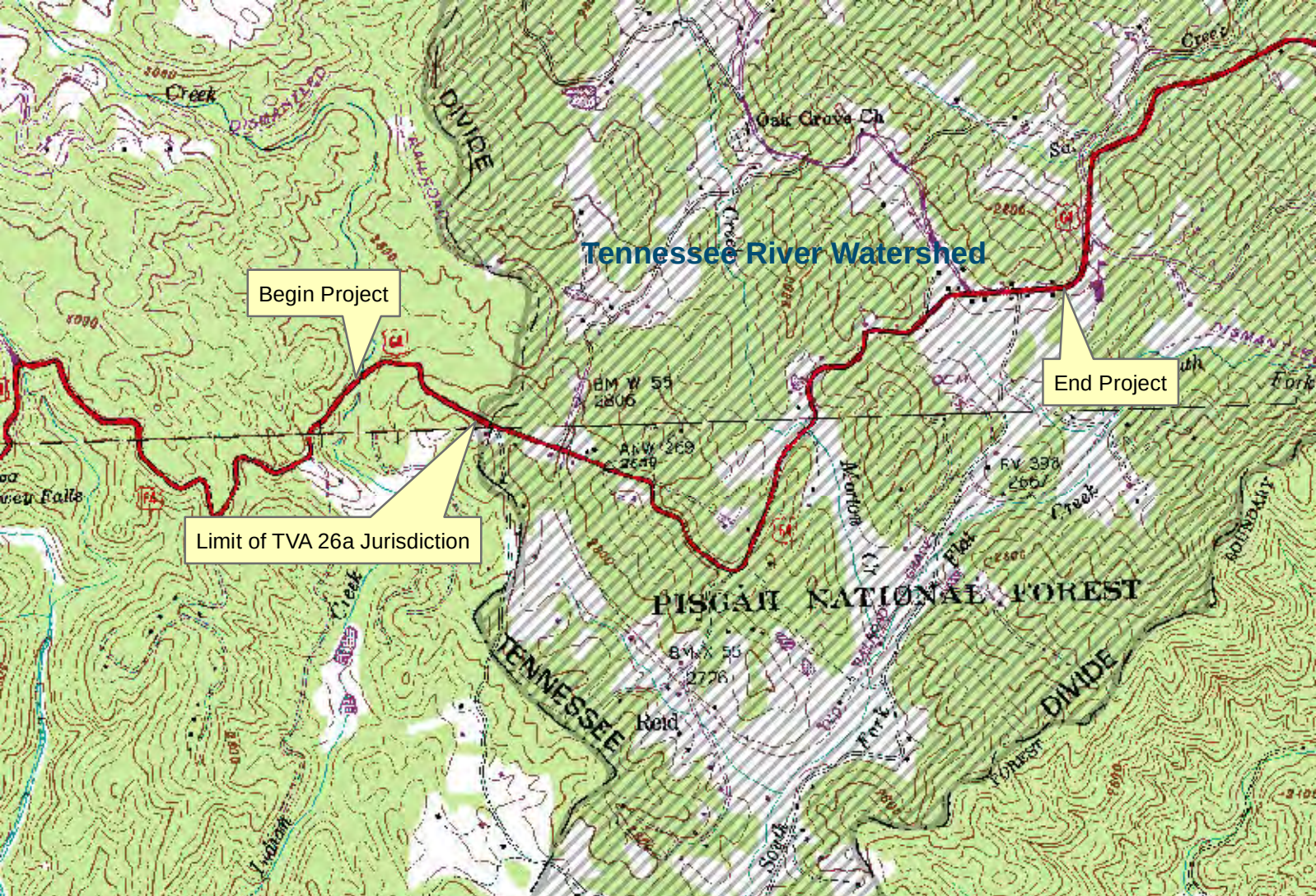
From:	Summitt, Anthony David
To:	Williams, Stephen J
Subject:	STIP Project No. R-2409D - US 64 Improvements in Transylvania Countya
Date:	Tuesday, November 22, 2011 11:41:36 AM
Attachments:	NCDOT-US64.pdf

Mr. Williams,

Thanks for providing TVA the opportunity to review the proposed US-64 improvements early in the process. Based on my review, TVA has Section 26a jurisdiction over the majority of the project (see attached map), with the exception being the westernmost portion of the project. If you have any questions, please contact me.

Thanks,

Anthony D. Summitt
Program Manager
Reservoir Land Use & Permitting, East Region
Tennessee Valley Authority
423-467-3811


Tennessee River Watershed
Begin Project
End Project
Limit of TVA 26a Jurisdiction
PISGAH NATIONAL FOREST
TENNESSEE
DIVIDE
Oak Grove Ch
Reid
Creek

Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1499

December 13, 2011

Mr. Stephen Williams
North Carolina Department of Transportation
Highway Division 14
253 Webster Road
Sylva, North Carolina 27699-1548

Dear Mr. Williams:

IMPROVEMENTS TO US 64 IN TRANSYLVANIA COUNTY - FEDERAL AID NO. STP-0064 - WBS NO. 34428.1.1, STIP PROJECT NO. R-2409D

This is in response to your recent request for information about this proposed project to improve 2 miles of US 64 between R-2409C and the eastern-most intersection of SR 1147 and US 64, 16 miles west of Brevard. Part of this project is located in the Tennessee River watershed and thus construction activities in streams may require approval by TVA under Section 26a of the TVA Act. Aside from those mentioned in your letter, we are not aware of any environmental resources in the project area that would require special consideration.

Kenneth Parr has retired from TVA. In the future, please send correspondence to me at the above address or by email at cpnicholson@tva.gov. My telephone number is (865) 632-3582.

Sincerely,

Charles P. Nicholson
Manager
NEPA Compliance

North Carolina
Department of Administration

Beverly Eaves Perdue, Governor

Moses Carey, Jr., Secretary

December 22, 2011

Mr. Steve Williams
NC Department of Transportation
Division 14
253 Webster Road
Sylva, NC 28779

Re: SCH File # 12-E-4220-0134; SCOPING; Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

Dear Mr. Williams:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

William E. H. Creech

Attachments

cc: Region B

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

MEMORANDUM

TO: Zeke Creech
State Clearinghouse

FROM: Melba McGee
Environmental Review Coordinator

RE: 12-0134 Improvements to US 64 from R-2409C to SR 1147 in Transylvania County County

DATE: December 21, 2011

The Department of Environment and Natural Resources has reviewed the proposed information. The attached comments should be provided to the applicant for informational purposes.

Thank you for the opportunity to review.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-707-8600 \ Internet: http://portal.ncdenr.org

North Carolina Wildlife Resources Commission

Gordon Myers, Executive Director

MEMORANDUM

TO: Melba McGee, Environmental Coordinator
Office of Legislative and Intergovernmental Affairs
North Carolina Department of Environment and Natural Resources

FROM: Dave McHenry, Habitat Conservation Biologist

DATE: December 13, 2011

SUBJECT: Start of Study Letter for Improvements to US 64 from R-2409C to the eastern-most intersection of SR 1147 with US 64, Federal Aid No. STP-0064, WBS No. 34428.1.1, STIP Project No. R-2409D, Transylvania County.

OLIA No. 12-0134

Biologists with the North Carolina Wildlife Resources Commission (NCWRC) reviewed the scoping document for the subject study and are familiar with the natural resources in the project area. Comments on the study from the NCWRC are offered for your consideration under provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the North Carolina Environmental Policy Act (G.S. 113A-1 et seq., as amended; 1 NCAC-25).

The South Fork of Flat Creek downstream of much of the project area supports a wild rainbow trout population. Indian Creek upstream of US 64 supports a wild brook trout population that may extend to near the highway. According to recent surveys, Sal and Morton creeks do not support trout upstream of US 64, but they likely support wild rainbow trout populations near the highway and downstream towards South Fork Flat Creek.

The NCWRC appreciates the opportunity to provide comments on the study. Please call me at (828) 452-0422 extension 24 if you would like to discuss these comments.

Cc:
M. Chambers, NCWRC

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh, NC 27699-1721
Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

December 20, 2011

MEMORANDUM

To: Melba McGee, Environmental Review Coordinator, NCDENR

From: Brian Wrenn, Transportation Permitting Unit, NC Division of Water Quality

Subject: Scoping comments on proposed improvements to US 64 from R-2409C to the eastern-most intersection of SR 1147 with US 64 in Transylvania County, Federal Aid Project No. STP-0064, TIP R-2409D, State Clearinghouse Project No. 12-0134.

Reference your correspondence dated November 17, 2011 in which you requested comments for the referenced project. Preliminary analysis of the project reveals the potential for multiple impacts to streams and jurisdictional wetlands in the project area. More specifically, impacts to:

Stream Name	River Basin	Stream Classification(s)	Stream Index Number	303(d) Listing
Morton Creek	French Broad	C;Tr	6-2-10-2-1	No
Indian Creek	Savannah	B;Tr	4-5-(1)	No

Further investigations at a higher resolution should be undertaken to verify the presence of other streams and/or jurisdictional wetlands in the area. In the event that any jurisdictional areas are identified, the Division of Water Quality requests that NCDOT consider the following environmental issues for the proposed project:

Project Specific Comments:

1. Both creeks are classified as Tr waters of the State. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of turbidity violations in trout waters. In addition, all disturbances within trout buffers shall be conducted in accordance with NC Division of Land Resources and NC Wildlife Resources Commission requirements.

2. Geological conditions in this area of the state can contain acidic rock formations. Geotechnical boring should be conducted to locate acidic rock formations. Impacts to these formations should be avoided and minimized to the maximum extent practicable.

3. Due to the topographical challenges in western NC, transportation projects often result in large quantities of waste material during construction. A mass waste balance should be conducted to determine the potential amount of waste material to be generated. Suitable sites for the disposal of waste material should be sites as far in advance as possible.

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: http://h2o.enr.state.nc.us/ncwetlands/

General Project Comments:

1. The environmental document shall provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

2. Environmental assessment alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

3. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, 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. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

4. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

5. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

6. If a bridge is being replaced with a hydraulic conveyance other than another bridge, NCDWQ believes the use of a Nationwide Permit may be required. Please contact the US Army Corp of Engineers to determine the required permit(s).

7. If the old bridge is removed, no discharge of bridge material into surface waters is allowed unless otherwise authorized by the US ACOE. Strict adherence to the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.

8. Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) shall not be placed in the stream when possible.

9. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's *Stormwater Best Management Practices.*

10. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

11. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species should be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

12. Placement of culverts and other structures in waters, streams, and wetlands shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

13. 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 shall 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.

14. If foundation test borings are necessary; it should be noted in the document. Geotechnical work is approved under General 401 Certification Number 3624/Nationwide Permit No. 6 for Survey Activities.

15. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.

16. All work in or adjacent to stream waters shall be conducted in a dry work area unless otherwise approved by NCDWQ. 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 should be used to prevent excavation in flowing water.

17. Sediment and erosion control measures shall not be placed in wetlands and streams.

18. Borrow/waste areas shall avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.

19. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

20. Heavy equipment shall be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment shall be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

21. In most cases, NCDWQ prefers the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure shall be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed and restored to the natural ground elevation. The area shall be stabilized with grass and planted with native tree species. Tall fescue shall not be used in riparian areas.

22. 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.

Thank you for requesting our input at this time. NCDOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact Brian Wrenn at 919-807-6365.

cc: Lori Beckwith, US Army Corps of Engineers, Asheville Field Office (electronic copy only)
Chris Militscher, Environmental Protection Agency (electronic copy only)
Marla Chambers, NC Wildlife Resources Commission
Marella Buncick, US FWS
Mike Parker, NCDWQ Asheville Regional Office
File Copy

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

Project Number: 12-0134 Due Date: 12-20-2011

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☐	Permit to construct & operate Transportation Facility as per 15 A NCAC (2D.0800, 2Q.0601)	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
☐	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☐	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of $65 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
X	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		(30 days)
☐	Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any arc mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
☑	401 Water Quality Certification	N/A	60 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	55 days (150 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
☐	Tar Pamlico or Neuse Riparian Buffer Rules required.		

* Other comments (attach additional pages as necessary, being certain to cite comment authority)

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500

☐ **Fayetteville Regional Office**
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

☐ **Mooresville Regional Office**
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699

☐ **Raleigh Regional Office**
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200

☐ **Washington Regional Office**
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215

☐ **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, NC 27107
(336) 771-5000

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: TRANSYLVANI

FOZ: HIGHWAYS AND ROADS

STATE NUMBER: 12-E-4220-0134
DATE RECEIVED: 11/22/2011
AGENCY RESPONSE: 12/19/2011
REVIEW CLOSED: 12/22/2011

CLEARINGHOUSE COORD REGION B
LAND OF SKY REGIONAL COUNCIL
339 NEW LEICESTER HWY, STE. 140
ASHEVILLE NC

REVIEW DISTRIBUTION

CC&PS - DIV OF EMERGENCY MANAGEMENT
DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
LAND OF SKY REGIONAL COUNCIL

PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act
Scoping

DESC: Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☑ COMMENTS ATTACHED

SIGNED BY: Michell Bair DATE: 12/19/2012

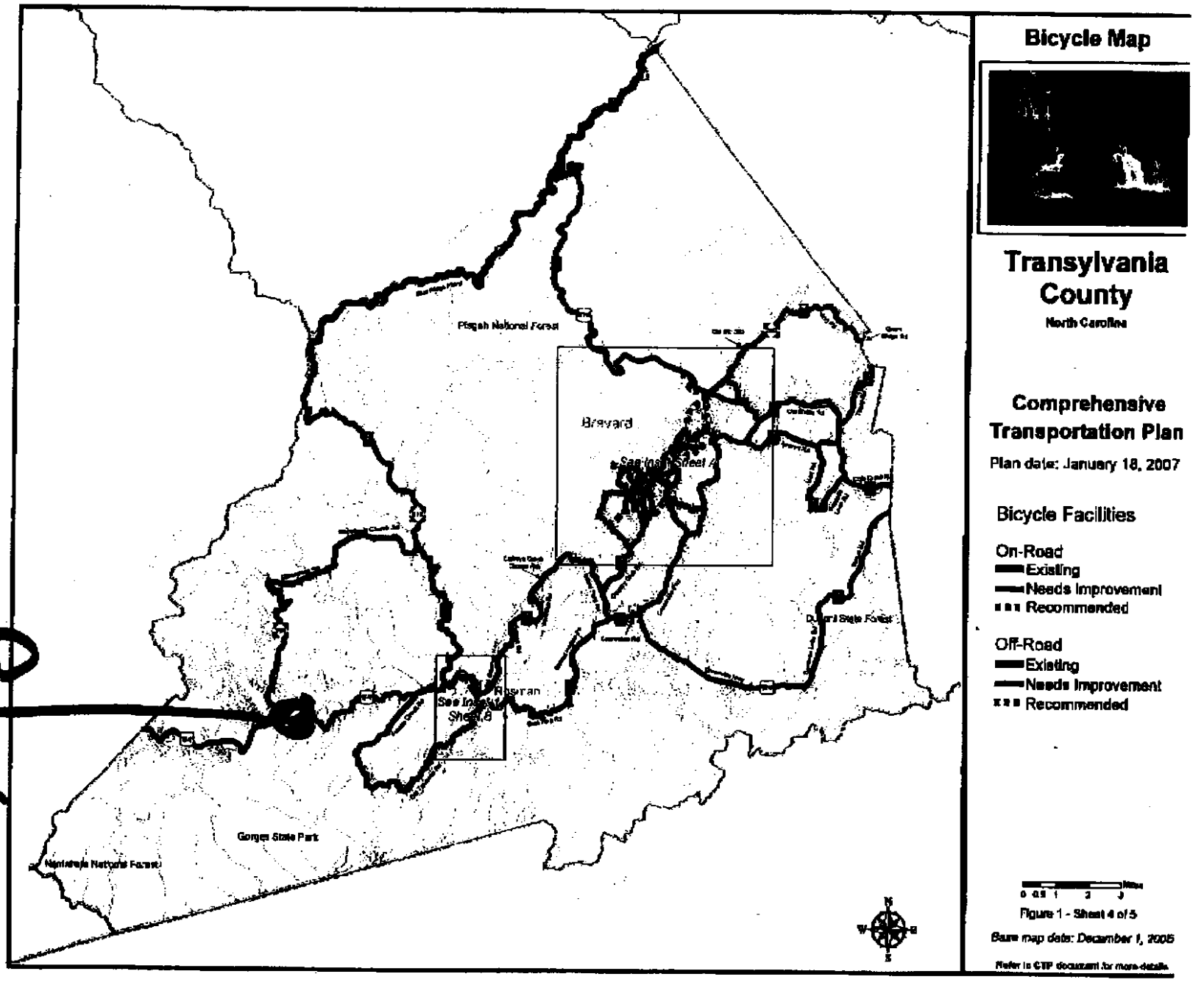
Memo

December 8, 2011
Re: Project R-2409D
To: Ron Townley
From: Lyubov Zuyeva
CC: Natalie Murdock, Paul Black

The project in question, STIP project No. R-2409D would be making roadway improvements along US 64 from R-2409C (near Indian Creek) to SR 1147 (Flat Creek Valley Road) in Transylvania County. Currently, this is a two-lane roadway. Climbing lanes are being considered. Based on the Transylvania Comprehensive Transportation Plan (adopted in 2007 by Transylvania Board of Commissioners and by the Land-of-Sky RPO), US 64 segment overlapping the project, west of Rosman and east of Lake Toxaway, is designated for "bicycle facilities-needs improvements."

Based on the CTP and the Complete Streets Policy adopted by NCDOT, I would recommend that a rural bicycle accommodation be provided as part of this project, consisting of 6-foot paved shoulders. Rumble strips, if installed, should accommodate safe riding of bicyclists on the shoulders (for example, install one-foot wide rumble strip under the white line, not in the middle of the paved shoulder).

Please see the CTP map attached.



R 2409D
Project area

339 New Leicester Hwy., Suite 140
Asheville, NC 28806
Phone: 828-251-6622 Fax: 828-251-6353
Web Site: www.landofsky.org

Land-of-Sky Regional Council
Buncombe • Henderson • Madison • Transylvania Counties NC

Regional Clearinghouse

N. C. Intergovernmental Review Process
Review and Comment Form

BUNCOMBE
Asheville
Biltmore Forest
Black Mountain
Forest
Weaverville
Woodfin

HENDERSON
Rock
Fletcher
Hendersonville
Laurel Park

MADISON
Hot Springs
Marshall
Mars Hill

TRANSYLVANIA
Brevard
Rosman

The Land-of-Sky Regional Council has received the attached information about a proposal which could affect your jurisdiction.

If you need more information, contact the applicant directly.

If you wish to comment on this proposed action, complete this form and return it with your comments to this office by 12/19/2011. Comments received after this date cannot be included in our response to the State Clearinghouse.

If you need additional time in order to obtain more information about the application, to formulate your comments, please call Michelle Barber at 828/251-6622 as soon as possible. An extension of the review period may be possible.

A NOTE to Reviewers - Projects with a "C" in the State Application Identifier (below) is a funding proposal review. Comments should focus on the acceptability or unacceptability of the project. Projects with an "E" in the identifier are environmental or site reviews. Comments for these projects should focus on the adequacy of the environmental document or site selection process.

If no comment is received by the above date, it will be assumed you have no comments regarding this proposal.

State Application Identifier # 12-E-4220-0134 Regional # 3-2012

Commenter's Name Arthur L Wilson Jr. Title County Manager

Representing Transylvania County

(Local Government)

Address 31 East Main Street

Brevard N.C. 28712

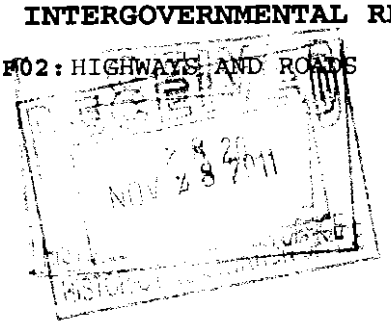
Phone 828-884-3144 Date 12/7/11

Comment (or attach):

The Board of Commissioners of Transylvania County fully support project R-2409D. US64 is a major transportation route between Henderson, Transylvania and Jackson Counties. The proposed passing lanes for the 2 mile section will enhance the safety of this 2 mile section of the road.

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: TRANSYLVANI **F02:** HIGHWAYS AND ROADS



STATE NUMBER: 12-E-4220-0134
DATE RECEIVED: 11/22/2011
AGENCY RESPONSE: 12/19/2011
REVIEW CLOSED: 12/22/2011

MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORDINATOR
DEPT OF CULTURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
MSC 4617 - ARCHIVES BUILDING
RALEIGH NC

EP 11-2067

Due 11/30/11 A - See letter 12/5/11

REVIEW DISTRIBUTION

CC&PS - DIV OF EMERGENCY MANAGEMENT
DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
LAND OF SKY REGIONAL COUNCIL

Due 12/9/11 S See letter JOK 12/7/11

PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act Scoping

DESC: Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☒ COMMENTS ATTACHED

SIGNED BY: Renee Gledhill-Earley DATE: 12.9.11

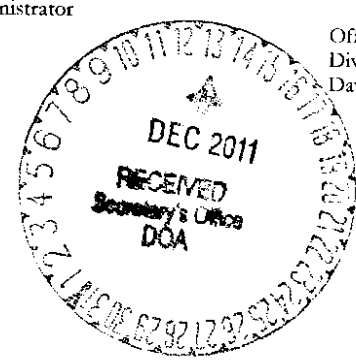
North Carolina Department of Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director



December 8, 2011

MEMORANDUM

TO: B. C. Burch
Highway Division 14
North Carolina Department of Transportation

FROM: Ramona Bartos RB for Ramona M. Bartos

SUBJECT: US 64 Improvements from R-2409C to the Eastern Most Intersection of SR 1147 with US 64, R-2409D, Transylvania County, ER 11-2267

There is one previously recorded archaeological site, 31TV198, within the study corridor. However, the project area has never been systematically surveyed to determine the location or significance of archaeological resources. Based on the topographic and hydrological situation, there is a high probability for the presence of prehistoric or historic archaeological sites.

We recommend that a comprehensive survey be conducted by an experienced archaeologist to identify and evaluate the significance of archaeological remains that may be damaged or destroyed by the proposed project. Potential effects on unknown resources must be assessed prior to the initiation of construction activities.

We have conducted a search of our maps and files and located the following structure of historical or architectural importance within the general area of this project:

- Chapman House (TV 0172)

The location of this property is available on our GIS website at: http://gis.ncdcr.gov/hpoweb/.

The last county-wide survey in Transylvania County was completed in 1990-1991. Therefore, we recommend that a Department of Transportation architectural historian identify and evaluate any structures over fifty years of age within the project area, and report the findings to us.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

North Carolina
Department of Administration

Beverly Eaves Perdue, Governor

Moses Carey, Jr., Secretary

January 10, 2012

Mr. Steve Williams
NC Dept. of Transportation
Division 14
253 Webster Road
Sylva, NC 28779

Re: SCH File # 12-E-4220-0134; SCOPING; Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

Dear Mr. Williams:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are **additional** comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

William E. H. Creech

Attachments

cc: Region B

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

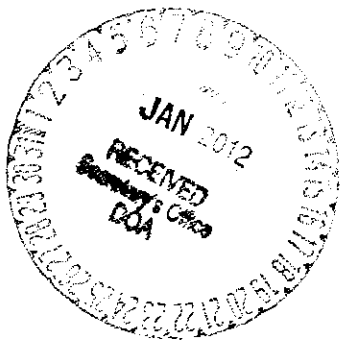
Location Address:
116 West Jones Street
Raleigh, North Carolina

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: TRANSYLVANI **F02:** HIGHWAYS AND ROADS

STATE NUMBER: 12-E-4220-0134
DATE RECEIVED: 11/22/2011
AGENCY RESPONSE: 12/19/2011
REVIEW CLOSED: 12/22/2011

MS SUSAN DECATSYE
CLEARINGHOUSE COORDINATOR
DEPT OF AGRICULTURE
1001 MSC - AGRICULTURE BLDG
RALEIGH NC



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DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
LAND OF SKY REGIONAL COUNCIL

PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act Scoping

DESC: Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☒ COMMENTS ATTACHED

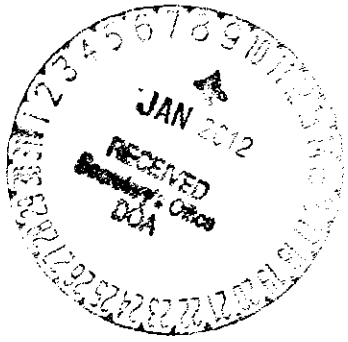
SIGNED BY: Susan DeCatsye DATE: 1/6/12

Steven W. Troxler
Commissioner

North Carolina Department of Agriculture and Consumer Services
Agricultural Services

Vernon N. Cox
Environmental Programs
Specialist

January 4, 2012



Ms. Sheila Green
State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

State #: 12-E-4220-0134

RE: Proposal for STIP No. R-2409D

Dear Ms. Green:

Thank you for the opportunity to respond to the request for information regarding the potential environmental impacts of the proposed improvements to US 64 (Rosman Highway) from R-2409-C to the eastern-most intersection of SR1147 with US-64, ade separation between McLeansville Road (SR 2918) and the NC Railroad, STIP Project R-2409D. The North Carolina Department of Agriculture and Consumer Services (NCDA&CS) is concerned about the conversion of North Carolina's farm and forest lands to other uses. Due to the importance of agricultural activities in the area, as well as the economy of the entire state, NCDA&CS strongly encourages the project planners to avoid conversion of agricultural land to other uses whenever possible. When avoidance is not possible, all reasonable efforts to minimize impacts to agricultural operations and agricultural land should be implemented.

With regard to additional information, it is suggested that the NCDOT Project Development and Environmental Analysis Branch contact the Transylvania Soil and Water Conservation District office to obtain information regarding potential impacts of the proposed project on adjacent agricultural activities, including potential impacts to any Voluntary Agriculture Districts in the project area. Contact information is given below.

Transylvania County Soil & Water Conservation District
203 E. Morgan Street
Brevard, NC 28712
828-884-3230/FX828-884-9323
Email: Jeffery.Parker@nc.nacdnet.net

Respectfully,

Vernon N. Cox
Environmental Programs Specialist

E-mail: vernon.cox@ncagr.gov
1001 Mail Service Center, Raleigh, North Carolina, 27699-1001 (919) 707-3070 ● Fax (919) 716-0105
TTY: 1-800-735-2962 Voice: 1-877-735-8200

North Carolina
Department of Administration

Beverly Eaves Perdue, Governor

Moses Carey, Jr., Secretary

December 28, 2011

Mr. Steve Williams
NC Department of Transportation
Division 14
253 Webster Road
Sylva, NC 28779

Re: SCH File # 12-E-4220-0134; SCOPING; Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

Dear Mr. Williams:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are **additional** comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

William E. H. Creech

Attachments

cc: Region B

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: TRANSYLVANI **F02:** HIGHWAYS AND ROADS

STATE NUMBER: 12-E-4220-0134
DATE RECEIVED: 11/22/2011
AGENCY RESPONSE: 12/19/2011
REVIEW CLOSED: 12/22/2011

MS CAROLYN PENNY
CLEARINGHOUSE COORDINATOR
CC&PS - DIV OF EMERGENCY MANAGEMENT
FLOODPLAIN MANAGEMENT PROGRAM
MSC # 4719
RALEIGH NC

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DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
LAND OF SKY REGIONAL COUNCIL

PROJECT INFORMATION

APPLICANT: N.C. Dept. of Transportation
TYPE: National Environmental Policy Act Scoping

DESC: Improvements to US 64 from R-2409C to eastern-most intersection of SR 1147 STP -0064, TIP Project No. R-2409D

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

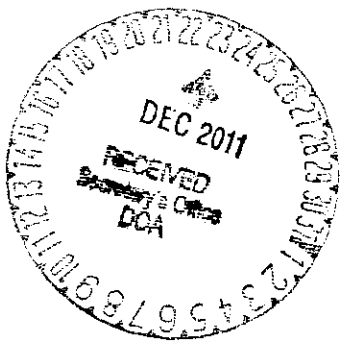
AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☒ COMMENTS ATTACHED

SIGNED BY: Kenneth W. [illegible] DATE: 12/22/11

North Carolina Department of Crime Control and Public Safety
Division of Emergency Management
Office of Geospatial and Technology Management

Beverly Eaves Perdue, Governor
Reuben F. Young, Secretary

H. Douglas Hoell, Jr., Director



December 16, 2011

State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

Subject: Intergovernmental Review State Number: 12-E-4220-0134
US 64 Improvements TIP Project R-2409D

As requested by the North Carolina State Clearinghouse, the North Carolina Department of Crime Control and Public Safety Division of Emergency Management Office of Geospatial and Technology Management (GTM) reviewed the proposed project listed above and offer the following comments:

1) The proposed project crosses the regulatory special flood hazard areas (SFHA) of Indian Creek and Morton Creek. A no-rise certification or Conditional Letter of Map Revision is required for any new, replacement or modification to an existing hydraulic structure that is within the regulatory floodway or non-encroachment area of these SFHAs.

2) The North Carolina Executive Order 123 directs NCDOT to coordinate with and follow the FHWA floodplain management requirements which are found in the Federal Executive Order 11988. To ensure NCDOT compliance with EO 11988 and the 44 CFR the NCDOT Hydraulics Section and the NC Floodplain Mapping Program have a MOA. Please coordinate with Mr. David Chang, NCDOT Hydraulics, to determine if this project is eligible to fall within the MOA.

Mail:
4719 Mail Service Center
Raleigh, NC 27699-4719
Telephone: 919-715-5711

Location:
1812 Tillery Place, Suite 105
Raleigh, NC 27604
Fax: 919-715-0408

www.NCCrimeControl.org

Thank you for your cooperation and consideration. If you have any questions concerning the above comments, please contact Dan Brubaker, P.E., CFM, the NC NFIP Engineer at (919) 715-5711, by email at dbrubaker@ncem.org or at the address shown on the footer of this documents.

Sincerely,

Kenneth W. Ashe, P.E., CFM
Assistant Director

c: John Gerber, NFIP State Coordinator
Dan Brubaker, NFIP Engineer

From:	Poole, John
To:	Williams, Stephen J
Subject:	FW: US 64 Improvements Comments
Date:	Monday, November 21, 2011 2:23:48 PM

From: Poole, John
Sent: Monday, November 21, 2011 12:25 PM
To: 'sjwilliams@ncdeot.gov'
Subject: US 64 Improvements Comments

November 21, 2011

Mr. Brian Burch:

On behalf of the federal Land and Water Conservation Fund (LWCF) program and the N.C. Parks and Recreation Trust Fund (PARTF) program, I have reviewed the Rosman Highway (US 64), STIP project # R-2409D, near Rosman and found NO LWCF or PARTF project sites will be impacted by the proposed DOT project.

From: Chambers, Marla J
To: Register, Martha
Subject: RE: Stream moratoria for NCDOT Project R-2409D
Date: Friday, June 29, 2012 4:26:04 PM
Attachments: image001.png
image002.png
image003.png
image005.png
12-0134_US 64 improvements_Transylvania_WRC comments.doc

I found our comments on this project from last December. A co-worker handled the scoping letter for this one, as I was on extended sick leave. It describes what we know of the trout populations in the project vicinity. These are not Hatchery Supported waters. As a reminder, waters with brook or brown trout will have the Oct. 15 to Apr. 15 trout moratorium (prohibiting in-stream work and land disturbance within the 25-foot trout buffer) and if rainbow trout are the only trout present, Jan. 1 to Apr. 15 will be the moratorium dates.

Based on these comments, I'd recommend the long trout moratorium for Indian Creek and the short (rainbow) trout moratorium for remaining streams. If NCDOT wants a different moratorium, sample data should be provided to justify lesser protection.

Let me know if you have any questions,
Marla

Marla J. Chambers
Western NCDOT Permit Coordinator
North Carolina Wildlife Resources Commission
12275 Swift Road
Oakboro, NC 28129
Office & Fax: 704-485-8291
Work cell: 704-984-1070
marla.chambers@ncwildlife.org
ncwildlife.org

From: Register, Martha [mailto:Martha.Register@arcadis-us.com]
Sent: Friday, June 29, 2012 12:16 PM
To: Chambers, Marla J
Subject: Stream moratoria for NCDOT Project R-2409D

Marla,

Thank you for talking with me this morning regarding the NCDOT project I am working on R-2409D. As you will recall from our conversation, I am interested in information regarding potential construction moratorium for work in my project area. The project crosses Indian Creek, in the Savannah River basin, on the western end of the project area and crosses Morton Ck, in the French Br. River basin, in the center of the project area.

Attached is a project location map. The project location is described as follows:

> The North Carolina Department of Transportation (NCDOT) proposes to improve US 64 (Rosman Highway) from R-2409C (near Indian Creek) to the eastern-most intersection of SR 1147 (Flat Creek Valley Road) with US 64. The project is located approximately 16 miles west of Brevard, in Transylvania County, North Carolina. The project is included in the NCDOT 2012-2020 State Transportation Improvement Program (STIP) as Project No. R-2409D. The project is approximately 2.1 miles long.

Thank you for your assistance.
Regards,

Martha M. Register, Environmental Planner/Senior Biologist
martha.register@arcadis-us.com

ARCADIS U.S., Inc., 801 Corporate Center Drive, Suite 300; Raleigh, North Carolina 27607-5073
direct 919-415-2347 I tel: 919-854-1282 I fax: 919-854-5448
www.arcadis-us.com

ARCADIS G&M of North Carolina, Inc.

From:	Mike Thomas
To:	Williams, Stephen J
Cc:	Mark Burrows; Artie Wilson
Subject:	STIP Project R-2409D
Date:	Wednesday, December 07, 2011 4:45:33 PM

To: Stephen Williams

I am responding to a request from Brian Burch in his letters of 11/17/2011 to the Transylvania County (1)Planning and Economic Development Department and (2)Historic Properties Commission (now the Joint Historic Preservation Commission) requesting information that might be helpful in evaluating potential environmental impacts of the subject project for improvements to US 64.

There are no County approvals required for this project. The streams should be protected from sedimentation, which I believe is normal NCDOT procedure. There are no local historic landmarks or national register properties along the length of this project from R-2409C to SR 1147.

A public hearing should be held at the nearest community center to the project area at an appropriate time before the project work begins.

We have no information to add to the environmental review which has already been conducted and is summarized in the design criteria write-up.

Please let Mark Burrows, Planning and Economic Development Director, or me know if there is any other information we can provide that might be helpful. You can call at 828-884-3205 or e-mail: mark.burrows@transylvaniacounty.org or mike.thomas@transylvaniacounty.org .

Thanks,

Mike Thomas
Planner - Transylvania County
828-884-3205
http://econdev.transylvaniacounty.org
Click here for our Newsletter

JAN. 18, 2012

B.C.BURCH, P. E. .CONSTRUCTION ENGINEER
HIGHWAY DIV. 14

DEAR SIR;

SUBJECT: STIP PROJECT NO. R-2409D

THANK YOU FOR YOUR LETTER DTD. NOV. 17, 2011 INVITING COMMENTS CONCERNING THE SUBJECT PROJECT.

I HAVE NO KNOWLEDGE OF ANY ENVIRONMENTAL IMPACTS IN THE AREA OF THIS PROJECT AND HAVE DISCUSSED THIS WITH OTHERS HERE AND THEY ARE NOT AWARE OF ANY .

I DO APPRECIATE AND HEARTILY ENDORSE THE POSSIBILITY OF CLIMBING LANES IN THIS PROJECT SINCE THERE ARE NO PASSING LANES FROM QUEBEC MOUNTAIN THROUGH THE REST OF TRANSYLVANIA COUNTY AT THE PRESENT TIME. ON U.S.-64.

AGAIN, THANK YOU ,

Milton H. Quinn

MILTON H. QUINN,
CHAIRMAN, US-64 IMPROVEMENT COALITIION