



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

January 14, 2015

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

ATTN: Ms. Lori Beckwith  
NCDOT Coordinator

Subject: **Application for an Individual Section 404 Permit and Section 401 Water Quality Certification** for the US 64 Safety Improvements Project from West of NC 281 at Lake Toxaway to Indian Creek in Transylvania County. FA Project No. HPP-0064 (115), Division 14, TIP R-2409C. Debit \$570 from WBS Number 34428.1.1

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes transportation improvements to US 64 from 0.3 miles to west of NC 281 at Lake Toxaway to Indian Creek in Transylvania County. The R-2409C project, approximately 1.5 miles in length, consists of straightening the road alignment, widening the travel lanes to standard width including unpaved shoulders, and adding a westbound climbing lane.

This application consists of: the cover letter, ENG form 4345, EEP Mitigation Acceptance Letter, NC Wildlife Resources comments, US Fish and Wildlife Concurrence Letter, Project Meeting Minutes, House Bill 1139, Stormwater Management Plan, Permit Drawings, Roadway Plan Sheets, 404 land owner labels and property contact labels.

Purpose and Need:

The purpose of the project is improve safety and traffic flow by correcting roadway deficiencies and constructing a climbing lane to enable motorists to pass slower moving cars or trucks. US 64 near Lake Toxaway is characterized by a substandard roadway width and narrow shoulders, a poor horizontal/vertical alignment, and a design speed that is lower than the posted speed limit. Wide vehicles, such as tractor trailer trucks, cross the centerline into opposing traffic when navigating sharp curves. Consequently, the accident rate exceeds the statewide average as well as critical crash rates for similar facilities.

Summary of Jurisdictional Impacts:

Overall, the project will permanently impact 1,070 linear feet of stream (983 lf of permanent fill and 87 lf of bank stabilization) and will temporarily impact 0.03 acre of streams. The project is will have no impacts to wetlands.

Summary of Utility Impacts:

There will be no impacts to jurisdictional resources as a result of utility relocations.

Summary of Mitigation:

The project has been design to avoid and minimize impacts to jurisdictional areas throughout the National Environmental Policy Act (NEPA) and design process. However, project impacts will necessitate compensatory mitigation for the unavoidable impacts. EEP will provide mitigation for 983 lf of permanent stream impacts. Please refer to the Compensatory Mitigation Section of this Cover Letter for details on impacts and mitigation.

## **PROJECT SCHEDULE**

R-2409C is currently scheduled to Let on July 21, 2015 with a Let review date of June 2, 2015. The Right of Way for the project was obtained on November 6, 2013.

## **NEPA DOCUMENT STATUS**

The Categorical Exclusion (CE) for R-2409C was approved October 28, 2013. The CE can be found on the NCDOT website: <https://connect.ncdot.gov/resources/Environmental>

## **INDEPENDENT UTILITY**

The subject project is in compliance with 23 CFR Part 771.111(f) which lists the Federal Highway Administration (FHWA) characteristics of independent utility of a project:

- (1) The project connects logical termini and is of sufficient length to address environmental matters on a broad scope,
- (2) The project is usable and a reasonable expenditure, even if no additional transportation improvements are made in the area,
- (3) The project does not restrict consideration of alternatives for any other reasonable foreseeable transportation improvements.

## **RESOURCE STATUS**

Project R-2409C is located within sub-basin 03-01-02 of the Savannah River Basin Watershed (HUC 03060101). Three tributaries to the Toxaway River carry the North Carolina Division of Water Resources's (NCDWR) stream classification of C; and four tributaries of Indian Creek have the NCDWR designation of C; Tr.

Stream determinations for R-2409C were conducted using the field delineation method outlined in the 1987 Corps of Engineers Wetland Delineation Manual. The project was verified by Dave Baker of the U.S. Army Corps of Engineers (USACE) and Brian Wrenn of the NCDWQ on November 29, 2007. The project was reverified on November 25, 2014 by Lori Beckwith of the USACE with a Preliminary Jurisdictional Determination (PJD) issued on December 5, 2014.

303 (d) Impaired Waters:

There are no streams in the R-2409C project footprint listed on the North Carolina Department of Environment and Natural Resources (NCDENR's) 2012 Final 303 (d) Lists for impaired waters.

**IMPACTS TO WATERS OF THE U.S.**

Tables 1 and 2 summarize the project-wide impacts to jurisdictional water resources for R-2409C. Site impact numbers correspond with the permit (hydraulic) drawings included in this application. No wetlands or ponds were verified in the project study area. Brief descriptions of each impact site will follow Table 2.

**Table 1. Impacts to jurisdictional streams**

<b>Project Section</b>	<b>Design Stage</b>	<b>Impact Type</b>	<b>Impact Length (linear feet)</b>	<b>Temporary Impacts (acres)</b>
R-2409C	Final Impacts	Perm. Fill	983	--
		Bank Stabilization	87	--
		Temp. Fill	--	0.03
<b>Total Permanent Impacts (Perm. Fill +Bank Stabilization):</b>			1,070	--
<b>Total Temporary Impacts:</b>			--	0.03

**Table 2. R-2409C – Final Design Stream Impacts**

Permit Site No.	Stream Name	Stream JD Reference	Impact Type	Impact Length (linear feet)	USACE Mitigation	NCDWQ Mitigation
1	UT to the Toxaway River	UT1	Perm. Fill	42	42	
			Bank Stabilization	10		
			Temp. Fill	73		
2	UT to the Toxaway River	UT2	Perm. Fill	37	37	
			Bank Stabilization	15		
			Temp. Fill	23		
3	UT to the Toxaway River	UT3	Perm. Fill	265	265	265
			Bank Stabilization	10		10
			Temp. Fill	28		
4	UT to the Toxaway River	UT8	Perm. Fill	76	76	
			Bank Stabilization	11		
			Temp. Fill	29		
5	UT to the Toxaway River	UT9	Perm. Fill	0		
			Bank Stabilization	10		
			Temp. Fill	15		
6A	UT to Indian Creek	UT5	Perm. Fill	96	96	
			Bank Stabilization			
			Temp. Fill	20		
6B	UT to Indian Creek	UT4	Perm. Fill	263	263	263
			Bank Stabilization	10		10
			Temp. Fill	84		
7	UT to Indian Creek	UT6	Perm. Fill	32	32	
			Bank Stabilization	11		
			Temp. Fill	26		
8	UT to Indian Creek	UT7	Perm. Fill	172	172	172
			Bank Stabilization	10		10
			Temp. Fill	26		
<b>Total Permanent Impacts (Perm. Fill +Bank Stabilization):</b>				1,070		
<b>Impacts requiring Mitigation by USACE:</b>					983	
<b>Impact requiring Mitigation by NCDWR:</b>						730

Note: Bank stabilization is not considered a loss of waters according to the USACE. Mitigable impacts calculated for NCDWQ are considering length of impacts to a stream that are greater than or equal to 150 linear feet.

**R-2409C Permit Site Descriptions:**

**Permit Site 1:** Stream UT1 is a perennial unnamed tributary to the Toxaway River that will be impacted by the extension of a new 66” reinforced concrete pipe (RCP) from an existing 4’ x 4’ reinforced concrete box culvert (CMP) with bank stabilization placed at the outlet.

Permanent Stream Impacts: 42 lf  
Temporary Stream Impacts: <0.01 ac  
Bank Stabilization: 10 lf

**Permit Site 2:** Stream UT2 is a perennial unnamed tributary to the Toxaway River that will be impacted by the replacement of a 24” CMP with a new, longer, 30” reinforced concrete pipe (RCP) with bank stabilization placed at the outlet.

Permanent Stream Impacts: 37 lf  
Temporary Stream Impacts: <0.01 ac  
Bank Stabilization: 15 lf

**Permit Site 3:** Stream UT3 is a perennial unnamed tributary to the Toxaway River that will be impacted by its relocation into 30” corrugated steel pipe (CSP) with bank stabilization placed at the outlet.

Permanent Stream Impacts (Stream 2B): 265 lf  
Temporary Stream Impacts (Stream 2B): <0.01 ac  
Bank Stabilization: 10 lf

**Permit Site 4:** Stream UT8 is a intermittent unnamed tributary to the Toxaway River that will be impacted by its relocation into 18” RCP with bank stabilization placed at the outlet.

Permanent Stream Impacts: 76 lf  
Temporary Stream Impacts: <0.01 ac  
Bank Stabilization: 11 lf

**Permit Site 5:** Stream UT9 is an intermittent unnamed tributary to the Toxaway River that will be impacted by bank stabilization placed at the outlet of an 18” RCP.

Permanent Stream Impacts: 0 lf  
Temporary Stream Impacts: <0.01 ac  
Bank Stabilization: 10 lf

**Permit Site 6A:** Stream UT5 is a perennial unnamed tributary to Indian Creek that will be impacted by its relocation into a 30” CSP.

Permanent Stream Impacts: 359 lf  
Temporary Stream Impacts: <0.01 ac

**Permit Site 6B:** Stream UT4 is perennial unnamed tributary to Indian Creek that will be impacted by its relocation into a 42” RCP with bank stabilization placed at the outlet.

Permanent Stream Impacts: 359 lf  
Temporary Stream Impacts: <0.01 ac  
Bank Stabilization: 10 lf

**Permit Site 7:** Stream UT6 is a perennial unnamed tributary to Indian Creek that will be impacted by the replacement of a 24” CMP with a new, longer, 30” reinforced concrete pipe (RCP) with bank stabilization placed at the outlet.

Permanent Stream Impacts: 32 lf  
 Temporary Stream Impacts: <0.01 ac  
 Bank Stabilization: 11 lf

**Permit Site 8:** Stream UT7 is a perennial unnamed tributary to Indian Creek that will be impacted by the replacement of a 24” CMP with a new, longer, 24” CSP with bank stabilization placed at the outlet.

Permanent Stream Impacts: 172 lf  
 Temporary Stream Impacts: <0.01 ac  
 Bank Stabilization: 10 lf

### MORATORIUM

Email correspondence from Marla Chambers of the North Carolina Wildlife Resources Commission (NCWRC) dated November 20, 2006 stated there were no trout moratoriums for this project. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

### FEDERALLY PROTECTED SPECIES

Plants and animals with Federal classification of Endangered (E) or Threatened (T) are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of August 7, 2014 the USFWS lists ten federally protected species for Transylvania County (Table 3).

**Table 3. Federally protected species listed for Transylvania County.**

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Glyptemys muhlenbergii</i>	Bog turtle	T(S/A)	No	Not Required
<i>Glaucomys sabrinus coloratus</i>	Carolina northern flying squirrel	E	No	No Effect
<i>Myotis grisescens</i>	Gray bat	E	No	No Effect
<i>Alasmidonta raveneliana</i>	Appalachian elktoe	E	No	No Effect
<i>Sarracenia rubra jonesii</i>	Mountain sweet pitcher plant	E	No	No Effect
<i>Isotria medeoloides</i>	Small whorled pogonia	T	Yes	MANLTAA
<i>Geum radiatum</i>	Spreading avens	E	No	No Effect
<i>Helonias bullata</i>	Swamp pink	T	No	No Effect
<i>Spiraea virginiana</i>	Virginia spiraea	T	Yes	No Effect
<i>Gymnoderma lineare</i>	Rock gnome lichen	E	No	No Effect

## Summary of Species with Habitat

Small whorled pogonia – Concurrence for this species was received from USFWS on October 24, 2013 for May Affect, Not Likely to Adversely Affect.

A US Fish and Wildlife Service proposal for listing the Northern Long-eared Bat (*Myotis septentrionalis*) as an Endangered species was published in the Federal Register in October 2013. The listing will become effective on or before April, 2015. Furthermore, this species is included in USFWS's current list of protected species for Transylvania County. NCDOT is working closely with the USFWS to understand how this proposed listing may impact NCDOT projects. NCDOT will continue to coordinate appropriately with USFWS to determine if this project will incur potential effects to the Northern long-eared bat, and how to address these potential effects, if necessary.

## **INDIRECT CUMULATIVE IMPACT ANALYSIS**

Existing rules for the 401 Water Quality Certification Program (15A NCAC 2H .0506(b)(4)) require that the NCDWR determine that a project “does not result in cumulative impacts, based on past or reasonably anticipated future impacts, that cause or will cause a violation of downstream water quality standards.”

### **Indirect and Cumulative Effects**

Existing land use in the vicinity of the project is comprised primarily of undeveloped, forested land, large lot single-family residential subdivisions (the majority of which are vacation homes) and widely scattered and infrequent commercial and institutional land uses.

According to the *Transylvania County Comprehensive Plan* (February 2005) a large portion of land within the Future Land Use Study Area (FLUSA) is designated as Rural Resources (parcels > 200 acres) which is defined as “land currently committed to rural agriculture, forestry or residential development and not requiring public water or services. The greatest percentage of non-forest land in the County is rural. This category also includes private lands where each parcel is greater than 200 acres. These lands are identified for natural resource management and have high potential for commercial, agriculture and forestry use. These lands often have one or more limitations that would make development costly and/or hazardous; and lands containing irreplaceable, limited, or significant natural, wildlife, recreational or scenic resources.” The Plan further states that “based on existing trends, the County will remain a predominately rural, residential County.”

While the attraction of natural resources is seen as an asset for the economy in terms of the tourism draw, the presence of protected land (Gorges State Park), steep topography and slopes and the lack of water and sewer infrastructure are also a hindrance to large scale commercial and industrial development and more dense residential development. In addition, the potential for change in land use will also be tempered by the relatively low market for development, in part because of low projected population (annual growth

of about 0.7% for Transylvania County between 2010 and 2030) and relatively low employment growth projections (1.6% annualized growth through 2020 for the Mountain Area WDB).

Based upon the analysis and the output of the ICE Screening Matrix, this project has minimal likelihood to increase the development potential of and intensity in the areas adjacent to the STIP R-2409C corridor. With the exception of a slight decrease in travel time, estimated to be below 2 minutes if traveling the length of the project, the project will not result in other transportation impact causing activities (TICA) which have potential to influence land development decisions such as an increase in exposure, change in access, creation of a transportation/land use node or a change in travel patterns. Although some development is expected to continue to occur in the FLUSA in the No-Build scenario, it will occur at an even lesser degree.

Minimal potential exists for water resources within the FLUSA to be impacted given the level of past, present, and planned public and private development projects. No designated High Quality Waters (HQW), Outstanding Resource Waters (ORW), or Protected or Critical Water Supply Watershed areas occur within one mile of the project study area. HQW waters do exist within the Bearwallow Creek watershed approximately 1.8 miles south of the project study area. Waterways within the Gorges State Park are classified as Trout Waters, High Quality Waters (HQW) and Outstanding Resource Waters (ORW). However, comprehensive planning in the form of County ordinances, NPDES storm water permitting requirements and the implementation of Best Management Practices during construction, including sediment and erosion control measures, will minimize any potential indirect and cumulative effects on these resources. Because minimal indirect impacts are anticipated, the cumulative effect of this project when considered in the context of other past present and future actions, and the resulting impact on the notable human and natural features, should be minimal. Therefore, this project will likely not result in a significant change in impervious surface and potential indirect and cumulative effects to downstream water quality should be minimal.

Direct natural environmental impacts by NCDOT projects will be addressed by programmatic agreements with resource agencies, and will be further evaluated by the NCDOT Natural Environment Unit during project permitting. Natural environmental impacts that may result from any induced development may be avoided or minimized through the implementation of local, state and federal regulations.

## **CULTURAL RESOURCES**

### Archaeology

This project will not impact any archaeological sites

### Historic Architecture

The project area contains no properties listed on or eligible for the National Register of Historic Places thus the project will have no affect on any historic properties.

## SECTION 4(f)

### Section 4(f) and *de minimis*

Approximately 7.26 acres of park property are located with the proposed right of way limits. A portion will be replaced by acquiring and transferring approximately 2.58 acres of private property between US 64 and the park. This action was approved by the North Carolina General Assembly in House Bill 1139 on July 7, 2014.

FHWA considers the impacts from the project to this 4(f) protected site to be minimal. FHWA has made a 4(f) “de minimis” determination [23 CFR 774.17(5) (2)] based on concurrence from NC DENR Division of Parks and Recreation that the project will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

## FEMA COMPLIANCE

The project has been coordinated with appropriate state and local officials and the Federal Emergency Management Agency (FEMA) to assure compliance with FEMA, state, and local floodway regulations.

## WILD AND SCENIC RIVER SYSTEM

The project will not impact any designated Wild and Scenic Rivers or any rivers included in the list of Study Rivers (Public Law-542, as amended).

## MITIGATION OPTIONS

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide either on-site or compensatory mitigation of all remaining, unavoidable jurisdictional impacts. Avoidance measures were taken during the planning and NEPA compliance stages; minimization measures were incorporated as part of the project design.

### Avoidance and Minimization

Avoidance and minimization measures for the Planning and Design Phase include the following items:

- The design was shifted to avoid a colony of threatened small whorled pogonia plants
- A retaining wall will be constructed to stabilize the slope and prevent erosion in the hillside below the plants
- The alignment was shifted to preserve the tree canopy above the plants to minimize disturbance to the plants microclimate
- Retaining walls were utilized at Permit Sites 3 and 8 to minimize impacts to jurisdictional streams.

**Compensatory Mitigation**

There is no onsite mitigation propped for this project.

**Proposed Mitigation for R-2409C**

Permanent Stream Impacts on Project	1,070 lf
Impacts Requiring Mitigation from USACE (See Table 2)	983 lf
(Impacts Requiring Mitigation from NCDWQ)	730 lf
Impacts requiring Mitigation from EEP	983 lf

**REGULATORY APPROVALS**

Application is hereby made for a USACE Individual 404 Permit as required for the above-described activities. Application is hereby made for a Section 401 Water Quality Certification from the N.C. Division of Water Quality. In compliance with Section 143-215.3DC of the NCAC we have provided a method of debiting \$570, as noted in the subject line of this application, as payment for processing the Section 401 Water Quality Certification application. We are providing five copies of this application to DWQ, for their use.

A copy of this permit application will be posted to the DOT website at: <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>. If you have any questions or need additional information, please contact Jeff Hemphill at [jhemphill@ncdot.gov](mailto:jhemphill@ncdot.gov) or (919) 707-6126.

Sincerely,



BR

Richard W. Hancock, P.E., Manager  
Project Development and Environmental Analysis Unit

cc:  
NCDOT Permit Application Standard Distribution List

**U.S. ARMY CORPS OF ENGINEERS  
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**

33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003  
EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

**PRIVACY ACT STATEMENT**

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

**(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)**

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

**(ITEMS BELOW TO BE FILLED BY APPLICANT)**

5. APPLICANT'S NAME First - Richard      Middle - W.      Last - Hancock Company - NCDOT-PDEA E-mail Address - rwhancock@ncdot.gov			8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Phil      Middle -      Last - Harris Company - NCDOT NES E-mail Address - pharris@ncdot.gov		
6. APPLICANT'S ADDRESS: Address- City -      State -      Zip -      Country -			9. AGENT'S ADDRESS: Address- City -      State -      Zip -      Country -		
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence      b. Business      c. Fax 919-707-6000			10. AGENTS PHONE NOs. w/AREA CODE a. Residence      b. Business      c. Fax		

**STATEMENT OF AUTHORIZATION**

11. I hereby authorize, \_\_\_\_\_ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

\_\_\_\_\_  
SIGNATURE OF APPLICANT

\_\_\_\_\_  
DATE

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

12. PROJECT NAME OR TITLE (see instructions) US 64 Safety Improvement Project from West of NC 281 at Lake Toxaway to Indian Creek in Transylvania County		
13. NAME OF WATERBODY, IF KNOWN (if applicable) See permit drawings and cover letter		14. PROJECT STREET ADDRESS (if applicable) Address
15. LOCATION OF PROJECT Latitude: °N 35.12433      Longitude: °W 82.91965		City -      State-      Zip-
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID      Municipality Section -      Township -      Range -		

17. DIRECTIONS TO THE SITE

Please see attached vicinity map and cover letter.

18. Nature of Activity (Description of project, include all features)

The improvement and expansion of the existing roadway to a multi-lane road facility.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to add traffic capacity, system linkage and safety to US 64.

**USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED**

20. Reason(s) for Discharge

Roadway fill (in wetlands and surface water), pipe/culvert construction, stream relocation.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
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See attached cover letter.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres See attached cover letter.

or

Linear Feet See attached cover letter.

23. Description of Avoidance, Minimization, and Compensation (see instructions)

See attached cover letter.

24. Is Any Portion of the Work Already Complete?  Yes  No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- See attached permit drawings.

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

 1-15-15

SIGNATURE OF APPLICANT

DATE

SIGNATURE OF AGENT

DATE

For RICHARD W. HANCOCK

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

Ecosystem Enhancement Program

Donald R. van der Vaart  
Secretary

January 13, 2015

Mr. Richard W. Hancock, P.E.  
Project Development and Environmental Analysis Unit  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Mr. Hancock:

Subject: EEP Mitigation Acceptance Letter:

**R-2409C**, US 64 from Cashiers to Rosman, Transylvania County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on January 8, 2015, the impacts are located in CU 03060101 of the Savannah River basin in the Southern Mountains (SM) Eco-Region, and are as follows:

Savannah 03060101 SM	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	983.0	0	0	0	0	0	0	0

\*Some of the stream impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

EEP commits to implementing sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies in accordance with the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Beth Harmon at 919-707-8420.

Sincerely,

  
James B. Stanfill  
EEP Asset Management Supervisor

cc: Ms. Lori Beckwith, USACE – Asheville Regulatory Field Office  
Mr. Kevin Barrett, NCDWR – Swannanoa Office  
Ms. Linda Fitzpatrick, NCDOT – PDEA  
File: R-2409C

## Hemphill, Jeffrey L

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**From:** Marla Chambers <chambersmj@carolina.rr.com>  
**Sent:** Monday, November 20, 2006 1:24 PM  
**To:** 'Shay Garriock'  
**Subject:** RE: Your message

I don't believe I've formally commented, I'm way behind on scoping comments. But I have checked with our biologists and we don't have trout or smallmouth bass concerns for this project. However, blackbanded darter, *Percina nigrofasciata* (NCSR); rosyface chub, *Hybopsis rubrifrons* (NCT); yellowfin shiner, *Notropis lutipinnis* (NCSC); turquoise darter, *Etheostoma inscriptum* (NCSC); and Oconee stream crayfish, *Cambarus chaugaensis* (NCSC) are known from the Toxaway River in NC downstream from the project area (upstream from Lake Jocassee). Additionally, Oconee stream crayfish occurs in Indian Creek. Sediment and erosion control for sensitive watersheds should apply to reduce impacts to these aquatic resources occurring downstream.

NCSR - state Significantly Rare  
NCT - state Threatened  
NCSC - state Special Concern

I hope this is helpful. Let me know if you need anything further.

Marla J. Chambers  
Western NCDOT Permit Coordinator  
N.C. Wildlife Resources Comm.  
4614 Wilgrove-Mint Hill Rd., Suite M  
Charlotte, NC 28227  
[chambersmj@carolina.rr.com](mailto:chambersmj@carolina.rr.com)  
phone: 704-545-3841  
fax: 704-545-3812  
cell: 704-984-1070

-----Original Message-----

From: Shay Garriock [<mailto:shayg@mindspring.com>]  
Sent: Monday, November 20, 2006 12:29 PM  
To: Marla Chambers  
Subject: Re: Your message

Hi Marla,

Thanks for the update. I am contacting you to inquire if you have formally commented on R-2409C, the widening of a section of US 64 between Indian Creek and Lake Toxaway in Transylvania Co. We are doing the NRTR and have received comments on the draft from NCDOT. They questioned if we had corresponded on the project with WRC concerning trout waters and if a construction moratorium would be required.

Thank you,

Shay Garriock  
The Catena Group  
Office: 919-732-1300  
Mobile: 919-417-0456

----- Original Message -----



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street  
Asheville, North Carolina 28801

October 24, 2013

Ms. Deborah Barbour, P.E.  
North Carolina Department of Transportation  
Project Development and Environmental Analysis Unit  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Ms. Barbour:

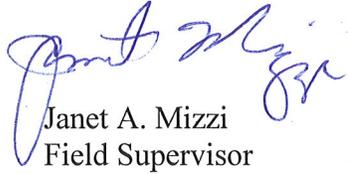
Subject: Endangered Species Concurrence for the Proposed Construction of North Carolina Department of Transportation Project R-2409C - Improvement to US 64 from West of NC 281 to Indian Creek, Transylvania County, North Carolina

On September 17, 2013, we received your letter (via email) requesting section 7 concurrence on effects the subject bridge project may have on the federally threatened small whorled pogonia (*Isotria medeoloides*). The following comments are provided in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

Your concurrence request letter states that the small whorled pogonia is present adjacent to the existing right-of-way and could be affected by some of the project alternatives. It appears that the selection of the recommended alternative, plus the addition of a retaining wall to avoid a cut slope which may have affected small whorled pogonia habitat, will allow for the avoidance of all known small whorled pogonias at this site. With these conservation measures, we believe the probability that there will be negative effects to the species is low and concur with your biological conclusion of may affect, not likely to adversely affect. Therefore, we believe the requirements under section 7(c) of the Act are fulfilled. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

If we can be of assistance or if you have any questions about these comments, please contact Mr. Jason Mays of our staff at 828/258-3939, Ext. 226. In any future correspondence concerning this project, please reference our Log Number 4-2-07-001.

Sincerely,

A handwritten signature in blue ink, appearing to read "Janet Mizzi".

Janet A. Mizzi  
Field Supervisor

December 7, 2007

To: Paul White, P.E., Design Construction Engineer  
NCDOT Division 14 Office

From: Brian Wiles, PE, Project Manager  
Ko & Associates, P.C. Consulting Engineers

Subject: **R-2409C**, US 64, Safety Improvements and Climbing Lanes from Lake  
Toxaway to Indian Creek, Transylvania County, North Carolina

On November 29, 2007, an interagency meeting was held to discuss revisions to the project since the 10/10/06 interagency meeting. These revisions were made to avoid a small-whorled pogonia plant population while minimizing impacts to streams and Gorges State Park land. The following people attended the meeting:

Troy Wilson	US Fish and Wildlife Service
Carolyn Wells	US Fish and Wildlife Service
Dave Baker	US Army Corps of Engineers
Donnie Brew	Federal Highway Administration
Marshall Ellis	DENR Division of Parks and Recreation
Brian Wrenn	DENR Division of Water Quality
Mike Parker	DENR Division of Water Quality
Joel Setzer	NCDOT Division 14 Office
Jamie Wilson	NCDOT Division 14 Office
Mark Davis	NCDOT Division 14 Office
Paul White	NCDOT Division 14 Office
Owen Anderson	NCDOT Division 14 Office
Jeff Hemphill	NCDOT PD&EA Branch
Steve Mitchell	NCDOT PD&EA Branch
Dennis Herman	NCDOT PD&EA Branch
Shay Garriock	The Catena Group
Brian Wiles	Ko & Associates
Mark Reep	Ko & Associates

Two alternatives are being studied in detail (see meeting handout for additional project information).

- **Alternate 2** realigns portions of the roadway to provide flatter horizontal curves and achieves a minimum design speed of 30 mph. It avoids the small-whorled pogonia plant population.

- **Alternate 4** corrects more of the alignment deficiencies, straightens curves, and increases the design speed to 40 mph. It also avoids the small-whorled pogonia population.

The following is a summary of major items discussed during the meeting.

#### Small-whorled pogonia

Alternates 2 and 4 will not directly disturb the embankment where the plant population is located. The side slope is currently eroding. US Fish and Wildlife (USFWS) representatives request this roadway slope be stabilized and asked to review the revegetation plans for the project when available. Ideas may include planting native vegetation and/or installing mesh fabric with anchor units. To preserve the tree canopy, tree clearing can be limited to the slope stake line near the plant population. These items will be considered as environmental commitments for the project.

It was suggested that NCDOT send a letter to USFWS requesting concurrence that the project will have no effect on the small-whorled pogonia. Ko & Associates agreed to email a copy of the alternate design concepts near the plant population for Troy Wilson and Carolyn Wells to review.

#### Stream Crossings

Army Corps of Engineers (COE) and NC Division of Water Quality (DWQ) representatives asked that the designs be refined to minimize impacts to the following:

- Perennial streams
- The parallel unnamed tributaries 4 and 5
- The unnamed tributary 1 at NC 281

Based on a jurisdictional field review of the streams, some of the perennial and intermittent stream limits will need to be revised. Also, the revised Alternate 2 and 4 footprints appear to extend beyond the original stream delineation limits in some areas. NCDOT, Ko & Associates, and The Catena Group will determine the extent of additional studies needed to update the stream delineations and the Natural Resources Technical Report.

#### Gorges State Park

Gorges State Park officials are most concerned about the following issues:

- Minimization of water quality impacts through stringent erosion control

December 7, 2007

R-2409C, US 64, Transylvania County

Page 3

- Use of native plant species (no invasive species) for stabilizing the construction slopes after construction in the area of the park boundaries
- Request for new park boundaries to join the roadway right of way with no private parcels in between

Based on the interagency meeting input, the following action items are proposed:

- Email a copy of the alternate design concepts near the plant population for USFWS to review (Ko & Associates)
- Continue refining Alternates 2 and 4 to minimize impacts and update stream limits and other natural resource issues (Ko & Associates and The Catena Group with work with NCDOT to define the additional work effort for surveys, roadway designs, and natural systems studies.)
- Provide refined designs and impact calculations to the meeting participants
- Schedule a future interagency conference call to review the alternatives
- Additional public involvement opportunities will be considered

cc: Meeting Participants



October 22, 2008

To: Interagency Meeting Participants

From: Brian Wiles, PE, Project Manager  
Ko & Associates, P.C. Consulting Engineers

Subject: **R-2409C**, US 64, Safety Improvements and Climbing Lanes from Lake Toxaway to Indian Creek, Transylvania County, North Carolina

This is to update you on the R-2409C planned improvements to US 64 in Transylvania County. This follows an 11/29/07 interagency meeting for input on the project alternatives (see attached meeting minutes). We will be contacting you to schedule a conference call to discuss the latest project developments.

The primary issues of concern have been: avoiding a population of small-whorled pogonia plants, minimizing impacts to Gorges State Park, and minimizing impacts to perennial streams. Since the November meeting, natural system surveys and design adjustments have been completed. Additional stream limits were delineated. No new federally protected species were identified. The initial alternatives included 12 foot travel lanes and 4 foot shoulders. The updated alternatives were shifted at Indian Creek, UT 1, UT 4, and UT 5. Shoulders have increased to 6 feet and lane widths have increased to as wide as 16 feet in curves to better contain trucks. A summary of updated stream impacts is provided as follows:

### **Alternatives**

- **Alternate 2** realigns portions of the roadway to provide flatter horizontal curves and achieves a minimum design speed of 30 mph. It avoids the small-whorled pogonia plant population.
- **Alternate 4** corrects more of the alignment deficiencies, straightens curves, and increases the design speed to 40 mph. It also avoids the small-whorled pogonia population.

### **Small-whorled pogonia**

- A Small-whorled pogonia population (8 plants) was identified in June 2006. It is located on the north side of US 64 at the eastern end of the project, approximately 50 feet from the existing road.
- Alternatives 2 and 4 avoid the population by following the existing alignment in the area of the plants.

## Gorges State Park

- **Gorges State Park** is part of the NC State Parks System and is located along the south side of US 64 at the western end of the project.
- **All alternatives** would require temporary construction easements or permanent use of park land.

## Water Resources

The following jurisdictional stream systems are located within the project study area: **UT's 1-3 and 8-9 to Toxaway River, UT's 4-7 to Indian Creek, and Indian Creek** (see Figure 3 for locations).

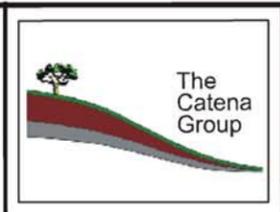
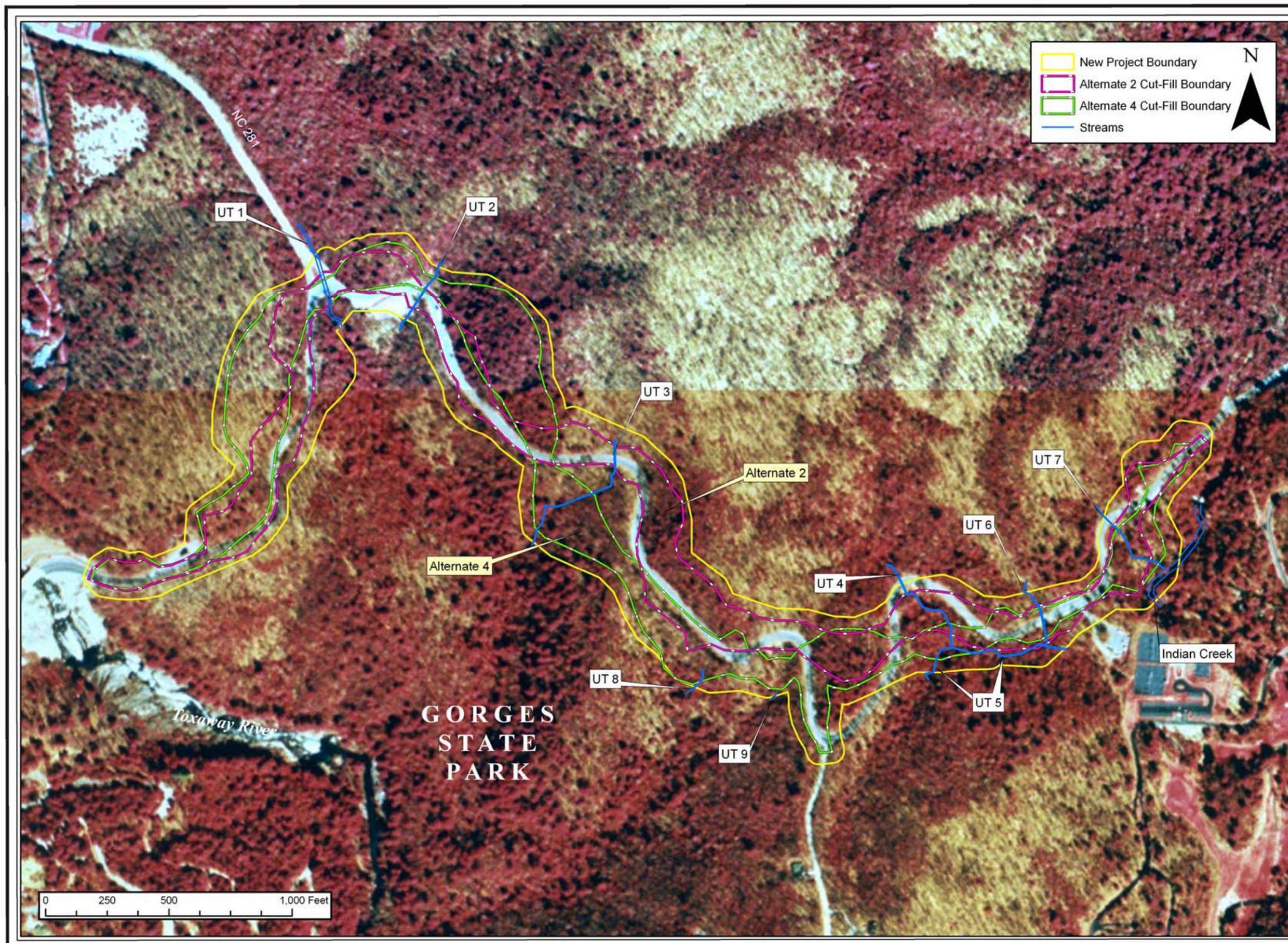
- **UT1** is a large perennial stream with a sand, gravel, and cobble substrate (R3UB1/2) approximately 12 feet wide with banks 4 to 6 feet high. - no change
- **UT2** is a perennial stream with a sand, gravel, and cobble substrate (R4UB1/2) approximately 4 feet wide with banks 2 feet high.
- **UT3** enters the project study area as a perennial stream approximately 4 feet wide with banks 2 feet high; it goes underground upstream of the culvert. Downstream of the culvert, it emerges as an intermittent stream approximately 3 feet wide with banks 3 feet high, and then becomes perennial before leaving the project area. It has a sand, gravel, and cobble substrate (R4UB1/2) throughout.
- **UT4** is a small perennial stream with a bedrock substrate (R3UB1/2) approximately 4 feet wide with banks 6 feet high. - no change
- **UT5** is a perennial stream with a sand, gravel, and cobble substrate (R4UB1/2) approximately 3 feet wide with banks 3 feet high.
- **UT6** is a perennial stream with a sand, gravel, and cobble substrate (R4UB1/2) approximately 3 feet wide with banks 2 feet high.
- North of US 64, **UT7** is an intermittent stream; after flowing under the road, UT7 emerges as a perennial stream. UT7 has a sand, gravel, cobble, and boulder substrate (R4UB1/2) and is approximately 3 feet wide with banks 3 feet high throughout.
- **UT8** is an intermittent stream with a sand, gravel, and cobble substrate (R4UB1/2) approximately 2-3 feet wide with banks ranging to 5 feet high.
- **UT9** is an intermittent stream with a sand, gravel, and cobble substrate (R4UB1/2) approximately 2-3 feet wide with banks approximately 2 feet high.
- **Indian Creek** is a large perennial stream with a bedrock substrate (R2RB1/2) approximately 20 feet wide with banks up to 6 feet.

**Table 1. Jurisdictional Areas within Proposed Alternates' Cut-Fill Boundaries**

Site	Alternate 2		Alternate 4	
	Linear Distance (ft)	Area (acres)	Linear Distance (ft)	Area (acres)
UT 1	12	0.003	20	0.006
UT 2	~	~	37	0.003
UT 3	16	0.001	309	0.021
UT 4	281	0.026	105	0.010
UT 5	75	0.005	180	0.12
UT 6	43	0.003	9	0.001
UT 7	180	0.012	216	0.015
UT 8	~	~	28	0.003
UT 9	~	~	~	~
Indian Creek	~	~	~	~
<b>TOTAL</b>	<b>607</b>	<b>0.051</b>	<b>934</b>	<b>0.071</b>

**R-2409C, US 64, Safety Improvements and Climbing Lanes from Lake  
Toxaway to Indian Creek, Transylvania County, North Carolina  
Interagency Meeting Participants**

Troy Wilson	US Fish and Wildlife Service	Troy_Wilson@fws.gov
Carolyn Wells	US Fish and Wildlife Service	carolyn_wells@fws.gov
Marella Buncick	US Fish and Wildlife Service	marella_buncick@fws.gov
David Baker	US Army Corps of Engineers	david.k.baker@usace.army.mil
Donnie Brew	Federal Highway Administration	Donnie.Brew@fhwa.dot.gov
Marla Chambers	NC Wildlife Resources Commission	marla.chambers@ctc.net
Marshall Ellis	DENR Division of Parks & Recreation	marshall.ellis@ncmail.net
Rob Evans	DENR Division of Parks & Recreation	rob.evans@ncmail.net
Steve Pagano	Gorges State Park	steve.pagano@ncmail.net
Brian Wrenn	DENR Division of Water Quality	brian.wrenn@ncmail.net
Mike Parker	DENR Division of Water Quality	mike.parker@ncmail.net
Joel Setzer	NCDOT Division 14 Office	jsetzer@ncdot.gov
Jamie Wilson	NCDOT Division 14 Office	jwilson@ncdot.gov
Steve Williams	NCDOT Division 14 Office	swilliams@ncdot.gov
Mark Davis	NCDOT Division 14 Office	markdavis@ncdot.gov
Owen Anderson	NCDOT Division 14 Office	oanderson@ncdot.gov
Carla Dagnino	NCDOT PD&EA Branch	cdagnino@ncdot.gov
Jeff Hemphill	NCDOT PD&EA Branch	jhemphill@ncdot.gov
Steve Mitchell	NCDOT PD&EA Branch	srmitchell@ncdot.gov
Dennis Herman	NCDOT PD&EA Branch	dwherman@ncdot.gov
Kris J. Dramby	NCDOT PD&EA Branch	kjdrabby@ncdot.gov
Kate Montieth	The Catena Group	kmontieth@thecatenagroup.com
Brian Wiles	Ko & Associates	bwiles@koassociates.com
Clay Oliver	Ko & Associates	coliver@koassociates.com
Mark Reep	Ko & Associates	mreep@koassociates.com



Date: July 2008

Scale: As Shown

Job No.: 6105

Title:

**Cut-Fill Boundaries:  
Alternates 2 and 4**

**TIP R-2409C**

US 64 From Lake Toxaway to Indian Creek

Transylvania County, North Carolina

Client:

**Ko & Associates**

Figure

**3**



December 7, 2007

To: Paul White, P.E., Design Construction Engineer  
NCDOT Division 14 Office

From: Brian Wiles, PE, Project Manager  
Ko & Associates, P.C. Consulting Engineers

Subject: **R-2409C**, US 64, Safety Improvements and Climbing Lanes from Lake  
Toxaway to Indian Creek, Transylvania County, North Carolina

On November 29, 2007, an interagency meeting was held to discuss revisions to the project since the 10/10/06 interagency meeting. These revisions were made to avoid a small-whorled pogonia plant population while minimizing impacts to streams and Gorges State Park land. The following people attended the meeting:

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Brian Wrenn	DENR Division of Water Quality
Mike Parker	DENR Division of Water Quality
Joel Setzer	NCDOT Division 14 Office
Jamie Wilson	NCDOT Division 14 Office
Mark Davis	NCDOT Division 14 Office
Paul White	NCDOT Division 14 Office
Owen Anderson	NCDOT Division 14 Office
Jeff Hemphill	NCDOT PD&EA Branch
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- Request for new park boundaries to join the roadway right of way with no private parcels in between

Based on the interagency meeting input, the following action items are proposed:

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- Provide refined designs and impact calculations to the meeting participants
- Schedule a future interagency conference call to review the alternatives
- Additional public involvement opportunities will be considered

cc: Meeting Participants

PI Sta 75+86.98  
 $\Delta = 10^\circ 53' 48.5''$  (RT)  
 $D = 10' 25' 02.7''$   
 $L = 104.60'$   
 $T = 52.46'$   
 $R = 550.00'$   
 $SE = 0.08$   
 $DS = 40$  MPH

PI Sta 78+99.30  
 $\Delta = 14^\circ 46' 42.6''$  (RT)  
 $D = 17' 27' 33.0''$   
 $L = 128.97'$   
 $T = 64.84'$   
 $R = 500.00'$   
 $SE = 0.08$   
 $DS = 40$  MPH

PI Sta 73+26.29  
 $\Delta = 41^\circ 02' 45.6''$  (RT)  
 $D = 26' 02' 36.7''$   
 $L = 157.61'$   
 $T = 82.36'$   
 $R = 220.00'$   
 $SE = 0.08$   
 $DS = 30$  MPH

PI Sta 74+44.61  
 $\Delta = 14^\circ 52' 12.5''$  (LT)  
 $D = 17' 21' 44.5''$   
 $L = 85.65'$   
 $T = 43.06'$   
 $R = 330.00'$   
 $SE = 0.08$   
 $DS = 35$  MPH

PI Sta 65+50.49  
 $\Delta = 65^\circ 09' 37.0''$  (LT)  
 $D = 26' 02' 36.7''$   
 $L = 250.20'$   
 $T = 140.59'$   
 $R = 220.00'$   
 $SE = 0.08$   
 $DS = 30$  MPH

PI Sta 70+27.04  
 $\Delta = 52^\circ 49' 24.2''$  (LT)  
 $D = 26' 02' 36.7''$   
 $L = 202.83'$   
 $T = 109.26'$   
 $R = 220.00'$   
 $SE = 0.08$   
 $DS = 30$  MPH

PI Sta 62+83.12  
 $\Delta = 97^\circ 34' 16.4''$  (RT)  
 $D = 26' 02' 36.7''$   
 $L = 374.65'$   
 $T = 251.18'$   
 $R = 220.00'$   
 $SE = 0.08$   
 $DS = 30$  MPH

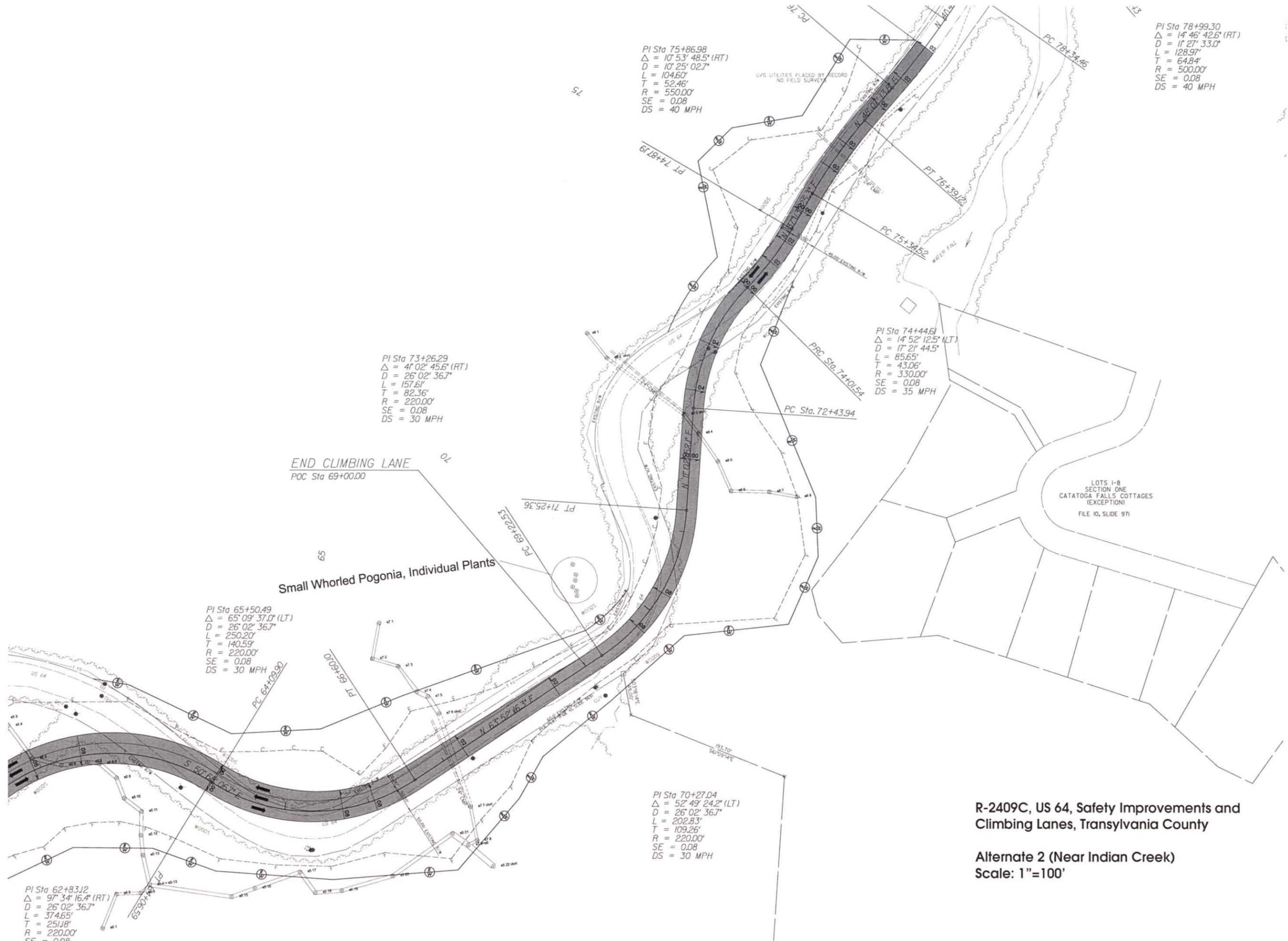
END CLIMBING LANE  
 POC Sta 69+00.00

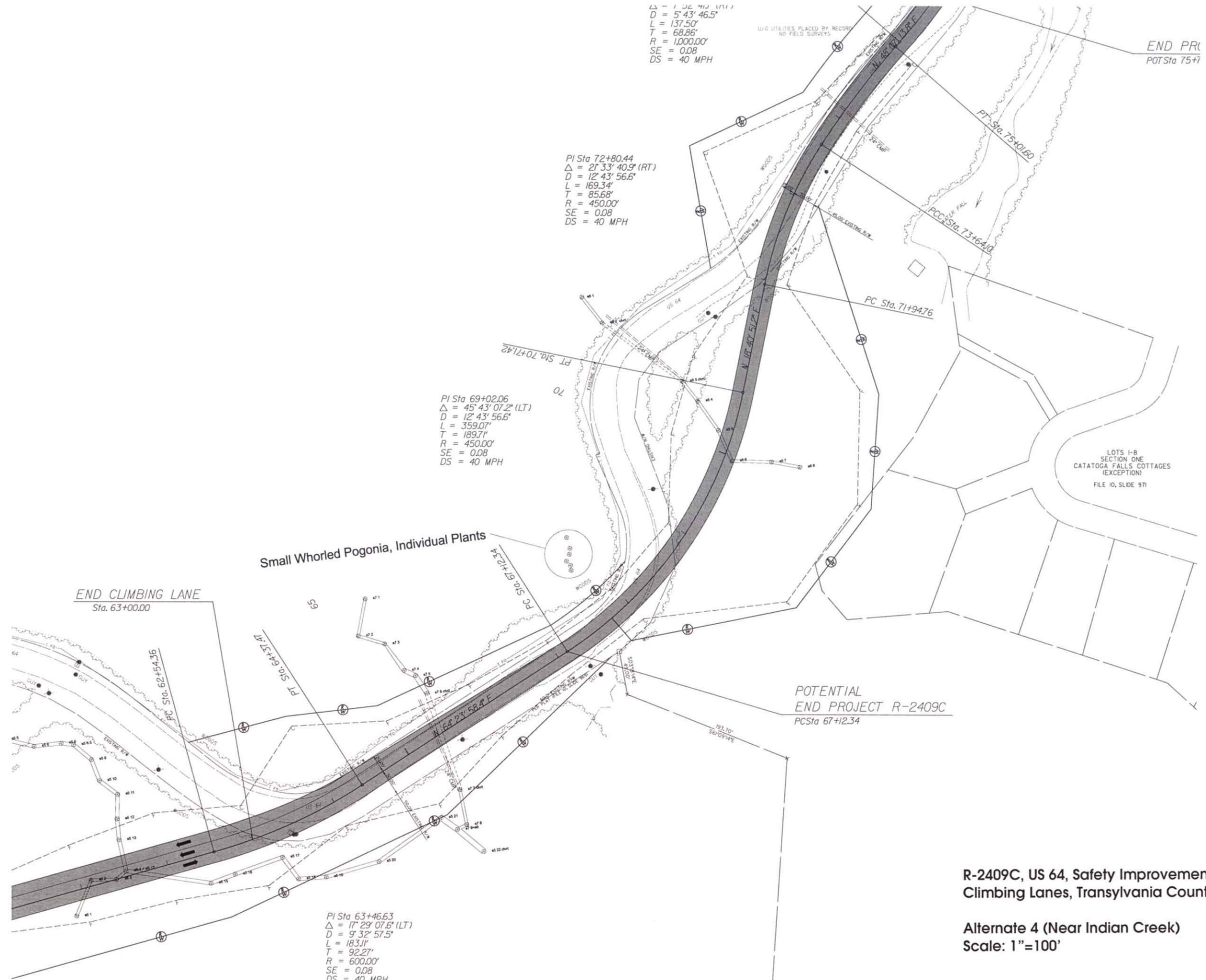
Small Whorled Pogonia, Individual Plants

LOTS 1-8  
 SECTION ONE  
 CATATOGA FALLS COTTAGES  
 (EXCEPTION)  
 FILE 10, SLIDE 971

R-2409C, US 64, Safety Improvements and Climbing Lanes, Transylvania County

Alternate 2 (Near Indian Creek)  
 Scale: 1"=100'





$\Delta = 1^\circ 32' 41.1''$   
 $D = 5^\circ 43' 46.5''$   
 $L = 137.50'$   
 $T = 68.86'$   
 $R = 1,000.00'$   
 $SE = 0.08$   
 $DS = 40 \text{ MPH}$

PI Sta 72+80.44  
 $\Delta = 2^\circ 33' 40.9'' \text{ (RT)}$   
 $D = 12^\circ 43' 56.6''$   
 $L = 169.34'$   
 $T = 85.68'$   
 $R = 450.00'$   
 $SE = 0.08$   
 $DS = 40 \text{ MPH}$

PI Sta 69+02.06  
 $\Delta = 45^\circ 43' 07.2'' \text{ (LT)}$   
 $D = 12^\circ 43' 56.6''$   
 $L = 359.07'$   
 $T = 189.71'$   
 $R = 450.00'$   
 $SE = 0.08$   
 $DS = 40 \text{ MPH}$

PI Sta 63+46.63  
 $\Delta = 17^\circ 29' 07.6'' \text{ (LT)}$   
 $D = 9^\circ 32' 57.5''$   
 $L = 183.11'$   
 $T = 92.27'$   
 $R = 600.00'$   
 $SE = 0.08$   
 $DS = 40 \text{ MPH}$

END PROJECT  
 POT Sta 75+77

END CLIMBING LANE  
 Sta. 63+00.00

Small Whorled Pogonia, Individual Plants

POTENTIAL  
 END PROJECT R-2409C  
 PC Sta 67+12.34

LOTS I-B  
 SECTION ONE  
 CATAGOGA FALLS COTTAGES  
 (EXCEPTION)  
 FILE 10, SLIDE 971

R-2409C, US 64, Safety Improvements and  
 Climbing Lanes, Transylvania County

Alternate 4 (Near Indian Creek)  
 Scale: 1"=100'



November 5, 2008

To: Steve Williams, Design Construction Engineer  
NCDOT – Division 14 Office

From: Brian A. Wiles, PE, Project Manager *Brian Wiles*  
Ko & Associates, P.C. Consulting Engineers

Subject: **R-2409C**, US 64, Safety Improvements and Climbing Lanes  
from Lake Toxaway to Indian Creek, Transylvania County,  
North Carolina

On October 31, 2008, a conference call was held to discuss the following project developments: avoiding a population of the small-whorled pogonia plants, minimizing impacts to Gorges State Park and to perennial streams. The following people participated in the conference call:

Troy Wilson	US Fish and Wildlife Service
Dave Baker	US Army Corps of Engineers
Clarence Coleman	FHWA
Pete Caldwell	DENR, Parks & Recreation
Marla Chambers	NC Wildlife Resources Commission
Steve Pagano	Gorges State Park
Brian Wrenn	DENR Division of Water Quality
Jamie Wilson	NCDOT Division 14 Office
Steve Williams	NCDOT Division 14 Office
Mark Davis	NCDOT Division 14 Office
Zac Lail	NCDOT Division 14 Office
Jeff Hemphill	NCDOT PD&EA Branch
Steve Mitchell	NCDOT PD&EA Branch
Dennis Herman	NCDOT PD&EA Branch
Kate Montieth	The Catena Group
Michael Wood	The Catena Group
Brian Wiles	Ko & Associates
Mark Reep	Ko & Associates
Clay Oliver	Ko & Associates

Two alternatives are being studied in detail.

- **Alternate 2** realigns portions of the roadway to provide flatter horizontal curves and achieves a minimum design speed of 30 mph. It avoids the small-whorled pogonia plant population.

- **Alternate 4** corrects more of the alignment deficiencies, straightens curves, and increases the design speed to 40 mph. It also avoids the small-whorled pogonia population.

The following is a summary of major items discussed during the conference call.

- Alternative 2 has less impact to streams and is further from the population of small whorled pogonia plants. However, it involves substantial grade differences (on the eastern end) compared to existing US 64, making the temporary detours costly and difficult to maintain traffic on site.
- Alternative 4 has greater stream impacts and is closer to the small whorled pogonia population. On-site traffic maintenance for this alternative is less problematic.
- Representatives from DWQ, the US Army Corps of Engineers, US Fish and Wildlife, and WRC prefer Alternative 2 due to lesser stream impacts, less construction outside of the existing right of way, and its greater distance from the small whorled pogonia.
- Preserving the tree canopy in the area of the small whorled pogonia is a major concern. It was agreed the alignment for Alternative 4 would be changed to closely match the alignment of Alternative 2 at the eastern end of the project. Pile panel walls, top down construction, and geotechnical fabrics will be considered to limit tree canopy removal in this area.
- Gorges State Park representatives favor Alternative 4. The Park Advisory Committee supports this alternative for improving the road conditions and taking less private property. Their concerns were reiterated:
  - Revising the park boundary to the new road boundary without allowing any private parcels to remain between the park and road right of way.
  - Protecting water quality
- The USACE noted that 300 feet of single stream impact is the limit for which a nationwide permit is applicable. NCDOT will utilize design measures to address pipe end treatments, such as larger head walls or rock plate walls, to further reduce the impacts below 300 feet, particularly at UT 3.

- o NCDOT favors Alternative 4 for its constructability and design speed improvements. It was agreed that Ko and Associates would adjust the Alternative 4 design and send the revised information to the interagency team to review before a follow up conference call in the coming months.

**Action Items:**

- o The NCDOT Division 14 Office will contact the Geotechnical Unit regarding maximum acceptable slopes and retaining wall construction issues. They will also contact the Right of Way Branch regarding the process for transferring land between NCDOT and Gorges State Park.
- o NCDOT and Ko & Associates will revise the designs for Alternative 4 to avoid the small whorled pogonia population and to include pipe end treatments to reduce impacts to larger stream crossings.
- o More details will be provided on potential stream restoration in the areas where existing pipes will be removed.
- o NCDOT and Ko & Associates will revise the design, send the information to the interagency team, and schedule a follow up conference call.
- o NCDOT and Ko & Associates will follow up with a letter to the NC Division of Parks and Recreation requesting their comments in support of the preferred alternative.

BW/lh

cc: Meeting Participants

October 26, 2006

To: Paul White, P.E., Design Construction Engineer  
NCDOT Division 14 Office

From: Brian Wiles, PE, Project Manager  
Ko & Associates, P.C. Consulting Engineers

Subject: **R-2409C**, US 64, Safety Improvements and Climbing Lanes from Lake Toxaway to Indian Creek, Transylvania County, North Carolina

On October 10, 2006, an interagency meeting (including a project site visit) was held to discuss NCDOT's planned safety improvements to US 64 in Transylvania County. The purpose of the meeting was to receive input from state and federal agencies on ways to reduce the project's effect on streams, a Small-whorled pogonia plant population, and Gorges State Park.

The following people attended the meeting:

Denise Moldenhauer	US Fish and Wildlife Service
Carolyn Wells	US Fish and Wildlife Service
Dave Baker	US Army Corps of Engineers
Jake Riggsbee	Federal Highway Administration
Marshall Ellis	DENR Division of Parks and Recreation
Brian Wrenn	DENR Division of Water Quality
Jane Conolly	Gorges State Park
Steve Pagano	Gorges State Park
Mark Davis	NCDOT Division 14 Office
Jeff Hemphill	NCDOT Project Development & Environmental Analysis Branch
Cherri Smith	NCDOT Project Development & Environmental Analysis Branch
Steve Mitchell	NCDOT Project Development & Environmental Analysis Branch
Dennis Herman	NCDOT Project Development & Environmental Analysis Branch
Michael Turchy	NCDOT Project Development & Environmental Analysis Branch
Shay Garriock	The Catena Group
Brian Wiles	Ko & Associates
Clay Oliver	Ko & Associates
Mark Reep	Ko & Associates

An Environmental Assessment is underway for upgrading the narrow, curved, 1.5-mile, two-lane portion of US 64 near Lake Toxaway. The project proposes to straighten the roadway, where possible, provide wider travel lanes and shoulders, and add a westbound climbing lane. Three alternatives have been considered.

- **Alternate 1** follows the existing alignment without flattening any of the sharp horizontal curves. This alternative maintains a minimum design speed of 20 mph.
- **Alternate 2** realigns portions of the roadway to provide flatter horizontal curves and achieves a minimum design speed of 30 mph.

- **Alternate 3** requires the most realignment of horizontal curves. This alternative provides a minimum design speed of 40 mph.

The meeting discussion focused on regulatory requirements and potential effects on the park.

#### Small-whorled pogonia

US Fish and Wildlife (USFWS) representatives commented on indirect impacts to the small-whorled pogonia species associated with micro-climate changes (tree canopy removal and drainage pattern changes) and invasive plant species. The plants are located on the north side of the road at the top of the cut slope at the eastern end of the project. This population is one of 14 known in the state. Some of the known sites are declining in population.

With the proposed Alternate 3 alignment, the plants would remain on high ground above the road beds on either side. Realignment of the road to the north side in this area is not desirable from the USFWS perspective and would not minimize the effect on the plants. In addition, the USFWS representatives request input on the vegetation to be replanted with the project in the area of the Small-whorled pogonia. A management plan will also need to be developed for monitoring the species in the future. An idea was mentioned for a proposed conservation easement with long-term monitoring by agencies such as the State Park or NCDOT.

In an effort to lessen the impacts, the meeting participants agreed that a modification of Alternate 3 should be considered. This concept would follow the existing road in the area of the plants, holding the current cut slope in place and rejoining the Alternate 3 alignment west of the plant population. USFWS representatives requested a second field review after the preliminary designs are available for the revised option.

#### Gorges State Park

Gorges State Park officials favored the Alternate 3 alignment concept because it appears to have less of an effect on the park land. Another benefit is the improved alignment design near the park. The park officials expressed three main concerns with the project:

- Minimization of water quality impacts through stringent erosion control
- Use of native plant species (no invasive species) for stabilizing the construction slopes after construction in the area of the park boundaries
- Request for new park boundaries to join the roadway right of way with no private parcels in between

The NC Division of Parks and Recreation can agree with the proposed use of park land long as these concerns are satisfactorily resolved.

The Park Superintendent noted that the landowner of property containing the small-whorled pogonia plants is on the advisory board for Gorges State Park. The landowner prefers less impact on his property in this area.

#### Stream Crossings and Permitting

Army Corps of Engineers (COE) and NC Division of Water Quality (DWQ) representatives commented that Alternate 3 has the largest amount of stream impact compared to Alternates 1 or 2. They noted that a strong purpose and need for the project needs to be demonstrated. If Alternate 1 is determined to meet the purpose and need of the project, Alternate 3 could not be justified for permitting as the preferred alternative since it has a much greater impacts on streams. Avoidance and minimization efforts will need

to be demonstrated. The DWQ representative requested the project be added to the Merger 01 interagency review process since an individual Section 404 permit may be needed for the total length of streams impacted. If it is determined not to follow the Merger 01 process, the DWQ representative requested an interagency scoping meeting for more input on the project.

There was some question as to the funding source for the project (federal or state). A review of the draft 2007-2013 Transportation Improvement Program (TIP) shows the project to be federally funded for right of way acquisition (Surface Transportation Program funds) and construction (High Priority funds). Federally-funded highway improvements are subject to National Environmental Policy Act (NEPA) requirements.

Based on the interagency meeting input, the NCDOT Division 14 Office will consider the following items in the project study:

- Modify Alternate 3 to avoid/ minimize impacts to the Small-whorled pogonia as well as stream crossings
- Plan for a follow-up field meeting with USFWS and other opportunities for future interagency involvement by scoping meeting or Merger 01 review process
- Investigate native vegetation options for roadside stabilization and consider measures for stringent sedimentation and erosion control
- Proposal for making the proposed road right of way boundary (on the south side) the new park boundary

cc: Meeting Participants



**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2013**

**SESSION LAW 2014-62  
HOUSE BILL 1139**

**AN ACT TO DEDICATE AND ACCEPT CERTAIN PROPERTIES AS PART OF THE  
STATE NATURE AND HISTORIC PRESERVE AND TO REMOVE CERTAIN LANDS  
FROM THE STATE NATURE AND HISTORIC PRESERVE.**

Whereas, Section 5 of Article XIV of the North Carolina Constitution authorizes the dedication of State and local government properties as part of the State Nature and Historic Preserve upon acceptance by a law enacted by a three-fifths vote of the members of each house of the General Assembly and provides for removal of properties from the State Nature and Historic Preserve by a law enacted by a three-fifths vote of the members of each house of the General Assembly; and

Whereas, the General Assembly enacted the State Nature and Historic Preserve Dedication Act, Chapter 443 of the 1973 Session Laws, to prescribe the conditions and procedures under which properties may be specifically dedicated for the purposes set out in Section 5 of Article XIV of the North Carolina Constitution; and

Whereas, more than 17,000 acres have been added to the State Parks System since the last dedication and acceptance of properties as part of the State Nature and Historic Preserve pursuant to a petition to the Council of State dated May 5, 2009; and

Whereas, in accordance with G.S. 143-260.8, on May 6, 2014, the Council of State voted to petition to the General Assembly to enact a law pursuant to Section 5 of Article XIV of the North Carolina Constitution to dedicate and accept properties added to the State Parks System and designated in the petition for inclusion as parts of the State Nature and Historic Preserve; and

Whereas, as a part of its petition of May 6, 2014, the Council of State also requested the General Assembly to remove certain properties from the State Nature and Historic Preserve; and

Whereas, G.S. 113-44.14 provides for additions to, and deletions from, the State Parks System upon authorization by the General Assembly; Now, therefore,

The General Assembly of North Carolina enacts:

**SECTION 1.** G.S. 143-260.10 reads as rewritten:

**"§ 143-260.10. Components of State Nature and Historic Preserve.**

The following are components of the State Nature and Historic Preserve accepted by the North Carolina General Assembly pursuant to G.S. 143-260.8:

- (1) All lands and waters within the boundaries of the following units of the State Parks System as of ~~May 5, 2009~~; May 6, 2014: Baldhead Island State Natural Area, Bay Tree Lake State Park, Bear Paw State Natural Area, Beech Creek Bog State Natural Area, Bullhead Mountain State Natural Area, Bushy Lake State Natural Area, Carolina Beach State Park, Carvers Creek State Park, Cliffs of the Neuse State Park, Chowan Swamp State Natural Area, Deep River State Trail, Dismal Swamp State Park, Elk Knob State Park, Fort Fisher State Recreation Area, Fort Macon State Park, Goose Creek State Park, ~~Gorges State Park~~, Grandfather Mountain State Park, Haw River State Park, Hammocks Beach State Park, Jones Lake State Park, Lake Norman State Park, Lea Island State Natural Area, ~~Lower Haw River State Natural Area~~, ~~Lumber River State Park~~, Mayo River State Park, Medoc Mountain State Park, Merchants Millpond State Park, ~~Mitchells Millpond State Natural Area~~, Mount Mitchell State Park, Occoneechee Mountain State



Natural Area, Pettigrew State Park, Pilot Mountain State Park, Pineola Bog State Natural Area, Raven Rock State Park, Run Hill State Natural Area, Sandy Run Savannas State Natural Area, Singletary Lake State Park, Sugar Mountain State Natural Area, Theodore Roosevelt State Natural Area, and ~~Weymouth Woods-Sandhills Nature Preserve~~State Natural Area, and Yellow Mountain State Natural Area.

- (2) All lands and waters within the boundaries of William B. Umstead State Park as of ~~May 5, 2009,~~ May 6, 2014, with the exception of Tract Number 65, containing 22.93140 acres as shown on a survey prepared by John S. Lawrence (RLS) and Bennie R. Smith (RLS), entitled "Property of The State of North Carolina William B. Umstead State Park", dated January 14, 1977 and filed in the State Property Office, which was removed from the State Nature and Historic Preserve by Chapter 450, Section 1 of the 1985 Session Laws. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of William B. Umstead State Park or sell and use the proceeds for that purpose. The State of North Carolina may not otherwise sell or exchange this land.
- (3) Repealed by Session Laws 1999-268, s. 2.
- (4) All lands within the boundaries of Morrow Mountain State Park as of ~~May 5, 2009,~~ May 6, 2014, with the exception of the following tract: That certain tract or parcel of land at Morrow Mountain State Park in Stanly County, North Albemarle Township, containing 0.303 acres, more or less, as surveyed and platted by Thomas W. Harris R.L.S., on a map dated August 27, 1988, and filed in the State Property Office, reference to which is hereby made for a more complete description.
- (5) Repealed by Session Laws 1999-268, s. 2.
- (6) All land within the boundaries of Crowders Mountain State Park as of ~~May 5, 2009,~~ May 6, 2014, with the exception of the following tracts. The tracts excluded from the State Nature and Historic Preserve under this subdivision are deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Crowders Mountain State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
  - a. The portion of that certain tract or parcel of land at Crowders Mountain State Park in Gaston County, Crowders Mountain Township, described in Deed Book 1939, page 800, and containing 757.28 square feet and as shown in a survey by Tanner and McConnaughey, P.A. dated July 22, 1988 and filed in the State Property Office.
  - b. The portion of that certain tract or parcel of land at Crowders Mountain State Park in Gaston County, east of and including the right-of-way along and across Old Peach Orchard Road, as shown in a survey by the City of Gastonia, File No. 400-194, dated November 23, 1998, and filed in the State Property Office.
  - c. The portion of that certain tract or parcel of land at Crowders Mountain State Park in Cleveland County, described in Deed Book 1286, Page No. 85, located on the north side of SR 2245 (Bethlehem Road) and containing 14,964 square feet as shown on the survey entitled "Survey for Crowders Mountain State Park, Deed Book 1103-107, Township 4 Kings Mountain, Cleveland County, N.C." by David W. Dickson, P.A. dated February 28, 2008.
  - d. The portion of that certain tract or parcel of land at Crowders Mountain State Park in Cleveland County, described in Deed Book 1286, Page 85, and containing 0.06 acres and 0.515 acres as shown on the survey entitled "Boundary Survey for the State of N.C. Department of Administration, Township No. Four Cleveland

County, N.C." by Carolinas Design Group, PLLC, dated November 6, 2007.

- e. The portion of that certain tract or parcel of land at Crowders Mountain State Park in Gaston County, described in Deed Book 2829, page 518, and containing 0.15 acres as shown on the survey entitled "Survey Made at Request of Larry Hyde, Park Superintendent, Crowders Mountain State Park" by Gray Surveying Co., Inc., dated September 12, 2012.
- (7) All lands owned in fee simple by the State within the boundaries of New River State Park as of ~~May 5, 2009~~ May 6, 2014.
- (8) All lands and waters within the boundaries of Stone Mountain State Park as of ~~May 5, 2009~~ May 6, 2014, with the exception of the following tracts: The portion of that certain tract or parcel of land at Stone Mountain State Park in Wilkes County, Traphill Township, described as parcel 33-02 in Deed Book 633-193, and more particularly described as all of the land in this parcel lying to the west of the eastern edge of the Air Bellows Road, as shown on the National Park Service Land Status Map 33 dated March 24, 1981 and filed in the State Property Office, containing approximately 72 acres. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14.
- (9) All lands and waters located within the boundaries of the following State Historic Sites as of ~~May 5, 2009~~ May 6, 2014: Alamance Battleground, Charles B. Aycock Birthplace, Historic Bath, Bennett Place, Bentonville Battleground, Brunswick Town/Fort Anderson, C.S.S. Neuse and Governor Caswell Memorial, Charlotte Hawkins Brown Memorial, Duke Homestead, Historic Edenton, Fort Dobbs, Fort Fisher, Historic Halifax, Horne Creek Living Historical Farm, House in the Horseshoe, North Carolina Transportation Museum, James K. Polk Memorial, Reed Gold Mine, Somerset Place, Stagville, State Capitol, Town Creek Indian Mound, Tryon Palace Historic Sites & Gardens, Zebulon B. Vance Birthplace, and Thomas Wolfe Memorial.
- (10), (11) Repealed by Session Laws 2001-217, s. 2, effective June 15, 2001.
- (12) All lands and waters located within the boundaries of Hanging Rock State Park as of ~~May 5, 2009~~ May 6, 2014, with the exception of the following tract: The portion of that tract or property at Hanging Rock State Park in Stokes County, Danbury Township, described in Deed Book 360, Page 160, for a 30-foot wide right-of-way beginning approximately 183 feet south of SR 1001 and extending in a southerly direction approximately 1,479 feet to the southwest corner of the Bobby Joe Lankford tract and more particularly shown on a survey entitled, "J. Spot Taylor Heirs Survey, Danbury Township, Stokes County, N.C.", by Grinski Surveying Company, dated June 1985, and filed in the State Property Office. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14.
- (13) All lands and waters located within the boundaries of South Mountains State Park as of ~~May 5, 2009~~ May 6, 2014, with the exception of the following tracts. The tracts excluded from the State Nature and Historic Preserve under this subdivision are deleted from the State Parks System in accordance with G.S. 113-44.14.
- a, b. Repealed by Session Laws 2007-307, s. 1, effective July 28, 2007.
- c. The portions of land at South Mountains State Park that lie south of the centerline of the CCC road as shown on the drawing entitled "Land Trade between South Mountains State Park and Adjacent Game Lands along CCC Road" prepared by the ~~Division of Parks and Recreation, dated March 15, 1999, Wildlife Resources Commission in January 2013~~ and filed in the State Property Office and that lie within: (i) the tract or property in Burke County, Lower Fork Township, described in Deed Book 495, Page 501; (ii) the tract

or property in Burke County, Lower Fork and Upper Fork Townships, described in Deed Book 715, Page 719; ~~or~~, (iii) within the tracts or property in Burke County, Upper Fork Township, described in Deed Book 860, Page 341, and Deed Book 884, Page ~~1640, 1640~~; (iv) within that tract or property in Burke County, Silver Creek Township, described in Deed Book 1847, Page 287; (v) within that tract or property in Burke County, Upper Creek Township, described in Deed Book 882, Page 2347; (vi) within that tract or property in Burke County, Upper Creek Township, described in Deed Book 882, Page 2352; (vii) within that tract or property in Burke County, Upper Fork Township, described in Deed Book 886, Page 1964; (viii) within that tract or property in Burke County, Upper Fork Township, Deed Book 767, Page 1360; (ix) within that tract or property in Burke County, Upper Fork Township, Deed Book 884, Page 1648; or (x) within that tract or property in Burke County, Upper Fork Township, Book 886, Page 2228. The State of North Carolina may only exchange this land for other land for the expansion of South Mountains State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.

- d. Repealed by Session Laws 2007-307, s. 1, effective July 28, 2007.
- (14) Repealed by Session Laws 2003-234, s. 1, effective June 19, 2003.
- (15) All lands and waters within the boundaries of Jockey's Ridge State Park as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tracts: The portion of those certain tracts or parcels of land at Jockey's Ridge State Park in Dare County, Nags Head Township, described in Deed Book 227, Page 499, and Deed Book 227, Page 501, and containing 33,901 square feet as shown on the survey prepared by Styons Surveying Services entitled "Raw Water Well Site 13 Jockey's Ridge State Park" dated March 7, 2001, and filed in the State Property Office; the portion of that certain tract or parcel of land at Jockey's Ridge State Park in Dare County, Nags Head Township, described in Deed Book 222, Page 726, and containing 42,909 square feet as shown on the survey prepared by Styons Surveying Services entitled "Raw Water Well Site 14 Jockey's Ridge State Park" dated March 7, 2001, and filed in the State Property Office; and the portion of that certain tract or parcel of land at Jockey's Ridge State Park in Dare County, Nags Head Township, described in Deed Book 224, Page 790, and Deed Book 224, Page 794, and containing 34,471 square feet as shown on the survey prepared by Styons Surveying Services entitled "Raw Water Well Site 15 Jockey's Ridge State Park" dated March 7, 2001, and filed in the State Property ~~Office~~-Office; and the portion of those certain tracts or parcels of land at Jockey's Ridge State Park in Dare County, Nags Head Township, described in Deed Book 227, Page 501, and Deed Book 230, Page 525, and containing 12,655 square feet as shown on the preliminary plat entitled "Easement Survey for Town of Nags Head" prepared by Seaboard Surveying & Planning, Inc., dated August 29, 2012.
- (16) All lands and waters located within the boundaries of Mount Jefferson State Natural Area as of ~~May 5, 2009~~, May 6, 2014. With respect to the communications tower site on the top of Mount Jefferson and located on that certain tract or parcel of land at Mount Jefferson State Natural Area in Ashe County, West Jefferson Township, described in Deed Book F-3, Page 94, the State may provide space at the communications tower site to State public safety and emergency management agencies for the placement of antennas, repeaters, and other communications devices for public communications purposes. Notwithstanding G.S. 146-29.2, the State may lease space at the communications tower site to local governments in Ashe County for the placement of antennas, repeaters, and other communications devices for public communications purposes. State agencies and local governments that are authorized to place communications devices at the communications

tower site pursuant to this subdivision may also locate at or near the communications tower site communications equipment that is necessary for the proper operation of the communications devices. The use of the communications tower site pursuant to this subdivision is authorized by the General Assembly as a purpose other than the public purposes specified in Article XIV, Section 5, of the North Carolina Constitution, Article 25B of Chapter 143 of the General Statutes, and Article 2C of Chapter 113 of the General Statutes.

- (17) All lands and waters within the Eno River State Park as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tracts:
- a. The portion of that certain tract or parcel of land at Eno River State Park in Durham County, Durham Outside Township, described in Deed Book 435, Page 673, and Plat Book 87, Page 66, containing 11,000 square feet and being the portion of Lot No. 2 shown as the existing scenic easement hereby removed on the drawing prepared by Sear-Brown entitled "Recombination Plat Eno Forest Subdivision" bearing the preparer's file name 00-208-07.dwg, and filed with State Property Office. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System pursuant to G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Eno River State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
  - b. The portion of that certain tract or parcel of land at Eno River State Park in Orange County, described in Deed Book 3878, Page 461, and Plat Book 98, Page 11, containing 5,313 square feet and required for the permanent easements for bridge replacement project B-4216 on SR 1002 (St. Mary's Road), as shown in the drawing entitled "Preliminary Plans, Project Reference No. B-4216" prepared for North Carolina Department of Transportation by Mulkey Engineers and Consultants dated March 10, 2009, and filed with the State Property Office. The tracts excluded from the State Nature and Historic Preserve under this section are deleted from the State Parks System pursuant to G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Eno River State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
- (18) All land and waters within the boundaries of Hemlock Bluffs State Natural Area as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tracts: The portion of that certain tract or parcel of land at Hemlock Bluffs State Natural Area in Wake County, Swift Creek Township, described in Deed Book 2461, Page 037, containing 2,025 square feet and being the portion of this tract shown as proposed R/W on the drawing prepared by Titan Atlantic Group entitled "Right of Way Acquisition Map for Town of Cary Widening of Kildaire Farm Road (SR 1300) from Autumgate Drive to Palace Green" sheet 1 of 3 bearing the preparer's file name Town of Cary Case File No. TOC 01-37, dated 26 September 2003, and filed with the State Property Office; and the portion of those certain tracts or parcels of land at Hemlock Bluffs State Natural Area in Wake County, Swift Creek Township, described in Deed Book 4670, Page 420, containing 24,092 square feet and being the portion of these tracts shown as proposed R/W on the drawing prepared by Titan Atlantic Group entitled "Right of Way Acquisition Map for Town of Cary Widening of Kildaire Farm Road (SR 1300) from Autumgate Drive to Palace Green" sheet 3 of 3 bearing the preparer's file name Town of Cary Case File No. TOC 01-37, dated 26 September 2003, and filed with the State Property Office. The tracts excluded from the State Nature and Historic Preserve under this subdivision are deleted from the State Parks System pursuant to G.S. 113-44.14. The State of North Carolina

may only exchange this land for other land for the expansion of Hemlock Bluffs State Natural Area or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.

(19) All lands and waters within the boundaries of Lake James State Park as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tracts:

a. The portion of that certain tract or parcel of land at Lake James State Park containing 13.85 acres, and being 100 feet to the east and 150 feet to the west of a centerline shown on a survey by Witherspoon Surveying PLLC, dated February 9, 2007, and filed in the State Property Office. The State of North Carolina may grant a temporary easement to Duke Energy Corporation across this tract to facilitate the Catawba Dam Embankment Seismic Stability Improvements Project. The grant of the easement within Lake James State Park to Duke Energy Corporation under this sub-subdivision constitutes authorization by the General Assembly that the described tract of land may be used for a purpose other than the public purposes specified in Article XIV, Section 5, of the North Carolina Constitution, Article 25B of Chapter 143 of the General Statutes, and Article 2C of Chapter 113 of the General Statutes. The State of North Carolina may use the proceeds from the easement only for the expansion or improvement of Lake James State Park or another State park. The State may not otherwise sell or exchange this land.

b. The portion of that certain tract or parcel of land at Lake James State Park in McDowell County, Nebo Township, described in Deed Book 377, Page 423, and also shown as Tract B on the plat of survey prepared by Kenneth D. Suttles, RLS, dated December 4, 1987, entitled "Lake James State Park," Sheet 1 of 2, recorded in Plat Book 4, Page 275 of the McDowell County Registry, for a 40-foot right-of-way beginning at the southwest corner of Tract B and continuing along the southern boundary 86 38' 51" E for 400 feet to the now or former John D. Walker property. The State of North Carolina may grant an easement across this tract to extinguish prescriptive easements on Tract B to improve management of the State park property. The State may not otherwise sell or exchange this land. The easement excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System pursuant to G.S. 113-44.14.

c. That portion of that certain tract or parcel of land at Lake James State Park in Burke County, Linville Township, described in Deed Book 1431, Page 859, and shown on the survey prepared by Suttles Surveying, PA dated May 2, 2014, entitled "Survey for State of North Carolina," containing 3.41 acres and on file with the State Property Office. The tracts excluded from the State Nature and Historic Preserve under this subdivision are deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Lake James State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.

(20) All lands and waters within the boundaries of Lake Waccamaw State Park as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tracts: The portions of that certain tract or parcel of land at Lake Waccamaw State Park in Columbus County described in Deed Book 835, Page 590, containing 48,210 square feet and being the portion of this tract shown as new R/W and permanent utility easement on drawing prepared by State of North Carolina Department of Transportation entitled "Map of Proposed Right of Way Property of State of North Carolina (Parks and Recreation) Columbus County" for Tip B-3830 on SR 1947 (Bella Coola Road) done by John E. Kaukola, PLS No. 3999 and compiled 1-18-2008, and filed with the State

Property Office. The tracts excluded from the State Nature and Historic Preserve under this section are deleted from the State Parks System pursuant to G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Lake Waccamaw State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.

- (21) All lands and waters within the boundaries of Chimney Rock State Park as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following ~~tract~~ tracts: The portion of that certain tract or parcel of land at Chimney Rock State Park in Rutherford County being a portion of Parcel 2 as described in Deed Book 933, Page 598, containing 346 square feet and being shown as proposed right-of-way for bridge replacement project B-4258 on U.S. 64 over the Broad River on drawing prepared by Kimley-Horn and Associates for the North Carolina Department of Transportation and revised October 26, 2007, and filed with the State Property Office. The portion of that certain tract or parcel of land at Chimney Rock State Park in Polk County, Cooper Gap Township, Deed Book 393, Page 1402, containing 6.5 acres more or less and shown on the survey entitled "Plat of Survey for The State of North Carolina" prepared by Stacy Kent Rhodes dated May 15, 2014, and filed with the State Property Office. The tracts excluded from the State Nature and Historic Preserve under this section are deleted from the State Parks System pursuant to G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Chimney Rock State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
- (22) All State-owned land and waters within the boundaries of the Mountains-to-Sea Trail as of ~~May 5, 2009~~, May 6, 2014, with the exception of the following tract: The portion of that certain tract or parcel in Johnston County described in Deed Book 3634, Page 278, containing 4.72 acres and being described as proposed easement area for Piedmont Natural Gas Company transmission line on drawing entitled "Easement Survey Prepared for Piedmont Natural Gas Company, Line 142, Easement to be Acquired from the State of North Carolina" by McKim & Creed and dated July 31, 2008, and revised March 11, 2009. The State of North Carolina may grant an easement to Piedmont Natural Gas Company across this tract to facilitate the transmission of natural gas. The grant of the easement within the Mountains-to-Sea Trail to Piedmont Natural Gas Company under this section constitutes authorization by the General Assembly that the described tract of land may be used for a purpose other than the public purposes specified in Section 5 of Article XIV of the North Carolina Constitution, Article 25B of Chapter 143 of the General Statutes, and Article 2C of Chapter 113 of the General Statutes. The State of North Carolina may use the proceeds from the easement only for the expansion or improvement of the Mountains-to-Sea Trail or another State park. The State may not otherwise sell or exchange this land.
- (23) All State-owned land and waters within the boundaries of Gorges State Park as of May 6, 2014, with the exception of the following tracts: The portions of that certain tract or parcel of land in Transylvania County, described in Deed Book 267, Page 838, containing a total of 7.26 acres for the North Carolina Department of Transportation project TIP R-2409C US 64 Safety Improvements. As shown on right-of-way drawing from the North Carolina Department of Transportation dated May 22, 2014, for TIP R-2409C, Parcel 002, on file with the State Property Office. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Gorges State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.

- (24) All State-owned land and waters within the boundaries of Lower Haw State Natural Area as of May 6, 2014, with the exception of the following tract: the portion of that certain tract or parcels in Chatham County, described in Deed Book 1319, Page 1047, containing 12,501 square feet and shown on a survey entitled "Recombination Survey for the North Carolina Division of Parks and Recreation and PK Ventures I LTD Partnership" prepared by S.D. Puckett and Associates dated April 22, 2014, and on file with the State Property Office. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Lower Haw State Natural Area or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
- (25) All State-owned land and waters within the boundaries of Lumber River State Park as of May 6, 2014, with the exception of the following tracts: The portions of those certain tracts or parcels of land in Robeson County, described in Deed Book 919, Page 862, Deed Book 1097, Page 837, Deed Book 935, Page 170, Deed Book 1125, Page 562, and Deed Book 1117, Page 680, containing a total of 3.39 acres for the North Carolina Department of Transportation secondary road project 6C.078030 SR 2245 (VC Britt Road) and shown on the survey entitled "Survey of Tracts 1A and 1B, VC Britt Rd, Orrum NC" prepared by the North Carolina Department of Transportation. The tracts excluded from the State Nature and Historic Preserve under this subdivision are deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of Lumber River State Park or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land.
- (26) All State-owned land and waters within the boundaries of Mitchells Millpond State Natural Area as of May 6, 2014, with the exception of the following tract: the portions of that certain tract or parcel in Wake County, described in Deed Book 2445, Page 62, containing approximately 0.215 acres as shown on the right-of-way plan for SR 2224 (Mitchell Mill Road) bridge No. 162 replacement project and on file with the State Property Office. The tract excluded from the State Nature and Historic Preserve under this subdivision is deleted from the State Parks System in accordance with G.S. 113-44.14. The State of North Carolina may only exchange this land for other land for the expansion of the State Parks system or sell this land and use the proceeds for that purpose. The State may not otherwise sell or exchange this land."

**SECTION 2.** This act is effective when it becomes law.

In the General Assembly read three times and ratified this the 30<sup>th</sup> day of June,

2014.

s/ Daniel J. Forest  
President of the Senate

s/ Tim Moore  
Presiding Officer of the House of Representatives

s/ Pat McCrory  
Governor

Approved 4:17 p.m. this 7<sup>th</sup> day of July, 2014



**North Carolina Department of Transportation**  
**Highway Stormwater Program**  
**STORMWATER MANAGEMENT PLAN**  
**FOR LINEAR ROADWAY PROJECTS**



(Version 1.2; Released September 2011)

**Project/TIP No.:** R-2409C      **County(ies):** Transylvania      **Page** 1 **of** 3

**General Project Information**

<b>Project No.:</b>	R-2409C	<b>Project Type:</b>	Roadway Relocation	<b>Date:</b>	10/15/2014
<b>NCDOT Contact:</b>	Stephen Williams / Mark Davis	<b>Contractor / Designer:</b>	Stacey Bailey, PE - ICA Engineering		
<b>Address:</b>	Highway Division 14 253 Webster Road Sylva, NC 28779	<b>Address:</b>	5121 Kingdom Way, Suite 100 Raleigh, NC 27607		
	<b>Phone:</b> 828-586-2141		<b>Phone:</b>	919-900-1602	
	<b>Email:</b> sjwilliams@ncdot.gov / markdavis@ncdot.gov		<b>Email:</b>	sbailey@icaeng.com	
<b>City/Town:</b>	Lake Toxaway / Bervard	<b>County(ies):</b>	Transylvania		
<b>River Basin(s):</b>	Savannah	<b>CAMA County?</b>	No		
<b>Primary Receiving Water:</b>	Toxaway River / Indian Creek	<b>NCDWQ Stream Index No.:</b>	4-(4) ; 4-5-(3)		
<b>NCDWQ Surface Water Classification for Primary Receiving Water</b>		<b>Primary:</b>	Class C		
		<b>Supplemental:</b>	Trout Waters (Tr)	Indian Creek Only	
<b>Other Stream Classification:</b>	Designated Public Mountain Trout Waters				
<b>303(d) Impairments:</b>	None				
<b>Buffer Rules in Effect</b>	Trout Buffer				

**Project Description**

<b>Project Length (lin. Miles or feet):</b>	1.268 miles	<b>Surrounding Land Use:</b>	NC Park Land and Rural Mountainous		
	<b>Proposed Project</b>		<b>Existing Site</b>		
<b>Project Built-Upon Area (ac.)</b>	5.88 ac.		4.76 ac.		
<b>Typical Cross Section Description:</b>	Two 12' lanes with 6' shoulders.				
<b>Average Daily Traffic (veh/hr/day):</b>	<b>Design/Future:</b> 3700	<b>Existing:</b>	3700		

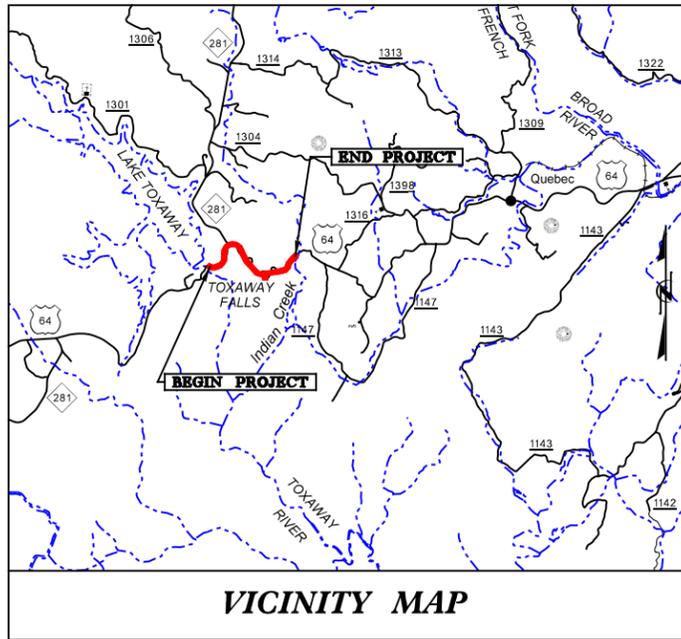
**General Project Narrative:** The North Carolina Department of Transportation propose transportation improvements to US 64 from 0.3 mile west of NC 281 at Lake Toxaway to Indian Creek, Transylvania County. The project consists of upgrading this 1.5 mile, two-lane roadway to improve geometric design conditions and add climbing lane. The project straightens the roadway alignment, provided standard-width travel lanes, includes unpaved shoulders, and adds a westbound climbing lane.

**References**





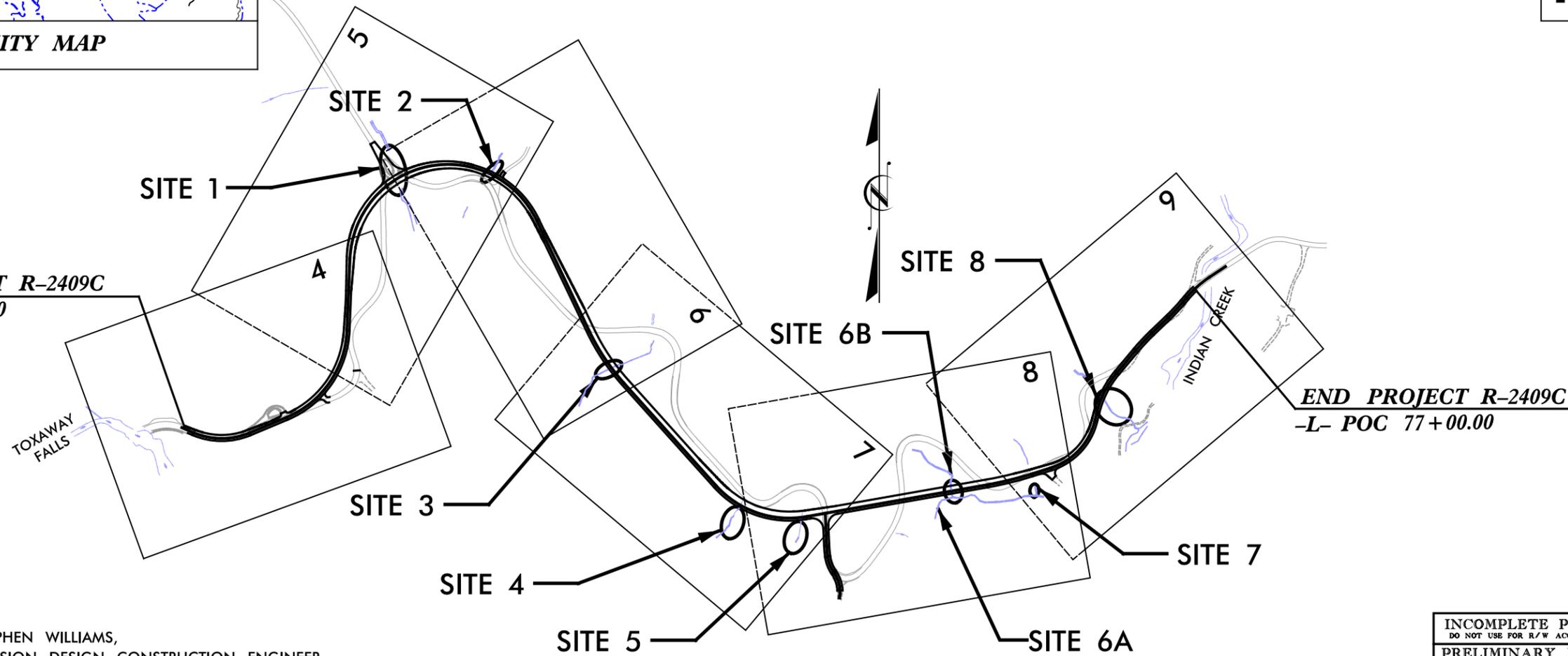
See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Plan Sheet Symbols



VICINITY MAP

RW PLANS

BEGIN PROJECT R-2409C  
-L- POT 10+05.00



NCDOT CONTACT: STEPHEN WILLIAMS,  
DIVISION DESIGN CONSTRUCTION ENGINEER

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2409C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34428.1.1		P.E.	
		R/W	

N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
TRANSYLVANIA COUNTY  
PROJECT: 34428.1.1 (R-2409C)

US 64 FROM  
LAKE TOXAWAY TO  
INDIAN CREEK

SHEET OF  
PERMIT DRAWING  
SHEET 1 OF 12



# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## TRANSYLVANIA COUNTY

LOCATION: US 64 from LAKE TOXAWAY to INDIAN CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING &  
RETAINING WALLS

WETLAND AND SURFACE WATER IMPACTS PERMIT

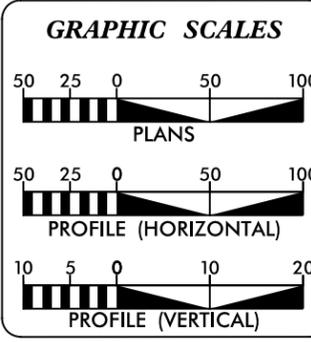
END PROJECT R-2409C  
-L- POC 77+00.00

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION  
PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

vings\2409c\_hyd\_prm\_wet\_tsh.dgn

CONTRACT: TIP PROJECT: R-2409C

CONTRACT: TIP PROJECT: R-2409C



**DESIGN DATA**

ADT 2008 =	3,700
ADT =	
DHV =	%
D =	%
T =	% *
V =	40 MPH
* TTST =	DUAL
FUNC CLASS =	MINOR ARTERIAL
STATEWIDE TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT R-2409C	= 1.268 MI.
LENGTH STRUCTURES TIP PROJECT R-2409C	= 0.000 MI.
TOTAL LENGTH OF TIP PROJECT R-2409C	= 1.268 MI.

Prepared In the Office of:

**ICA Engineering**  
5121 Kingdom Way, Suite 100  
Raleigh, NC 27607  
NO License No: F0058

For the North Carolina Department of Transportation

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: DECEMBER 20, 2013

LETTING DATE: 2014

DAVID C. WALLER, P.E.  
PROJECT ENGINEER

HYDRAULICS ENGINEER

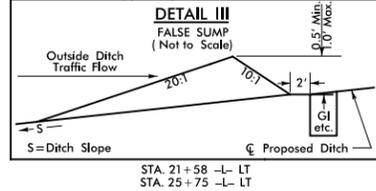
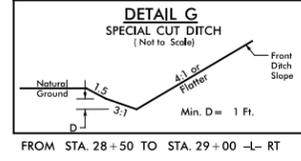
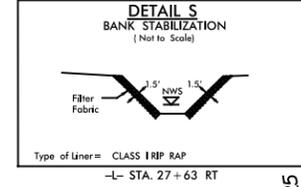
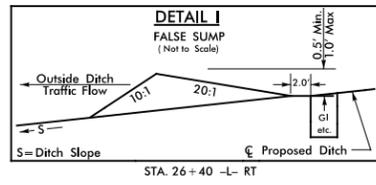
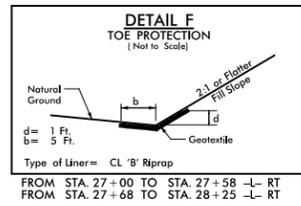
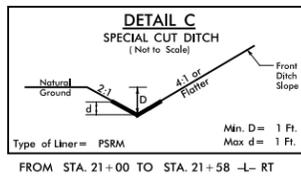
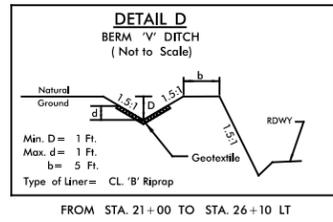
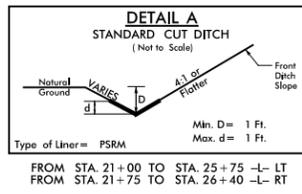
SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.



8/17/99



PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>5</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION</b>	
<b>PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION</b>	

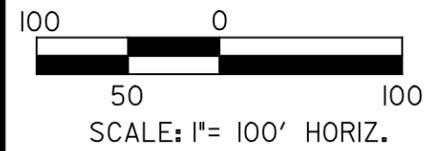
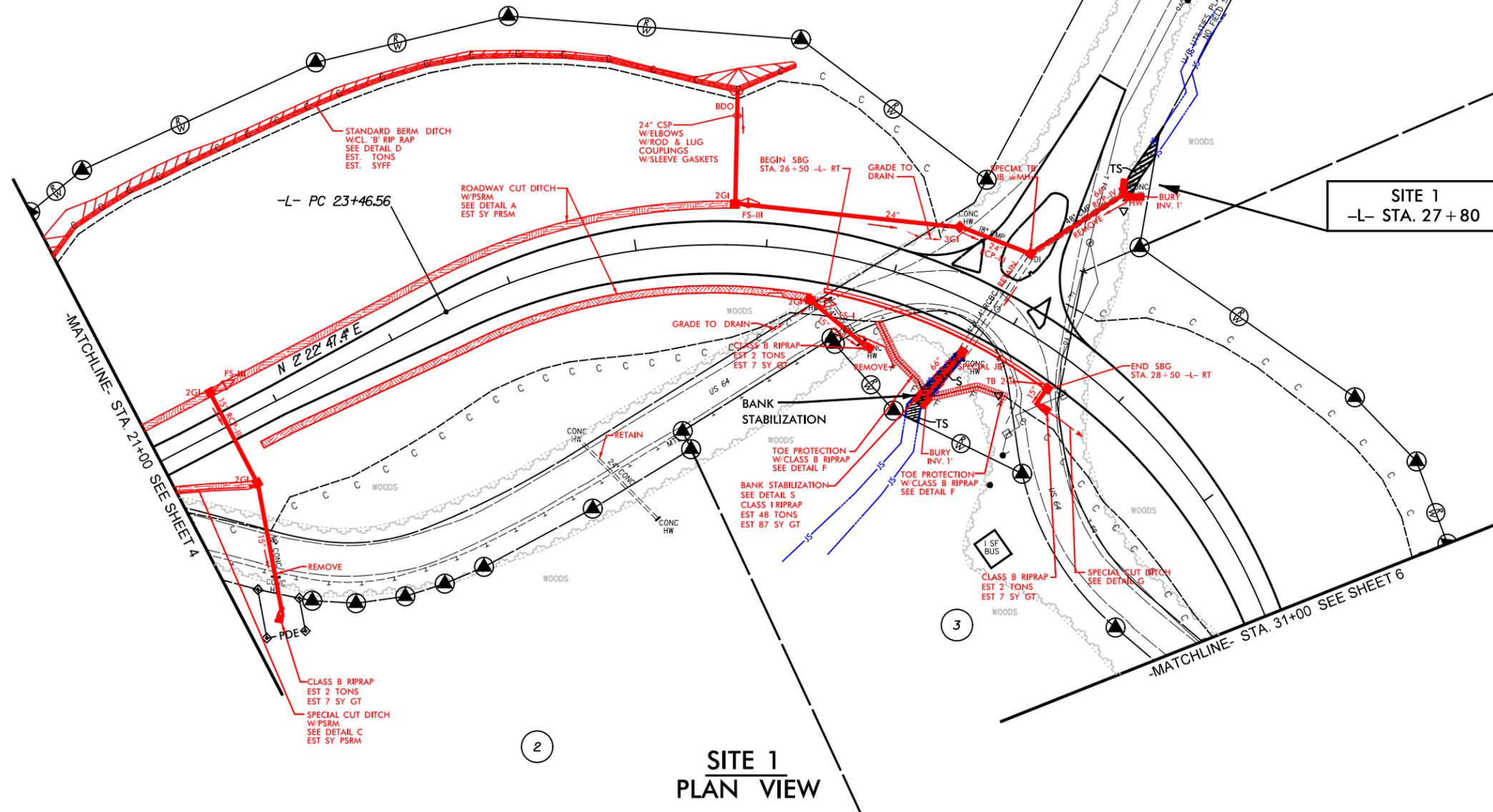
N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
TRANSYLVANIA COUNTY  
PROJECT: 34428.1.1 (R-2409C)

US 64 FROM LAKE TOXAWAY TO INDIAN CREEK

SHEET OF PERMIT DRAWING SHEET 2 OF 12



REVISIONS  
10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED



**LEGEND**

	DENOTES PERMANENT IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

SDATES  
SUSERNAMES  
SFILES



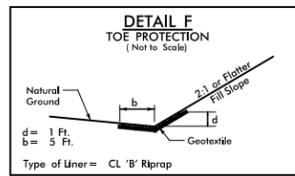


PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>6</b>
RW SHEET NO. ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

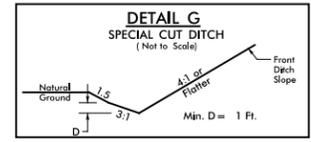
**N. C. DEPT. OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**TRANSYLVANIA COUNTY**  
**PROJECT: 34428.1.1 (R-2409C)**

**US 64 FROM LAKE TOXAWAY TO INDIAN CREEK**

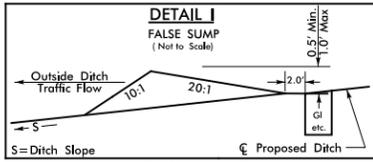
**SHEET OF**  
**PERMIT DRAWING**  
**SHEET 5 OF 12**



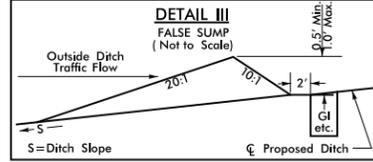
FROM STA. 32+00 TO STA. 32+38 -L- LT  
 FROM STA. 32+43 TO STA. 32+75 -L- LT  
 FROM STA. 41+00 TO STA. 42+50 -L- RT  
 FROM STA. 41+50 TO STA. 42+50 -L- LT



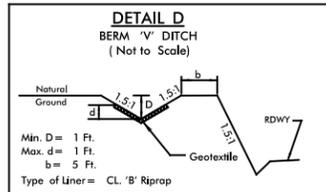
FROM STA. 40+00 TO STA. 41+34 -L- LT



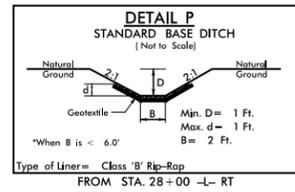
STA. 31+25 -L- RT  
 STA. 37+80 -L- LT



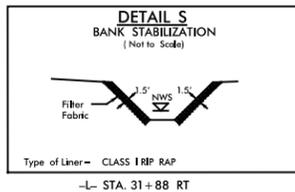
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 STA. 33+25 -L- RT  
 STA. 37+85 -L- LT



FROM STA. 37+50 TO STA. 38+00 LT



FROM STA. 28+00 -L- RT

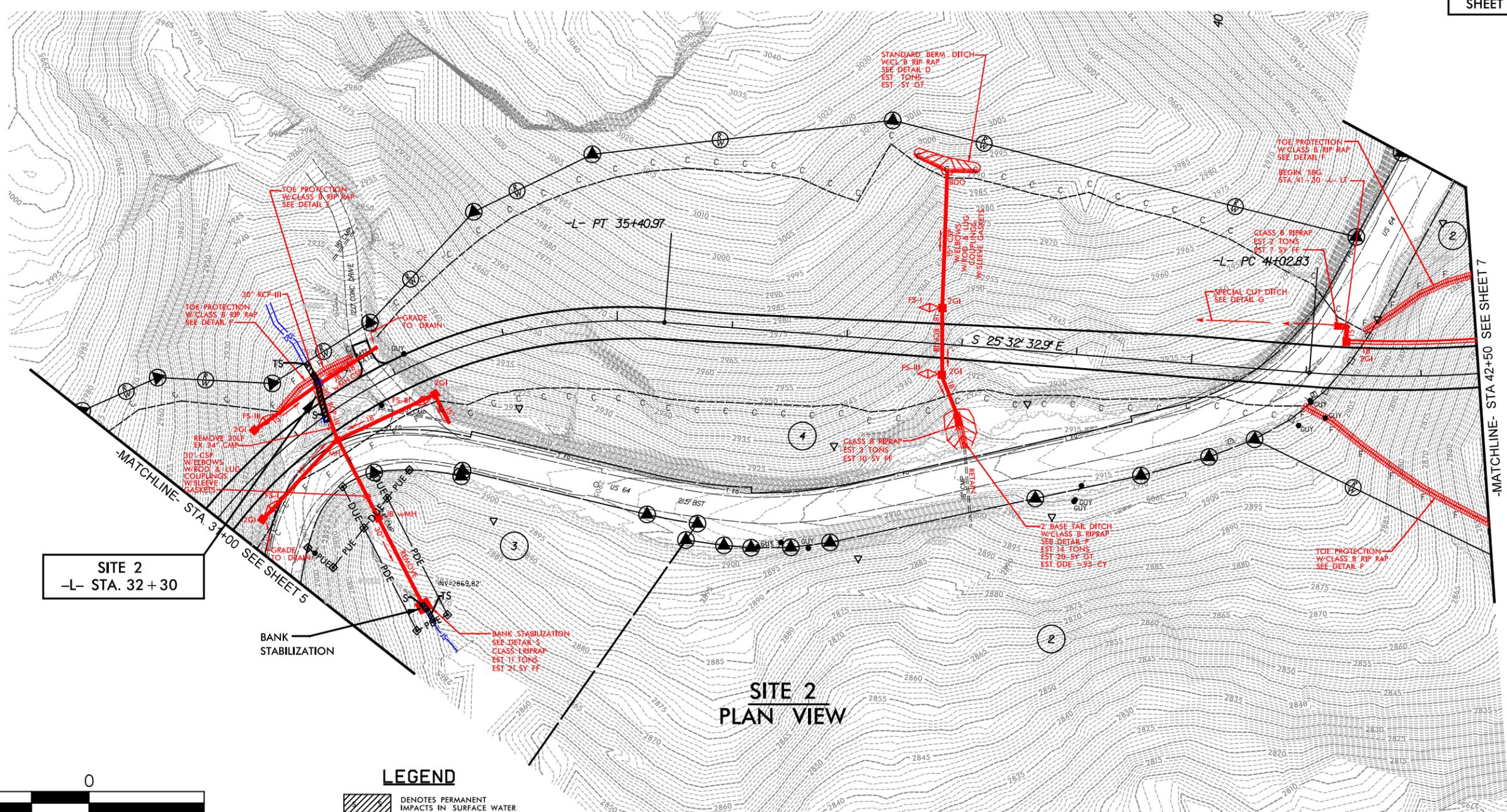


-L- STA. 31+88 RT

4

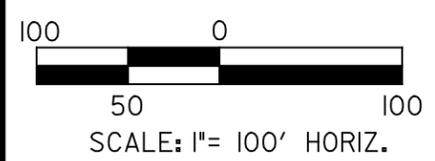
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REVISIONS  
 9-16-2014 ADDED PUE ON PARCEL 3  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED  
 10-21-2014 ADDED DUE TO PARCEL 3



**SITE 2**  
 -L- STA. 32+30

**SITE 2**  
**PLAN VIEW**



**LEGEND**

	DENOTES PERMANENT IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

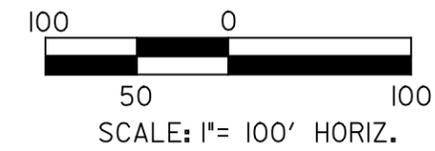
FOR -L- PROFILE SEE SHEET 12

STATES  
 SUSERNAMES  
 SFLELS

PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>7</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

**N. C. DEPT. OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**TRANSYLVANIA COUNTY**  
**PROJECT: 34428.1.1 (R-2409C)**

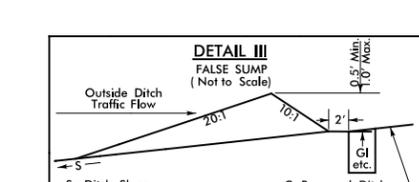
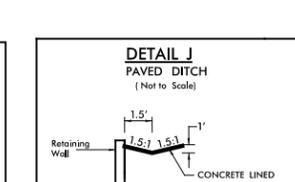
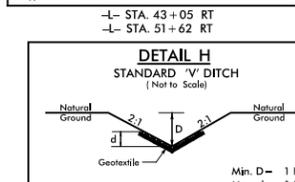
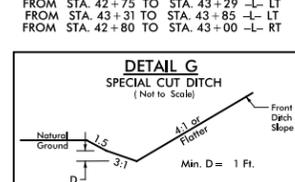
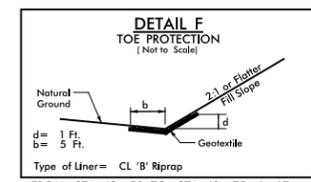
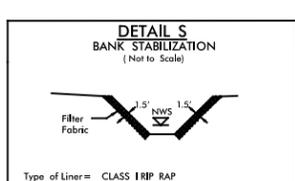
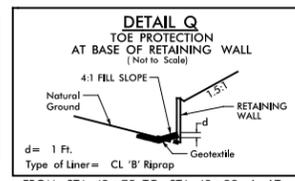
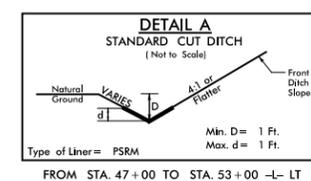
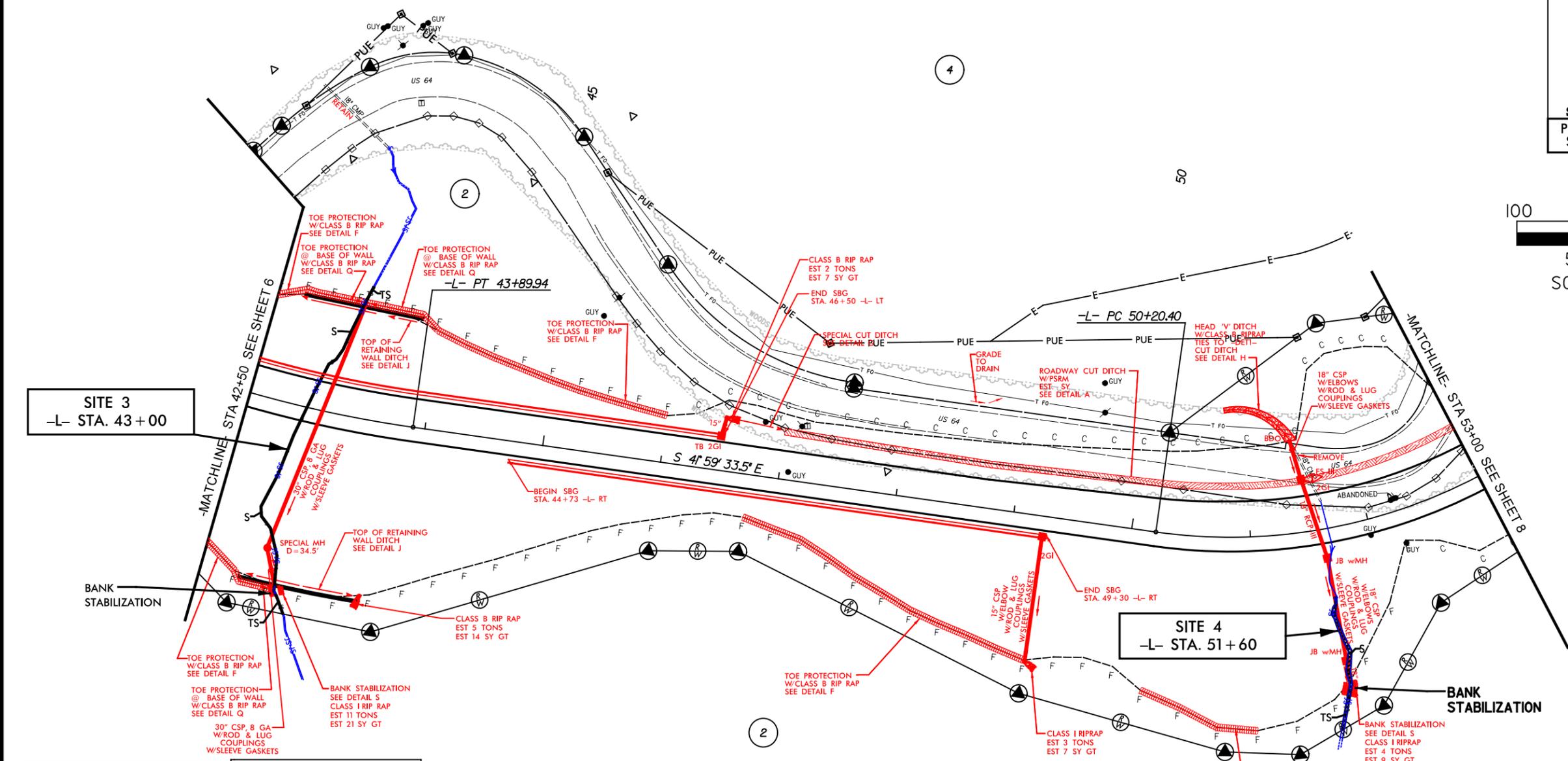
**US 64 FROM LAKE TOXAWAY TO INDIAN CREEK**  
**SHEET OF PERMIT DRAWING SHEET 6 OF 12**



**LEGEND**

- DENOTES PERMANENT IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8/17/99  
 REVISIONS  
 9-16-2014 ADDED PUE TO PARCEL 4  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED  
 STATES: SUSERNAME/SFILEL

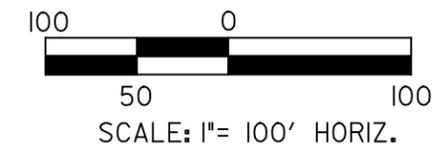


**SITE 3 & 4 PLAN VIEW**

PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>7</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

**N. C. DEPT. OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**TRANSYLVANIA COUNTY**  
**PROJECT: 34428.1.1 (R-2409C)**

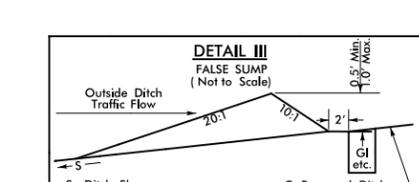
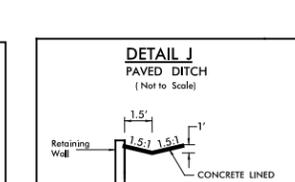
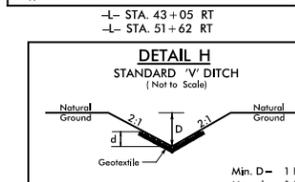
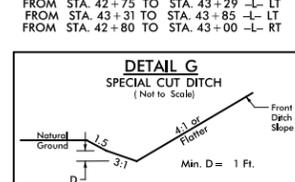
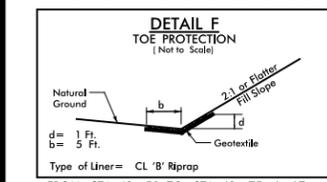
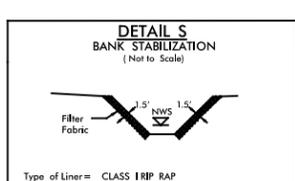
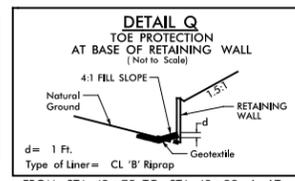
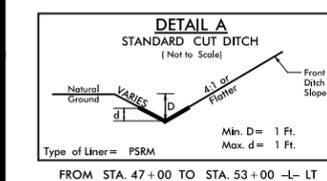
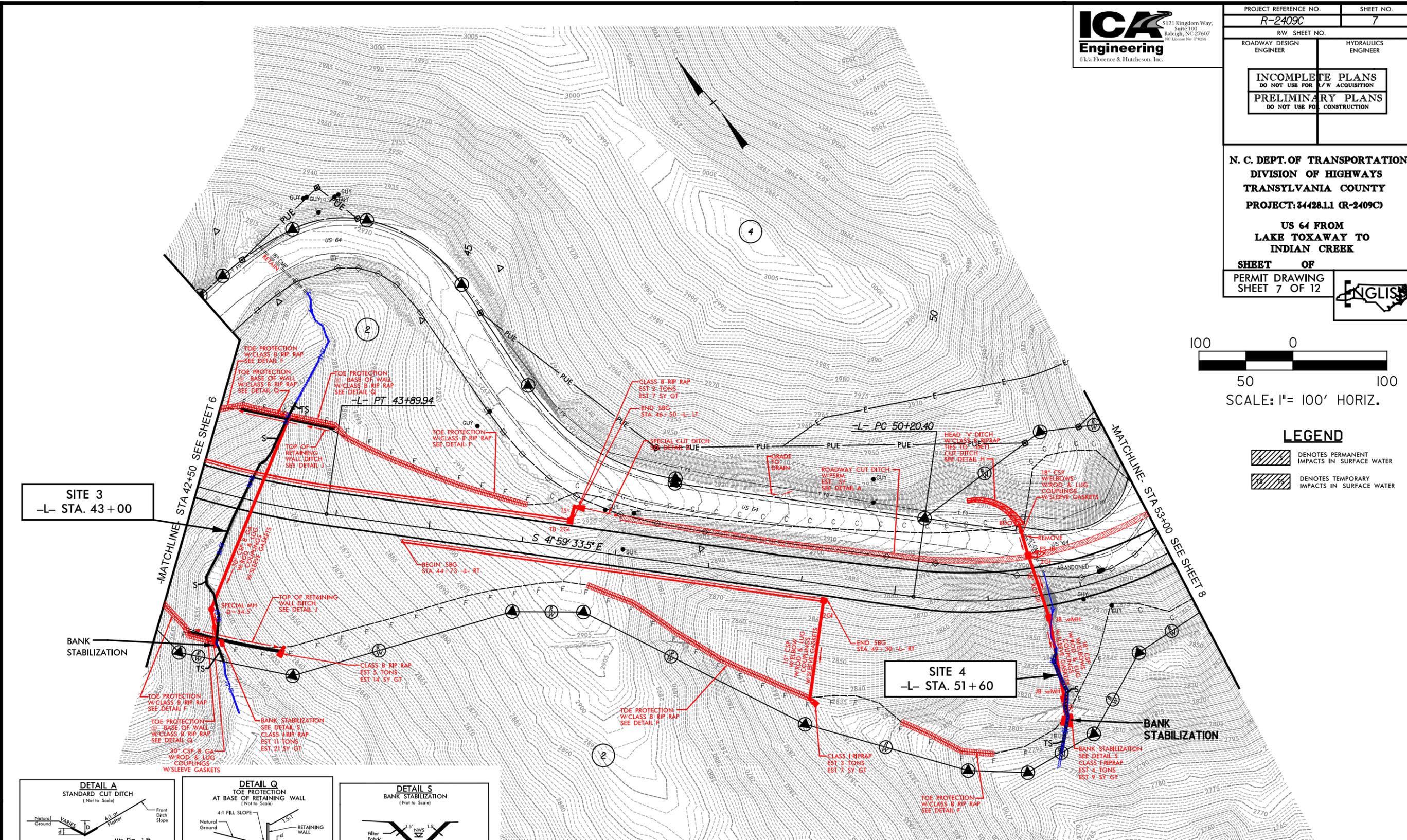
**US 64 FROM LAKE TOXAWAY TO INDIAN CREEK**  
**SHEET OF PERMIT DRAWING SHEET 7 OF 12**



**LEGEND**

- DENOTES PERMANENT IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8/17/99  
 REVISIONS  
 9-16-2014 ADDED PUE TO PARCEL 4  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED  
 STATES: SUSERNAME: SFILE:



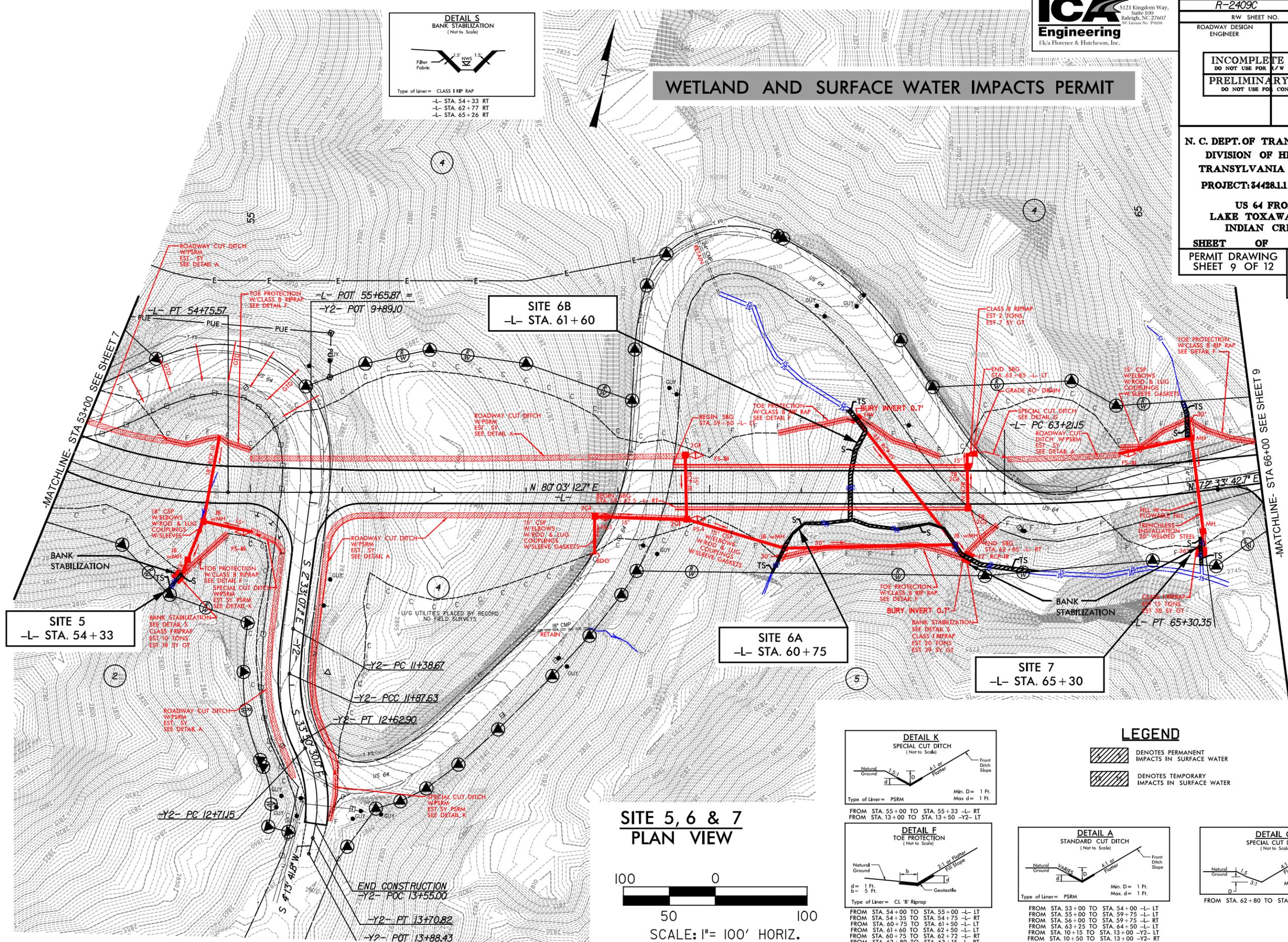
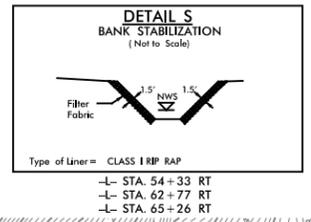
**SITE 3 & 4**  
**PLAN VIEW**

**WETLAND AND SURFACE WATER IMPACTS PERMIT**



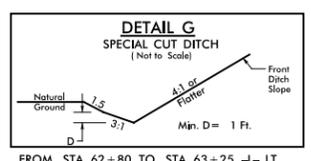
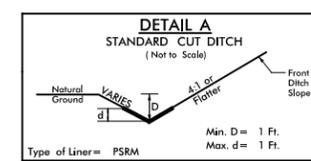
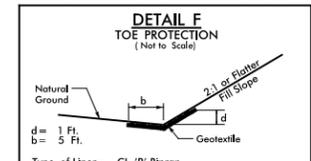
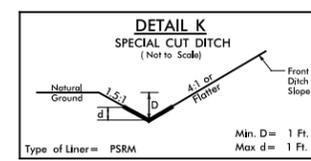
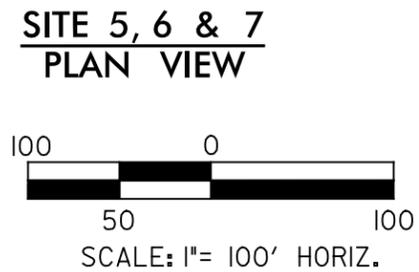


**WETLAND AND SURFACE WATER IMPACTS PERMIT**



9-16-2014 ADDED PUE TO PARCEL 4  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED

REVISIONS  
 8/17/99



**LEGEND**

- DENOTES PERMANENT IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

FROM STA. 54+00 TO STA. 55+00 -L- LT  
 FROM STA. 54+35 TO STA. 54+75 -L- RT  
 FROM STA. 60+75 TO STA. 61+50 -L- LT  
 FROM STA. 61+60 TO STA. 62+50 -L- LT  
 FROM STA. 60+75 TO STA. 62+72 -L- RT  
 FROM STA. 62+80 TO STA. 63+15 -L- RT  
 FROM STA. 64+50 TO STA. 66+00 -L- LT

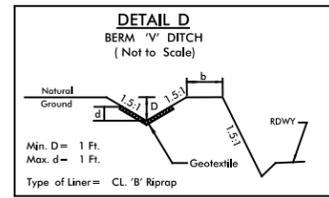
FROM STA. 53+00 TO STA. 54+00 -L- LT  
 FROM STA. 55+00 TO STA. 59+75 -L- LT  
 FROM STA. 56+00 TO STA. 59+75 -L- RT  
 FROM STA. 63+25 TO STA. 64+50 -L- LT  
 FROM STA. 10+15 TO STA. 13+00 -Y2- LT  
 FROM STA. 10+50 TO STA. 13+00 -Y2- RT

FROM STA. 62+80 TO STA. 63+25 -L- LT

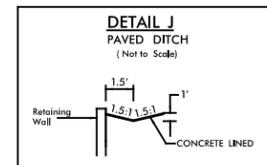
PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>9</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

**N. C. DEPT. OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**TRANSYLVANIA COUNTY**  
**PROJECT: 34428.1.1 (R-2409C)**

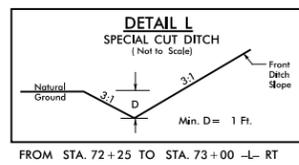
**US 64 FROM LAKE TOXAWAY TO INDIAN CREEK**  
**SHEET OF PERMIT DRAWING SHEET 10 OF 12**



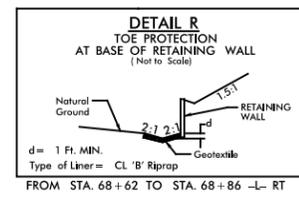
FROM STA. 74+11 TO STA. 76+45 L LT



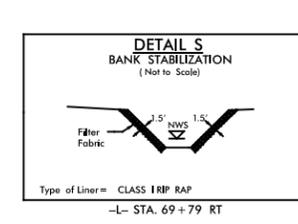
FROM STA. 67+75 TO STA. 68+66 -L- LT  
 FROM STA. 68+65 TO STA. 69+62 -L- RT



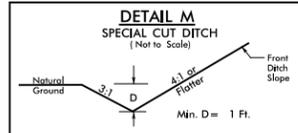
FROM STA. 72+25 TO STA. 73+00 -L- RT



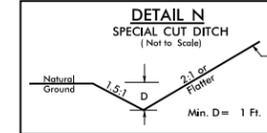
FROM STA. 68+62 TO STA. 68+86 -L- RT



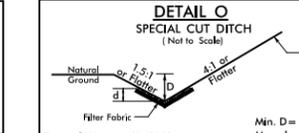
-L- STA. 69+79 RT



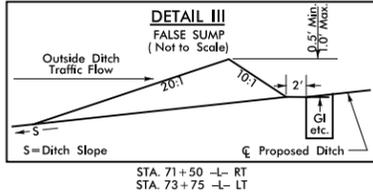
FROM STA. 69+25 TO STA. 69+75 -L- LT



FROM STA. 69+00 TO STA. 69+25 -L- LT  
 FROM STA. 71+50 TO STA. 72+25 -L- RT

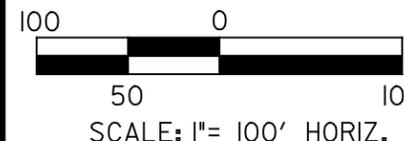
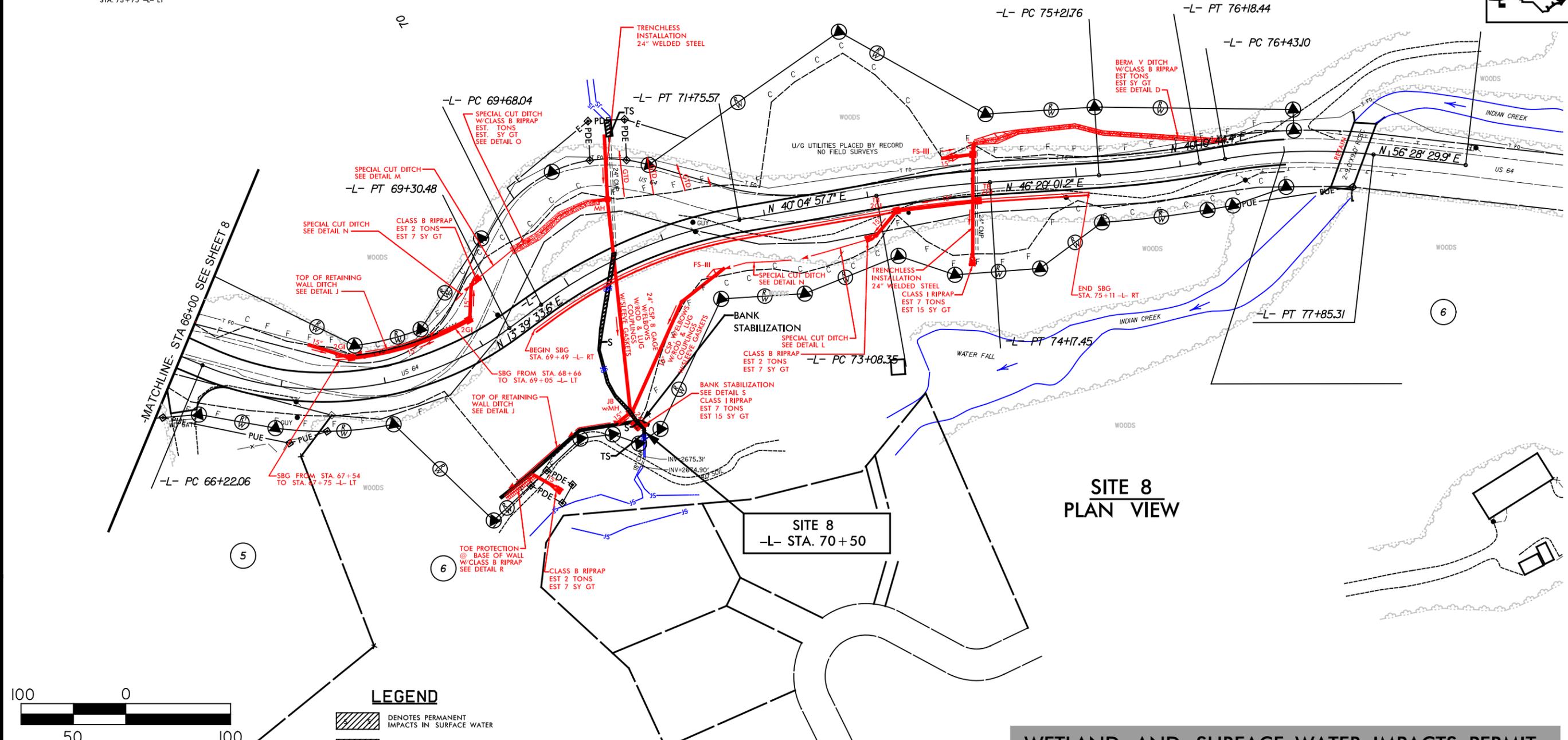


FROM STA. 69+75 TO STA. 70+60 -L- LT



STA. 71+50 -L- RT  
 STA. 73+75 -L- LT

REVISIONS  
 9-16-2014 ADDED PUE TO PARCELS 5 & 6  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED



**LEGEND**

	DENOTES PERMANENT IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

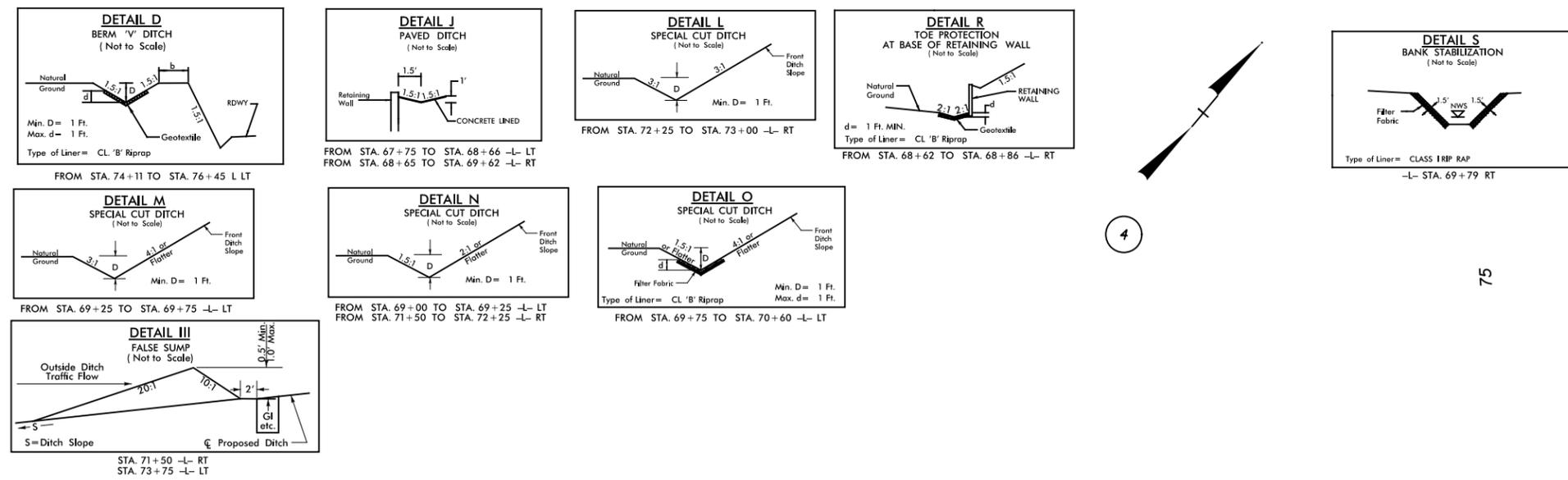
**WETLAND AND SURFACE WATER IMPACTS PERMIT**

SDATES  
 SUSERNAMES  
 SFLELS

PROJECT REFERENCE NO. <b>R-2409C</b>	SHEET NO. <b>9</b>
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

**N. C. DEPT. OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**TRANSYLVANIA COUNTY**  
**PROJECT: 34428.1 (R-2409C)**

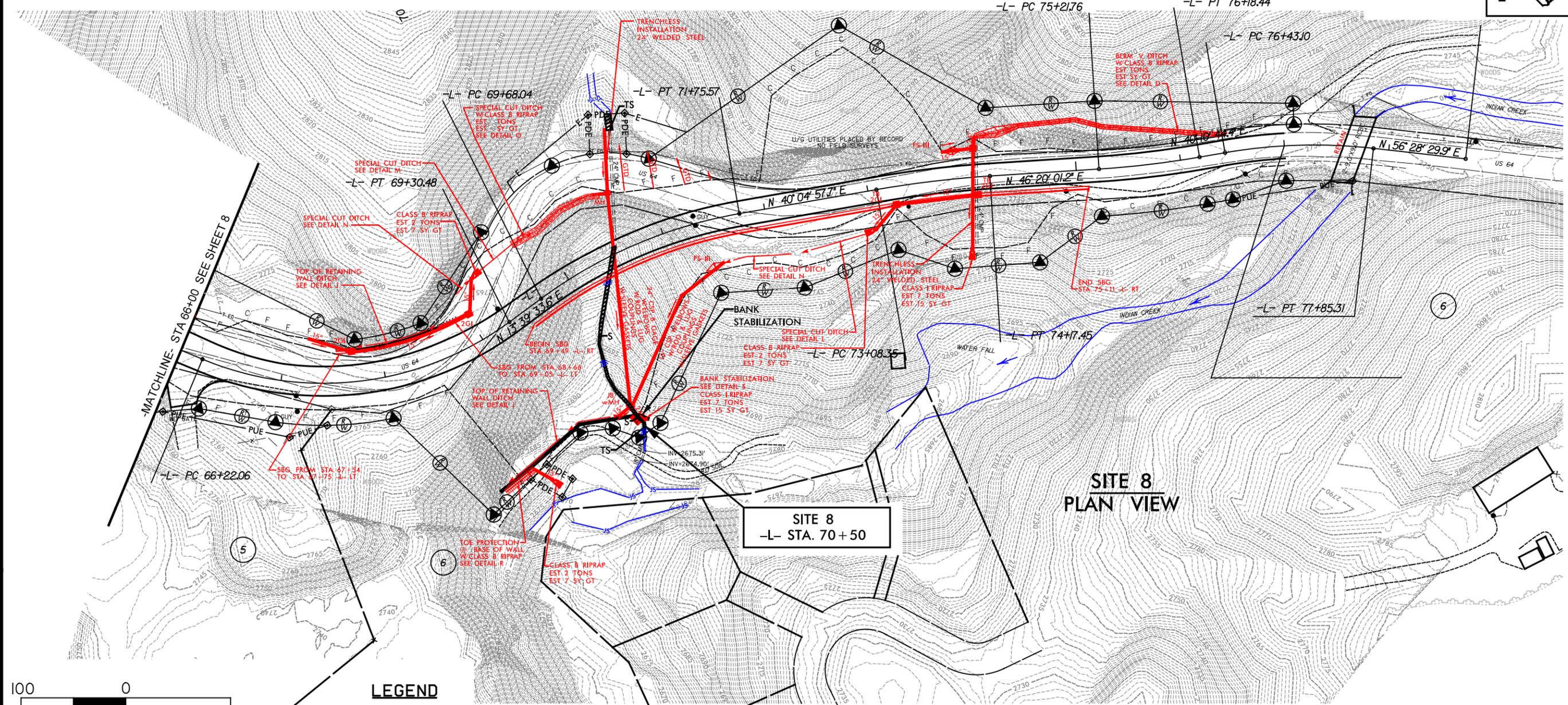
**US 64 FROM LAKE TOXAWAY TO INDIAN CREEK**  
**SHEET OF PERMIT DRAWING SHEET 11 OF 12**



4

75

REVISIONS  
 9-16-2014 ADDED PUE TO PARCELS 5 & 6  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED



**LEGEND**

	DENOTES PERMANENT IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

**WETLAND AND SURFACE WATER IMPACTS PERMIT**

SDATES  
 SUSERNAMES  
 SFILES

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 27+80 (LT)	66" RCP-IV						< 0.01			58	
	-L- 27+80 (RT)	66" RCP-IV						< 0.01	< 0.01	42	15	
2		BANK STABILIZATION						< 0.01		10		
	-L- 32+30 (RT)	30" RCP-III						< 0.01	< 0.01		11	
	-L- 32+30 (LT)	30" RCP-III						< 0.01	< 0.01	37	12	
		BANK STABILIZATION						< 0.01		15		
3	-L- 43+00	30" CSP						< 0.01	< 0.01	265	28	
		BANK STABILIZATION						< 0.01		10		
4	-L- 51+60 (RT)	18" CSP						< 0.01	< 0.01	76	29	
		BANK STABILIZATION						< 0.01		11		
5	-L- 54+33 (RT)	18" ALTERNATE PIPE							< 0.01		15	
		BANK STABILIZATION						< 0.01		10		
6A	-L- 60+75	30" ALT PIPE						< 0.01	< 0.01	96	20	
6B	-L-61+60	42" RCP-IV						0.02	< 0.01	263	84	
		BANK STABILIZATION						< 0.01		10		
7	-L- 65+30	30" WELDED STEEL						< 0.01	< 0.01	32	26	
		BANK STABILIZATION						< 0.01		11		
8	-L-70+50	24" CSP						< 0.01	< 0.01	172	26	
		BANK STABILIZATION						< 0.01		10		
TOTALS*:								0.06	0.03	1070	324	

\*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
  
TRANSYLVANIA COUNTY  
US 64 FROM LAKE  
TOXAWAY TO INDIAN CREEK  
  
SHEET 12 OF 12

09/08/09

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Plan Sheet Symbols

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

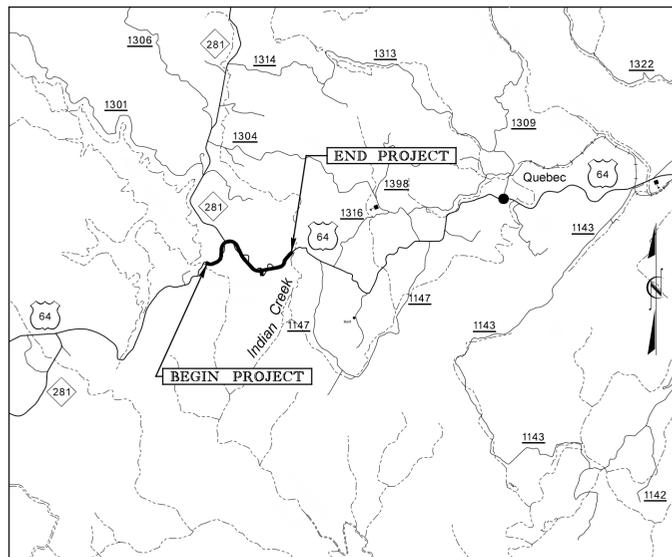
**TRANSYLVANIA COUNTY**

LOCATION: US 64 from LAKE TOXAWAY to INDIAN CREEK

TYPE OF WORK: GRADING, DRAINAGE, PAVING &  
RETAINING WALLS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2409C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34428.1.1		P.E. RW	

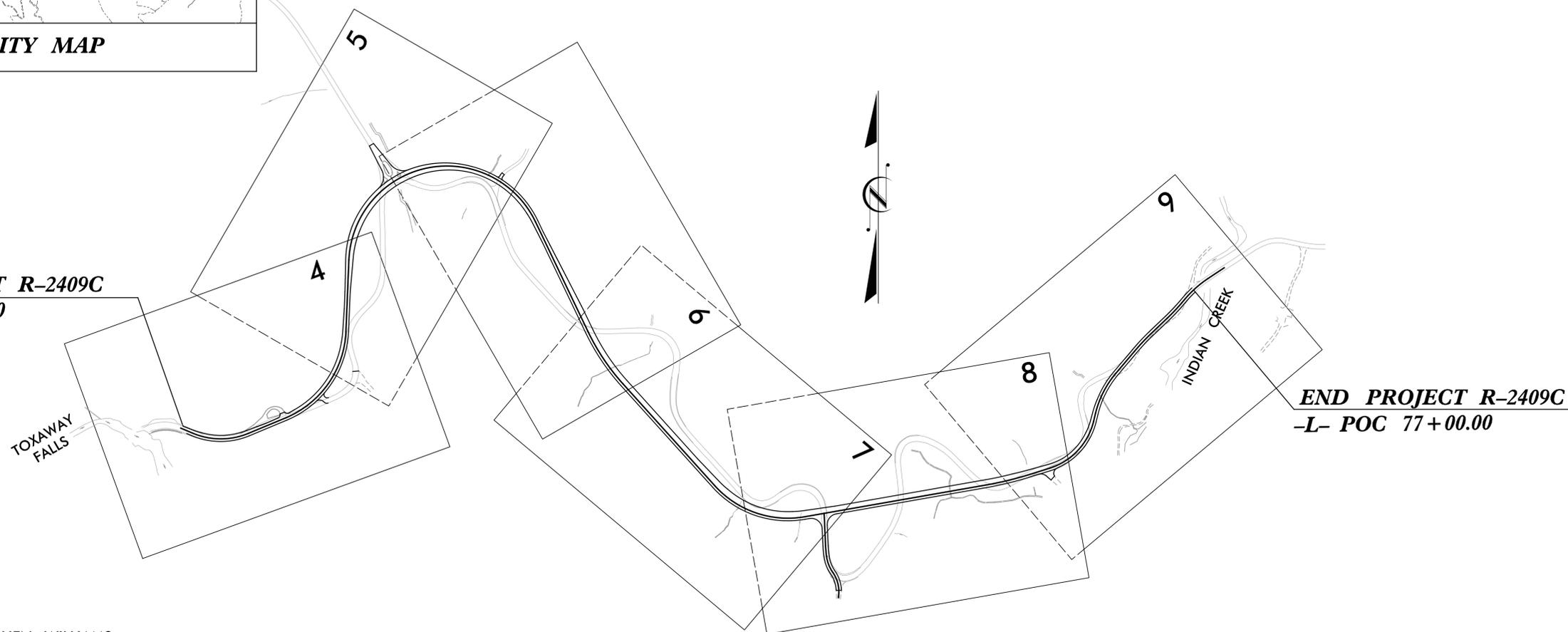
**TIP PROJECT: R-2409C**



VICINITY MAP

RW PLANS

BEGIN PROJECT R-2409C  
-L- POT 10+05.00



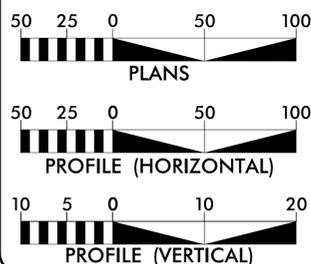
END PROJECT R-2409C  
-L- POC 77+00.00

NCDOT CONTACT: STEPHEN WILLIAMS,  
DIVISION DESIGN CONSTRUCTION ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

**CONTRACT:**

GRAPHIC SCALES



DESIGN DATA

ADT 2008 = 3,700  
ADT =  
DHV = %  
D = %  
T = % \*  
V = 40 MPH  
\* TTST = DUAL  
FUNC CLASS =  
MINOR ARTERIAL  
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2409C = 1.268 MI.  
LENGTH STRUCTURES TIP PROJECT R-2409C = 0.000 MI.  
TOTAL LENGTH OF TIP PROJECT R-2409C = 1.268 MI.

Prepared In the Office of:



for the North Carolina Department of Transportation

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
DECEMBER 20, 2013

LETTING DATE:  
, 2014

DAVID C. WALLER, P.E.  
PROJECT ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

ROADWAY DESIGN  
ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.



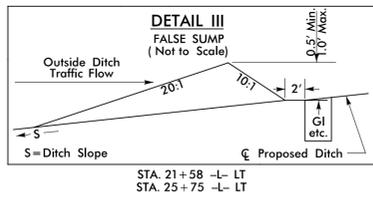
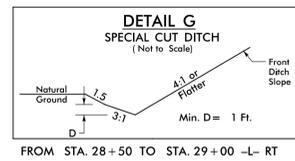
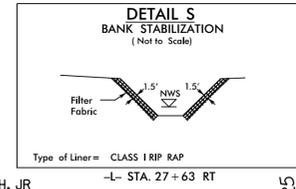
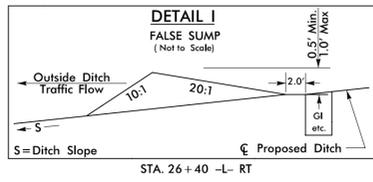
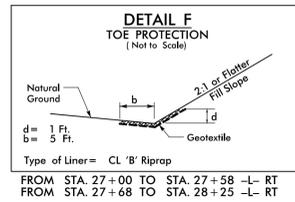
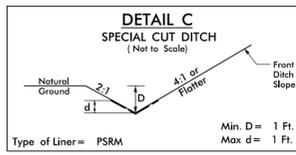
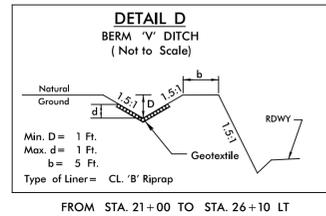
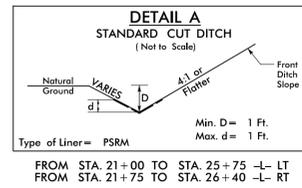
I:\14\2015\Roadway\Proj\N2409c\_rdy\_tsh.dgn  
ICA ENGINEERING, INC.







8/17/99



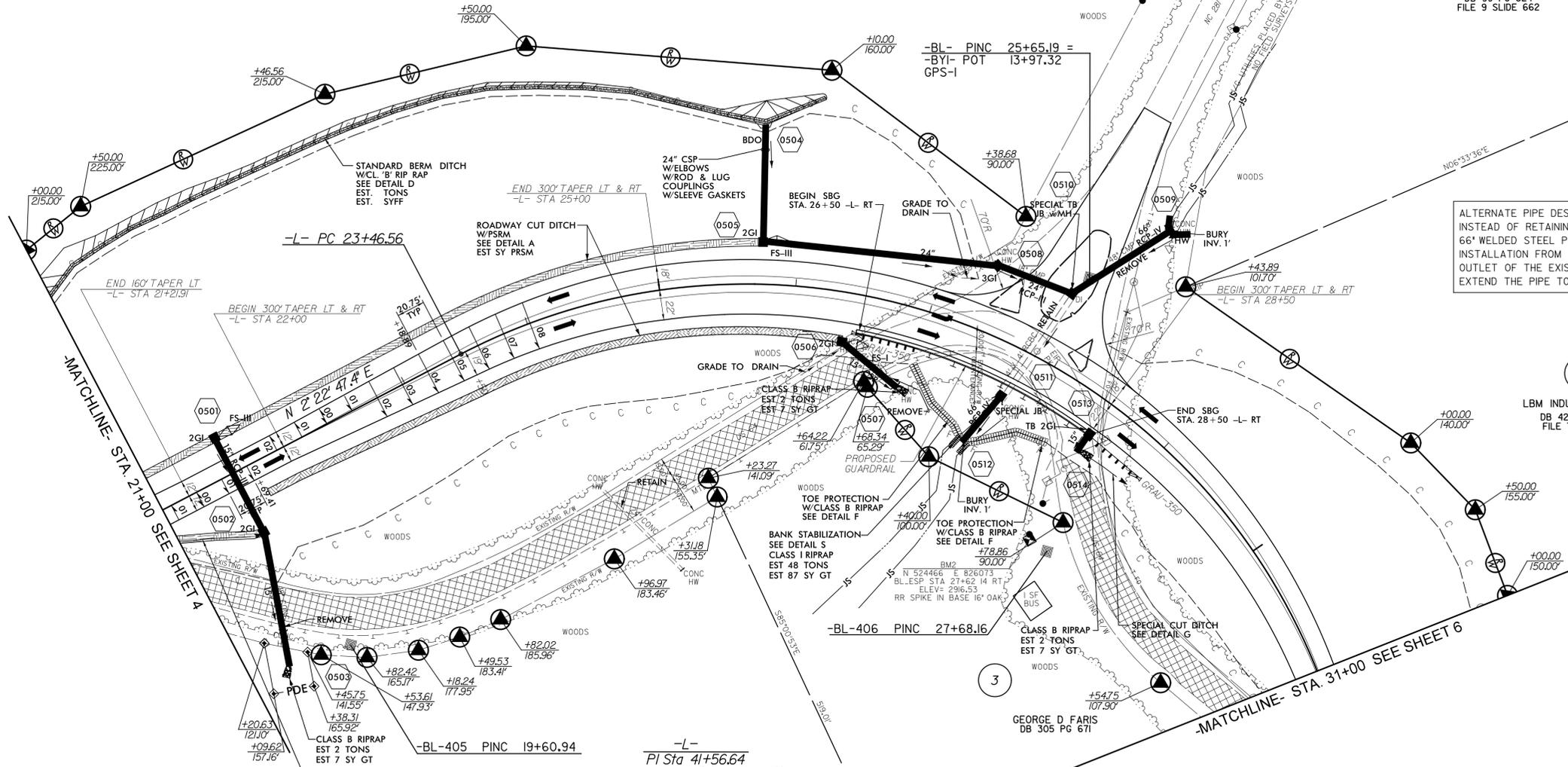
PROJECT REFERENCE NO. <i>R-2409C</i>		SHEET NO. 5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

REGINALD D. HEINITSH, JR.  
DB 162 PG 28  
DB 436 PG 352  
FILE 10 SLIDE 91

LBM INDUSTRIES, INC.  
DB 99 PG 524  
FILE 9 SLIDE 662

ALTERNATE PIPE DESIGN FOR CROSS PIPE AT STA. 28+70 - INSTEAD OF RETAINING THE EXISTING 4'x4' RCBC UNDER -L- 66" WELDED STEEL PIPE COULD BE INSTALLED USING TRENC INSTALLATION FROM THE INLET OF THE EXISTING 48" CMP 1 OUTLET OF THE EXISTING 4'x4' RCBC. A JB WOULD BE NEE EXTEND THE PIPE TO THE PROPOSED OUTLET.

10-10-2014 ADDED R/W MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED

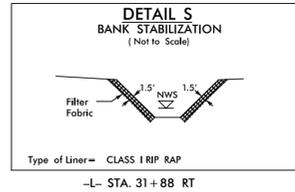
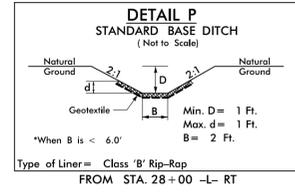
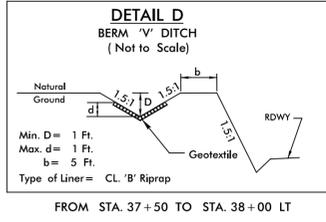
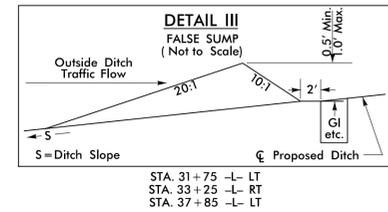
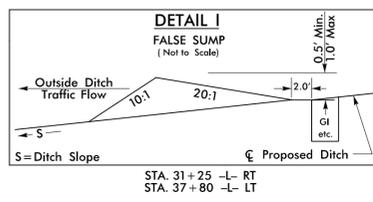
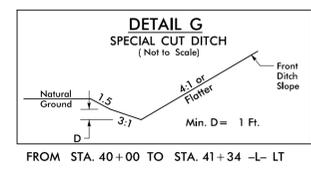
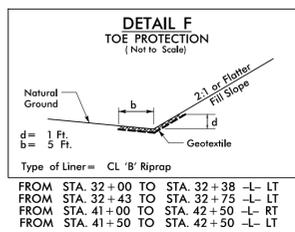


-L-  
PI Sta 41+56.64  
Δ = 152° 04' 39.7" (RT)  
D = 12' 43' 56.6"  
L = 1,194.42'  
T = 1,810.08'  
R = 450.00'  
SE = 0.08  
DS = 40 MPH

STATE OF NORTH CAROLINA  
DB 267 PG 838  
DB385 PG 390  
DB 404 PG 271  
FILE 10 SLIDE 934

SHOWN AS N.C. DIVISION OF PARKS AND RECREATION  
TRACT NO. 18 OF  
GORGES STATE PARK  
ON A SURVEY BY E. ROGER RAXTER, PLS RECORDED IN FILE 10, SLIDE 934  
PENNSYLVANIA REGISTER OF DEEDS

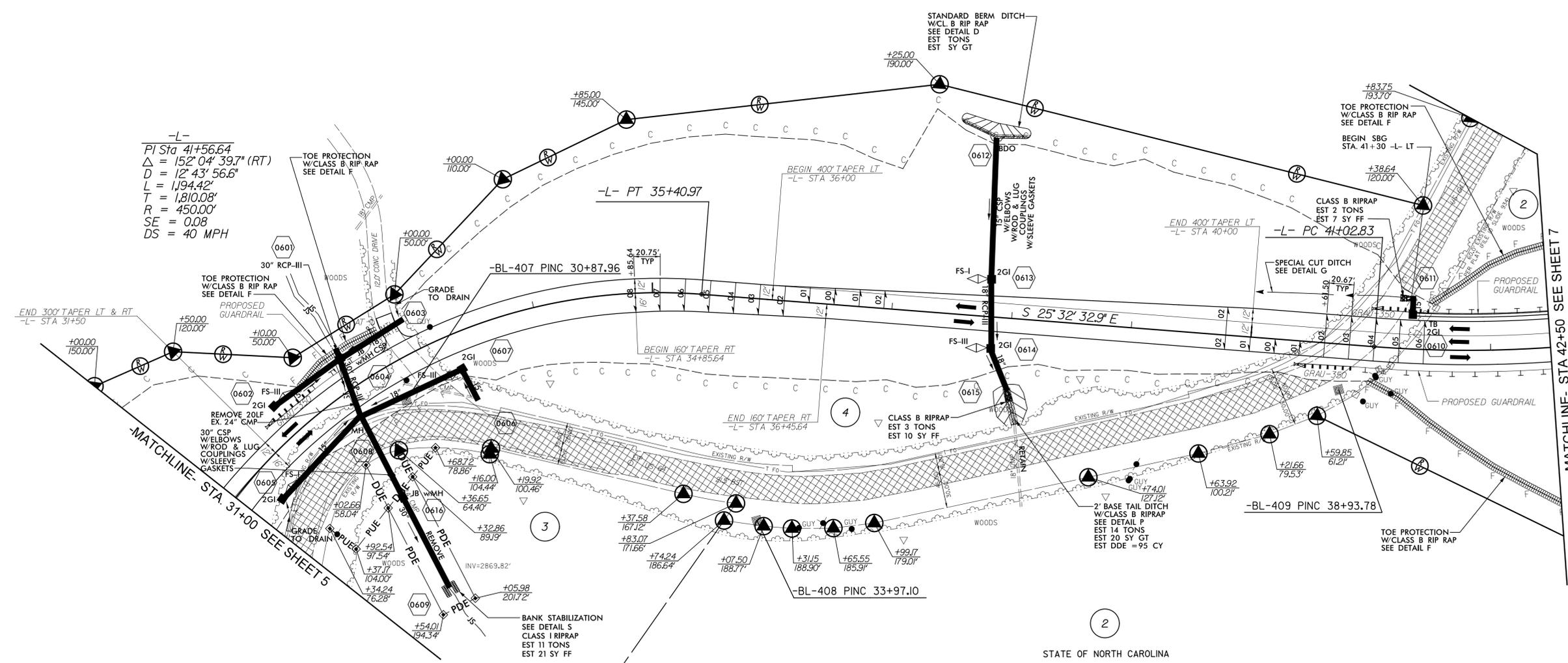
FOR -L- PROFILE SEE SHEET 11



-L-  
 P/ Sta 42+47.38  
 $\Delta = 16' 27' 00.6''$  (LT)  
 $D = 5' 43' 46.5''$   
 $L = 287.11'$   
 $T = 144.55'$   
 $R = 1,000.00'$   
 $SE = 0.06$   
 $DS = 40$  MPH

4  
 LBM INDUSTRIES, INC.  
 DB 428 PG 262  
 FILE 7 PG 435

REVISIONS  
 9-16-2014 ADDED PUE ON PARCEL 3  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED  
 10-21-2014 ADDED DUE TO PARCEL 3



STATE OF NORTH CAROLINA  
 DB 267 PG 838  
 DB 385 PG 390  
 DB 404 PG 271  
 FILE 10 SLIDE 934

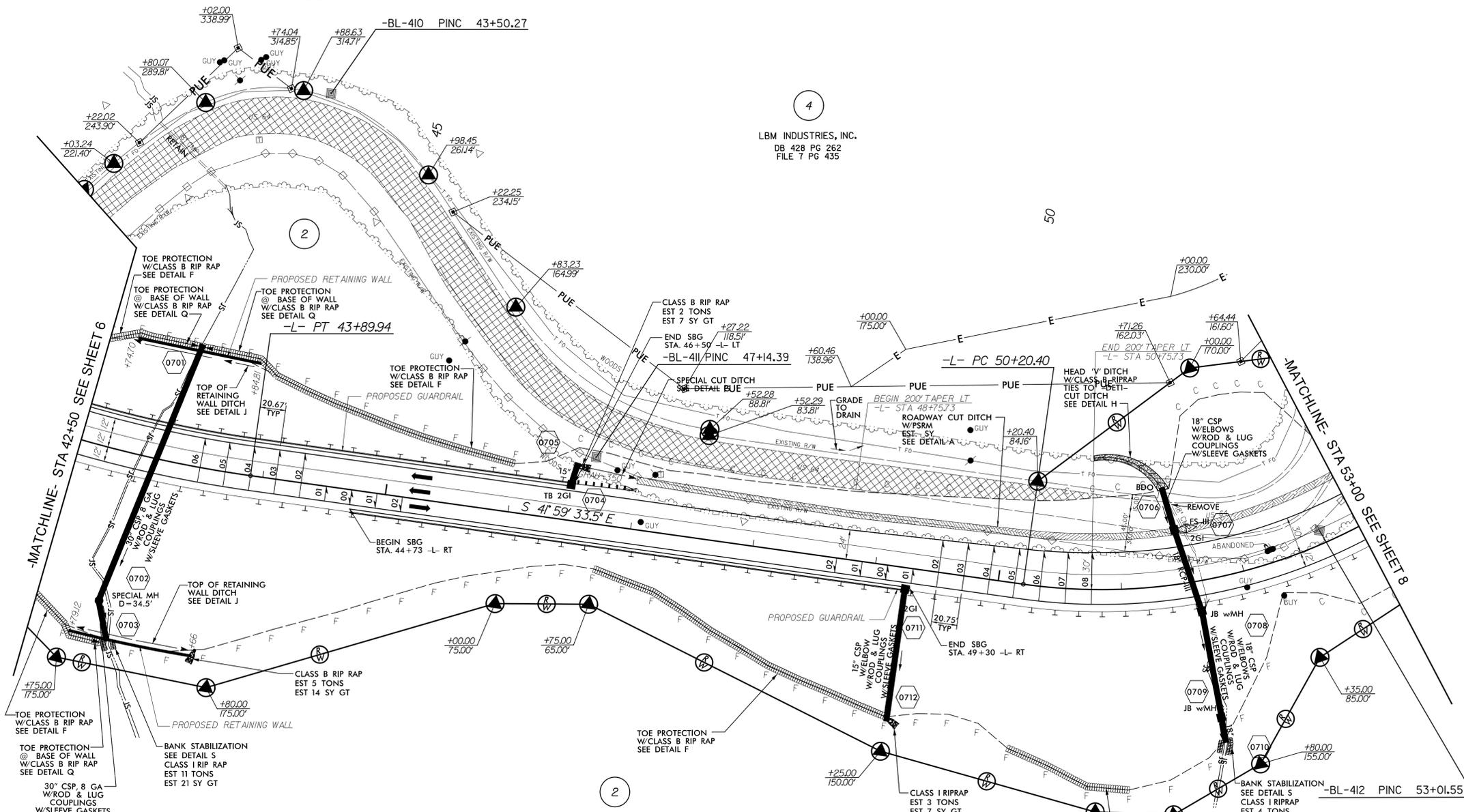
SHOWN AS N.C. DIVISION OF PARKS AND RECREATION  
 TRACT NO. 18 OF  
 GORGES STATE PARK  
 ON A SURVEY BY E. ROGER RAXTER, PLS. RECORDED IN FILE 10, SLIDE 934  
 TRANSYLVANIA REGISTER OF DEEDS

FOR -L- PROFILE SEE SHEET 12

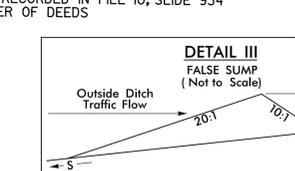
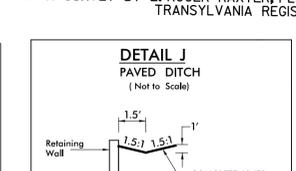
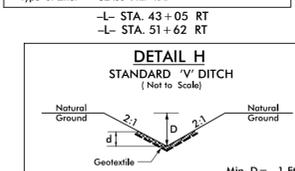
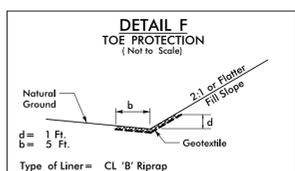
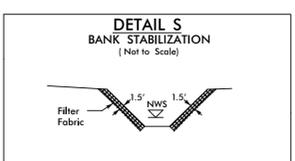
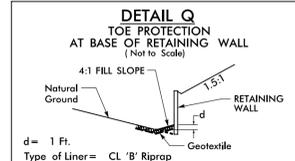
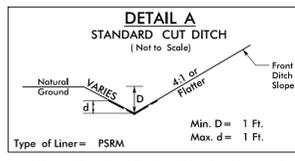
PROJECT REFERENCE NO. <i>R-2409C</i>	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

-L-  
 PI Sta 42+47.38  
 $\Delta = 16^{\circ} 27' 00.6''$  (LT)  
 $D = 5^{\circ} 43' 46.5''$   
 $L = 287.11'$   
 $T = 144.55'$   
 $R = 1,000.00'$   
 $SE = 0.06$   
 $DS = 40$  MPH

LBM INDUSTRIES, INC.  
 DB 428 PG 262  
 FILE 7 PG 435



REVISIONS  
 9-16-2014 ADDED PUE TO PARCEL 4  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED

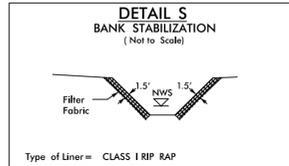


STATE OF NORTH CAROLINA  
 DB 267 PG 838  
 DB385 PG 390  
 DB 404 PG 271  
 FILE 10 SLIDE 934

SHOWN AS N.C. DIVISION OF PARKS AND RECREATION  
 TRACT NO. 18 OF  
 GORGES STATE PARK  
 ON A SURVEY BY E. ROGER RAXTER, PLS. RECORDED IN FILE 10, SLIDE 934  
 TRANSYLVANIA REGISTER OF DEEDS

-L-  
 PI Sta 52+69.61  
 $\Delta = 57^{\circ} 57' 13.8''$  (LT)  
 $D = 12^{\circ} 43' 56.6''$   
 $L = 455.17'$   
 $T = 249.20'$   
 $R = 450.00'$   
 $SE = 0.08$   
 $DS = 40$  MPH

FOR -L- PROFILE SEE SHEET 13



-L-  
 PI Sta 52+69.61  
 $\Delta = 57' 57" 13.8" (LT)$   
 $D = 12' 43" 56.6"$   
 $L = 455.17'$   
 $T = 249.20'$   
 $R = 450.00'$   
 $SE = 0.08$   
 $DS = 40 MPH$

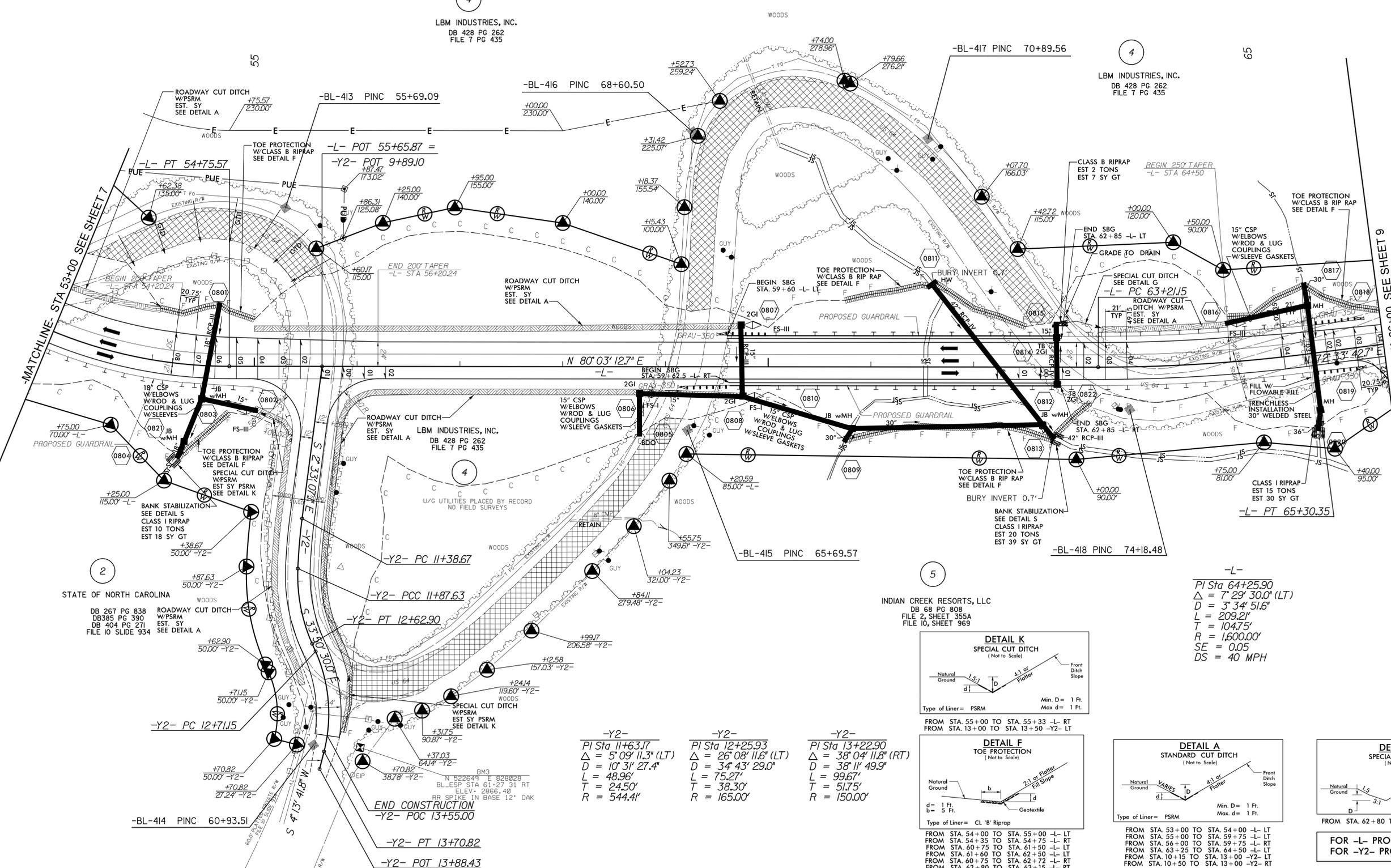
4

LBM INDUSTRIES, INC.  
 DB 428 PG 262  
 FILE 7 PG 435

4

LBM INDUSTRIES, INC.  
 DB 428 PG 262  
 FILE 7 PG 435

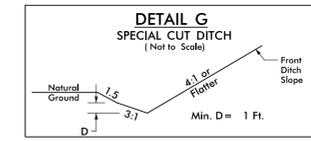
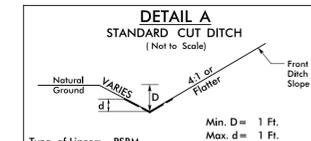
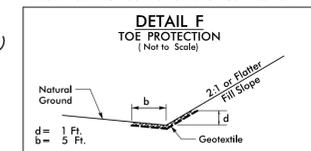
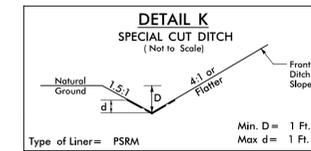
65



STATE OF NORTH CAROLINA  
 DB 267 PG 838  
 DB385 PG 390  
 DB 404 PG 271  
 FILE 10 SLIDE 934

INDIAN CREEK RESORTS, LLC  
 DB 68 PG 808  
 FILE 2, SHEET 355A  
 FILE 10, SHEET 969

-L-  
 PI Sta 64+25.90  
 $\Delta = 7' 29' 30.0" (LT)$   
 $D = 3' 34' 51.6"$   
 $L = 209.21'$   
 $T = 104.75'$   
 $R = 1,600.00'$   
 $SE = 0.05$   
 $DS = 40 MPH$



-Y2-  
 PI Sta 11+63.17  
 $\Delta = 5' 09' 11.3" (LT)$   
 $D = 10' 31' 27.4"$   
 $L = 48.96'$   
 $T = 24.50'$   
 $R = 544.41'$

-Y2-  
 PI Sta 12+25.93  
 $\Delta = 26' 08' 11.8" (LT)$   
 $D = 34' 43' 29.0"$   
 $L = 75.27'$   
 $T = 38.30'$   
 $R = 165.00'$

-Y2-  
 PI Sta 13+22.90  
 $\Delta = 38' 04' 11.8" (RT)$   
 $D = 38' 11' 49.9"$   
 $L = 99.67'$   
 $T = 51.75'$   
 $R = 150.00'$

END CONSTRUCTION  
 -Y2- POC 13+55.00  
 -Y2- PT 13+70.82  
 -Y2- POT 13+88.43

FOR -L- PROFILE SEE SHEET 14  
 FOR -Y2- PROFILE SEE SHEET 15

REVISIONS  
 9-16-2014 ADDED PUE TO PARCEL 4  
 10-10-2014 ADDED RW MONUMENTS TO EXISTING RIGHT-OF-WAY WHICH IS BEING RETAINED

8/17/99



BEAVER CREEK CONSERVANCY LLC  
PO BOX 40  
SAPPHIRE, NC 28774

LBM INDUSTRIES INC  
PO BOX 40  
SAPPHIRE, NC 28774

TRAURIG EDWARD A & LESLEE  
28 CORMORAN ISLAND LN  
KIAWAIT ISLAND, SC 29455

Edwards L Warren & Annette C  
44207 Millcreek Ave  
Alpharetta, GA 30005

TRANSYLVANIA RESORTS LLC  
8000 CAPPS FERRY RD  
DOUGLASVILLE, GA 30135

CATATOGA INVESTMENTS LLC  
541 N PALMETTO AVE STE 105  
SANFORD, FL 32771

FARIS GEORGE D & SHARON H  
PO BOX 553  
OOLTEWAH, TN 37363

R-2409C 404 Labels

GEORGE D FARIS  
PO BOX 553  
OOLTEWAH, TN 37363

INDIAN CREEK RESORT LLC  
975 JOHNSON FERRY RD STE 450  
ATLANTA, GA 30342

INDIAN CREEK RESORT LLC  
976 JOHNSON FERRY RD STE 450  
ATLANTA, GA 30342

LBM INDUSTRIES INC  
PO BOX 40  
SAPPHIRE, NC 28774-0040

LBM INDUSTRIES INC  
PO BOX 40  
SAPPHIRE, NC 28774-0040

REGINALD D HEINITSH JR ETAL  
PO BOX 70  
LAKE TOXAWAY, NC 28747

R-2409C PropCon Labels