FINDING OF NO SIGNIFICANT IMPACT

for

US 119

From Partridge to Oven Fork

LETCHER COUNTY, KENTUCKY

ITEM NUMBER 12-311.10

Submitted pursuant to 42 USC 4332(2)(c) by the U.S. Department of Transportation, Federal Highway Administration, and Kentucky Transportation Cabinet, Division of Environmental Analysis

January 2001

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

E. Jeffrey Mosley
Deputy Secretary

Paul E. Patton
Governor

January 23, 2001

Ms. Linda Wagner-Justice, Chief District Engineer
Kentucky Department of Highways – District 12
109 Lorraine Street
Post Office Box 2468
Pikeville, Kentucky 41502

Dear Ms. Wagner-Justice:

SUBJECT: Approved Finding Of No Significant Impact (FONSI)
US 119 – Partridge to Oven Fork
Letcher County, Kentucky
Item Number 12-311.10

The subject FONSI was approved by the Federal Highway Administration (FHWA) on January 9, 2001. Enclosed for your use are three (3) copies of the document. By copy of this letter I am requesting the Kentucky Department of Highways Division of Design to publish through the Intergovernmental Review System (Executive Order 12372) the availability of the FONSI. Please contact Randall Thomas at (502) 564-7250 should you have any questions.

Sincerely,

John L. Mettille, Jr., Director
Division of Environmental Analysis

JLM/RT/AL
Enclosures
cc: M. Hancock
G. Sharpe w/1e
R. Polly
D. Newman w/1e
R. Divine w/1e
M. Mathews w/1e
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T.H.E. Engineers (Clyde Brown)
PDR Engineers (Bill Morris)

EDUCATION PAYS

T.H.E. Engineers, Inc.
131 Prosperous Place • Suite 15, Lexington, Ky. 40509 • Phone 606-263-0009 • Fax 606-263-9808

Mr. John Mettille, Director
Division of Environmental Analysis
Kentucky Department of Highways
125 Holmes Street, First Floor
Frankfort, KY 40622

January 22, 2001

Re: LETCHER COUNTY
US 119 (Partridge to Oven Fork)
Item No. 12-311.10
Final FONSI

Dear Mr. Mettille:

As requested, enclosed please find 12 copies of the final FONSI for the US 119 (Partridge to Oven Fork) project in Letcher County, Kentucky. If you have any questions, please do not hesitate to call.

Sincerely,

Marty Marchaterre
Environmental Manager
T.H.E. Engineers, Inc.

Attachments

cc: Randall Thomas, KYTC-DEA
John Ross, Environmental Coordinator, District 12
Bill Morris, PDR Engineers, Inc.

PROJECT IMPACT PROFILE
FEDERAL-AID PROJECTS

ITEM NO: 12-311.10 **NHS** OR NON-NHS
COUNTY: Letcher **STIP Page Nos.: 153-154**
TYPE PROJECT (Describe):
Relocation of US 119 from Partridge to Oven Fork

Please provide an estimate of the potential environmental impact this project may have. This will provide direction in the following project development. Measures to be taken during or prior to future phases (e.g., design, right-of-way acquisition, or construction) of the project are indicated in bold type.

Potential Environmental Impacts	Impacts, Mitigation and Comments
Documentation Level	FONSI (EA approved 9/3/98).
Preferred Alignment and/or Design Changes	Alternate 4.
Changes in Regulations Since EA Approved	Executive Order 13112 on Invasive Species. Issuance and Modification of Nationwide Permits (65 FR 12817)(March 9, 2000).
Air Quality	No major air quality impacts will occur. No mitigation. Letcher County is in an attainment area. FY 1999-2004 STIP (October 1998), pages 153-154.
Noise	Predicted noise will reach FHWA sound levels for which abatement considerations are appropriate at 2 receptor sites. It was determined that a noise barrier or other noise mitigation measures would not be effective. **Standard noise controls will be implemented during construction (see FONSI page 19).**
Terrestrial and Aquatic Habitats	Construction activities will reduce wildlife habitat due to the loss of forested and grassy areas and wetlands. In time, revegetation will stabilize the construction areas and impacts will diminish. **See Construction Impacts, Mitigation, and Comments below and FONSI page 42.**
Groundwater Resources	No sinkholes or karst terrain exists in the project area and the project is not expected to affect drinking water wells. **Groundwater protection measures will be addressed during design and implemented during construction. Best management practices, FHWA guidelines, the Kentucky Department of Highways Standard Specifications (KDHSS), and the KYTC Generic Groundwater Protection Plan will be followed (see FONSI page 25).**
Surface Water Quality	The project will encroach upon dewatered coal slurry ponds, settling/treatment ponds, and spoil basins. It will not substantially affect the conditions of surface waters. **Erosion and sedimentation controls specified in KDHSS Sections 212 and 213 will be required (see FONSI page 25). Erosion control plans will be developed during the final design phase. Best management practices will be employed during the design and construction phases. KYTC will coordinate with the Kentucky Division of Water and Office of Surface Mining, Reclamation, and Enforcement during final design on reconfiguring the settling and treatment ponds.**
Floodplains	The selected alternate will cross floodplains. It is the only practicable alternative. **Coordination with the Federal Emergency Management Agency (FEMA) and a No-Rise Certification are required during the design phase (see FONSI page 30).**

Federal Highway Administration

FINDING OF NO SIGNIFICANT IMPACT

for

US 119

From Partridge to Oven Fork.
Letcher County, Kentucky
Item No. 12-311.10

The FHWA has determined that Alternative 4 will have no significant impact on the human environment. This Finding of No Significant Impact (FONSI) has been independently evaluated by the FHWA and determined to adequately and accurately discuss the needs, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. The FHWA takes full responsibility for the accuracy, scope, and content of this FONSI.

Recommended:

For Kentucky Transportation Cabinet — *date* 12-15-00

Approved:

For Federal Highway Administration — *date* 01-09-01

Potential Environmental Impacts	Impacts, Mitigation and Comments
River/Stream Involvement	No channel changes are required. Impacts will be minimal.
Wetlands	The selected alternate will affect 7 wetlands (approximately 12.35 acres (5 hectares)). **A wetland mitigation plan is being developed in coordination with the U.S. Army Corps of Engineers. It will be completed prior to the construction phase of the project (see FONSI page 28).**
Permits	**A Section 401 permit will be required from the KY Division of Water during the design phase. A Section 404 permit will be required from the U.S. Army Corps of Engineers during the design phase (see FONSI page 31).**
Threatened and Endangered Species	**KYTC/DEA will conduct a biological assessment for the Indiana bat, gray bat, and blackside dace during the design phase (see FONSI page 31). Section 7 coordination with USFWS will occur as necessary.**
Right-of-Way **Number of Residential Relocations** **Number of Business Relocations** Environmental Justice	**Right-of-way acquisition includes 9 single-family residences and 9 mobile homes. One business will need to be relocated. KYTC relocation agents will assist displacees in finding comparable housing that meets decent, safe and sanitary standards, and suitable business sites (see FONSI page 32).** Environmental Justice issues do not appear to exist in the project corridor.
Farmlands	Approximately 55 acres (22.3 hectares) of prime, unique, or statewide-important farmland will be acquired. LESA scores are not sufficient enough to outweigh the need for the project.
Hazardous Materials/ Underground Storage Tanks	**Based on the Phase II assessment, 3 underground storage tanks will need to be removed from Raleigh's Grocery and the Long Property (see FONSI page 39).**
Cultural Historic Resources	No impacts. **To minimize the visual impact on the John B. Maggard house, landscaping near the connector to old US 119 will be undertaken (see FONSI page 36).**
Archaeological Resources	No impacts. No mitigation. Native American consultation is not necessary for this project. **Two cemeteries, the Blair Cemetery and the Berry Cemetery will be relocated in accordance with state law (see FONSI page 37).**
Construction	Construction impacts are expected to be minimal, of short-term duration, and with no adverse environmental impacts. **A maintenance-of-traffic plan will be prepared during the design phase (see FONSI page 42). KYTC will implement the erosion and sedimentation controls specified in KDHSS Sections 212 and 213, develop erosion control plans during final design, and implement best management practices during design and construction. Standard noise reducing measures will be implemented during the construction phase. KYTC or its contractors will control fugitive dust generation in accordance with KDHSS Section 107.01.04. Construction excavation waste will be managed in accordance with KDHSS Section 204. During construction, all blasting operations will be done in accordance with KDHSS Section 107.11 and other applicable federal and state regulations.**
Mary Marchetti	1/9/01
Signature	**Date**

Summary and Conclusions

The long form Finding of No Significant Impact (FONSI) is being used because the selected alternate, Alternate 4, was developed after the final environmental assessment (EA) was approved. Alternate 4 was developed as a result of a geotechnical investigation of Alternate 3, the preferred alternate in the EA. KYTC evaluated a new alternate because of stability problems near the northern terminus. Addenda to the environmental base studies were completed for Alternate 4.

The proposed project would reconstruct and widen a section of US 119 from Partridge (near KY 3403) to Oven Fork (KY 932) in Letcher County, Kentucky. It is approximately 7.1 miles (11.4 kilometers) long. The project will remain a two-lane facility but it will have an improved alignment and grade within the project corridor. The design speed is 60 miles per hour (mph) (100 kilometers per hour (kph)) with partial access control. The project will have a rural typical section with two 12-foot (ft) (3.6-meter (m)) lanes. Shoulders will be 12 ft (3.6 m), increased by 2 ft (0.6 m) where there is a guardrail.

The existing facility, US 119, is a narrow two-lane road. The project segment contains vertical and horizontal deficiencies, few passing zones, limited sight distances, embankment stability problems, and narrow or nonexistent shoulders. The proposed project is needed and its purpose is to improve safety and level of service, reduce response time for emergency vehicles, and add capacity for future traffic demands.

Alternate 4, the selected alternate, will avoid areas with geotechnical stability problems and reduce future maintenance needs caused by slides. It will not require stream rechannelizations or encroach upon any historic properties (see pages 15-17). Alternate 4 will leave the railroad intact. It will require less residential homes but more mobile home relocations than the other alternates. It will require the construction of 10 bridges and two of these bridges will cross the CSX railway. It will require longer bridge spans but this is to minimize floodplain impacts by reducing the number of piers in the floodplains. To the extent feasible, all streams will be spanned, keeping pier and abutments out of the normal pool of the Poor Fork of the Cumberland and its tributaries. Alternate 4 will increase the volume of excavated earth and rock to be disposed. This alternate was not previously considered because of the anticipated increased costs due to excavation. Alternate 4 is designated as the selected alternate.

A listing of mitigation commitments is provided below:

- Standard noise controls will be implemented during construction.
- An erosion control plan will identify appropriate erosion and sedimentation controls and best management practices to implement during design and construction.
- To control construction impacts, fugitive dust controls, standard noise reduction measures, and erosion and sedimentation controls will be implemented.
- Groundwater protection measures will be addressed during design and implemented during construction. Best management practices, FHWA guidelines, Kentucky Department of Highways Standard Specifications (KDHSS), and the KYTC Generic Groundwater Protection Plan will be followed.
- Erosion and sedimentation controls specified in KDHSS Sections 212 and 213 will be required. Erosion control plans will be developed during the final design phase. Best management practices will be employed during the design and construction phases. KYTC will coordinate with the Kentucky Division of Water and Office of Surface Mining, Reclamation, and Enforcement during final design on reconfiguring the settling and treatment ponds.
- Coordination with the Federal Emergency Management Agency (FEMA) and a No-Rise Certification are required to minimize floodplain impacts.
- A wetland mitigation plan is being developed in coordination with the US Army Corps of Engineers.
- KYTC will conduct a biological assessment for the Indiana bat, gray bat, and blackside dace. Coordination with USFWS will occur as necessary.
- KYTC relocation agents will assist displacees in finding comparable housing that meets decent, safe and sanitary standards, and suitable business sites.
- Three underground storage tanks will need to be removed.
- Two cemeteries will be relocated in accordance with state law.
- A Section 401 permit will be required from the KY Division of Water during the design phase. A Section 404 permit will be required from the U.S. Army Corps of Engineers during the design phase.

Based on the anticipated environmental impacts and the KYTC mitigation commitments, the proposed project supports a Finding of No Significant Impact.

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IX. LIST OF EXHIBITS

I. PROJECT DESCRIPTION

The proposed project would realign and widen a section of US 119 from Partridge (near KY 3403) to Oven Fork (KY 932) in Letcher County, Kentucky. It is approximately 7.1 miles (11.5 kilometers) long (see Exhibit 1). The project will remain a two-lane facility but it will have an improved alignment and grade within the project corridor. The design speed is 60 miles per hour (mph) (100 kilometers per hour (kph)) with partial access control. The project will have a rural typical section with two 12-foot (ft) (3.6-meter (m)) lanes. Shoulders will be 12 ft (3.6 m), increased by 2 ft (0.6 m) where there is a guardrail. See Exhibit 2: Typical Section. Being a rural highway in mountainous terrain, it is not reasonable to make special provisions for pedestrians and bicyclists. These facility users, however, may utilize the shoulders of the road.

This document focuses on the environmental impacts of Alternate 4, the selected alternate. Alternate 4 was developed after the EA was approved and as a result of a geotechnical investigation of Alternate 3, the preferred alternate in the EA. Alternate 4 will avoid areas with geotechnical stability problems and reduce future maintenance needs caused by slides. It will not require stream rechannelizations and will not encroach upon any historic properties. Alternate 4 will leave the railroad intact.

II. PURPOSE AND NEED OF THE PROJECT

The existing facility, US 119, is a narrow two-lane road. The project segment contains vertical and horizontal deficiencies, few passing zones, limited sight distances, embankment stability problems, and narrow or nonexistent shoulders. The proposed project is needed and its purpose is to improve safety and level of service, reduce response time for emergency vehicles, and add capacity for future traffic demands.

A. Safety

A six-year Accident Analysis revealed that there were 68 accidents in the project corridor. The analysis reported 1 fatality and 58 injuries between 1/1/91 and 8/31/96. Property damage accidents accounted for just under half of the accidents. Accidents are highest at the two ends of the project. Cars and trucks running off the road and sideswipes caused the majority of the accidents. Providing a facility with improved horizontal and vertical geometrics, wider shoulders, longer sight distances, increased passing opportunities, and limited access points should reduce the number of accidents.

B. Roadway Deficiencies

The safest roads have alignments, which meet current American Association of State Highway Transportation Officials (AASHTO) Design Standards, contains many passing opportunities, and provides long sight distances for stopping and turning. Eight percent of the project corridor has grades that do not meet current vertical alignment design standards. Thirteen percent of the roadway does not meet current horizontal design standards due to sharp curves. Twenty-five sight-distance restrictions occur along the existing roadway. The project corridor has numerous closely spaced access points, controlled by permit. Some of these access points have entrance angles that do not comply with current design standards. Almost 95 percent of the project corridor is a no-passing zone.

Current design standards for the design year traffic require two 12-foot (3.6 m) lanes with 12-foot (3.6 m) shoulders. Existing US 119 has two 9-foot (2.7 m) lanes with narrow or nonexistent shoulders. Many of the embankment areas along the project corridor have stability problems. The project will improve these roadway deficiencies.

C. Transportation Demands

A 1997 traffic survey showed an average daily traffic (ADT) volume of 1,350 vehicles per day (VPD) along most of the corridor. It was slightly higher, 1,450 ADT, between KY 806 and KY 932 (eastern end). Eleven percent of the traffic consists of trucks. Approximately 26 percent of the traffic is local in origin and destination.

Traffic projections estimate that by the Design Year 2020, ADT will increase to 1,650 VPD. At the eastern end this will increase to 2,000 VPD. On the old US 119, local traffic is estimated to have an ADT of 450 VPD with a slight decrease to 300 VPD at the eastern end of the project corridor. Truck traffic also is expected to increase. Since the new US 119 is expected to attract the through traffic, it is anticipated that local traffic flow and level-of-service will improve on old US 119, which will be left in place.

D. Level of Service

According to the Kentucky Transportation Cabinet (KYTC) Highway Capacity Design manual, the concept, *level of service*, is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

Six levels of service (LOS) are defined for each type of facility for which analysis procedures are available. They are given letter designations of A through F with LOS "A" representing the best operating conditions and LOS "F" representing the worst. The LOS for existing US 119 in the project area is LOS "D." LOS D is not considered adequate for a Principal Rural Arterial in mountainous terrain.

If no changes are made to US 119, this LOS ranking is expected to worsen. The project will improve geometrics, add capacity, and increase average operating speed. All of these actions will improve the roadway's LOS to an adequate level.

E. Improve Emergency Vehicle Response Time

In the project area, a volunteer fire department handles fire-related emergencies. Police and ambulance services originate from the cities of Whitesburg or Harlan. The existing roadway's vertical and horizontal deficiencies impede rapid emergency vehicle response times. Local and county officials support construction of the project because it will improve emergency vehicle response times.

F. Congestion

Congestion along the project corridor is not unusually high because of the low traffic volumes. Speed of individual vehicles, however, is often restricted because of the large number of access points, slow moving vehicles (e.g., coal or logging trucks, school buses, farm vehicles), and lack of passing opportunities. US 119 is the primary corridor for the area's coal and timber trucks. Congestion is greatest at the eastern end of the project because grades increase, curves are sharper, and trucks slow down to begin the climb up Pine Mountain.

G. System Linkage

The Kentucky-Virginia border runs in a southwest-to-northeast direction along the Appalachian Mountains. Within the four-county border area (Bell County, Harlan County, Letcher County, and Pike County), US 119 provides the sole social and commercial connection between the region's four county seats. Between Pineville and Whitesburg, US 119 is a two-lane highway. From Whitesburg to Pikeville, US 119 is (or is being constructed as) a four-lane highway. The project corridor is relatively isolated

from parallel routes, and therefore, US 119 is an important element in linking the area with other areas of the state and nation.

US 119 also provides a connection between these four county seats and the rest of Appalachia via the Appalachian Development Highway System, a federally mandated network intended to open up the Appalachian area to economic development. It provides these county seats with a connection to the only nearby four-lane highways at Pineville (US 25E) and Pikeville (US 23) and thus with the rest of the state and nation.

H. Regional Growth and Development Needs

In the project area, US 119 links Partridge, Maggard, Oven Fork, and Eolia with each other and the commercial, industrial, educational, employment, and institutional resources of the Letcher County seat at Whitesburg. It also provides the primary means of transportation for coal and timber, two of the county's principal economic resources.

Letcher County's coal industry has been in a decline and the county's lack of adequate transportation access has hindered it from attracting new non-coal industry. Due to the lack of economic opportunities, the county's population has been declining as people leave to find jobs. Local and county officials consider the improvement of US 119 to be a critical element in their plans to attract new industry and reverse the county's population and economic decline.

The proposed project is needed to support the area's general growth and development. It will improve economic ties between Pikeville and Whitesburg (north of Pine Mountain) and Harlan and Pineville (south of Pine Mountain). It will improve industrial access for receiving supplies and for trucking coal, timber, and other natural resources to markets in other portions of Kentucky as well as Virginia and West Virginia. The project will support the tourist industry by providing better access to scenic areas, wildlife management areas, nature preserves, lakes, and hiking trails.

I. Social Demands for the Project

Pine Mountain effectively splits Letcher County into two isolated populations. The Whitesburg area with the county seat is more developed on the north side of Pine Mountain. Partridge and Oven Fork and more rural areas are on the south side of the mountain. Local and county officials interviewed see the project as a necessary step in overcoming the social divisions created by Pine Mountain.

People on the south side of Pine Mountain must cross it via US 119 to reach jobs, secure government services, shop, and do social visiting. The mountain also divides parents on the south side from their children, as there are no secondary county schools on the south side. Three buses must make twice-daily trips over the mountain to transport corridor area children to and from Whitesburg.

The only roadway connecting south and north Letcher County is the current US 119 over Pine Mountain. Poor roadway geometrics, narrow lanes and shoulders, sharp curves, and steep drops with inadequate guardrail systems contribute to citizen concerns. US 119 over Pine Mountain is particularly dangerous during icy winter conditions (e.g., it can be dry in the valley but snowing or sleeting on top of the mountain). Citizens are worried about a potential school bus accident or a truck carrying a hazardous cargo crashing. Local, county, and Kentucky River Area Development District officials see the project not only as a benefit to accessibility and economic development but as a key link in making the later scheduled improvements of US 119 over Pine Mountain. Access to KY 932, which extends to the Virginia state line where it joins Virginia state route 707, will be enhanced by this project.

J. Planning Background

Planning and Zoning

Letcher County does not have any land use planning and zoning. The Kentucky River Area Development District, headquartered in Hazard, is responsible for region-wide transportation planning. It coordinates regional highway projects contained in Kentucky's Six-Year Plan, and makes recommendations for area-wide projects to be included in the Twenty Year Needs Plan.

State and Regional Transportation Plans

Improvements to US 119 from Partridge to Oven Fork are listed in Kentucky's Six Year Highway Plan: FY 2001-2006, page 74. Reconstructing and widening US 119 (Partridge to Oven Fork) is an element of the FY 1999-2004 Statewide Transportation Improvement Plan (October 1998), pages 153-154. US 119 is part of the State Primary System and the National Highway System.

Appalachian Development Highway System

In 1965, the Appalachian Development Act (ADA) mandated the creation of a regional network of highways in the Appalachian area to facilitate economic development. The project corridor has been the focus of several comprehensive studies since 1965. Because of geotechnical, environmental, and cost issues, this project along with the US 119 Pine Mountain crossing have not been constructed. The project would advance the ADA's goals by completing one of the last links comprising the Appalachian Development Highway System.

III. Alternates Considered

Four build alternates and a no-build alternate were considered for the project. Following is a discussion of the alternates.

A. No-Build Alternate

The No-Build (do nothing) Alternate would continue regular maintenance and spot improvements on US 119. The No-Build Alternate was considered but was rejected because it would fail to:

- Serve the needs of the local area with safety and efficiency
- Reduce emergency vehicle response times
- Improve the opportunities for economic development.

B. Build Alternates

Four build alternates have been considered for the Partridge to Oven Fork segment of US 119 (see Exhibit 3).

Alternate 1. Alternate 1's western terminus begins east of Partridge, near Station 43+000. This point is at the end of the most recent widening and improvement to a US 119 segment. It is located between the old alignment of US 119 and the Poor Fork of the Cumberland River. From there, it moves east, between existing US 119 and the Poor Fork. It bridges over three meanders of the Poor Fork near KY 3404 and Colliers Creek. It then moves along the south side of the Poor Fork to a point past Station 47+000 where it crosses Roberts Branch. Alternate 1 bridges over the Poor Fork to move along its north side and misses the Blair pay fishing lake. It proceeds over the Little Joe Day Branch and bridges back over the Poor Fork to the south side.

Alternate 1 continues along the south side of the Poor Fork, crossing four loops in the river (requiring eight bridges). It passes through or near several silt ponds prior to crossing Brown Branch. It avoids encroachment on the Pine Mountain Wildlife Management Area. Alternate 1 passes just south of Oven Fork, crosses two meanders in the Poor Fork (three bridges) and KY 806. It crosses the existing alignment and passes near Maggard's Cash Grocery, which is eligible for listing on the National Register of Historic Places.

Alternate 1 requires 13 bridges, two stream rechannelizations (approximately 1,750 ft (535 m)), encroaches upon seven wetlands and four coal company settling/treatment ponds, and affects one historic property. It will require approximately 9.5 million cubic yards (7.3 million cubic meters) of excavation, and waste disposal of approximately 8.2 million cubic yards (6.3 cubic meters) of excess material.

Alternate 2. Alternate 2 generally follows Alternate 1 for much of the corridor but deviates from Alternate 1 in four places. In the vicinity of KY 3404 (between Stations 44+000 and 45+000), Alternate 2 passes north of Alternate 1, moving just north of existing US 119 and the Poor Fork. This reduces the need for two of the three bridges in this area.

Between Jenkins and Little Joe Day Branches (from approximately 47+000 to 48+500), Alternate 2 moves to the south of Alternate 1, bridging over the Poor Fork at a point east of the Alternate 1 crossing. It then bridges the Poor Fork east of Little Joe Day Branch at the same point as Alternate 1. It diverges to the north of Alternate 1 crossing the oxbow in the Poor Fork further to the north. It misses some of the ponds/wetlands encroached by Alternate 1. It rejoins Alternate 1 near Station 50+100.

Between Station 50+300 and Oven Fork, Alternate 2 again moves north of Alternate 1 and requires two bridges not required by Alternate 1. Stream rechannelization will be needed between approximately Station 52+100 and approximately Station 52+300. It

rejoins Alternate 1 just west of Oven Fork. Similar to Alternate 1, Alternate 2 will encroach upon the historic Maggard Cash Grocery site.

Finally, Alternate 2 diverges from Alternate 1 for a short segment prior to the eastern terminus. Alternate 2 turns eastward, joining existing US 119 just east of the intersection with KY 932.

Alternate 2 requires 14 bridges and one stream rechannelization (1,150 ft (350 m)). It encroaches upon seven natural wetlands and the historic Maggard Cash Grocery. Alternate 2 requires approximately 6.9 million cubic yards (5.3 million cubic meters) of excavation. Of this amount, approximately 6.1 million cubic yards (4.7 million cubic meters) of waste/spoil will have to be disposed of.

Alternate 3. Alternate 3 was developed to avoid stream rechannelizations and encroachment on the historic Maggard Cash Grocery site. It is coincident with either Alternate 1 or Alternate 2, everywhere along the corridor except near Oven Fork. It moves south (between Stations 52+100 and 53+500) to avoid the historic Maggard Cash Grocery site. It requires 12 bridges and encroaches upon 7 natural wetlands (and four treatment/settling ponds). Alternate 3 does not require stream rechannelizations. It will require approximately 11.4 million cubic yards (8.7 cubic meters) of excavation, and waste/spoil disposal of approximately 10.3 million cubic yards (79 million cubic meters.

Alternate 4. Alternate 4 was developed after the EA was approved and as a result of a geotechnical investigation of Alternate 3, the preferred alternate in the EA. Alternate 4 begins approximately 165 ft (50 m) west of the meeting of the Andy Branch with the Poor Fork (Station 43+00). It is aligned slightly south of Alternate 3. Alternate 4 includes a bridge across the horseshoe loop of the Poor Fork east of Barlow Branch, at approximately Station 43+500. Alternate 4 also includes a bridge across the entire S-loop and floodplain of the Poor Fork in the vicinity of Collier's Branch, at approximately

Station 44+150. The alignment of Alternate 4 continues slightly south of Alternate 3 until near Robert's Branch, Station 47+150, where it veers farther south. It remains south of the CSX railway. At approximately Station 50+000, Alternate 4 rejoins the alignment of Alternate 3 with only slight variations in their alignment to the project end near KY 932. It will require the construction of 10 bridges and two of these bridges will cross the CSX railway. Unlike Alternate 3, Alternate 4 will not need to move the railroad line. Alternate 4 is designated as the selected alternate.

IV. PUBLIC HEARING/PUBLIC INVOLVEMENT SUMMARY AND RECOMMENDATIONS

A public meeting was held on November 13, 2000 at the Arlie Boggs Elementary School in Eolia, Kentucky to present Alternate 4. Alternate 4 was developed after the final EA was approved. Alternate 4 was developed as a result of a geotechnical investigation of Alternate 3, the preferred alternate in the EA. An estimated 56 people attended this open-style meeting, and were provided the opportunity to review plans and displays of the proposed project, ask questions, and give written and/or oral statements concerning the project. For a summary of the public meeting, see Appendix A of this document.

Thirteen people provided written comments and no comments opposed the project. Seven comments requested an additional tie to the existing US 119 closer to the fire and ambulance station. In response to these comments, KYTC is considering adding another tie to existing US 119 at or near the fire and ambulance station.

Three commenters stated that insufficient right-of-way was proposed to be bought on the south side of the proposed Colliers Creek bridge. KYTC will reevaluate the right-of-way in this area during final design.

Two commenters mentioned that "the road over the mountain needs to be constructed first." A separate project on the Pine Mountain section of US 119, Item No. 12-314.00,

is currently in the pre-design phase. One commenter stated that a 2-lane roadway would not handle future traffic and that a 3-lane roadway was needed. Traffic predictions do not warrant building a 3-lane roadway.

A public hearing was held on October 15, 1998 at the Arlie Boggs Elementary School in Eolia, Kentucky. An estimated 105 people attended this open-style hearing, and were provided the opportunity to review plans and displays of the proposed project, ask questions, and give written and/or oral statements concerning the project. For a summary of the public hearing, see Appendix A of this document.

Eighteen people gave their comments to the hearing reporter and six written comments were received. No comments opposed the project. Six comments noted that US 119 over Pine Mountain should be constructed before this project because it is a much more dangerous roadway. Three commenters requested the access road at Station 51+500 be modified or eliminated to avoid taking homes. In response to these commenters and potential stability concerns in the area, the access road was eliminated and this avoids the taking of several homes.

Two commenters requested the addition of passing lanes at a few locations along the project. They noted that truck traffic could increase once the project is complete and that it could be difficult to get around these trucks. Current traffic projections do not warrant the addition of passing lanes.

Two commenters requested that the bridge over Poor Fork at Colliers Creek Road be replaced. They noted that the existing bridge is narrow (16 ft (5 m)) and in poor structural condition. They also noted that turning movements are sometimes difficult to make at the intersection. Replacement of the bridge will not be part of this project but is expected to be part of a future county project. Due to the alignment of the selected alternate, turning movements at the intersection should improve because traffic will no longer be entering US 119 but a local access road (old US 119).

A statement from the Parcel 18 owners expressed concerns about the small amount of yard that would remain after construction, the close proximity of the proposed right-of-way to the house, and slides that may be triggered by blasting in the area. They have had a history of slides in the hill behind their house. After the public meeting and in response to their concerns, KYTC considered purchasing their house. Alternate 4, however, changed the alignment away from the house. Alternate 4 will not take any property from Parcel 18 and therefore, Parcel 18 will not need to be purchased.

Parcel 47 requested an access to the property. Although this parcel fronts on KY 806, it is currently accessed across another property owner's land. An entrance will be provided to satisfy their concerns.

One commenter noted a concern for homes being taken and not enough time to relocate. It may be necessary to contact this person to discuss the relocation procedures.

One commenter noted that utilizing channel changes instead of constructing bridges could reduce the cost of the project. To minimize impacts to floodplains, avoid channel changes, and protect aquatic habitat, KYTC decided to increase the number and length of bridges on this project. The use of bridges increased the cost of the project.

After consideration of public input, environmental impacts, and transportation objectives, the decision has been made to advance the project utilizing Alternate 4. Additional details can be found in the Environmental Assessment, the individual base studies, and baseline addenda that are on file at the Division of Environmental Analysis, Kentucky Transportation Cabinet, Frankfort, Kentucky.

V. SELECTED ALTERNATE

Four alternates along the existing US 119 corridor and the no-build alternate were studied for this project. All alternates follow the general corridor of the existing highway, but reduce the degree to which the highway follows the meanders of the Poor Fork of the Cumberland River. Alternate 4 is the selected alternate (see Exhibit 4).

Alternate 4 was chosen for the following primary factors:

1. Improves safety.
2. Improves level of service.
3. Reduces emergency vehicle response times.
4. Avoids areas with geotechnical stability problems.

Alternate 4 was selected after analysis of Alternate 3 revealed that it crossed areas with geotechnical stability problems. On August 13, 1999, a meeting was held with KYTC personnel, Department of Highways design engineers, and design consultants to discuss the geotechnical investigation of Alternate 3. At the meeting, it was decided to evaluate a new alternate, Alternate 4.

Alternate 4 will avoid areas with geotechnical stability problems and reduce future maintenance needs caused by slides. It will not require stream rechannelizations and will not encroach upon any historic properties. Alternate 4 will leave the railroad intact. It will require longer bridge spans but this is to minimize floodplain impacts by reducing the number of piers in the floodplains. It will increase the volume of excavated earth and rock to be disposed of. To the extent feasible, there will be no piers or abutments within the normal pool of the Poor Fork. This alternate was not considered previously because of the anticipated increased costs.

For a comparison of the environmental impacts of the alternates see Table 1.

Table 1: Comparison of Environmental Impacts for Each Alternate

Study Area	Environmental Impacts			
	Alternate 1	Alternate 2	Alternate 3	Alternate 4
Alternate Design	Requires construction of 13 bridges.	Requires construction of 14 bridges.	Requires construction of 12 bridges and relocation of segment of railroad.	Requires construction of 10 bridges.
Air Quality	No major air quality impact predicted for any alternate.			
Noise	At one receptor site, the predicted sound level will increase by 10 dBA L_{eq} (a decibel measurement of loudness over a time period) by the Design Year 2020.	At two receptor sites, the predicted sound level will increase by 10 dBA L_{eq} (a decibel measurement of loudness over a time period) by the Design Year 2020.		
Aquatic and Terrestrial	The project encroaches upon the Poor Fork of the Cumberland River, a critical natural area. Construction activities will reduce wildlife habitat due to the loss of forested and grassy areas and wetlands.			
Surface Water Quality	The project will not substantially affect the conditions of surface waters. The project will encroach upon dewatered coal slurry ponds, settling/treatment ponds, and spoil basins on the Cumberland River Coal Company site.			
Groundwater Resources	No sinkholes or karst terrain in project area. The project is not expected to affect drinking water wells in the area.			

Study Area	Environmental Impacts			
	Alternate 1	Alternate 2	Alternate 3	Alternate 4
Floodplains	The project will cross floodplains but the effects will be minimized through the use of longer bridges and no piers or abutments will be located in the normal pools of the river.			
River/Stream Involvement	2 channel changes (approximately 1,750 ft (535 m)).	1 channel change (approximately 1,150 ft (350 m)).	No channel changes.	No channel changes.
Wetlands	Will affect 7 wetlands (approximately 8.72 acres (3.53 hectares)).	Will affect 5 wetlands (approximately 6.68 acres (2.7 hectares)).	Will affect 7 wetlands (approximately 8.72 acres (3.53 hectares)).	Will affect 7 wetlands (approximately 12.4 acres (5 hectares)).
Permits	A Section 401 Water Quality Certification will be required from the Kentucky Division of Water during the design phase. A Section 404 Dredge and Fill Permit will be required from the U.S. Army Corps of Engineers during the design phase.			
Threatened and Endangered Species	The potential exists for three federally endangered species: Indiana bat, gray bat, and mountain blackside dace to be in the project area.			
Right-of-Way	14 residences, 14 mobile homes, 1 church, and 2 business relocations will be necessary.	17 residences, 7 mobile homes, and 0 business relocations will be necessary.	10 residential, 7 mobile homes, and 0 business relocations will be necessary.	9 residential, 9 mobile homes, and 1 business relocations will be necessary.
Environmental Justice	No environmental justice issues appear to exist in the project area.	No environmental justice issues appear to exist in the project area.	No environmental justice issues appear to exist in the project area.	No environmental justice issues appear to exist in the project area.
Farmlands	Approximately 55 acres (22.3 hectares) of prime farmland will be taken.	Approximately 60 acres (24.3 hectares) of prime farmland will be taken.	Approximately 55 acres (22.3 hectares) of prime farmland will be taken.	Approximately 55 acres (22.3 hectares) of prime farmland will be taken.

Study Area	Environmental Impacts			
	Alternate 1	Alternate 2	Alternate 3	Alternate 4
Hazardous Materials/Underground Storage Tanks	Approximately 7.5 cubic yards (5.7 cubic meters) of contaminated soil will need to be removed from 1 site at an estimated cost of $562. 3 USTs will need to be removed.	Approximately 7.5 cubic yards (5.7 cubic meters) of contaminated soil will need to be removed from 1 site at an estimated cost of $562. 3 USTs will need to be removed.	3 USTs will need to be removed.	3 USTs will need to be removed.
Cultural Historic Resources	Adverse effects to 2 historic sites.		No historic sites will be affected.	
Archaeological Resources	No archaeological site listed or eligible for listing on the National Register of Historic Places will be affected. Three cemeteries will need to be relocated.	No archaeological site listed or eligible for listing on the National Register of Historic Places will be affected. Two cemeteries will need to be relocated.	No archaeological site listed or eligible for listing on the National Register of Historic Places will be affected. Three cemeteries will need to be relocated.	No archaeological site listed or eligible for listing on the National Register of Historic Places will be affected. The Blair and Berry cemeteries will need to be relocated.
Construction	Construction impacts are expected to be minimal, of short-term duration, and with no adverse impacts to the environment.			

Analyses provided for the proposed improvement have revealed sufficient justification to warrant implementation based on the benefits to be derived by the public. The project will provide the public with a structurally sound facility, a positive long-term impact on traffic safety, and a more reliable emergency route.

VI. ENVIRONMENTAL IMPACTS OF THE SELECTED ALTERNATE

A. Air Quality

Letcher County is designated as an attainment area for all National Ambient Air Quality Standards (NAAQS). Computer modeling shows that no air quality receptor will exceed NAAQS through the Design Year 2020. All existing and predicted carbon monoxide concentrations are below the one-hour and eight-hour standards of 35 parts per million (ppm) and 9 ppm, respectively.

This project is in compliance with the FY 1999-2004 Statewide Transportation Improvement Plan (October 1998), page 153, and no major air quality impacts will occur as a result of the construction and operation of the selected alternate. The project is in an area where the State Implementation Plan does not contain any transportation control measures.

Letcher County is in attainment for all transportation-related pollutants (carbon monoxide (CO), nitrogen oxides (NOx), hydrocarbons (HC), and particulates (PM)) pursuant to the 1990 Clean Air Amendments. Therefore, the Transportation Conformity Rule implemented September 17, 1997 does not apply. Congestive Mitigation Air Quality (CMAQ) requirements also do not apply. The Kentucky Division of Air Quality has concurred in these findings (see Appendix B).

B. Highway Noise

Predicted noise will reach FHWA sound levels for which abatement considerations are appropriate. At two receptor sites, the predicted sound level will increase by 10 dBA L_{eq} (a decibel measurement of loudness over a time period) by the Design Year 2020. KYTC, however, does not consider noise barrier construction to be reasonable in this situation because the project does not appreciably alter (>3 dBA L_{eq}) future sound levels as measured by the difference between Alternate 4 and the No-Build alternate in the design year. The Noise Abatement Criterion of 67 dBA L_{eq} for residential buildings is not approached or exceeded at any receptor. Additionally, the represented receptors are generally widely scattered in this rural area and extremely long noise barriers would be required to protect all of them. The project's partial control would necessitate numerous openings in any barrier, which would greatly reduce the effectiveness of any noise barrier. Therefore, it was determined for this project that the potential noise reduction benefits of a noise barrier would be minimal.

Other means of traffic noise control include truck restrictions, speed reduction, and vertical and horizontal displacement of the roadway. Since this road will be a major truck thoroughfare, truck restrictions are not feasible. Speed limit reduction would also be impractical in this area since even a 5 to 10 mile per hour (mph) speed reduction would have very little effect on noise levels. Vertical and horizontal displacement of the roadway would compromise other safety design criteria.

Alternate 4 would move farther away from or stay the same distance from all previous receptors as Alternates 1, 2, and 3. In general, this alternate moves farther away from other potential receptors. Alternate 4 should not extensively change the noise environment of the project corridor as compared with the alternates in the baseline study. Standard noise reducing measures will be implemented during the construction phase to prevent construction noise from becoming a public nuisance or detriment. It is

standard policy on Kentucky highway construction projects to require the contractor to use equipment and procedures to restrict construction noise in the vicinity of sensitive noise receptors such as schools, hospitals, churches, and rest homes. KYTC will monitor construction noise as appropriate.

C. Terrestrial and Aquatic Ecology

1. Geophysical Environment

Letcher County is among the most mountainous counties in Eastern Kentucky. Pine Mountain is the main topographic feature near the project area. Its crest consists of sandstone, with a sequence of tilted strata, which dip approximately 30 degrees to the southeast. In the southwest, it is the boundary between Letcher and Harlan Counties, and in the southeast it is the boundary between Letcher County, Kentucky and Wise County, Virginia. Differences in elevation between the mountain crest and the parallel valley floors are commonly 1,200 to 1,300 ft (265 to 396 m). The elevation of the project area, which is the valley floor along the Poor Fork, is approximately 1,600 ft (488 m).

The geology of the valley floor is dominated by alluvium. The adjoining slopes of Pine Mountain and River Ridge are characterized by the Hance Formation of the Breathitt Group. Overlapping the two are occasional landslide deposits.

Hance Formation. This formation belongs to the Breathitt Group of the Lower and Middle Pennsylvanian geologic series. It consists of siltstone, sandstone, and coal. The primary coal deposits are in the Imboden coal seam. Since 1970, this seam has been mined along the Poor Fork, where the seams are up to six-feet (1.8 m) thick. In the project corridor, both underground and surface mining has occurred (see discussion below on Area Coal Mining).

Exposure of shallow coal seams during construction creates the potential for environmental problems usually associated with coal mining. Problems may occur when water (e.g., from rain or snow) reacts with the sulfur in the coal, creating sulfuric acid. Runoff from an exposed coal seam can be acidic. In addition, heavy metals can leach from the coal. This runoff can contaminate surface waters and groundwaters, damage vegetation and aquatic life, and cause corrosion of downstream bridges.

Acid runoff potential from the coal strata is minimal because the coal strata should be deeper than the planned construction excavation for the selected alternate. A discussion of the groundwater and surface water protection measures, which will minimize the potential for acid runoff, can be found in Subsections D and E. In addition, measures to minimize construction impacts are discussed in Subsection Q.

Alluvium. Alluvium consists of sediment and material from the Hance Formation and higher geological formations on Pine Mountain and River Ridge that settled into the valley of the Poor Fork. In the northern portion of the project area, the alluvium consists of blocks of sandstone, siltstone, limestone, and shale in a mix of sand, silt, and shale. In the southern portion of the project area, the alluvium is composed of silt, sand, gravel, and clay.

Land Slide Deposits. Landslide deposits on the south side of Pine Mountain indicate the susceptibility of the area to slides and instability. This occurs where the southeastward-dipping strata of the Hance Formation are undercut by the Poor Fork of the Cumberland River or by construction work. Accumulations of landslide deposits occur in gullies and on topographic benches and include both small slumps and rubble-strewn slopes. Landslide deposits in the southern portion of the corridor are a mixture of slab blocks of Hance Formation, debris from slides, and mudflows. Colluvium, composed of limestone and sandstone blocks, is common. Though these deposits appear to be stable, cuts into them, or construction on top of them, have the potential to reactivate downhill movement of the material.

Soils. According to the Natural Resource Conservation Service, eight major soil groups occur in the project area. Most of these soil groups pose some problems for large construction projects. Soils along bottomlands, floodplains, and stream terraces are deep, well drained, and of two basic types. One is easily erodible, moderately fertile, and suitable for pasture or building sites. It is sometimes ranked as prime or of statewide-importance farmland. The other type is found mostly as composite fill material in developed areas, mine dumps, and construction sites. It is low in fertility.

Soils along the lower slopes of Pine and Cumberland Mountains are deep and well drained. They are susceptible to severe erosion, rilling, and gullying. Some parts of the lower slopes have been cleared for cultivation and are moderately fertile or are suited for pasture and woodland. Other slopes feature high carbon siltstone and shale or spoil from coal mining activities. The presence of acid-forming soil types is an important factor for controlling surface runoff from construction spoil disposal areas (see Subsection Q: Construction Impacts).

Area Coal Mining. The presence of coal-bearing strata and both underground and surface mining facilities along the project corridor needs to be considered. The Cumberland River Coal Company owns the most relevant facility to the project (currently inactive). No underground tunnels run under the existing US 119 or near the Poor Fork of the Cumberland. Therefore, issues relating to underground mining, such as subsidence, will not be a problem. The selected alternate will pass near a surface mining area. It will not encroach on mining areas but it will encroach on treatment/settling ponds involved in the Cumberland River Coal Company operations (see Subsection E: Surface Water Quality). Soil/spoil and sediment samples collected at the sedimentation pond and coal preparation plant holding basin were analyzed and did not exceed the threshold for a hazardous waste (see Subsection N: Hazardous Waste and Underground Storage Tanks).

2. Terrestrial Habitat

The project area is primarily forested and in various stages of succession. The area is primarily rural in nature, with housing occupying the major portion of the narrow valley. Most of the open fields in the project area are used for livestock pasture. One large closed surface mine is in the project area.

The Kentucky Department of Fish and Wildlife Resources has classified two nearby areas as "Critical Natural Areas:" the Pine Mountain Wildlife Management Area and the Poor Fork of the Cumberland River (see Exhibit 5). The project is adjacent to but does not encroach upon the Pine Mountain Wildlife Management Area. The project does encroach upon the Poor Fork of the Cumberland River. The project will not encroach upon the Elkins Branch Nature Preserve, which the Kentucky Division of Water considers a "Critical Natural Resource Area."

The Kentucky Nature Conservancy is purchasing one area tract (Mullins property) that will be minimally encroached by the project (see Exhibit 5). The Nature Conservancy is considering turning this property into a nature preserve. Coordination with the Nature Conservancy has been initiated.

One hundred forty-five flora species were identified in the project area. These species included the fancy wood fern, sedge, common day lily, red maple, yellow poplar, scarlet oak, white oak, mountain laurel, sycamore, and blackberry species. Fauna identified included the wood duck, mallard, green-backed heron, beaver, white-tailed deer, mountain chorus frog, and black rat snake.

The alteration of terrestrial vegetation and wildlife habitat will inevitably affect wildlife. Construction activities will reduce wildlife habitat due to the loss of forested areas, grassy areas, and wetlands. Placement of excavated material will bury habitat. Some biological diversity may be lost in the project area. There will be some effects on soil

from erosion associated with construction. In time, revegetation with native flora species will stabilize the construction areas and impacts will diminish.

3. Aquatic Habitat (see Exhibit 5)

No segment of the Poor Fork of the Cumberland River or its tributaries is designated a wild and scenic river. Colliers Creek, which intersects Poor Fork in the project area near Maggard, is designated an "Outstanding State Resource Water." This designation means the water supports federally threatened and endangered species or contains habitat that supports diverse and unique aquatic flora and fauna. More protective water quality standards have been established for these water bodies. The selected alternate will bridge over the Poor Fork in the area of Colliers Creek and therefore, the project should not affect this Outstanding State Resource Water.

The Poor Fork of the Cumberland River is classified as a Class 1 Fish Resource River. This means that the Poor Fork has resource values which are of national or statewide significance (i.e., contains a federally listed threatened or endangered species). It is also designated a Class 2 Wildlife Resource Water because of its habitat, species diversity, and recreational value. The Poor Fork will be crossed by the project.

Twelve species of fish, including the Johnny darter, were identified during field investigations. The most commonly caught fish was the rainbow darter, both in the Poor Fork and the tributaries sampled. Aquatic vertebrates were well represented at all sites except Brown's Branch, where no fish were found. The Poor Fork and its tributaries are fast-flowing streams over a rocky substrate.

To minimize impacts to surface waters, no piers or abutments from the bridge crossings will be placed in the normal pool of the Poor Fork or its tributaries. Proper design and oversight will minimize impacts to the floodplains (see Subsection G).

D. Groundwater Resources

No sinkholes or karst terrain are located in the selected alternate's right-of-way. The project corridor contains coal strata and a former coal-mining site, which have the potential to contaminate groundwater. The potential for acid runoff from the coal strata is minimal because the coal strata should be deeper than the construction excavation.

No municipal water supply exists in the project area. All domestic water is obtained from wells and to some extent springs. The project is not expected to affect well water because the primary aquifer exists in the river's alluvium.

Groundwater protection measures will be addressed during design and implemented during construction. Best management practices, FHWA guidelines, the Kentucky Department of Highway Standard Specifications (KDHSS), and the KYTC Generic Groundwater Protection Plan will be followed.

E. Surface Water Quality

Surface water sampling in the Poor Fork of Cumberland River and its tributaries indicate generally good water quality and vertebrate and macroinvertebrate diversity (see Exhibit 5). Alkaline effluent from treated coal mine waters and gray water from residential sinks and washing machines, however, have had some effect on water quality. Brown's Branch and a short section of Poor Fork near Brown's Branch contain no fish and very low macroinvertebrate diversity possibly due to coal mine treatment/settling pond effluent. Four tributaries have elevated levels of phosphorous suggesting some pollution by gray water.

The project will not substantially affect the conditions of these streams and stringent mitigation measures are not necessary. Following the requirements of Sections 212 and 213 in the Kentucky Department of Highways Standard Specifications (KDHSS)

and employing best management practices will protect surface waters. Erosion control plans are to be provided during the design phase.

1. Rechanneling Streams

In the selected alternate, ten bridges will be constructed but they will not require any stream rechannelization. Some box culverts will be constructed but they will be designed to not impede low flow of water or movement of aquatic species. No mitigation is necessary.

2. Replacing Coal Mine Settling and Treatment Ponds

The selected alternate will encroach upon dewatered coal slurry ponds, settling/treatment ponds, and spoil basins on the Cumberland River Coal Company site. These ponds are not considered wetlands but mitigation activities will be necessary to protect the Poor Fork and its tributaries (see Appendix B). KYTC will pay for the design and the relocation or reconfiguration of these ponds. The following three options were considered to mitigate the encroachment on the ponds.

Option 1 – Relocate the ponds. Rebuild the ponds in another nearby location and divert water from the existing ponds to the new ones. The existing ponds would be dewatered and the water would be treated if necessary prior to discharging it to the Poor Fork. Sediments would be removed and disposed. Soil/spoil and sediment samples collected at the Cumberland Coal Company sedimentation pond and coal preparation plant holding basin were analyzed for hazardous characteristics (i.e., toxicity (Toxicity Characteristic Leaching Procedure (TCLP) metals), corrosivity, and ignitability). No samples exceeded the thresholds for a hazardous waste. Excavated soils and drained sediments from the pond and basin can be managed in solid waste landfills.

This option would result in full-sized ponds. It would be relatively costly, result in the loss of the (nonjurisdictional) wetland character of the existing ponds, and would have to be located at a higher elevation than the existing ponds. A pumping system would have to be designed to operate the pond system at this higher elevation.

Option 2 – Reconfigure the existing ponds. Reduce the width of the ponds to accommodate the project. KYTC would compensate for the reduced width of the ponds by constructing additional diversion baffles to increase their holding times.

Option 2 is the selected option because the existing ponds do not have to be removed and no new ponds will need to be constructed. No pumping system would be required and some of the existing wetland vegetation would be preserved. Working room will be tight to accommodate both the roadway right-of-way and the ponds. Further study will be needed to assure the adequacy of the treatment and settlement process within the available space. During design and construction, efforts will be made to minimize the potential for disturbances to nearby surface waters (e.g., from sedimentation). KYTC will coordinate with the Kentucky Division of Water and Kentucky Office of Surface Mining, Reclamation, and Enforcement.

Option 3 – Construct Wetland Treatment Ponds. Replace the encroached ponds with constructed wetlands designed to provide equivalent aeration and settling processes. While this option would enhance the ecological and aesthetic resources of the area, it would require more land than the existing ponds. It would need to be located at a higher elevation and therefore, would require a new pumping system to move water to the constructed wetland area.

3. Controlling Erosion and Sedimentation from Construction Spoil/Waste Disposal Sites

Construction spoil/waste disposal sites could affect the surface water of the Poor Fork and its tributaries (see Subsection Q: Construction Impacts). Best management practices to control erosion, sediment, and runoff will be implemented and runoff will be treated, if necessary.

F. Wetlands

The project will affect 7 wetlands (approximately 12.35 acres/5 hectares) (see Exhibit 5). The U.S. Army Corps of Engineers (USACE) has conducted a preliminary site review of the project area and assisted with wetland designations. Table 2 contains the type of wetland, the area of each wetland, and the amount of area taken by Alternate 4's right-of-way. Most of the wetlands are considered palustrine emergent but some are palustrine forested and palustrine scrub-shrub. The term palustrine refers to nontidal wetlands dominated by trees, shrubs, persistent emergents, and mosses and lichens. Forested wetlands contain fairly mature trees and are generally considered the most critical of the three types of wetlands. A scrub-shrub wetland is the next in importance. This type of wetland includes shrub species, tree saplings, as well as emergent vegetation. Emergent vegetation wetlands are the easiest type of wetland to mitigate since it is easier to establish herbaceous species than mature tree species.

Table 2
Description of Wetlands within the Project Area

Wetland Identifier	Type of Wetland	Size (acres/hectares)	Area Taken by Right-of-Way (acres/hectares)
C	Palustrine forested	2.40 (0.97)	2.40 (0.97)
D	Palustrine forested	4.20 (1.70)	0.27 (0.11)
V	Palustrine emergent	2.01 (0.81)	2.01 (0.81)
W	Palustrine emergent	0.40 (0.16)	0.40 (0.16)
X	Palustrine emergent	0.41 (0.16)	0.41 (0.16)
Y	Palustrine emergent	0.21 (0.08)	0.21 (0.08)
1	Palustrine scrub-shrub	8.40 (3.40)	6.45 (2.61)
2	Palustrine emergent	0.20 (0.10)	0.20 (0.10)
TOTAL		18.23 (7.38)	12.35 (5)

Mitigation is required. A Section 404 Dredge and Fill Permit will be required from the USACE and a mitigation plan will be developed. The appropriate replacement ratio for the wetlands will be developed in consultation with USACE. The USACE has been known to require a larger ration for forested wetlands. Sometimes this ration has been as high as the replacement of three acres for every one acre of forested wetlands affected.

G. Floodplains

The selected alternate will cross over the Poor Fork at several places (see Exhibit 5). Due to the mountainous terrain, narrow valley, and strong public preference for improving the highway within the existing corridor, there is no practical alternative to encroaching the floodplains. Coordination with Federal Emergency Management Agency (FEMA) and a No-Rise Certification will be required.

The USACE has conducted a preliminary site review of the project area. To accommodate concerns of the USACE and FHWA about floodplain effects, KYTC raised the grade of the roadway above flood levels and designed longer bridges to cross many floodplain areas and to avoid stream rechannelizations. Since Letcher County does not participate in the Flood Insurance Program, the area is not involved in a USACE floodproofing program that could conflict with the project.

The existing US 119 corridor occupies the narrow valley along the Poor Fork, between Pine Mountain on the north and Pine Ridge on the south. Moving the alignment further north would require deep cuts in Pine Mountain. In addition to generating large volumes of spoil, deep cuts in this area would result in instability and the potential for rock slides. Moving the alignment further south would require cuts through a large area of surface and underground coal mining. This southern alignment would create environmental and potential subsidence problems. It is estimated that a more southern alignment would increase construction costs by $2.0 to 2.5 million. Therefore, it was not deemed prudent to develop other alternates that did not entail at least some encroachments on the 100-year floodplain.

As part of the No-Rise Certification, modeling is undertaken to ensure that constructing bridges will have minimal impact on existing flood levels. Regulations limit the effect to a maximum of one foot. If the modeling determines that flood elevations will not change

significantly, no further evaluation is needed and the encroachments are considered minimal. It is not anticipated that the bridge construction will significantly affect flood levels. Bridges will be designed to clear span the Poor Fork with no piers or abutments in the normal pool of the river. Design, such as using longer bridges, and permit oversight are anticipated to minimize impacts on floodplains.

H. Permits

A Section 401 Water Quality Certification will be required from the Kentucky Division of Water during the design phase. A Section 404 Dredge and Fill Permit will be required from the U.S. Army Corps of Engineers during the design phase.

I. Threatened and Endangered Species

The Flat Gap Quadrangle and Whitesburg Quadrangle USGS topographic maps have been identified as containing two federally listed endangered species: the Indiana bat (*Myotis sodalis*) and the gray bat (*Myotis grisescens*). These quadrangles also identify one federally listed threatened species, the blackside dace (*Phoxims cumberlandensis*). No representatives of these species were identified during field investigations of the project area.

The Kentucky Department of Highways, Division of Environmental Analysis will conduct a biological assessment for the Indiana bat, gray bat, and blackside dace. Since endangered species are listed for the area, the U.S. Fish and Wildlife Service will conduct an evaluation for Section 7 coordination prior to the project's right-of-way phase.

J. Relocation and Right-of-Way

Alternate 4 will require 18 residential (9 conventional and 9 mobile homes) and 1 business relocations (see Appendix C). Socioeconomic profiles indicate that up to 6 of the relocatees may be elderly, and several may have a low income. At some of the residential sites needing relocation, parents and siblings live on the same tract of land, and the selected alternate may separate some of these family groups. KYTC Relocation Agent assistance will be provided.

Examination of local housing resources revealed that, at any one time, there are few replacement residences available (i.e., fewer than 10 houses for sale in Letcher County and fewer than 20 for sale in Harlan County). Unless additional housing becomes available on the market, new housing will need to be built and/or older homes rehabilitated to accommodate the estimated 8 conventional home owners and 1 tenant of a conventional home. Relocation is not anticipated to be a problem for the 9 mobile home owners and tenants.

Last Resort Housing funds will be needed for approximately 1 to 5 families. Approximately 3 of the 18 relocations (17 percent) will be low-income families. In the project area, it is estimated that 40 to 50 percent of the residents are considered low-income families. Elderly residents are expected in two households to be relocated. Last Resort Housing will be used to provide housing payments, rent supplements, and modify replacement housing to accommodate the elderly. The families will need to be relocated into homes that meet the standards for decent, safe, and sanitary (DS&S) housing as specified in Section 62-01.0600 of the KYTC Relocation Assistance Manual. Due to the limited housing available in the area, it may be necessary to construct new housing and/or to rehabilitate older units to meet DS&S standards.

According to the Six Year Highway Plan: FY 1999-2004, KYTC has scheduled right-of-way acquisition for several transportation projects in Harlan County over the next few years. Because of the distance from the proposed project, displacees from these projects are not expected to compete with displacees from this project for relocation sites. No Letcher County projects are expected to compete for relocations required for this project.

One business will need to be relocated. The business, a repair facility, is estimated to have 8 to 10 employees. Relocating the business to Whitesburg or another area of south Letcher County may be possible and therefore, no relocation problems are anticipated.

Right-of-way will be acquired from approximately 45 properties along the route.

K. Socioeconomic Impacts and Environmental Justice

Social impacts of the selected alternate are all primarily positive including safety, travel comfort, convenience, emergency response time, and the economy. Alternate 4 would improve access between corridor communities (Partridge, Maggard, Eolia, and Oven Fork) and enhance the area's sense of community. It would improve access between the project area communities and Whitesburg, which is the county's major shopping, recreation, governmental, and institutional center. Alternate 4 does not create any new socioeconomic considerations apart from those previously considered for Alternate 3 (see Exhibit 6). For further discussion of the socioeconomic impacts, see the Environmental Assessment on file at the Division of Environmental Analysis, Kentucky Transportation Cabinet, Frankfort, Kentucky.

A negative impact of the selected alternate includes temporary disruption that accompanies a construction project. Minor losses in county tax revenue due to project acquisition of right-of-way will occur. Increased property values and the potential for

new residential, commercial, and industrial development should offset these minor losses.

It has been concluded that the positive social impacts of the selected alternate outweigh the negative social impacts. The net result is that the project meets its purpose and need, and should be constructed.

1. Environmental Justice Impacts

In accordance with the Federal-Aid Highway Act of 1970 and Executive Order 12898 on Environmental Justice, every consideration has been given in the planning and development of this project to consider environmental impacts which might disproportionately or adversely affect minority or low income groups. Socioeconomic profiles indicate that up to six of the relocatees may be elderly, and many may have a low income. It does not appear that any of the relocatees are handicapped or minorities. The selected alternate will have no adverse effect on minority or low-income populations, and no neighborhoods or communities will be adversely affected. No environmental justice issue has been identified on this project.

2. Energy Impacts

The amount of energy required to construct this project is substantial but temporary in nature. It will lead to reduced operating costs once completed. The reduction in costs will come from improved access, travel time, and safety. These factors make the operational cost of Alternate 4 less than the No-Build Alternate. In the long run, the operational savings should offset the construction energy requirements and result in future net energy savings.

L. Farmlands

The selected alternate would require the purchase of approximately 127 acres (51.4 hectares). Of this acreage, approximately 55 acres (22.3 hectares) of the farmland is rated by the Natural Resources Conservation Service as prime, unique, or of statewide importance. The Land Evaluation Site Assessment (LESA) score was not sufficient to warrant overriding the need for the project (see Exhibit 7). No adverse impacts upon farm operations or agricultural activities along the project corridor are anticipated.

M. Historic and Archaeological Resources

1. Historic Resources

No corridor area community or historic district is listed or is eligible to be listed on the National Register of Historic Places. No individual building or site in the project corridor is listed on the National Register. Five sites, however, were found to meet National Register eligibility criteria (see Exhibit 8). In 1997, the Kentucky Heritage Council, which is the State Historic Preservation Officer (SHPO) concurred with the eligibility of the Rockvine Presbyterian Church (site 1), Raleigh House (site 8), Maggard House (site 13), John B. Maggard House (site 24), and Maggard's Cash Grocery (site 26) (see Appendix B).

Rockvine Presbyterian Church (site 1). The Rockvine Presbyterian Church is a one-story, mortared sandstone, front-gabled structure built in 1933. It is located on the west bank of the Poor Fork of the Cumberland River. It meets the National Register Criterion C as an example of a rural church building. A rural sandstone church is unusual in eastern Kentucky where most churches are wooden frame structures. The proposed right-of-way for Alternate 4 will be east of the Poor Fork and therefore, Alternate 4 will have no effect on the Rockvine Presbyterian Church.

Raleigh House (site 8). The Raleigh House is a two-story, frame T-plan structure with a hipped roof, interior chimneys, and stone foundation built circa 1890-1900. Contributing elements include a smoke house, cellar, barn, and stone wall. It meets the National Register Criterion C as an example of an intact turn of the century complex.

Alternate 4 follows the same alignment as Alternate 3 for the segment nearest the Raleigh House. Alternate 4 is across the Poor Fork of the Cumberland River from the Raleigh House. The proposed alignment will have no effect on the Raleigh House.

Maggard House (site 13). The Maggard House is a one and one-half story, double pen, dogtrot log structure with a side-gabled roof built circa 1820-1830. To the east of the house is a one-story, shed-roofed, rectangular board and batten structure. Alternate 4 will have a connector to existing US 119 to the east of the Maggard House and will have no effect on the site (see Exhibit 9).

John B. Maggard House (site 24). This property is located near Oven Fork at the confluence of the Poor Fork of the Cumberland River and Franks Creek, near KY 806 (see Exhibit 10). It is a one and one-half story log dogtrot dwelling built circa 1818 by John Maggard, the oldest son of Samuel Maggard, who was one of the first settlers on this section of the Cumberland River. To the south of the log house is a log structure built in 1947. The John B. Maggard House meets the National Register Criterion A for its significance in the early settlement of Letcher County.

Alternate 4 will utilize the same connector to US 119 in this segment of the project as Alternative 3 did. On page 2 of the April 17, 1997 SHPO letter, the SHPO indicated that Alternative 3's proposed connector would have no adverse effect due to the direct visual impacts (see Appendix B). Minor design alterations and landscaping were suggested as a means to minimize the visual effects to change the finding to a no effect. On May 6, 1997, the Kentucky Transportation Cabinet, Division of Environmental Analysis

proposed vegetative screening as a mitigation measure for the connector to US 119. On May 12, 1997, the SHPO concurred on the mitigation measures (see Appendix B). These same mitigation measures will be used for Alternate 4.

Maggard's Cash Grocery (site 26). This property is located at the intersection of existing US 119 and KY 806. It was built by J.D. Maggard in 1912 and continues to operate as a gas station and general store. It is a one-story, frame structure with the entry in the gable end and an interior of intact tongue and groove paneling. It meets the National Register Criterion C as an intact commercial structure dating from the early twentieth century. In the vicinity of Maggard's Cash Grocery, Alternate 4 is on the same alignment as Alternate 3. Alternate 4 will have no effect.

The selected alternate will have no effect on any property currently listed or eligible for listing on the National Register of Historic Places. The Kentucky Heritage Council, which is the State Historic Preservation Officer (SHPO), agreed with this assessment (see Appendix B).

2. Archaeological Resources

In the April 1997 archaeological baseline study, one previously undocumented prehistoric archaeological site (15Lr46) was identified (see Exhibit 12). It was relatively small and ephemeral in nature. A low-density lithic scatter that was confined to the plow zone characterized it. No midden or pit feature deposits were found. The lack of an intact archaeological deposit coupled with the paucity of cultural material suggested that the site was not eligible for listing on the National Register of Historic Places. No additional archaeological work at this site is recommended because it would not yield any more information than already recovered. The December 1999 archaeological addendum evaluating the effects of Alternate 4 concurred with these recommendations. It was later determined that this archaeological site will be outside the right-of-way limits for Alternate 4.

For Alternate 4, further investigation was undertaken at one previously recorded archaeological site (15Lr304) (see Exhibit 12). The archaeological survey included walking the site to identify evidence of past human occupation, shovel tests, and bucket auger probes. Due to the low density of artifacts recovered, the lack of subplowzone cultural materials, the absence of midden or feature deposits, and the lack of archaeological integrity, the portion of the site affected by the selected alternate is not considered eligible for inclusion on the National Register. Most, if not all, of this site has been investigated by the 1999 archaeological addendum, 1997 archaeological baseline, and a report by Foster and Schock in 1972. The studies did not indicate any potential Native American concerns at the site. The SHPO concurred that no Phase II archaeological work was necessary for this site.

No Section 106 or Native American sites with significance were identified in the project area. National, state, regional, and local archives were consulted as well as the U.S. Department of Interior, Bureau of Indian Affairs Native American Consultation database, and the Indian Claims Commission for potential project effects on any federally recognized Native American nation. If during project implementation, written information is received that suggests a Native American nation has an interest in the project, steps will be taken to consult with appropriate parties. Otherwise, Native American consultation is unnecessary for this project.

The selected alternate will have no effect on any archaeological site listed or eligible for listing on the National Register of Historic Places. The SHPO concurred with this assessment (see Appendix B).

Alternate 4 will require relocation of two cemeteries: Blair Cemetery (approximately 70 graves), and Berry Cemetery (approximately 9 graves) (inactive). All cemetery relocations will be treated in accordance with state law (see 600 KAR 3:020). Right-of-way agents will try and identify next of kin for each grave to be relocated. Right-of-way

agents will attempt to follow family wishes in selecting cemeteries for grave relocation. The goal is to relocate the graves to nearby cemeteries. Efforts will be made during final design to determine whether right-of-way can be minimized to avoid some or all of the graves at the Berry Cemetery.

N. Hazardous Waste and Underground Storage Tanks

Alternate 4 will encroach upon 5 potential hazardous waste/underground storage tank (UST) sites (see Exhibit 11). A Phase II Hazardous Materials Site Investigation was conducted. Soil and groundwater samples did not identify any detectable levels of hydrocarbon compounds at any of the sites affected by Alternate 4 (see Table 3).

Raleigh's Grocery, which is now being used as a residence, was a former grocery store that sold gasoline. An UST is located in the proposed right-of-way. On the Long property, two USTs, which were taken out of service in 1951, will need to be removed. It will cost approximately $10,500 to remove the USTs at the Raleigh's Grocery and the Long property.

Soil/spoil and sediment samples collected at the Cumberland Coal Company sedimentation pond and coal preparation plant holding basin were analyzed for hazardous characteristics (i.e., toxicity (Toxicity Characteristic Leaching Procedure (TCLP) metals), corrosivity, and ignitability). No samples exceeded the thresholds for a hazardous waste. Excavated soils and drained sediments from the pond and basin can be managed in solid waste landfills.

Table 3

Summary of Phase II Hazardous Materials Investigation

SITE DESCRIPTION	PHASE II INVESTIGATION RESULTS
Raleigh's Grocery	Removal of one UST required at an approximate cost of $3,500.
Former Gas Station (Long property)	Removal of two USTs required at an approximate cost of $7,000.
Central Hydraulic Services, Inc.	No contamination. No mitigation required.
Cumberland Coal Company	No contamination. Sediment/soil removed from the sedimentation pond and holding basin may be managed at a solid waste landfill.
Former general store	No contamination. No mitigation required.

The "Phase II Site Investigation Reports," dated June 18, 1999 and December 21, 1999, are on file at the Division of Environmental Analysis, Kentucky Transportation Cabinet, Frankfort, Kentucky. No hazardous waste sites, RCRA hazardous waste generators, or Superfund sites were identified in the project corridor.

O. Aesthetic Impacts

It is anticipated that the project will have only a minimal aesthetic impact on the community. The aesthetic quality of a community is composed of visual resources such as those physical features that make up the landscape, including land, water, vegetation, and man-made features (e.g., buildings, roadways, and structures). Visual impacts affect communities from two perspectives:

1) the view from the road, and

2) the view of the road.

The project corridor is primarily rural in nature with wooded mountains on either side. To the north of the project is Pine Mountain and to the south is Pine Ridge. No corridor features, scenic areas, or areas of recognized beauty have been recommended for protection near the project. Letcher County does not have a comprehensive plan, transportation plan, or development regulations that contain guidelines or recommendations to limit the aesthetic impacts of development.

The project is expected to have only minor aesthetic effects on the area. The most noticeable visual impact of the project will be the removal of existing vegetation. This will affect nearby residents. Efforts should be made to only clear vegetation necessary for construction, proper sight distances, and horizontal clearance requirements. Planting construction easements and right-of-ways with native grasses and wildflowers will beatify the roadsides and make these areas representative of the ecosystems through which the road project passes. It also will reduce the spread of invasive species (nonnative plants).

P. Pedestrian and Bicycle Facilities

The project makes no accommodations for bicycle facilities and pedestrian walkways due to the rural nature of the corridor. Under 23 U.S.C. 109(n), KYTC considered the need to provide bicycle facilities and pedestrian walkways for the project corridor. No local government agencies or community interest groups have identified a need for bicycle facilities or pedestrian walkways. No planning documents for the area discuss the need for bicycle facilities or pedestrian walkways. Due to the rural nature of the project area, it is anticipated that there will be little pedestrian or bicycle traffic and no need for dedicated pedestrian or bicycle facilities. The new US 119 will have 12-foot (3.6-m) shoulders, which can be used by pedestrians and bicyclists.

Q. Construction Impacts

Construction impacts from this project are expected to be minimal, of short-term duration, and with no adverse impacts on the environment. Traffic will be maintained at all times. A maintenance-of-traffic plan will be prepared during the design phase.

1. Controlling Erosion and Sedimentation from Construction

Construction activities will cause some erosion because areas cleared of trees and vegetation are prone to erosion during storm events. The use of heavy equipment to remove soil and vegetation can disrupt natural drainage patterns. Also, the use of heavy equipment can compact soil and reduce permeability. KYTC will implement the erosion and sedimentation controls specified in the Kentucky Department of Highways Standard Specifications (KDHSS) Sections 212 and 213, develop erosion control plans during the final design phase, and implement best management practices during design and construction. In time, revegetation will stabilize the construction sites and impacts will diminish. Revegetation will prevent blowing dust, stabilize highway shoulders, reduce rills and gullies, and prevent sedimentation of culverts, drainage structures, and nearby streams. KYTC will plant native species of vegetation within construction easements and right-of-way limits, as appropriate. Use of native species reduces the spread of invasive species (nonnative plants).

2. Minimizing Bridge Construction Effects

Bridges will cross the Poor Fork of the Cumberland River and several tributaries. The placement of piers will create the largest impact. The piers will be placed outside of the streambed, thereby reducing direct impacts to the streams. There will be a loss of habitat where each pier is placed. Riparian vegetation may be removed from streambanks. Short-term impacts from bridge construction will include the direct disturbance of riparian habitat, along with an increase in downstream turbidity, dissolved

solids, suspended solids, conductivity, and nutrients. These impacts will be temporary in nature.

3. Managing Construction Waste/Spoil

Construction waste or spoil will be managed in accordance with Section 204 of KDHSS and other applicable state regulations. Debris generated during removal of structures and obstructions will be managed in accordance with Section 203 of the KDHSS and applicable state regulations.

Three options were considered for placement of general construction spoil and minimizing the environmental impacts of placement. All appropriate environmental protection features will be incorporated to protect the Poor Fork and its tributaries.

Option 1: Designated Spoil/Waste Areas. The first option identified four designated spoil/waste areas (see Exhibit 4). One of the designated spoil areas is not in a tributary drained hollow and so could probably be used in its entirety. The other three designated areas are located in hollows with tributaries to the Poor Fork. This option may be limited to the use of portions of these hollows on either side of the tributaries. This will substantially reduce disposal capacity for the individual fills.

Hollow fills would be designed to meet all applicable state standards. The drainage system would include ditches, sedimentation ponds, and if appropriate, treatment of collected water prior to release into Poor Fork tributaries.

KYTC would pay for the design and construction of these hollow fills, any drainage systems, and silt/treatment ponds. KYTC or its representatives would be responsible for assuring that spreading waste in the hollow fills is done according to state requirements. Native species of vegetation would be established on the waste areas

according to design plans. This option was not selected because of the existing hollow fills on the Cumberland River Coal Company Property (see discussion in Option 2).

Option 2: Existing Hollow Fills on Cumberland River Coal Company Property. Three existing and approved hollow fills are located on the Cumberland River Coal Company property. These hollow fills meet state requirements for managing coal spoil and waste. Construction spoil material and sediment/spoil from the sediment basins could be managed in these hollow fills. KYTC would pay for hauling, spreading spoil in the hollows in appropriate lifts, and if the mine did not anticipate adding new spoil from a reopened mine operation, establishing native vegetation on them. The Cumberland River Coal Company would maintain the fills, associated sedimentation ponds, and other environmental protection features as they currently do. This is KYTC's selected option.

Kentucky Revised Statutes 176.050 requires designers to identify potential waste sites for a city, county, or other governmental entity to turn into an industrial park upon the completion of a road project. Sites must be at least 4 acres (1.6 hectares) in size and must be on property owned by the state or a city, county, or other governmental entity. Because the three hollow fills are on property owned by the Cumberland River Coal Company and the company will maintain the fills and associated sedimentation ponds after the project is completed, the statutory requirement is not applicable.

Option 3: Identify Other Spoil/Waste Areas. If Option 1 and Option 2 are not acceptable, other spoil/waste areas would be identified. Other suitable areas may be difficult to find because much of the land on the north side of the highway is a wildlife management area. Option 3 is the least preferred option.

4. Controlling Construction Noise

Standard noise reducing measures will be implemented during the construction phase to prevent construction noise from becoming a public nuisance or detriment. It is standard policy on Kentucky highway construction projects to require the contractor to use equipment and procedures to restrict construction noise in the vicinity of sensitive noise receptors such as schools, hospitals, churches and rest homes. KYTC will monitor construction noise as appropriate.

5. Minimizing Fugitive Dust

Road construction activities have the potential to generate fugitive dust. Fugitive dust consists of particulate matter that becomes airborne directly or indirectly as a result of human activity. When fugitive dust is very small, it is easily inhaled and trapped in the lungs, where it can cause various health problems. Fugitive dust also affects the environment by decreasing visibility and harming plants. Road construction can generate fugitive dust from earth-moving equipment (e.g., bulldozers, graders) and trucks loading and unloading or transporting earthen materials. Wind can cause fugitive dust in areas cleared of vegetation during construction.

To minimize fugitive dust generation, KYTC will follow Section 107.01.04 of the KDHSS. During project construction, KYTC or its contractors will apply water or other approved materials (chemical dust suppressants), as appropriate, to prevent and control dust from becoming a pollutant, safety hazard, or other type of nuisance.

6. Managing Blasting Activities

Blasting for roadway excavation or for utility relocation has the potential to affect subsurface flow. No groundwater recharge areas are evident in the project area.

Municipal water is supplied to the majority of people in the area. All blasting operations will be done in accordance with Section 107.11 of the KDHSS and other applicable federal and state regulations.

R. Cumulative/Secondary Impacts

Cumulative impacts are the environmental effects which result from the incremental impact of the proposed project when added to other past, present, and reasonably foreseeable future actions regardless of who is undertaking such actions. KYTC considers cumulative impacts of transportation improvements in its decisionmaking process.

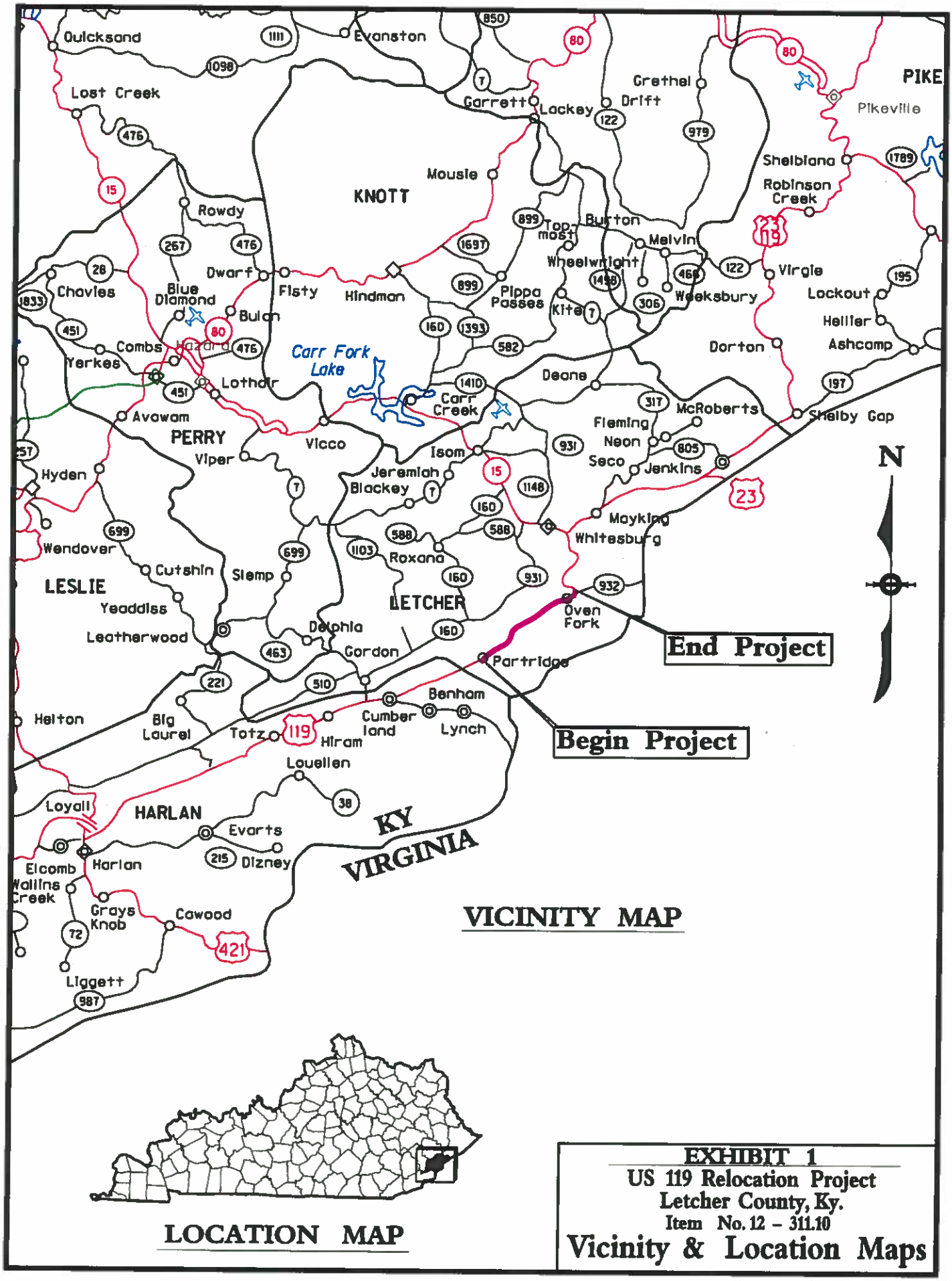
Letcher County officials are not aware of any large-scale developments near the corridor. There is no county wide planning and zoning and therefore, the project is not incompatible with any existing plans. By improving access into the area, the project is compatible with potential industrial and recreational developments that may occur. Some industry and tourism may be attracted to the area due to the improved access. The coal and forest products industries are downsizing and agriculture is a very minimal portion of the county's economy. County officials and citizens support the potential economic improvement which corridor development could bring.

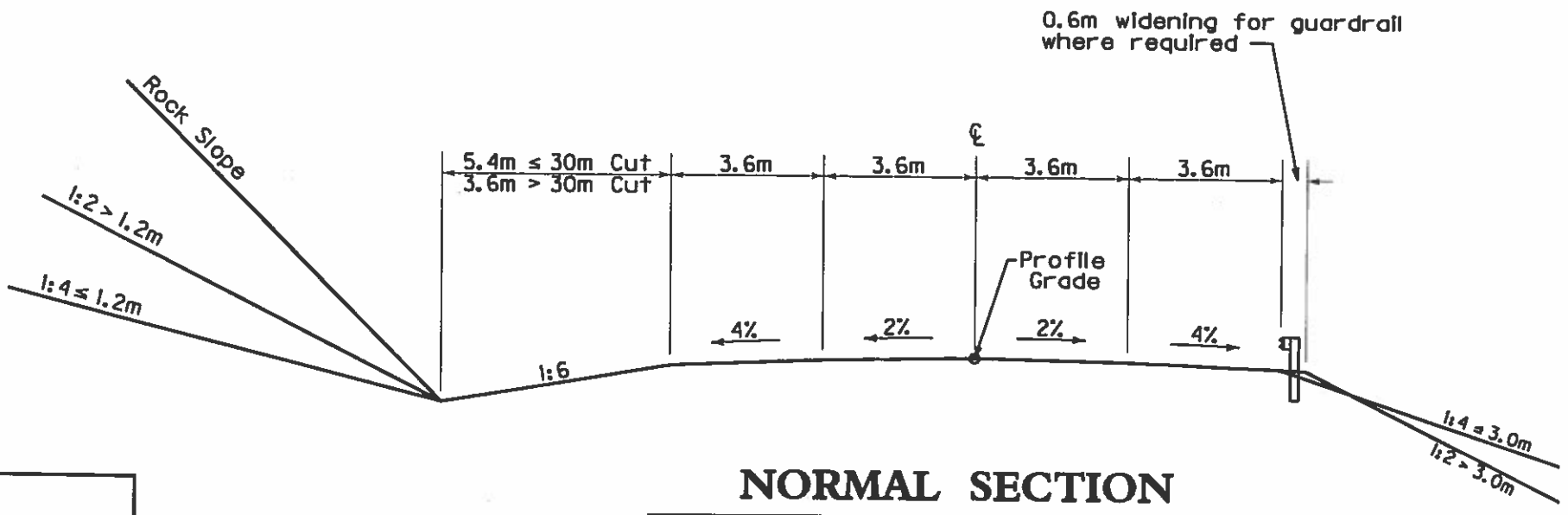
VII. Project Minimization/Mitigation Commitments

A summary of mitigation commitments is provided below.

Environmental Impacts	Mitigation Commitments
Noise	Standard noise controls will be implemented during construction.
Terrestrial and Aquatic Habitats	Fugitive dust controls, standard noise reducing measures, and erosion and sedimentation controls will be implemented during construction.
Groundwater Resources	Groundwater protection measures will be addressed during design and implemented during construction. Best management practices, FHWA guidelines, Kentucky Department of Highways Standard Specifications (KDHSS), and the KYTC Generic Groundwater Protection Plan will be followed.
Surface Water Quality	Erosion and sedimentation controls specified in KDHSS Sections 212 and 213 will be required. Erosion control plans will be developed during the final design phase. Best management practices will be employed during the design and construction phases of the project. KYTC will coordinate with the Kentucky Division of Water and Kentucky Office of Surface Mining, Reclamation, and Enforcement during final design on reconfiguring the coalmine settling and treatment ponds.
Floodplains	Coordination with FEMA and a No-Rise Certification are required during the final design phase.
Wetlands	A wetland mitigation plan is being developed in coordination with the U.S. Army Corps of Engineers. It will be completed prior to the construction phase of the project.
Threatened and Endangered Species	KYTC/DEA will conduct a biological assessment for the Indiana bat gray bat, and blackside dace. Coordination with USFWS will occur as necessary.

Environmental Impacts	Mitigation Commitments
Right-of-way	KYTC relocation agents will assist all displacees in finding comparable housing that meets decent, safe and sanitary standards, and suitable business sites.
Hazardous Materials and Underground Storage Tanks	Based on the Phase II assessment, three underground storage tanks will need to be removed from the selected alternate's right-of-way prior to construction.
Historical Resources	To minimize the visual impact on the John B. Maggard house, landscaping near the connector to old US 119 will be undertaken.
Archaeological Resources	The Blair and Berry cemeteries will be relocated in compliance with state law. Right-of-way agents will try and identify next of kin for each grave to be relocated. Right-of-way agents will attempt to follow family wishes in selecting cemeteries for grave relocation. The goal is to relocate the graves to nearby cemeteries.
Construction	A maintenance-of-traffic plan will be prepared during the design phase. KYTC will implement the erosion and sedimentation controls specified in KDHSS Sections 212 and 213, develop erosion control plans during the final design phase, and implement best management practices during design and construction. Standard noise reducing measures will be implemented during the construction phase. KYTC or its contractors will control fugitive dust generation in accordance with KDHSS Section 107.01.04. Construction excavation waste will be managed in accordance with KDHSS Section 204. During construction, all blasting operations will be done in accordance with KDHSS Section 107.11 and other applicable federal and state regulations.
Permits	A Section 401 permit will be obtained from the KY Division of Water during the design phase. A Section 404 permit will be obtained from the U.S. Army Corps of Engineers during the design phase.


Quicksand
Evarston
Lost Creek
Garrett
Lackey
Drift
Grethel
PIKE
Pikeville
Shelbiana
Robinson Creek
KNOTT
Mousie
Rowdy
Burton
Top-most
Melvin
Wheelwright
Virgie
Lockout
Weeksbury
Pippa Passes
Kite
Hindman
Dwarf
Fisty
Blue Diamond
Bulan
Chavies
Combs
Yerkes
Hazard
Carr Fork Lake
Carr Creek
Lothair
Deane
Dorton
Ashcamp
Heiller
Shelby Gap
McRoberts
Fleming
Neon
Seco
Jenkins
Avawam
PERRY
Viper
Vicco
Isom
Jeremiah
Blackey
Hyden
Wendover
Cutshin
Slemp
Roxana
Maykinq
Whitesburg
LESLIE
Yeaddiss
Leatherwood
LETCHER
Delphia
Gordon
Oven Fork
Partridge
End Project
Begin Project
Helton
Big Laurel
Totz
Hiram
Cumber land
Benham
Lynch
Louellen
Loyall
HARLAN
Evarts
Elcomb
Harlan
Dizney
Wallins Creek
Grays Knob
Cawood
Liggett
KY
VIRGINIA
N
VICINITY MAP
LOCATION MAP
EXHIBIT 1
US 119 Relocation Project
Letcher County, Ky.
Item No. 12 - 311.10
Vicinity & Location Maps



NORMAL SECTION

EXHIBIT 2
US 119 Relocation Project
Letcher County, Ky.
Item No. 12 - 311.10
Typical Section

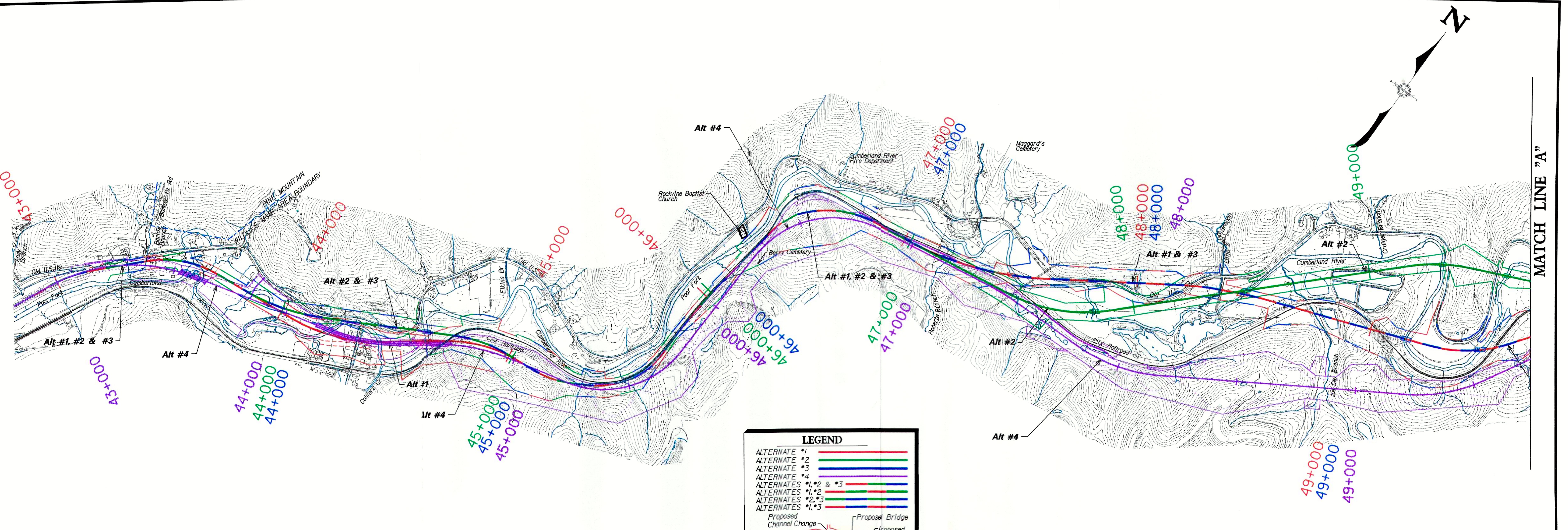


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EXHIBIT 3A
LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

PROJECT ALTERNATES

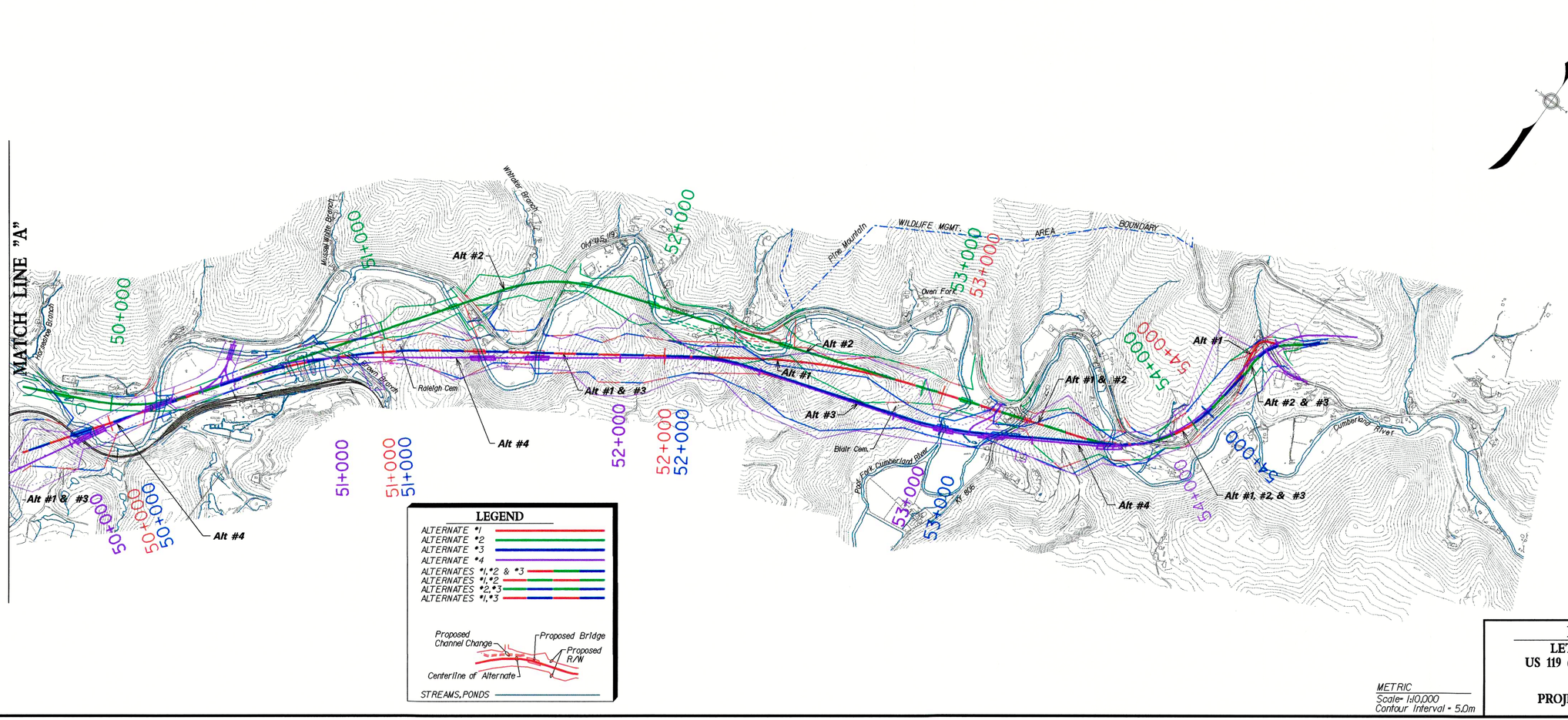

EXHIBIT 3B

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

PROJECT ALTERNATES

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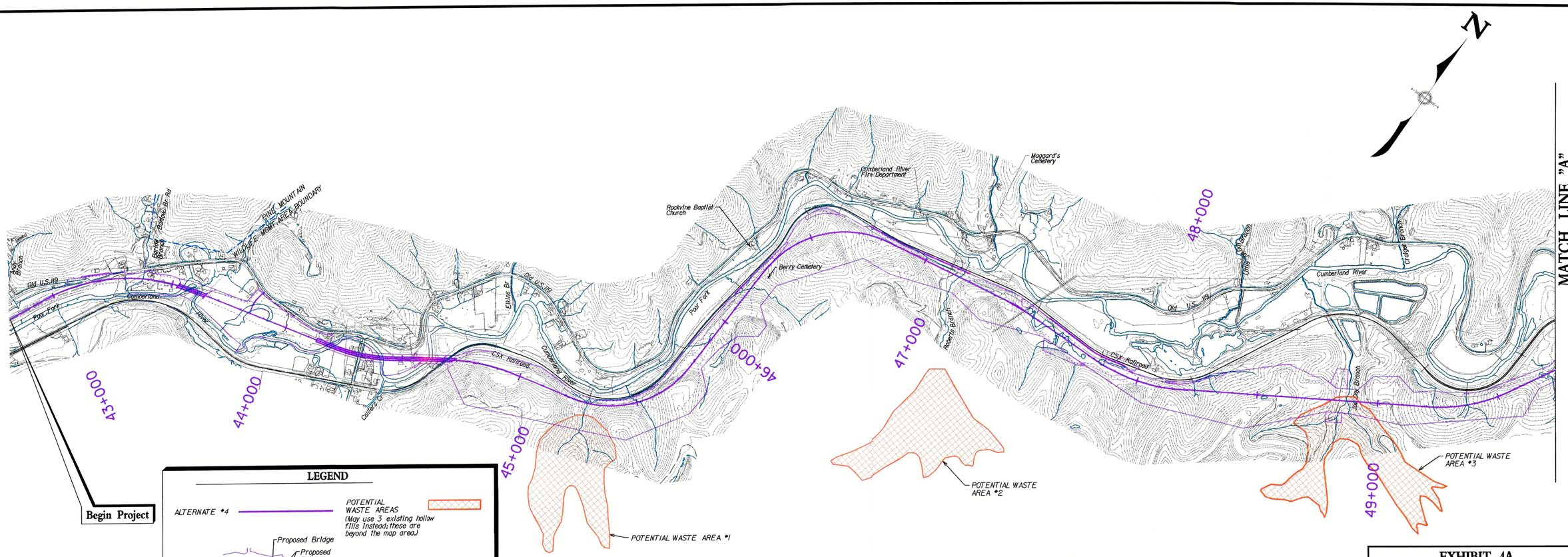

EXHIBIT 4A

LETCHER COUNTY

US 119 (Partridge to Ovenfork)

Item No. 12 - 311.10

SELECTED ALTERNATE

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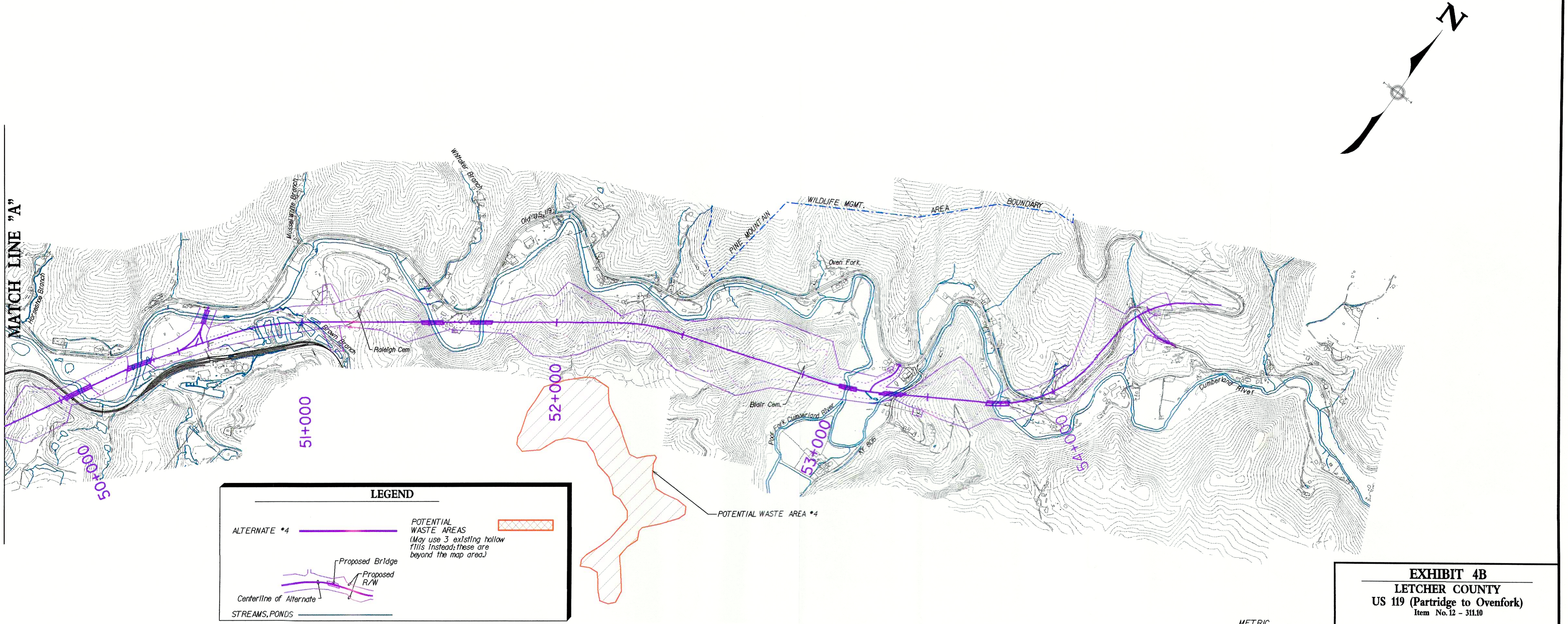

EXHIBIT 4B

LETCHER COUNTY

US 119 (Partridge to Ovenfork)

Item No. 12 - 311.10

SELECTED ALTERNATE

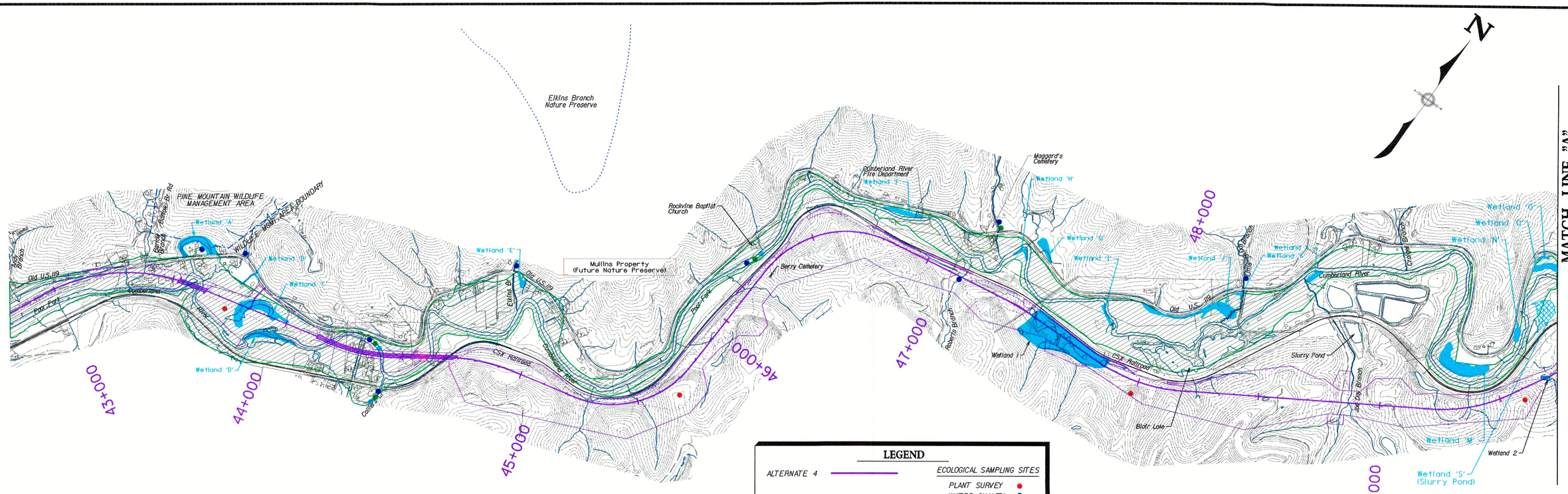

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EXHIBIT 5A

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10
SELECTED ALTERNATE & ECOLOGICAL SITES

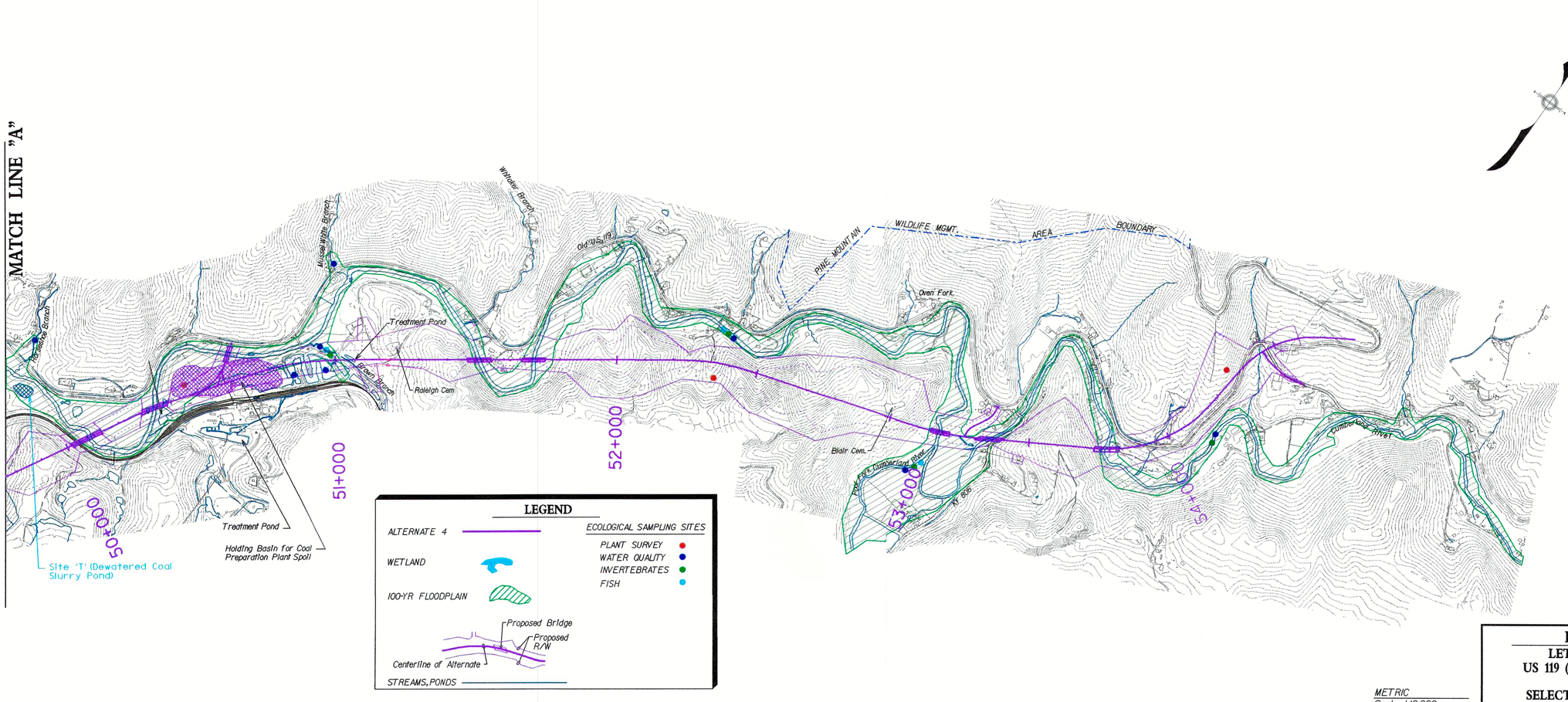

EXHIBIT 5B

LETCHER COUNTY

US 119 (Partridge to Ovenfork)

Item No. 12 - 311.10

SELECTED ALTERNATE & ECOLOGICAL SITES

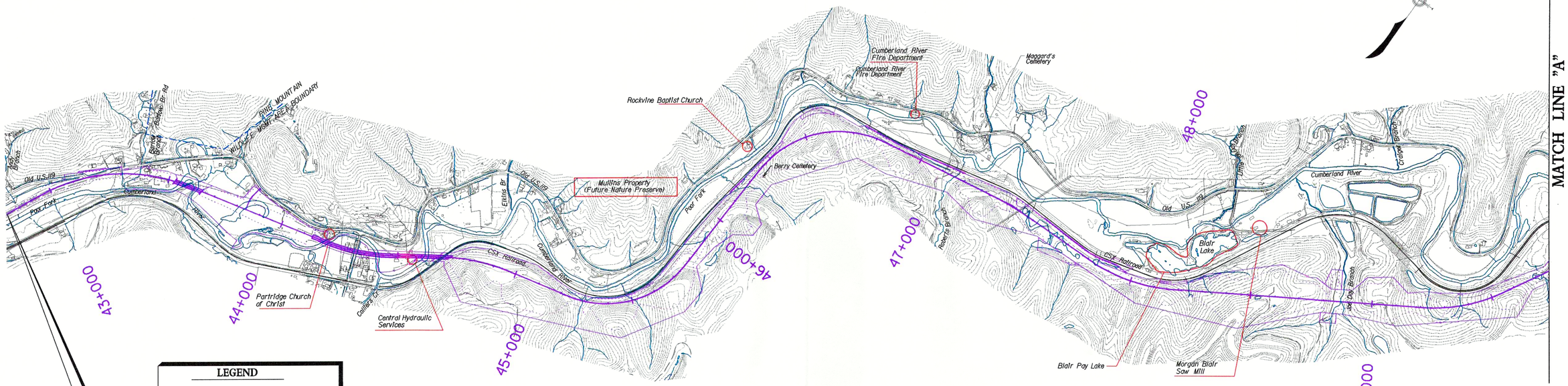

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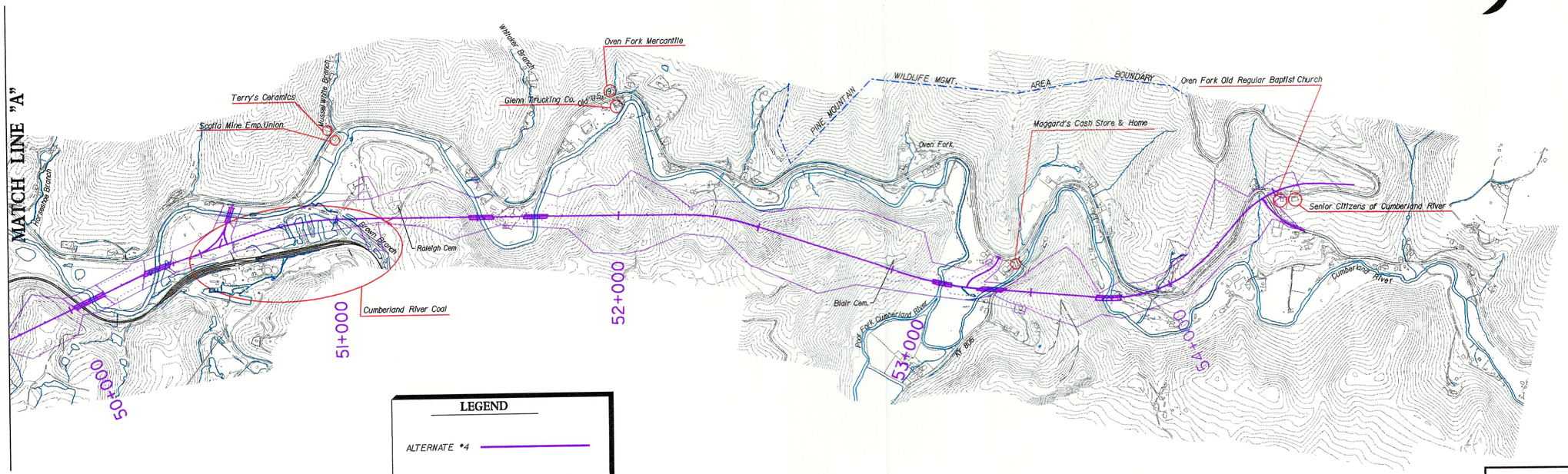
EXHIBIT 6A

LETCHER COUNTY

US 119 (Partridge to Ovenfork)

Item No. 12 - 311.10

SELECTED ALTERNATE & RESOURCES OF SOCIOECONOMIC IMPORTANCE



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METRIC
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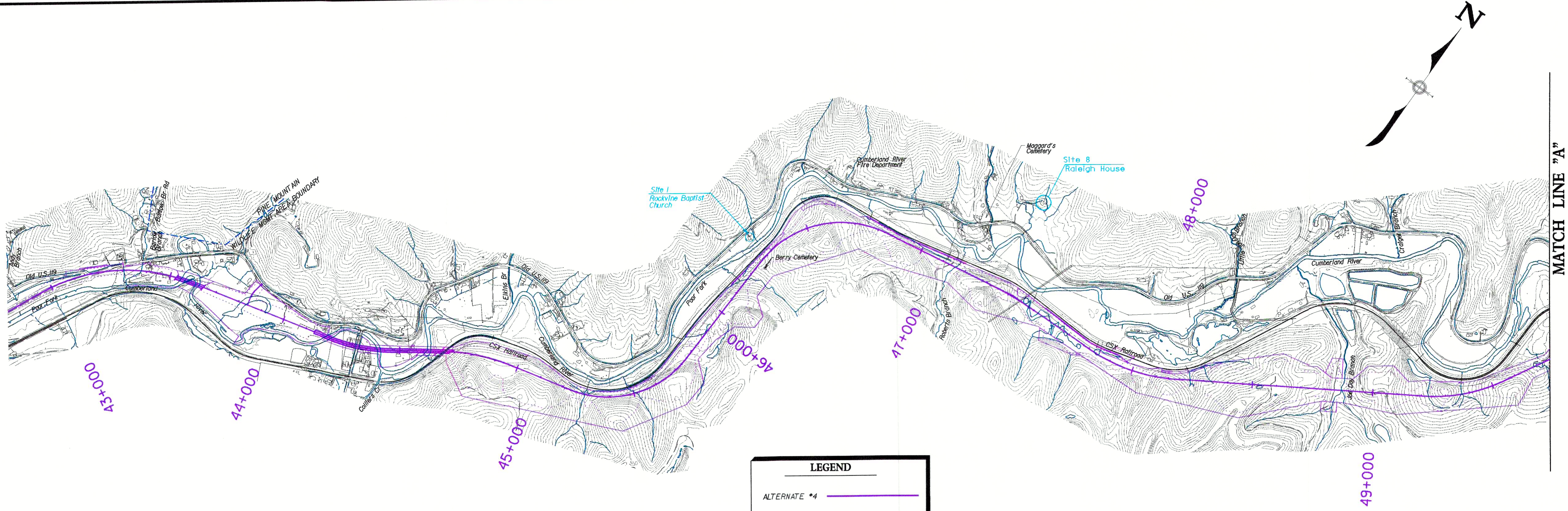
Contour Interval - 5.0m

EXHIBIT 6B

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATE & RESOURCES OF SOCIOECONOMIC IMPORTANCE



LEGEND

ALTERNATE #4

Proposed Bridge

Proposed R/W

Centerline of Alternate

STREAMS, PONDS

METRIC
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Contour Interval - 5.0m

EXHIBIT 8A

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATE & HISTORIC RESOURCES

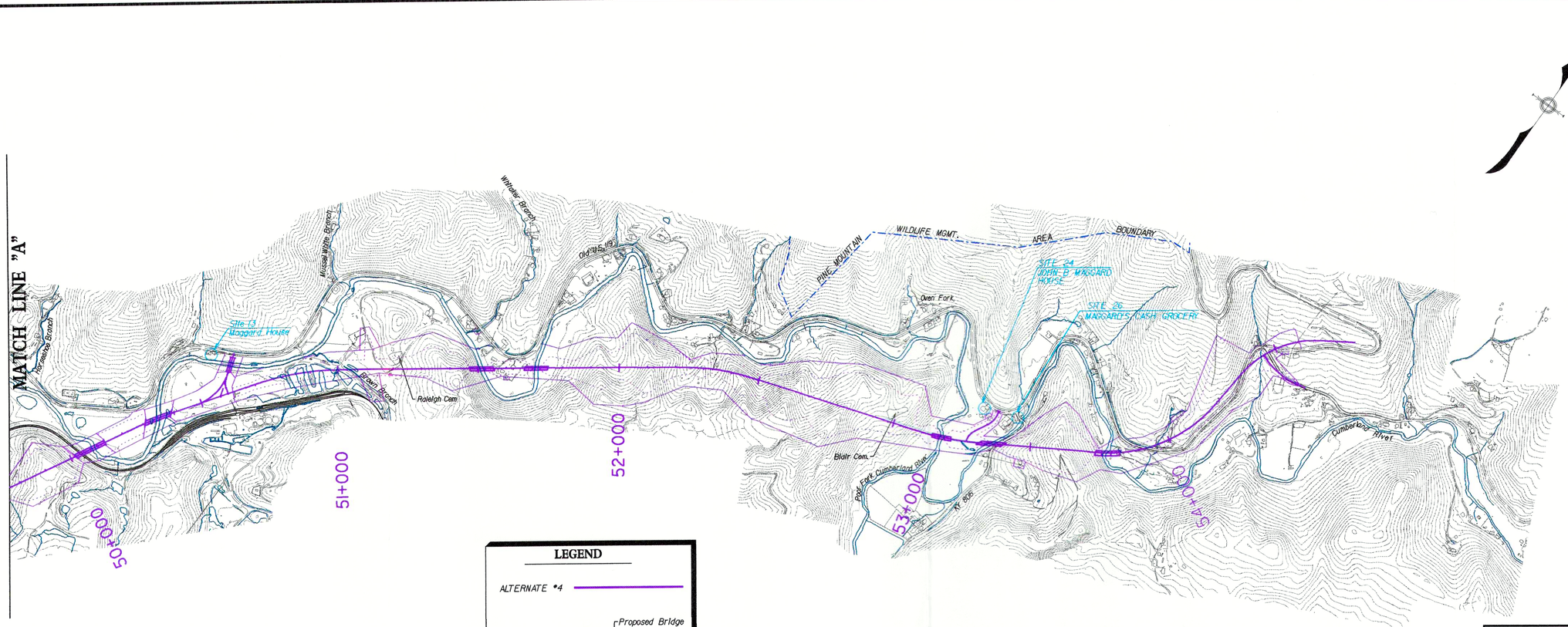

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EXHIBIT 8B

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATE & HISTORIC RESOURCES

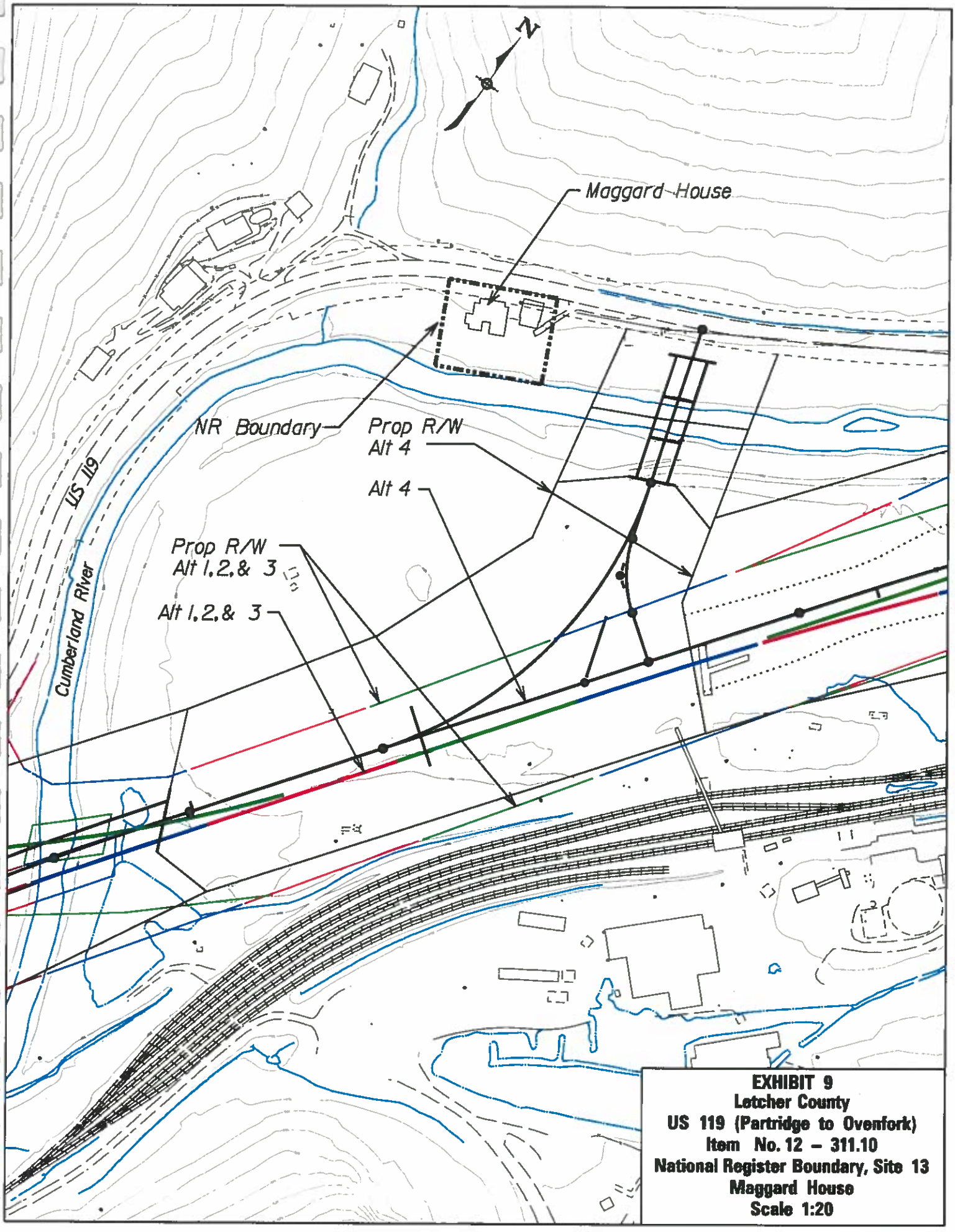


EXHIBIT 9
Letcher County
US 119 (Partridge to Ovenfork)
Item No. 12 – 311.10
National Register Boundary, Site 13
Maggard House
Scale 1:20

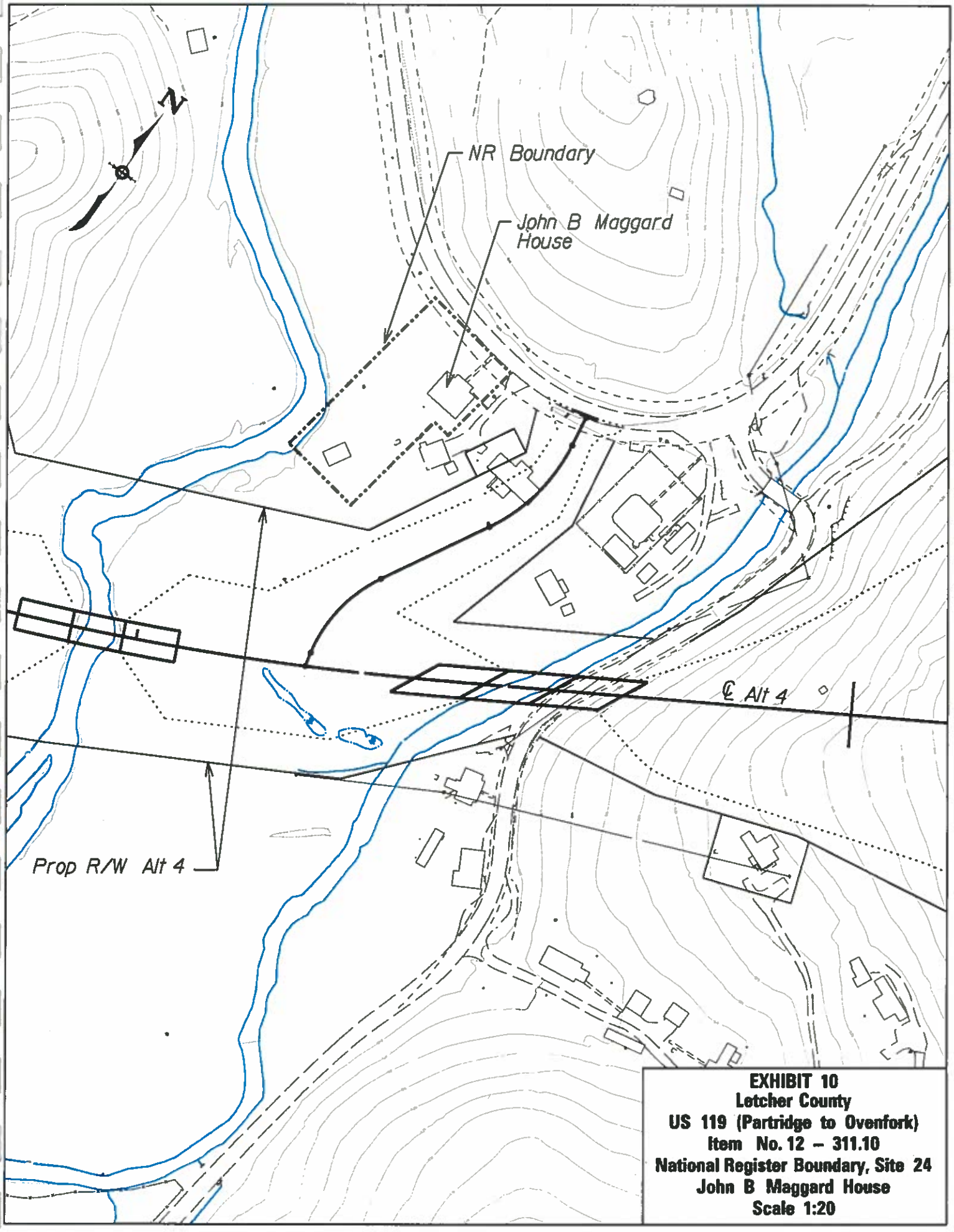
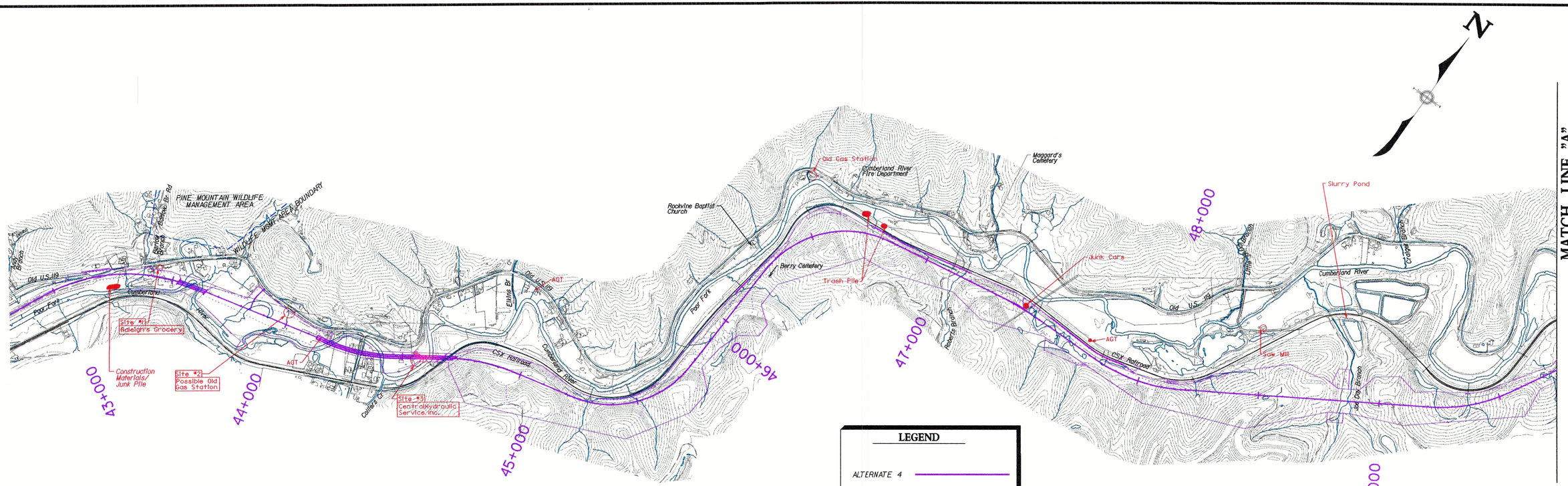


EXHIBIT 10
Letcher County
US 119 (Partridge to Ovenfork)
Item No. 12 – 311.10
National Register Boundary, Site 24
John B Maggard House
Scale 1:20



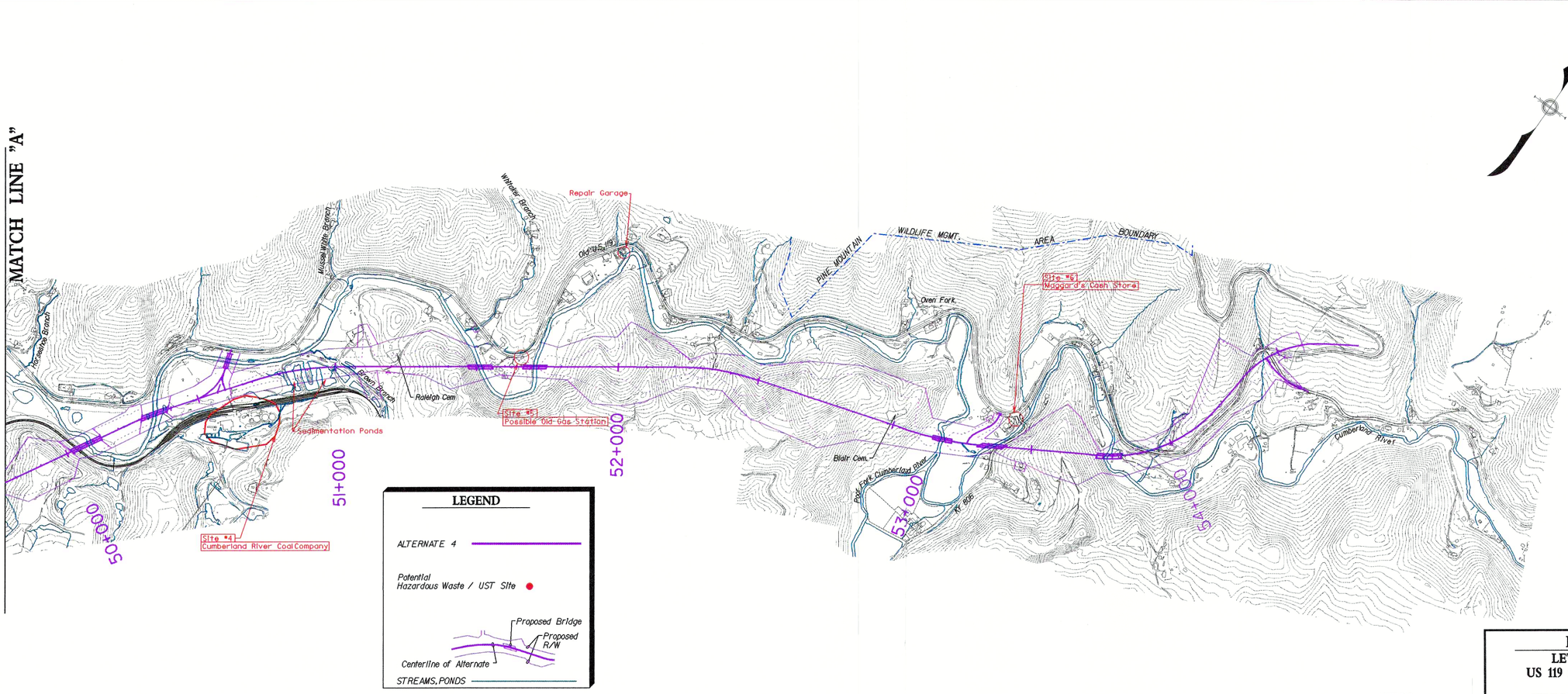
LEGEND

- ALTERNATE 4
- Potential Hazardous Waste / UST Site
- Proposed Bridge
- Proposed R/W
- Centerline of Alternate
- STREAMS, PONDS

METRIC
Scale= 1:10,000
Contour Interval = 5.0m

EXHIBIT 11A

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10
SELECTED ALTERNATE & HAZARDOUS WASTE / UST SITES



METRIC
Scale- 1:10,000
Contour Interval - 5.0m

EXHIBIT 11B

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATE & HAZARDOUS WASTE /UST SITES

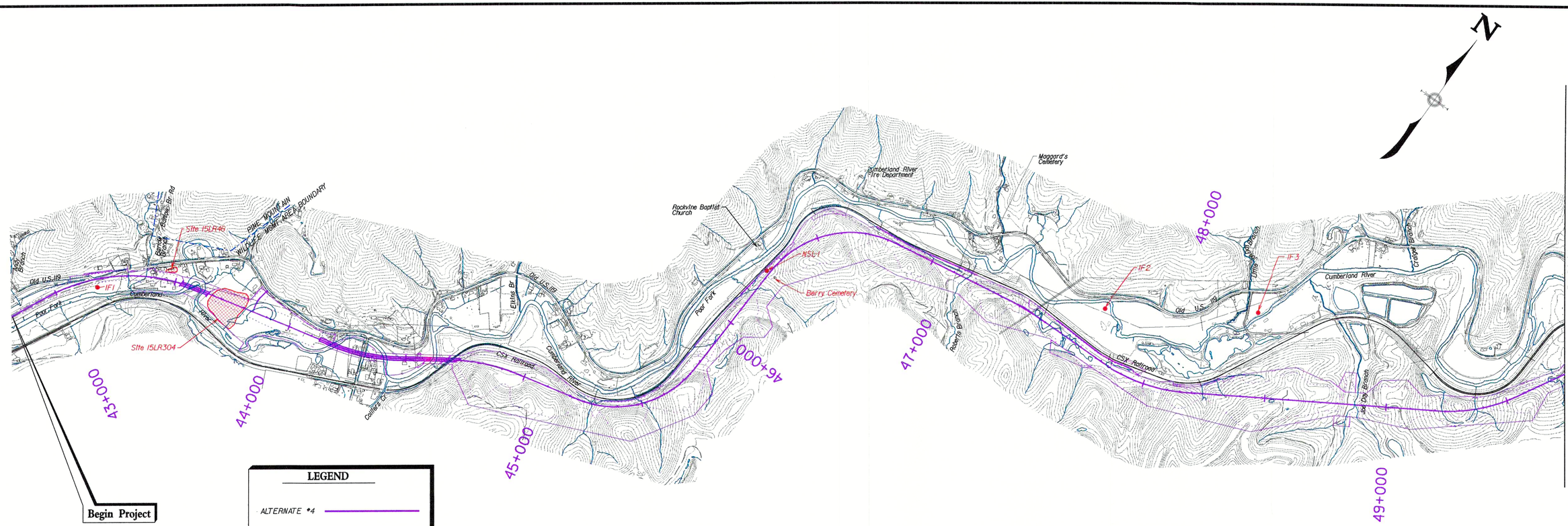
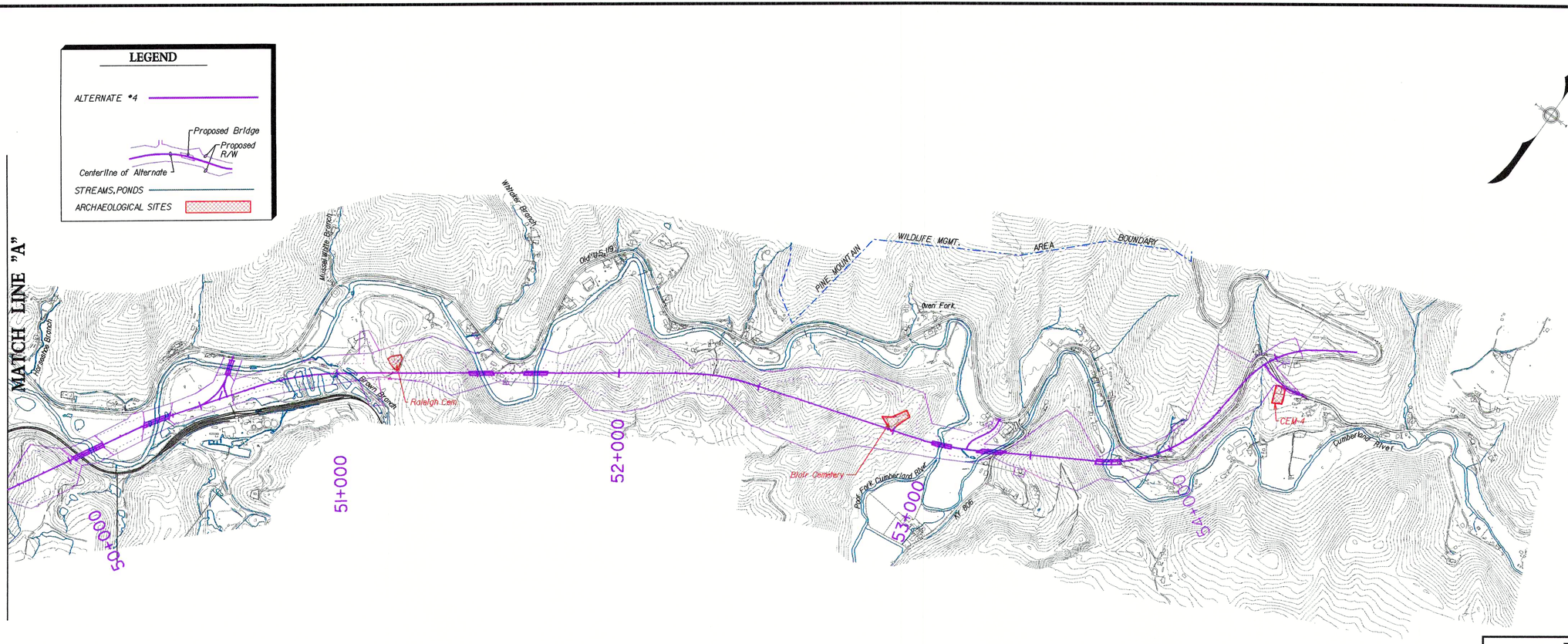


EXHIBIT 12A

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATE & ARCHAEOLOGICAL SITES

METRIC
Scale- 1:10,000
Contour Interval - 5.0m



MET.RIC
Scale= 1:10,000
Contour Interval = 5.0m

EXHIBIT 12B

LETCHER COUNTY
US 119 (Partridge to Ovenfork)
Item No. 12 - 311.10

SELECTED ALTERNATES & ARCHAEOLOGICAL SITES

U.S. DEPARTMENT OF AGRICULTURE — Form AD-1006

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	1. Date of Land Evaluation Request: March 18, 1997	2. Sheet 1 of 1
3. Name of Project: US 119, Partridge to Oven Fork	4. Federal Agency Involved: US Department of Transportation, Federal Highway Administration	
5. Proposed Land Use: Highway Corridor Improvement	6. County and State: Letcher County, Kentucky	7. Type of Project: Corridor X Other ☐
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS: March 25, 1997	2. Person Completing the NRCS parts of this form
3. Does the site or corridor contain prime, unique ,statewide or local important farmland? Yes X No ☐ (If no, the FPPA does not apply - Do not complete additional parts of this form)	4. Acres Irrigated: 0	5. Average Farm Size: 113 acres
6. Major Crop(s): Corn	7. Farmable Land in Government Jurisdiction — Acres: 6,100 2.8%	8. Amount of Farmland As Defined in FPPA — Acres 6,100 2.8%
9. Name of Land Evaluation System Used: NA	10. Name of Local Site Assessment System: NA	11. Date Land Evaluation Returned by NRCS: March 25, 1997

PART III *(To be completed by Federal Agency)*		Alternative Site Rating			
		Alternate 1	Alternate 2	Alternate 3	Alternate 4
A. Total Acres To Be Converted Directly		126.59 acres	128.85 acres	128.85 acres	127.35 acres
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres in Site					
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime and Unique Farmland		55	60	55	55
B. Total Acres Statewide and Local Important Farmland		5	0	0	0
C. Percentage of Farmland in County or Local Govt. Unit to be Converted		.98	.98	.89	.89
D. Percentage of Farmland in Govt. Jurisdiction with Same or Higher Relative Value		100%	100%	100%	100%
PART V *(To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland to be Serviced or Converted (Scale of 0 - 100 Points)*		100	100	100	100
PART VI *(To be completed by Federal Agency) Corridor or Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b & c))*	Max. Points Corridor				
1. Area in Nonurban Use	15	15	15	15	15
2. Perimeter in Nonurban Use	10	8	8	8	8
3. Percent of Site Being Farmed	20	7	7	7	7
4. Protection Provided by State and Local Government	20	0	0	0	0
5. Distance from Urban Built-up area	0	0	0	0	0
6. Distance to Urban Support Services	0	0	0	0	0
7. Size of Present Farm Unit Compared to Average	10	3	3	3	3
8. Creation of Non-Farmable Farmland	25	5	5	5	5
9. Availability of Farm Support Services	5	1	1	- 1	1
10. On-Farm Investments	20	2	2	2	2
11. Effects of Conversion on Farm Support Services	25	1	1	1	1
12. Compatibility with Existing Agricultural Use	10	7	7	7	7
TOTAL CORRIDOR OR SITE ASSESSMENT POINTS	160	49	49	49	49
PART VII *(To be completed by Federal Agency)*					
Relative Value of Farmland (from Part V above)	100	100	100	100	100
Total Corridor or Site Assessment (From Part VI above or a local site assessment)	160	49	49	49	49
TOTAL POINTS *(Total of above 2 lines)*	260	149	149	149	149

PART VIII *(To be completed by Federal Agency after final alternative is chosen)*

1. Corridor or Site Selected:	2. Date of Selection:	3. Was A Local Site Assessment Used? Yes ☐ No ☐
4. Reason For Selection:		
Signature of person completing the Federal Ag		DATE

Wisconsin substitute form AD-1006 6-9-97 ml

EXHIBIT 7
US 119, Partridge to Oven Fork
Item No. 12-311.10
LESA Site Assessment
Letcher County

APPENDIX A

Public Hearing Summary

PDR Engineers, Inc. www.pdreng.com
800 Corporate Drive Lexington, KY 40503 Phone: (606) 223-8000 Fax: (606) 224-1025

MEMO TO: Clyde Brown PE.
T.H.E. Engineers, Inc.
131 Prosperous Place
Lexington, KY 40509

FROM: William Lee Morris, P.E., Principal

RE: US 119 – Letcher County
Partridge to KY 932
Item No. 12-311.10

DATE: November 17, 2000

On November 13, 2000, from 6:00 to 8:00 PM EST, a Public Meeting was held for the subject project at the Arlie Boggs Elementary School in Eolia. The general public was invited through newspaper announcements, and through local elected officials. Local media outlets were also invited. Approximately 56 people signed in as attending the meeting and are shown on sheets attached to this meeting summary. A local paper was also present. Those in attendance were given a handout that showed the proposed route of the project and had space for written comments. Thirteen people returned the handouts with written comments as summarized below:

- Seven comments were for an additional tie to the existing US 119 closer to the fire and ambulance station.
- Three comments stated that insufficient R/W was proposed to be bought on the south side of the proposed Colliers Creek bridge.
- Two comments stated that "the road over the mountain needs to be constructed first".
- One comment stated that a 2-lane roadway would not handle future traffic and that a 3-lane roadway was needed.

The purpose of the meeting was to exhibit the project's "Preferred" alternative for public comment and to inform the public about the project's schedule for construction. The meeting goal was to gather public input on what changes could be made to improve the Preferred Alternative's service to the public. A Public Hearing had been previously held on October 15,1998.

cc: Keith Damron, Steve Hoefler, Ray Polly

PDR Engineers, Inc.

November 10, 1998

Keith Damron, P.E., Design Engineer
Kentucky Department of Highways
District Office No. 12
North Mayo Trail
P.O. Box 2468
Pikeville, KY 41501

RE: Letcher County
APD 0140 042
FD52 067 0119 002-010 032 D
US 119 (Partridge to Oven Fork)
Item No. 12-311.10

Dear Mr. Damron:

On October 15, 1998 at the Arlie Boggs Elementary School, a Public Hearing was held concerning the subject project. A total of 105 people attended the Hearing. A court reporter was available at the Hearing to offically record statements from anyone wanting to express their opinion about the project. Citizens in attendance were also given a handout explaining the project and were encouraged to return the handouts with any comments they had on the project. A total of 22 statements were received -18 to the court reporter and 6 written statements on the Hearing handouts. None of the statements were against the project. The statements received are summarized below.

- Six statements noted that US 119 over Pine Mountain should be constructed before this project because it is a much more dangerous roadway.
- Three statements requested the access road Lt. Sta. 51+500 be modified or eliminated to avoid taking homes. There are options that could be taken to eliminate this access road. These options will be discussed and evaluated at Preliminary Line and Grade Inspection.
- Two statements requested the addition of passing lanes at a few locations along the project. They noted that truck traffic could increase once the project is complete and that it could be difficult to get around these trucks. Current traffic projections do not warrant the addition of passing lanes.

800 Corporate Drive Lexington, Kentucky 40503-2787 Phone (606) 223-8000 Fax (606) 224-1025

- Two statements requested that the bridge over Poor Fork at Colliers Creek Road be replaced. They noted that the existing bridge is narrow (16') and in poor structural condition. They also noted that turning movements are sometimes difficult to make at the intersection. A decision on replacing this bridge will be made at the Preliminary Line and Grade Inspection.
- A statement from Parcel 18 expressed concerns about the small amount of yard that would remain after construction, the close proximity of the proposed right of way to the house, and slides that may be triggered by blasting in the area. They have had a history of slides in the hill behind their home. The house will be purchased to satisfy their concerns.
- Parcel 47 requested an access to the property. Although this parcel fronts on KY 806, it is currently accessed across another land owner. An entrance will be provided to satisfy this concern.
- One statement noted a concern for homes being taking and not enough time to relocate. It may be necessary to contract this person to discuss the relocation procedures.
- One statement noted that the cost of the project could be reduced by utilizing channel changes instead of bridges.

The following items are attached:

- Public Hearing handout.
- Public Hearing transcript.
- Comment received from Mr. Rick Watts after Public Hearing transcript compiled.
- Summary of Public Hearing Statements and Responses.

If you have any questions, comments, or need any additional information, please call me.

Sincerely,

PDR ENGINEERS, INC.

By: _____
William Lee Morris, P.E.
Principal

F:\group\hwy\prj\97009\file\hearsum.doc

APPENDIX B

Correspondence

Education, Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL

The State Historic Preservation Office

Paul E. Patton
Governor
Marlene M. Helm
Cabinet Secretary

David L. Morgan
Executive Director and
SHPO

July 18, 2000

Mr. John L. Mettille, Director
Division of Environmental Analysis
Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40622

Re: Addendum for Alternate 4
A Cultural Resource Survey for the Realignment of US 119
From Partridge to Ovenfork
Letcher County, Kentucky
Item No. 12-311.10

Dear Mr. Mettille:

Thank you for your letter regarding the above referenced project. In accordance with 36 CFR Part 800.4 (d) of the Advisory Council's revised regulations our finding is that will be No Historic Properties Affected within the undertaking's area of impact. Therefore, we have no further comments and FHWA's responsibility to consult with the State Historic Preservation Officer regarding impacts to standing structures under the Section 106 review process is fulfilled.

If you have any questions regarding these comments, please feel free to contact Jayne H. Fiegel of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

300 Washington Street
Frankfort, Kentucky 40601

EDUCATION PAYS

Telephone (502) 564-7005
FAX (502) 564-5820

Education, Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL

The State Historic Preservation Office

Paul E. Patton
Governor
Marlene M. Helm
Cabinet Secretary

David L. Morgan
Executive Director and
SHPO

July 5, 2000

Mr. John L. Mettille, Jr.
Director
Division of Environmental Analysis
Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Dear Mr. Mettille:

The State Historic Preservation Office has received for review and approval an archaeological report entitled "An Addendum To: An Archaeological Reconnaissance of the Proposed US 119 Realignment Project From Partridge to Oven Fork in Letcher County, Kentucky" by Alexandra Bybee with a contribution by Matthew D. Reynolds.

During the course of the survey, one previously recorded archaeological site (15Lr304) was reinvestigated. Since this site is a low density prehistoric lithic scatter which lacks intact deposits and has very little potential for subsurface features, the author concluded that the affected portion of the site was not eligible for listing in the National Register of Historic Places. I concur with the author's findings. In accordance with 36CFR Part 800.4 (d) of the Advisory Council's revised regulations our finding is that there are No Historic Properties Present within the undertaking's area of potential impact. Therefore, we have no further comments and the Transportation Cabinet's responsibility to consult with the Kentucky State Historic Preservation Officer under the Section 106 review process is fulfilled. Should you have any questions, feel free to contact Charles Hockensmith of my staff at (502) 564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

cc: Mr. Charles M. Niquette

300 Washington Street
Frankfort, Kentucky 40601
An equal opportunity employer M/F/D

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FAX (502) 564-5820

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

T. Kevin Flanery
Deputy Secretary

Paul E. Patton
Governor

August 18, 1998

Mr. A. B. Broderson
Chief Environmental Engineer
T.H.E. Engineers, Inc.
131 Prosperous Place, Suite 15
Lexington, Kentucky 40509

Re: Letcher County, US 119; Item No. 12-311.10
Encroachments on Coal Mine Site
Partridge to Oven Fork

Dear Mr. Broderson:

This is in response to your letter of June 25, 1998 requesting comments on suggested options for mitigating environmental impacts resulting from the project's encroachment onto the Cumberland River Coal Company site.

As with any roadway project, efforts should be made to avoid environmentally sensitive areas. Recognizing that option is not always prudent or economically feasible, the Division of Right of Way may purchase necessary properties and pay the reasonable costs necessary to restore property to be in legal compliance with other governmental agency requirements.

Two issues appear to be applicable for the Division of Right of Way and Utilities, Mitigation Measures # 1 and # 3. Concerning item number 1, option two is preferred. This option appears to best ensure continuation of the owner's intent and is the program approved and permitted by the agencies having jurisdiction. Concerning item number 3, option two

is recommended. The areas defined for wasting construction spoil meets the approval of the owners of the property and allows them to make future use of the same areas.

As plans are developed further and environmental sensitive areas are better defined, each one should be reviewed for appropriate options.

Sincerely,

Ralph Divine, Director
Division of Right of Way and Utilities

C Charles Raymer
Rich Dutton

Education, Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL

The State Historic Preservation Office

Paul E. Patton
Governor
Roy Peterson
Cabinet Secretary

David L. Morgan
Executive Director
and SHPO

May 12, 1997

Mr. Richard D. Dutton, Acting Director
Division of Environmental Analysis
Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40622

Re: US 119: Letcher County
Proposed Approach Road Near the John B. Maggard House (LR-1, Site 24)
Item No. 12-311.03

Dear Mr. Dutton:

We have reviewed the proposal for additional mitigation measures for the above referenced property. The provision of vegetative screening on the adjacent slope of the approach road will aid in obscuring the fill for this element in the project. We find that if this is provided, the project will have no effect upon Site 24, the John B. Maggard House (LR-1).

If you have any questions, please feel free to contact Jayne H. Fiegel of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

cc: Helen Powell

300 Washington Street
Frankfort, Kentucky 40601

Telephone (502) 564-7005
FAX (502) 564-5820

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION FOR AIR QUALITY
803 SCHENKEL LN
FRANKFORT KY 40601-1403

April 17, 1997

Mr. Richard D. Dutton, Acting Director
Division of Environmental Analysis
New State Office Building
125 Holmes Street
Frankfort, Kentucky 40622

Dear Mr. Dutton:

We have reviewed the air quality analysis for the proposed realignment of US 119 (Partridge to Oven Fork), Item No. 12-311.03, in Letcher County. We have found both the project and the analysis to be consistent with Kentucky's State Implementation Plan.

Thank you for the opportunity to review this project. If you have any questions, please call me at (502) 573-3382, extension 311.

Sincerely,

David G. Gore
Program Planning & Administration Branch
Evaluation Section

Education. Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL

The State Historic Preservation Office

Paul E. Patton
Governor
Roy Peterson
Cabinet Secretary

David L. Morgan
Executive Director
and SHPO

April 17, 1997

Mr. Richard D. Dutton. Acting Director
Division of Environmental Analysis
Transportation Cabinet
125 Holmes Street
Frankfort. Kentucky 40622

Re: A Cultural Resource Survey for the Realigment of US 119
From East of Letcher-Harlan County Line to the Intersection with KY 932
Letcher County, Kentucky
Item No. 12-311.03

Dear Mr. Dutton:

We have reviewed the above referenced Cultural Resource Survey Report . We agree with the findings of the report. and the following determinations of eligibility. The following properties meet National Register Criteria C: Site 1, Rockvine Presbyterian Church (LR-42); Site 8, Raleigh House (LR-49); Site 13, Maggard House (LR-27); Site 24. John B. Maggard House (LR-1); and Site 26. Maggard's Cash Grocery (LR-65).

The following properties do not meet any National Register Criteria: Site 1, Single Pen Log House (LR-43); Site 3, Hipp-Roofed Dwelling (LR-44); .Site 4, Lawrence Jenkins House (LR-45); Site 5, Frame Church (LR-46): Site 6, Front Gabled House (LR-47); Site 7, Elmer Jenkins House (LR-48); Site 9, Blair Store (LR-50); Site 10, Front-Gabled Dwelling (LR-51): Site 11, Frame Bungalow (LR-52); Site12, Frame Bungalow (LR-53); Site 14. Scotia Employees Union Building (LR-54); Site 15. House with Wrap-Around Porch (LR-55); Site 16, Front-Gambreled House (LR-56); Site 17, Four Bay House (LR-57): Site 18, Bungalow (LR-58); Site 19, Bungalow (LR-59); Site 20, Jerkin-Head Roofed House (LR-60); Site 21, Bungalow (LR-61); Site 22. Jerkin-Head Roofed House (LR-62): Site 23, Oven Fork Post Office (LR-63); Site 25, J.D. Maggard House (LR-64); Site 27, House & Garage (LR_66); Site 28, Front-Gabled House (LR-67); Site 29, Store Building (LR-68); Site 30, Four bay Dwelling (LR-69); and Site 31, Front-Gabled Dwelling (LR-70).

Three three proposed alternates will have the following determinations of effect. Alignments 1, 2 and 3 will have no effect upon Site 1: the Rockville Presbyterian Church. Site 8: the Raleigh House, and Site 13: the Maggard House. Alignments 1 and 2 will have an adverse effect upon Site 24: the John B. Maggard House. and Site 26: Maggard's Cash Grocery. Alignment 3 will have no effect on Site 26: Maggard's Cash Grocery.

300 Washington Street
Frankfort, Kentucky 40601

Telephone (502) 564-7005
FAX (502) 564-5820

Alignment 3 will have no effect upon Site 24, the John B. Maggard House, however the proposed connector road which is to be located just east of the Maggard House will have no adverse effect. Because the road will be at such a steep slope, there will be direct visual impacts to the immediate setting of the property. If these visual impacts could be minimized through the use of minor design alterations, or landscaping, then this finding could change to no effect.

If you have any questions, please feel free to contact Jayne H. Fiegel of my staff at 502-564-7005.

Sincerely,

David L. Morgan, Director
Kentucky Heritage Council and
State Historic Preservation Officer

cc: Helen Powell

APPENDIX C

Discussion of Updated Baseline Studies

SUMMARY OF ISSUES, COORDINATION, AND PROPOSED OPTIONS
Encroachments by the Improved US 119 on the Cumberland River Coal Co. Site.

PRELIMINARY: FOR REVIEW AND COMMENT ONLY

Encroachments.

The Project passes through several features on the mine site which have a similar appearance on corridor maps. Following are some of the features which may be distinguished, and may be encroached:

1. Natural Wetlands. The Project will encroach upon some natural wetlands in the corridor: depending upon the alternate selected, this could involve sites identified on the corridor map by blue-colored wetlands M, N, S, T, and W. These wetlands are characterized by wetland vegetation and sustain a variety of terrestrial and aquatic life. They are under the jurisdiction of the Corps of Engineers and the State of Kentucky, and cannot be encroached or disturbed without a permit; all of the Project-related wetland issues are addressed in the EA, but none are related to any of the issues discussed herein.
00

2. Coal Slurry Pond Wetlands. These ponds (e.g., pond "S" on the corridor map, which will be encroached) were formerly used for storage of coal fines from coal preparation plant operations. They have retained water and so have developed a cover of wetland vegetation. They are now considered to be under the jurisdiction of the Corps of Engineers and the State of Kentucky, and cannot be encroached or disturbed without a permit; all of the Project-related wetland issues are addressed in the EA, but none are related to any of the issues discussed herein (their contents cannot be removed and disposed).

3. Dewatered Coal Slurry Ponds. These ponds (e.g., pond "T" on the corridor map, which will be encroached) were formerly used for storage of coal fines from coal preparation plant operations but have since been dewatered. They now consist of a deep deposit of dry fines and have related construction problems, but do not have any of the characteristics of a jurisdictional wetland (note: in the original ecology baseline study for the EA, pond "T" was classified as a wetland). Project construction will require moving and disposing the contents of these ponds, along with other spoil and on-site materials described below.

4. Water Storage Ponds. Several of the ponds along the corridor appear now to be used solely for water storage and have no current coal-related function and no wetland characteristics; they appear on the corridor map as open (uncolored) features (e.g., ponds located east of slurry pond "T" and north of the Poor Fork). Any encroachment of such ponds appears to pose no problems related to the issues discussed herein. Unless new information is produced, they may be treated solely as a Right-of-Way issue.

5. Settling/Treatment Ponds having Wetland Margins. The mine site (formerly operated as the Scotia Mine, and presently inactive) contains a series of connected ponds

(open features on the corridor map) which treat acid waters emanating from a large underground mine complex (flooded after a previous disaster) and precipitate out the iron th0ey contain before directing the waters into the Poor Fork of the Cumberland River (an Outstanding Water Resource; some are tributaries also contain endangered species). Groundwater is anticipated to flow from the mine complex into the Poor Fork for many years, if not indefinitely.

Pond treatment is managed by mine personnel, analyzed by a private laboratory, and routinely monitored by the Division of Surface Mines. Water pH is increased from about 6 (slightly acid) to about 8 (alkaline) by the addition of alkaline material (believed to be sodium hydroxide); and a flocculent is added to precipitate out its iron. Pond sediments have not been tested for heavy metals or other toxic or hazardous materials; sites and procedures for ultimate disposal of these sediments cannot be specified before a Phase II site assessment has been conducted.

Water flows by gravity through the whole series of ponds (see separate black-and-white mine map). One set of ponds in the series (highest elevation, not shown on the corridor map) is located near the point of water effluent from the underground mine, some distance south of the Project, and would not be affected. A second set of inter-connected ponds in the series is located adjacent to US Highway and would be encroached by the Project (shown on the corridor map as a single "M-shaped" treatment pond, near wetlands W, X, Y, and Z). This second set of ponds is downstream of the first set and continues the treatment initiated by the first set; its operations cannot be interrupted without affecting the overall treatment process. The last pond in the series occupies the lowest available terrain.

The US Army Corps of Engineers has jurisdiction over the waters of the Poor Fork of the Cumberland River (and other high-quality tributaries), and thus over the quality of mine waters which enter it. The Project must be designed and constructed so that Poor Fork and related tributary waters are not degraded by closing, moving, altering, or dewatering the adjacent set of treatment/settling ponds.

It should be noted that these treatment/settling ponds support ducks, turtles, frogs, and other aquatic life, and that they have developed wetland vegetation around their peripheries. Since they serve primarily as constructed treatment/settling ponds, they will not be regulated by the Corps of Engineers or the State of Kentucky as wetlands; but their 00water quality is regulated by the Kentucky Division of Water.

6. <u>Hollow Fills and Holding Basins for Coal Preparation Plant Spoil</u>. The coal extracted from the site's underground complex was formerly cleaned in an on-site coal preparation plant (neither the mine or the preparation plant are currently active), and the spoil from the plant (consisting of rock, shale, dirt, and some coal) was transported to and disposed in several basins used as long-term spoil storage locations on the mine site. The largest sites are hollow fills located in foothills south of the Project. These have been constructed in accordance with Office of Surface Mining regulations, and are peripherally

ditched to divert surface water drainage around them (though there are no silt ponds for the surface water runoff); they would not be disturbed by the Project.

Several smaller sites are located on flat terrain adjacent to US 119 [they need to be designated on the corridor map!]. These are basins originally constructed as ponds but then used for long-term storage of prep plant spoil. They would be encroached by the Project. One set of basins is just west of, and directly adjacent to, the encroached set of treatment/settling ponds, and the surface waters which pass through it drain into the ponds.

The Project must be designed and constructed so that Poor Fork and related tributary waters are not degraded by closing, moving, altering, or dewatering these spoil storage basins.

It should be noted that some of these spoil basins have developed wetland vegetation around their peripheries. Since they serve primarily as constructed spoil basins, however, they will not be regulated by the Corps of Engineers or the State of Kentucky as wetlands.

Project Construction Spoil Placement.

Since the Project terrain is hilly-to-mountainous, a substantial volume of construction waste or spoil is anticipated to require disposal. Project design engineers originally envisioned placement of this spoil in four new hollow fills which had been previously surface-mined on the Cumberland River mine site, and these fill sites were designated on corridor maps in early drafts of the EA (see enclosed maps). But the placement of this spoil material was considered to be an environmental issue because of the high quality of the Poor Fork tributaries which drained three of the designated sites (Roberts Branch, Joe Day Branch, and Brown Branch).

Accordingly, construction spoil disposal site designation and construction details cannot be left, as it is in non-critical areas, to the discretion of the construction contractor. Rather, the Project must be designed and constructed so that the Poor Fork and related tributary waters are not degraded by their location and construction.

Coordination With District Office and Mine Officials.

On-site coordination meetings were held with the following individuals to inspect mine sites and features and discuss mitigation options for these issues:

1. We met on June 12th with Mike Rowlands, P.E., Manager of Environmental Affairs for Lone Mountain Processing, Inc. of Pennington Gap, Virginia. This is a sister company to Cumberland River Coal Co. He also provided mine site maps and contacts for water quality information and consultation on construction spoil management.

2. Johnnie E. Ross, Environmental Coordinator for the Department of Highways District Office #12 in Pikeville. He also provided treatment/settling pond maps, recent water quality results (pH, iron, and total suspended solids), and consultation on construction spoil management.

Potential Mitigation Measures.

Following is a consensus summary of the optional mitigation measures proposed for inclusion in the EA document. Final selection of the mitigation approaches, and the details of their implementation, will be developed during the Phase II Hazardous Materials Site Assessment (after Preferred Alternate selection, but before the FONSI document) and during detailed (Phase II) Project design:

1. Settling/Treatment Ponds. Since this would be a new requirement, KTC would pay for the design and the relocation or reconfiguration of the ponds. The Cumberland River Coal Co. would design and build the ponds, and would provide and pay for the continuing maintenance, operation, and monitoring of the ponds. All construction would have to meet stringent erosion and sedimentation control standards to protect the Poor Fork.

Option 1. Relocate the ponds. Re-build the ponds in another nearby location; divert the water flow from the existing ponds to the new ones; and then dewater the existing ponds, remove and dispose of the accumulated sediments, and fill and cover the site with area soils, seed it with native vegetation, and mulch it.

This option has the advantage that it would result in full-sized ponds which are not near, and thus would not be encroached by, the highway Project. It has the disadvantages that (a) it would be relatively costly, (b) it would result in loss of the (non-jurisdictional) wetland character of the existing pond, and (c) since the existing ponds occupy the lowest available elevation, any replacement pond site would have to occupy a higher elevation; that would require installation of a large new pumping system (and, if that system might have to be shut down for maintenance, repair, or replacement, an additional system for back-up). The pumping system would be designed, installed, and maintained by Cumberland River Coal Co. but, since it would be a new requirement for the mine, KTC would be asked to pay for the design, purchase, and installation.

Option 2. Reconfigure the existing ponds. Reduce the width of the encroached ponds to accommodate the Project; then compensate for this reduced width by constructing additional diversion baffles within the ponds to increase their holding times. This option would require construction to take place without stopping or reducing the flow of water through the system.

This option has the advantages that (a) the existing ponds would not have to be removed, (b) no new pond sites would have to be constructed, (c) no pumping system

would be required, and (4) some of the existing wetland vegetation and aquatic life wold be preserved. The disadvantages are that (a) working room would be tight to accommodate both the roadway ROW and the ponds, (b) protection might be required against water and/or acid damage to the adjacent roadbed, and (c) the adequacy of the treatment and settlement processes within the available space cannot be assured without further study and close coordination with highway design engineers.

Option 3. Construct Wetland Treatment Pond(s). Replace the encroached ponds with constructed wetlands designed to provide equivalent aeration and settling processes (the flocculent added is claimed to be non-toxic to aquatic life). This would have the additional advantages of enhancing the ecological and aesthetic resources of the area.

2. Spoil Holding Basins. Spoil from each encroached basin, along with the soils at the bottom of each, would be moved to any of the three existing approved hollow fills on the mine site. These already contain geologically-similar spoil material, so their use to receive the moved spoil material would create no additional, unanticipated environmental impacts. The empty basins would then be re-filled with other area soils, seeded, and mulched. KTC would pay for moving the spoil and Cumberland River Coal Co. would maintain the old and new spoil areas.

3. Project Construction Spoil Placement.

Option 1. Environmentally Protect the (Designer-Designated) Spoil Areas. One of these designated areas is not in a tributary-drained hollow, and so could probably be used in its entirety, provided it is designed and constructed to meet strict surface mine standards, with peripheral surface water drainage ditches and sediment ponds to collect and (if necessary) acid-treat the drainage water prior to its release into the tributaries.

DEA and FHWA questioned whether the other three designated areas could be used because of the high-quality tributaries which drain them. It might be possible to use portions of these hollows, on either side of the tributaries, though this would result in a substantially-reduced storage volume) and they would still have to be designed and constructed to strict surface mine standards, with peripheral surface water drainage ditches and sediment ponds to collect and (if necessary) acid-treat the drainage water prior to its release into the tributaries.

KTC would pay for the design and construction of these hollow fills, drainage, and silt/treatment ponds; for hauling and spreading the spoil in the hollows in appropriate lifts; re-establishing vegetation on them; and for maintaining the fills and the associated ponds and other environmental protection features (since the mine does not presently have fills at these sites).

Option 2. Utilize Three Existing Hollow Fills. Mr. Rowlands believes that the Cumberland River Coal Co. could make these existing (approved) hollow fills

available to KTC for their use in disposing of construction spoil material, in addition to the mine-related spoil to be removed from the spoil basins.

KTC would pay for hauling and spreading the spoil in the hollows in appropriate lifts and (if the mine did not anticipate immediately adding new spoil from a re-opened mine operation), for re-establishing vegetation on them. The Cumberland River Coal Company would maintain the fills and the associated ponds and other environmental protection features (as they do as present).

Option 3. Utilize Other Sites Yet to be Designated. If neither option 1 or 2 is acceptable, then other options would have to be developed on lands not owned and operated by the Cumberland River Coal Co. Suitable sites would be difficult to find and create, given that much of the land on the north side of the highway is a wildlife management area.

Regardless of the site selected, the fills would have to be designed to the strictest environmental standards in order to protect the Poor Fork and its tributaries.

MEMORANDUM

Date: October 29, 1999

TO: Mr. John Mettille, Director
Department of Environmental Analysis
125 Holmes Street, First Floor
Frankfort, Kentucky 40601

FROM John W. Brown
T.H.E. Engineers, Inc.
131 Prosperous Place, Suite #15
Lexington, Kentucky 40509

Subject US 119 (Partridge – KY 932 Road)
Item Number 12 – 311.10
Alternate # 4
Letcher County
Conceptual Stage Relocation Report

The following addendum is to be attached to the original CSRR that was submitted on April 9, 1997. Please do not hesitate to call if you have any questions or comments.

ALTERNATE 4

1. Alternate 4 will affect four communities – Partridge, Maggard, Eolia and Oven Fork. Because of the number of relocations required (18) and the relatively small number of residences available in the area for sale or rent, this may cause divisive or disruptive effects on these areas. Parents and siblings living on the same tract of land may be divided in some instances. Some families may be uprooted from their longtime surroundings. There may be a need for special relocation considerations and Last Resort Housing Funds to assist in providing relocation of some homes without undue hardship on the displacees.

   The volume of housing (300 to 350) in the area is relatively large in comparison to the number of displacements (18). Recent conversations with the Letcher County PVA indicated that approximately 50 residential sales per year have occurred in the county over the past five years. No rental units were observed in the immediate project area, but a survey of Whitesburg, Hazard, Harlan, Cumberland and Jenkins revealed that there are at least six apartment rental complexes. The apartments have 1, 2 or 3 bedroom facilities, most have wheelchair access, and all meet DS&S criteria. The rental rates vary starting at $280 per month to 400 per month. One facility in Jenkins has some furnished apartments. The impact on this area is not expected to be substantial however. Due to the lack of available housing in the immediate project area at this time, it appears there will be some impact.

2. A total of 9 conventional residences will be acquired, all being frame dwellings. 2 of these houses appear to have 1 to 2 bedrooms; 6 houses are estimated to have 2 to 3 bedrooms, and 1 house is estimated to have 3 to 4 bedrooms. The estimated price range is from $5,000 to $75,000, with most (3) of the homes ranging from $30,000 to $50,000.

   It is estimated that 9 mobile homes will be acquired. 2 of these are estimated to have 1 to 2 bedrooms and 7 are estimated to have 2 to 3 bedrooms. The estimated prices range from $10,000 to $50,000. The values are evenly distributed across the price range.

   It appears that 1 of the conventional homes is in very poor condition and 1 is in poor condition. 3 are in fair condition and 4 are in good condition. The ages of the home range from 15 to 100 years in age, and most (3) are between 30 and 50 years of age. The conditions of the mobile homes are fair (5), good (3), and very good (1). Ages range from 1 to 30 years.

   a. The number of households to be displaced *18*
   b. The income range of the affected households *$10,000 to $40,000*
   c. The tenure of households to be displaced *16 owners / 2 tenants*

d. The percentage of minority households to be displaced *0%*
e. The percentage of elderly households to be displaced *27.8%*
f. The percentage of households to be displaced containing *five or more* family members *5.5%*
g. The number of handicapped or disabled residential occupants for whom special services may be necessary *0*

3. The majority of residents are anticipated to attempt to relocate in the four communities in the area (*Partridge, Maggard, Oven Fork, and Eolia*) or in the rural areas along the corridor. We do not expect this to be a substantial problem for the estimated 8 mobile home owners or the estimated 1 mobile home tenant. Unless additional housing becomes available on the market, new housing will need to be built in the area to accommodate the estimated 8 conventional home owners and 1 tenant of conventional homes. No adverse environmental factors are anticipated to any areas the relocatees may move into because of the large surrounding area and the relatively small number of displacements. Seasonal factors are not likely to be a factor in the relocation process.

   a. An estimate of the distance from the project to neighborhoods with available replacement housing: 20 to 25 mile radius of the project.

   b. The makeup of the neighborhoods into which displacees will likely relocate: Most of the displacees will attempt to relocate in the same community or in similar communities in the area. Race and ethnic composition will remain the same even if they choose to move to other areas of Letcher County or to the surrounding area in Harlan County. Community facilities include churches, a volunteer fire department, an elementary school in Eolia, a post office in Partridge and a Senior Citizen Building in Oven Fork. Other public facilities are in the towns of Whitesburg, Cumberland, and Harlan.

   c. A comparison of the number of decent, safe, and sanitary (DS&S) homes in the area, with the number being acquired: No homes or lots were available in the immediate project area, but interviews with three area realtors revealed there have been 4 owner-occupied conventional homes for sale in the project area within the past 2 years.

4. It is expected that Last Resort Housing will be necessary to assist between 1 and 5 families. The funds may be necessary to pay for larger than anticipated replacement housing payments or for larger than normal rent supplement payments because of low-income families. Funds may also be necessary to modify replacement dwellings to accommodate the elderly. Because of the limited

housing available, it is anticipated Last Resort Housing will become necessary to construct new housing and/or to rehabilitate older units to meet DS&S standards.

The Department may decide to provide an aggressive advertising campaign stating the need for housing, home sites, and mobile home lots. This action is expected to create some additional housing for displacees while minimizing the need for Last Resort Housing Funds.

Last Resort Housing Funds will be used when needed to effect any relocation, if it is determined that the relocations will cause undue hardship on the family utilizing the typical relocation methods.

5. It appears as if 1 active business would be taken and no non-profit organizations or farms would be taken by the proposed alternate. The business, a repair facility, is estimated to have 8 to 10 employees. Relocating the business to Whitesburg or another area of south Letcher County may be possible.

   a. Social and economic losses to the communities are expected due to displacements by the proposed alternate, however they are not expected to be substantial.

6. There may be a need for special relocation advisory services, and if needed the Senior Citizen Organization, Social Security Office, Mountain Comprehensive Care, and elected public officials will be contacted for assistance.

7. Conversations with government officials, citizens in the area, business people, and regional realtors were all positive in relation to the project.

   a. The Kentucky Transportation Cabinet has several projects in Harlan County scheduled for right-of-way acquisition between fiscal years 1997 and 2002 according to the KENTUCKY TRANSPORTATION CABINET ENACTED SIX YEAR HIGHWAY PLAN, FY 1997-2002. Because of the distance from the proposed project, displacees from these projects are not expected to compete with displacees from the subject project for relocation sites.

Right-of-way acquisition for the subject project is anticipated for fiscal year 2000. One other project in Letcher County, adjoining this project is expected to have right-of-way acquisition at a date later than FY 2000. This should not affect displacees on this project.

b. There are no specific or incentive programs available to displacees, other than those provided under the UNIFORM ACT. Local lending agencies have always assisted with funding for displacees, providing the Transportation Cabinet's payment is applied toward the loan or is a down payment to acquire replacement property.

c. Executive Order – In accordance with the Federal-aid Highway Act of 1970 and Executive Order 12898 on Environmental Justice, every consideration has been given in the planning and development of this project to consider environmental impacts which might disproportionately or adversely affect minority or low income groups. No environmental justice issues have been identified on the project.