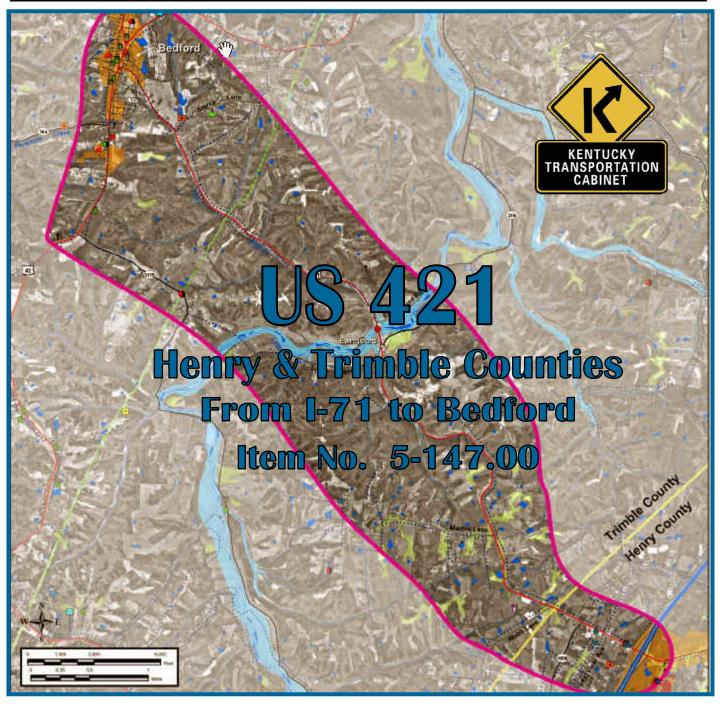
### FINAL REPORT

# **Alternatives Study**





Prepared by the
Kentucky Transportation Cabinet
Division of Planning
April 2009

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### **EXECUTIVE SUMMARY**



### **Alternatives Study**

Henry & Trimble Counties US 421 from I-71 to Bedford Item No. 5-147.00 April 2009



The purpose of this planning study is to gather information necessary to develop and evaluate alternatives for the possible reconstruction of US 421 from the I-71 interchange to Bedford. This reconstruction would improve safety and traffic flow along the corridor. Another nearby project that is occurring is north of Bedford, the Milton Madison Bridge Project.

### **Draft Project Goals**

The preliminary goals established for this project include:

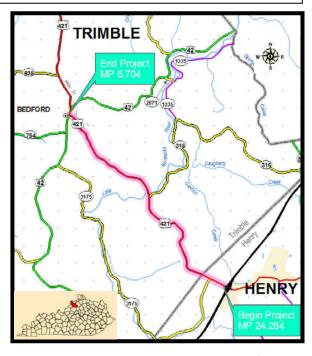
- Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north of Bedford.
- 2. Improve safety for the traveling public and school busses by addressing the less than optimal horizontal and vertical alignment and by utilizing a typical section that more closely meets current guidelines.
- 3. Improve access to Henry and Trimble Counties to support development in the region by providing better access to I-71.

### **Project Funding**

This project was scheduled in the 2002 Six-Year Highway Plan (FY 2003-2008) with committed funds of \$200,000. There are no future phases scheduled for this project at this time.

### **Existing Roadway Conditions**

The current roadway alignment has narrow lanes and shoulders. The most frequent crash type in the project area was a vehicle running off the road. Other issues with the existing route are the curves and grades that do not meet current guidelines or



provide adequate sight distance for oncoming vehicles or vehicles pulling into traffic from side roads.

An improved route may decrease the travel time between Bedford and I-71, improve safety and promote new industry in the region.

#### **Environmental Issues**

Wilbur Smith Associates (WSA) prepared an Environmental Footprint for this project on US 421. Several concerns were identified and need to be addressed as subsequent phases develop. These include: erosion, wetlands, public and private water sources, a large forest block, possible endangered. partial, status. threatened and concerned species, prime community sensitive locations, Underground Storage Tanks (UST) and monitored sites, air & noise impacts and

structures that are registered as Historic Sites.

**Public Involvement** 

Throughout the study, local citizens, public officials and stakeholders were given the opportunity to provide input. In addition, input was solicited from many local, state and federal agencies. Some local concerns were identified through this process:

- Near the I-71 interchange, where US 421 has full shoulders, trucks park on the shoulder in front of the gas station creating a visual obstruction to drivers trying to pull out of the gas station onto US 421.
- A bypass is necessary around the US 421/US 42 intersection in Bedford beginning north of the schools and continuing south along the east side of US 421 and rejoining US 421 south of the existing intersection at US 421 and US 42.

Surveys aided in identifying the primary recommendation and developed the prioritization of spot improvements along the corridor.

#### Recommendations

Based upon the project goals, corridor issues, technical analysis, access needs, environmental impacts and public/agency input, the project team selected the following alternatives as highest priority:

- 1) Alternate #3a was chosen to be the primary recommendation. This alternate includes the improvements to the large horizontal curve and the widening and upgrading of the existing route to current design standards. The estimated cost for this rebuild is \$42,000,000.
- 2) The team also decided that Alternate #3b has potential to be an interim solution if funding does not become immediately available for the primary recommendation. This would provide the opportunity for lower-cost improvements in the event that

limited funds are available. The following table summarizes the spot improvements for alternative 3b.

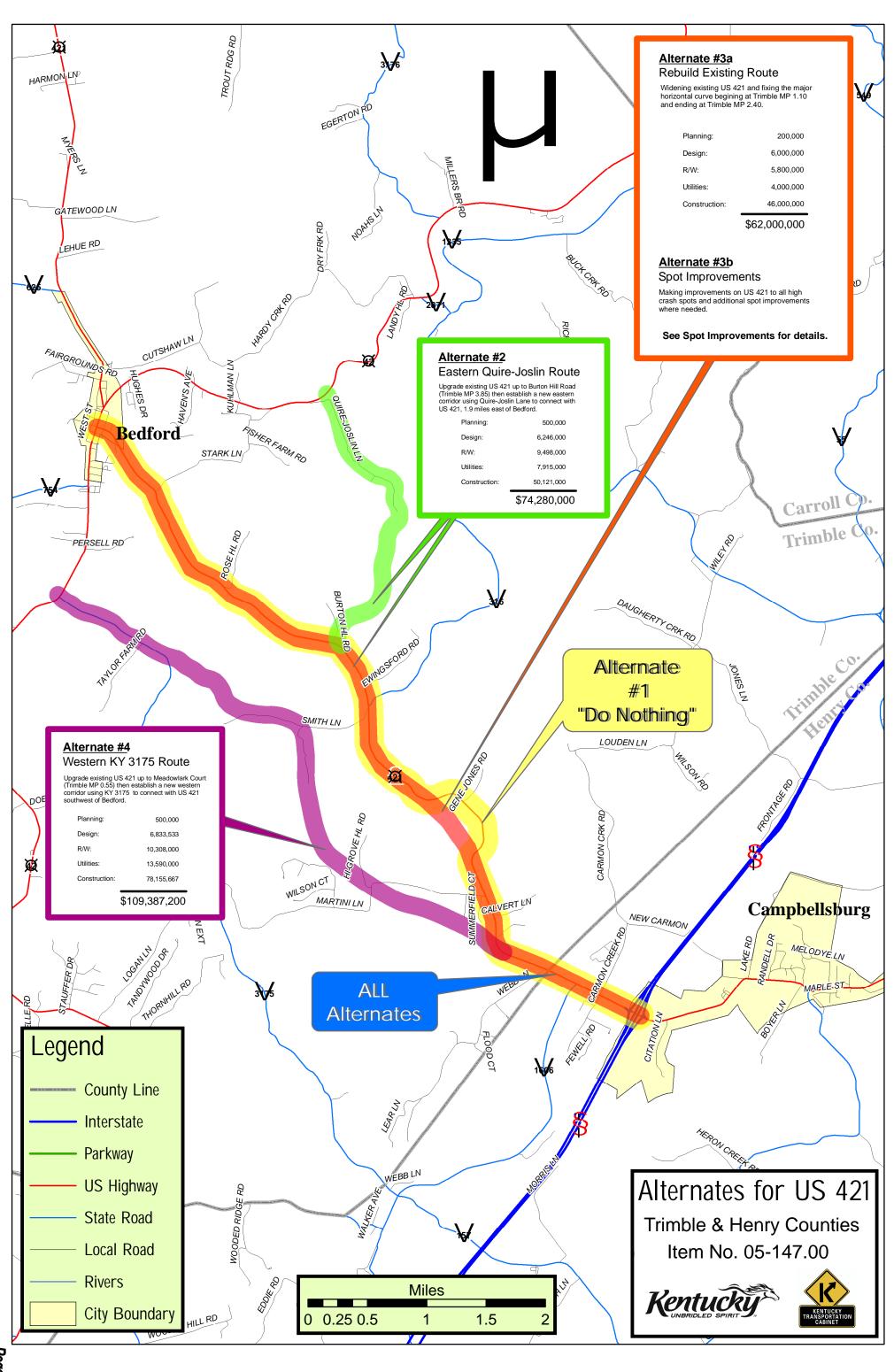
Priorit	Prioritized Spot Improvements & Estimates									
Rank	Spot #	Total								
1	3	\$ 9,800,000.00								
2	4	\$ 50,000.00								
3	5*	\$ 10,812,000.00								
4	2	\$ 2,580,000.00								
5	1	\$ 5,250,000.00								
6	6	\$ 2,050,000.00								
7	7	\$ 250,000.00								

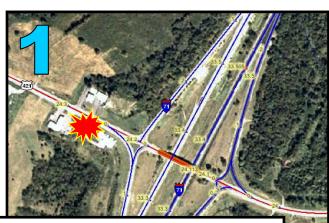
\*With regard to Spot Improvement #5, of the two options the project team chose to recommend the bypass option (Option #2). The study concluded the bypass option better meets the needs and project goals.

#### **Additional Information**

Comments and/or requests for information regarding this US 421 Alternatives Study should be sent to the address listed below:

Mr. Keith R. Damron, P.E. Kentucky Transportation Cabinet Division of Planning 200 Mero Street, 5<sup>th</sup> Floor West Frankfort, KY 40622





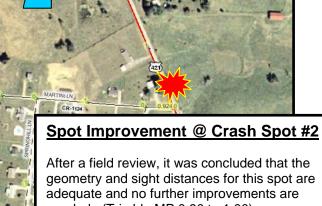
### Spot Improvement @ Crash Spot #1

Widen US 421 to 4 lanes for safer access near the I-71 Interchange. (Henry MP 24.113 to 24.486)

> Design: 300,000 R/W 350.000 Utilities 300.000 4,300,000 Construction \$5,250,000

### **SPOT IMPROVEMENTS**

Alternate #3b Trimble & Henry Counties Item No. 05-147.00



After a field review, it was concluded that the geometry and sight distances for this spot are adequate and no further improvements are needed. (Trimble MP 0.90 to 1.00)

The field review did identify a spot south of this location with possible sight distance problems. Re-grade the roadway with shoulder improvements and clear vegetation. (Henry MP 24.60 to Trimble MP 0.10)

> 230,000 Design: R/W 470,000 Utilities 470,000 Construction 1,410,000 \$2,580,000

### **OPTION #1**

### Spot Improvement @ Crash Spot #5

Add turning lanes and widen the combined US 421/US 42 route for improved safety and flow through Bedford. (Trimble MP 6.70 to 6.80)

> Design: 450,000 R/W 1,200,000 Utilities 720,000 Construction 4,776,000 \$7,146,000

### **TOTAL SPOT IMPROVEMENTS**

Spot #1 5,250,000 Spot #2 2,580,000 9,800,000 Spot #3 50,000 Spot #4 Spot #5 7,146,000 (OPT #1) Add #6 2.050.000 Add #7 250,000 \$27,126,000

\$30,792,000 w/ OPT #2



### **OPTION #2** Spot Improvement @ Crash Spot #5

Develop a new alignment between US 421 and US 42 so the approaches cross at and angle closer to 90 degrees. Move both US 421 approaches east near Hughes Drive. (Trimble MP 6.70 to 6.80)

> Design: 600,000 R/W 1,440,000 Utilities 1,200,000 Construction 7,572,000 \$10,812,000



### **Spot Improvement @ Crash Spot #3**

Improvements are to eliminate the major horizontal curve at Trimble MP 1.10 to 2.40.

> Design: 650,000 R/W 1,550,000 1,300,000 Utilities Construction 6,300,000 \$9,800,000

## **Spot Improvement – Additional #6**

Widen lanes and shoulders through this 40 MPH curve to current standards and soften curve radius. (Trimble MP 0.20 to 0.60)

> Design: 200,000 R/W 400,000 Utilities 250,000 Construction 1,200,000

\$2,050,000

### Spot Improvement @ Crash Spot #4

Spot includes minor improvements to shoulders and hillside rock cuts at the entrance of the Antioch Baptist Church. Clear vegetation from Right-of-Way to improve sight distances. (Trimble MP 2.40 to 2.70)

> Construction 50,000 \$50,000



### **Spot Improvement – Additional #7**

Improve shoulders and add specified passing bays along the whole existing route. (Henry MP 24.280 to Trimble MP 6.704)

> 50,000 Design: 200,000 Construction \$250,000



### 1.0 INTRODUCTION

### 1.1 Project Background

This project was noted as being the number 2 priority for the Kentuckiana Regional Planning and Development Agency (KIPDA) in 2003. Local officials initiated this project to promote access from Bedford to I-71, hoping to attract jobs to the county. Although the Milton/ Madison Bridge, north of the project, is in the current 2006 Six-Year Highway Plan (FY 2007-2012), it may have taken priority. The local officials have stated that traffic near the bridge has been steadily increasing due to industrial and factory-type movement across state lines.

#### 1.2 Corridor Issues

US 421 is Bedford's most direct connection to the interstate and the most pressing problem on this section of roadway is improving its overall connection. The current roadway alignment has narrow lanes and shoulders as shown in the picture to the right. The most frequent crash type in the project area was a vehicle running off the road. Other issues with the existing route are curves and grades that do not meet current



guidelines or provide adequate sight distance for on-coming vehicles or vehicles pulling into traffic from side roads. An improved route may decrease the travel time between Bedford and I-71 and promote new industry in the region.

#### 1.3 Purpose of the Study

The purpose of this Alternatives Study is to evaluate US 421 from I-71 to Bedford and determine possible alternatives to improve safety and traffic flow. This study is intended to help define the location and purpose of the project and better meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA). Items involved with this study include:

- Define project goals;
- Identify the beginning and ending points of the project as well as potential project locations and design concepts;
- Discuss project needs and issues with public officials, government agencies and other groups with a special interest in the project;
- Evaluate roadway improvements;
- Provide input for the statewide transportation plan;
- Prioritize projects for future programming documents;
- Identify known environmental concerns; and
- Listen to and share information with the public.

The first step in the process was the collection of technical data, resource agency input and public input concerning this project. This was accomplished by:

- Establishing a project team to provide direction and review for this study. The team included representation from various entities including the Kentucky Transportation Cabinet's (KYTC) District 5 office, KIPDA, and representatives from KYTC's Central Office, Division of Planning.
- Initiating early coordination with resource agencies and local officials.
- Compiling information from existing data and reports.

The second step in the process was the evaluation of the collected input to accomplish the following:

- Address the geometrics, capacity, crashes, and other issues that are influencing the project.
- Document known environmental concerns.
- Develop and evaluate project alternatives based on project goals; and
- Make recommendations.

### 1.4 Programming and Schedule

This study was funded in the 2002 Six-Year Highway Plan (FY2003-2008) as "Scoping Study for US-421 from I-71 to Bedford" with Item Number 5-147.00. No future project phases between I-71 and Bedford are defined or scheduled at this time.

### 2.0 EXISTING CONDITIONS

### 2.1 Project Location

This project is in the northern part of Kentucky in both Henry and Trimble counties. This project starts at the intersection of I-71 and US 421 on the north side of the I-71 ramps in Henry County, milepoint (MP) 24.284 and then heads northwestward on US 421, crossing into Trimble County, to the city of Bedford ending at milepoint 6.704 which is the intersection of US 421 and US 42 (Main Street). The corridor winds through a typical rural Kentucky agricultural and residential area that contains a minimal amount of service-oriented commercial businesses. See the project alignment shown in Exhibit 1 in Appendix A.

### 2.2 Roadway Characteristics

Data for existing roadway characteristics along US 421 was taken from the Division of Planning's Highway Information System (HIS) database. This two-lane undivided highway has ten-foot wide lanes and four-foot wide combination shoulders throughout the study area. The posted speed limit is 55 mph from I-71 to the Bedford city limits, approximately the MP 6.400. From this point to the end of the project at the intersection of US 421 and US 42 (Main Street, Bedford) at MP 6.704 the speed limit is posted as 35 mph because this section of road is in the city limits and because of the roadway

geometry. Sections of the road in this project were last re-surfaced in 1998-1999. Table 1 lists the General Information that describes this project. This data was checked, verified, and/or updated through field surveys, as needed.

TABLE 1

### **General Information**

Counties:	Henry and Trimble								
Route:	US 421	Beg MP:	24.284	_End MP:	6.704				
Item No:	5-147.00		Length:	7.393 mile	es				
Description:	Alternatives study for US-421 from I-71 to Bedford.								
	Area Development Dis	trict	Kentuckian	a Regional F	Planning and				
	(ADD):			oment Agenc	•				
	Average Right of Way:			m 50-130 fee					
	Lane Width:		Varies 10-	11 feet					
	Shoulder Width:		Varies fror	n 2-8 feet					
	Speed Limits:		Varies fror	m 35-55 mph					
	Traffic Volumes:		Varies 21	00-4460 ADT	(2007)				
	% Trucks:		12.7%						
	Bike Route:		No						
	Coal Haul Route:		No						
	Defense Highway		.,						
	Network:		Yes						
	District:		5 No.						
	Extended Weight: Functional Classificati	<b>.</b>	No Dural Mina	n Antonial					
	National Truck Networ	-	Rural Mino	or Arteriai					
	National Highway Syst		140						
	(NHS):		No						
	Number of Bridges:		4, Two ove	er 100 feet in	length				
	Pavement type:		Henry- Hig	h Flexible					
			Trimble- Co	mposite; Flex	. over Rigid				
	Scenic Byway:		No						
	State System:		State Prim	ary					
	Truck Weight Class:		AAA (80,000 lb. Gross Load Limit)						
	Type Road:		Undivided Highway						
	Type of Terrain:		Rolling						

### 2.3 Traffic & Level of Service

The average daily traffic volume (ADT) in the year 2007 varied from 2,100 to 4,460 vehicles per day (vpd) along the project route with the highest traffic

being near I-71. The projected ADT for the year 2030 is 7,800. This nearly doubles the current maximum value of 4,460 vpd. (See Table 2 for details.)

Level of Service (LOS) is used to describe traffic conditions and includes consideration of speeds, travel time, freedom to maneuver, traffic interruptions, comfort and convenience. There are six levels of service to describe a roadway

Level of Service (LOS) is a qualitative measure of highway traffic conditions described in the 2000 Highway Capacity Manual.

with given letter designations of A to F. Similar to school grades, LOS A is the best condition whereas LOS F is the worst condition. Currently, US 421 has a LOS C rating as seen in Table 2. The LOS drops to as low as LOS D with projected 2030 traffic volumes if no improvements occur. See Exhibits 2 & 3 in Appendix A for a visual representation.

Table 2

	Level of Service Calculations										
Begin	End	2007	Annual	2030	%	Lane	Shoulder	2007	2030	2030 L	OS with
*MP	*MP	ADT	Growth Rate	ADT	Trucks	Width (Feet)	Width (Feet)		LOS No Improv.	4- Lane	Improv. 2- lane
24.113	24.170	4,460	2.4%	8700	12.7%	10	8	С	D	В	D
24.170	24.973	3,270	2.4%	6400	12.7%	10	2	С	D	Α	С
0.000	3.206	2,100	2.4%	4100	12.7%	10	4	С	С	Α	С
3.206	6.704	2,270	2.4%	4400	12.7%	10	4	С	С	Α	С

<sup>\*</sup>MP = milepoint

Note: The gray portion is not in the scope of study. US 421 MPs for the underpass.

*MP	Descriptions
24.113	I-71 Overpass
	KY1606
24.973 / 0.000	Henry/Trimble Co. Line KY 316 & Smiths Lane
3.206	KY 316 & Smiths Lane
6.704	US 42 (Main Street)

### 2.4 Crash Analysis

Crash Data from *Collision Reports*Analysis for Safer Highways (CRASH)
collected by the Kentucky State Police
was used to find the Critical Rate Factor
(CRF) for this the project. High crash
locations are shown in Tables 3 and 4.
Between January 1, 2003 and

Critical Rate Factor (CRF) is numeric for spot and segment areas. If greater than 1.00 then crashes at that location may not be occurring randomly.

December 31, 2006, there were two segments that had a CRF greater than one. Also, there were five specific spots that had been reported as validated crashes with a greater than one CRF. The intersection of US 421 and I-71 (MP 24.113) had a total of eight crashes, of which three were angle collisions

involving vehicles turning left. Martini Lane, located at MP 0.924, had five crashes at that intersection. Two were rear end collisions. Between MP 2.200 to 2.300 is a sharp horizontal curve in Trimble County; 2.2 miles from the Henry County Line that had a total of seven crashes, of which three involved a single vehicle running off the road. A church access between MP 2.500-2.600 reported five crashes with two involving the vehicle running off the road. Finally, MP 6.704, at the intersection of US 421 and US 42 in Bedford, had 14 total crashes, of which seven were rear end collisions.

See Exhibits 4 & 5 in Appendix A for visual representations.

Table 3

	Crash Analysis (Segment)									
					Avg.		Cras	shes		Critical
Seg.#	County	Begin MP	End MP	Length (Miles)	Daily Traffic (ADT)	Fatal	Injury	Property Damage Only	Total	Rate Factor *(CRF)
		Jan	uary 1, 2	2003 to E	Decemb	er 31, 20	06 HIS I	Data		
1	Henry	24.113	24.284	0.171	4460	0	3	5	8	1.106
2	Henry	24.284	24.973	0.689	3270	0	1	10	11	0.731
3	Trimble	0.000	3.206	3.206	2100	0	19	34	53	1.530
4	Trimble	3.206	6.704	3.498	2270	0	7	18	25	0.632
Total		24.284	6.704	7.564	2339	0	30	67	97	0.779

<sup>\*</sup>CRF highlighted in RED indicate Critical Rate Factor > 1.00

Table 4

	Crash Analysis (Spot @ Tenth Points)										
					Avg.		Cras	shes		Critical	
Pt. #	County	Begin MP	End MP	(Miles)	Daily Traffic (ADT)	Fatal	Injury	Property Damage Only	Total	Rate Factor *(CRF)	
		Jan	uary 1, 2	2003 to D	Decemb	er 31, 20	006 HIS I	Data			
1	Henry	24.2	24.3	0.100	4460	0	3	5	8	1.55	
2	Trimble	0.9	1.0	0.100	2100	0	2	3	5	1.48	
3	Trimble	2.2	2.3	0.100	2100	0	1	6	7	2.08	
4	Trimble	2.5	2.6	0.100	2100	0	1	4	5	1.48	
5	Trimble	6.7	6.8	0.100	2270	0	3	11	14	3.99	

<sup>\*</sup>CRF highlighted in RED indicate Critical Rate Factor > 1.00

#### 2.5 Environmental and Socioeconomic Overview

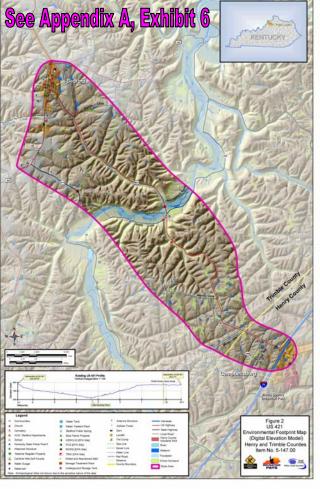
Wilbur Smith Associates (WSA) prepared an Environmental Footprint for this project per contract with the Division of Planning. The map on the next page can be seen with greater details in Appendix A, Exhibit 6. Included in the report was environmental resource data portrayed on both United States Geological Survey (USGS) topographic and Kentucky Orthographic

Geographic Information Systems (KYOGIS) orthographic base maps. Issues considered in the preliminary environmental analysis were listed as:

- 1. Natural and Manmade Features
- 2. Biotic Communities
- 3. Social, Economic and Environmental Justice Concerns
- 4. Historic and Archaeological Sites
- 5. Prime and Unique Farmland
- 6. UST/HazMat. Oil and Gas Sites
- 7. Additional Concerns such as Noise and Air Quality

Identified issues to be considered in subsequent project development phases include:

- Erosion concerns which will affect the water quality related to the Little Kentucky River, Town Branch, Barebone Creek and the associated tributaries may occur during future construction phases for project area.
- Several wetlands are scattered throughout the study area and will need further inspection if disruption by construction is warranted.
- Numerous public and private water sources could be affected as well as groundwater may be impacted. It is recommended that erosion control methods be used to decrease nonpoint source pollutions and minimize disruption of service.
- The study area is within a large forest block. Avoiding forest fragmentation is mandatory for large forest blocks.
- Possible endangered, endangered with partial status, threatened and special concern species have been identified in or close to the study area. Therefore further investigation will be necessary for future project phases.
- Many community sensitive locations such as churches, schools, cemeteries and public housing projects are in the project area in Bedford. There are a few others scattered throughout the corridor. All will require future evaluation for cultural significance.
- Limiting the net loss of 150 acres of prime farmland in the study area.
- A number of underground storage tanks, sewage treatment plants and Environmental Protection Agency (EPA) monitored sites are in the subject area that potentially will impact transportation decisions in future phases



- Air and noise impact analysis should be considered in the upcoming project phases.
- There are six structures on the National Register of Historic Places in the project area, all of which are in Bedford. Three are shown below and the other three are; Trimble (TMB) 7 Unnamed House on Main St., TMB 29 Coleman House on Main Street and the Old Kentucky Tavern on US 42. Several remaining structures are currently pending eligibility. Several archaeological sites are also in the area. A review of the cultural sites will be needed as the project advances to future phases.







The complete Environmental Footprint Report is included in Appendix B.

### 2.6 Environmental Justice and Community Impacts

The Kentuckiana Regional Planning and Development Agency (KIPDA) conducted a review of the 2000 Census data for the purpose of identifying environmental justice and community impact issues in Trimble and Henry Counties. Four Block Groups make up the study area.

The purpose of an environmental justice review is to identify areas containing disproportionately high concentrations of minority, low-income or elderly households. *Environmental Justice Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (signed February 16, 1994), directed federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations.

KIPDA reports that there is a significantly lower percentage of minorities in the project area than in the overall state. Age group 0-17 is slightly higher than state averages. Percentages for persons 62 and older are slightly lower than the state average. There are no major concentrations or communities that share religious, cultural, ethnic or other backgrounds along the corridor of US 421. In addition to KIPDA's report, consideration of impacts on smaller businesses in the Bedford area and the need for additional housing are potential effects from the possible improvements to US 421. Any proposed roadway updates will only improve the safety and economic development of the region.

For more details on the Environmental Justice Report see Appendix C.

#### 2.7 Geotechnical Overview

The KYTC Division of Structural Design, Geotechnical Branch and the University of Kentucky Geological Survey both submitted separate reports from their respective agencies and these reports are included in Appendix F. The Geotechnical Branch indicated that the proposed corridor may encounter Alluvium, Glacial Drift, Calloway Creek Limestone, Grant Lake Limestone, Bull Fork and Drakes Formation.

Glacial Drift may be encountered around the town of Bedford. The material is considered to be highly erosive and therefore will require flatter cut and fill slopes.

Both reports indicate that no major geotechnical issues would be expected. Although the reports differ in their opinion of the quality of limestone that could be used for suitable construction material, future borings and testing will give more information on the suitability of the limestone in the project area.

### 3.0 INITIAL CABINET, AGENCY & PUBLIC INPUT

In efforts throughout the course of the US 421 Alternatives Study, the local citizens, public officials and representatives of government resource agencies were given the opportunity to provide input for this study. This chapter describes the first KYTC project team meeting along with the first public involvement that includes agency input. At that stage, the collection of all prior information was introduced and the gathering of input from these involved groups contributed to the process of this study.

### 3.1 First Project Team Meeting

The US 421 project team met three times during the course of study. The first meetings were documented with minutes that are included in Appendix D. A brief summary of the major topics discussed at the first meeting as follows:

April 23, 2003, at KYTC District 5 was the date and location initial Project Team meeting. This was the kick-off meeting where team members were introduced, the type of study discussed and the study's scope and schedule reviewed. Major topics discussed included: the available data, the existing problems with the roadway, benefits of a proposed project, additional information needed, and regional agency coordination. Initial project goals were constructed: provide corridor and system connectivity, improve safety by correcting horizontal and vertical alignments, and provide lane and shoulder widths that meet current standards, and enhance the regional and local network by providing improved access to areas of regional importance.

### 3.2 First Local Officials Meeting

As part of the public involvement process, there were two Local Officials meetings held on separate occasions. Below is a brief summary of the first meeting.

The first meeting was held with the local officials on June 17, 2003. The purpose of this meeting was to inform this group about the project, discuss any potential project issues and concerns, and solicit input. Some of the major concerns for this group were; the speed limit, the curves and steep grades, sight distances at some entrances and the lack of adequate shoulders. Places to avoid were; the golf course, churches, the U-Haul business, a produce stand and the Little Kentucky River floodplain. There was no known opposition to this project. More details are included in the Local Officials Meeting Minutes and can be seen in Appendix D.

### 3.3 Stakeholders Meetings

This meeting was held the same day as, and subsequent to, the 1<sup>st</sup> Local Officials meeting (June 17, 2003). Stakeholder representation included; Trimble County local officials, the Trimble County Superintendent, the Kentucky State Police, a private business owner, the local Emergency Medical Services (EMS) & Tourism, The Bedford Loan & Deposit Bank and a concerned citizen. Concerns were similar to those of the Local Officials, but the most disturbing was the crashes occurring in spotted areas along the corridor especially near MP 2.000. There was no known opposition to this project at this meeting. Minutes of the Stakeholders Meeting are included in Appendix D.

### 3.4 First Public Meeting

Another facet of public involvement is inviting the public to convene. The first



public meeting was held November 18, 2004 at Bedford Elementary School. This initial meeting was designed to inform the public about the study and solicit questions and comments regarding local issues and potential alternatives and/or suggestions for US 421. In addition to the information presented in this chapter, material related to this meeting is included in a notebook on file with the KYTC Divisions of Highway Design

and Planning: November 18, 2004 Public Information Meeting Record.

The Minutes to this first public meeting can be found in Appendix D.

General project information such as project location, traffic volumes, crash information and the environmental footprint was presented at the meeting for review and comments. A short PowerPoint presentation explaining the overall project, its preliminary goals and future steps toward improving US 421 was presented. Attendees were given the opportunity to view maps on Exhibit boards with information pertaining to the project. Also, they were able to identify with markers on the Exhibits areas to avoid and areas where they thought there were safety concerns or other issues. Comments could be recorded on a large flip chart where attendees could write their thoughts, concerns and suggestions. Some comments made were as follows:

- Construct a bypass around the intersection of US 421 and US 42 in Bedford beginning north of the schools and continuing south along the east side of US 421 and rejoining US 421 south of the existing intersection of US 421 and US 42. [The attendee drew the proposed bypass location on one of the exhibit displays.]
- Recent paving of US 421 was several inches thick and much higher than my driveway.
- Near the I-71 interchange, where US 421 has full shoulders, trucks park on the shoulder in front of the gas station creating a visual obstruction to drivers trying to pull out of the gas station onto US 421.

As a part of the public meeting handout, the KYTC supplied a survey form for all attendees. This enabled the attendees to give their feedback and provide documentation of their concerns to be considered in the decision process. Responses to the six questions are summarized below. A full in-depth summary of the comments are located in Appendix E, *Survey Results*. A total of 42 Surveys were returned.

- 1. The majority (35 of 42) believed that there is a need for reconstruction of US 421 from I-71 to Bedford.
- 2. The top two topics that concerned those surveyed were "Sharp Curves" and "Narrow Shoulders". A multiple check list with "Check all that apply" was given and the total of 35 checks on these two topics was the majority.
- 3. From 42 responses, 23 indicated that they used US 421 "Daily".
- 4. The primary purpose for using US 421 was "For Personal Business" with 19 responses. Second to that response were three; "To go to place of work", "To conduct work-related business" and "To visit friends or family", all three had 16 responses.
- 5. When asked about sensitive areas to avoid if a new route was considered, 20 responses indicated "Personal properties or homes".
- 6. A majority of the Attendees (30 of 42) found out about the meeting because of the variable message sign placed along the road way.

### 3.5 Resource Agency Coordination

Appropriate state and federal resource agencies were identified and contacted for their concerns associated with the US 421 improvements. The Division of Planning sent letters to 70 agencies and organizations requesting their input and comments on this Alternatives Study in order to address their concerns early in the project development process. The 20 agencies that responded to the request for input and comments are listed below, along with a brief

summary of their comments. Their complete responses are included in Appendix F.

# Kentucky Environmental and Public Protection Cabinet, Kentucky State Nature Preserves Commission, August 18, 2004

There were no comments at the time. Although, there are likely several rare species issues that will need to be dealt with including the Indiana bat and Running buffalo clover.

### Kentucky Education Cabinet, August 19, 2004

No comments were made upon receipt.

# University of Kentucky, Kentucky Geological Survey, August 19, 2004

They listed items of concern below:

- Might encounter karst features.
- Would encounter sections of unconsolidated sediments near streams that would be prone to landslides.
- Might encounter resource conflicts such as prior ownership of property for quarrying or mining.
- Would encounter rock units that would be suitable as construction stone.
- Would not encounter faulted areas.
- Low potential for liquefaction or slope failure due to earthquake ground motion of 0.09 g, peak.

### Kentucky Department of Fish & Wildlife Resources, August 24, 2004

There were no federally threatened or endangered fish and wildlife known in the Bedford and Campbellsburg using the 7.5' USGS quadrangles.

For the portions of the project crossing intermittent and perennial streams recommendations include:

- 1. Development/excavation during a low flow period to minimize disturbance;
- 2. Preservation of tree canopy overhanging the stream;
- 3. Sediment control plan consisting of silt barriers, diversion ditches, and immediate seeding and mulching of disturbed areas.
- 4. Minimize stream channel excavation for bridge pier placement;
- Existing corridors should be used as the main stream crossing during bridge construction if possible to minimize aquatic impacts.

# Kentucky Department for Environmental Protection, Division of Air Quality, August 25, 2004

The following Kentucky Administration Regulations apply to this project:

401KAR 63:010 Fugitive Emissions – Prevent particulate matter from becoming airborne.

401 KAR 63:005 – Open burning prohibited.

This project must meet conformity requirements of the Clean Air Act.

### Kentucky Aviation Department, August 26, 2004

This project will not affect any airport in the area. However, if construction equipment exceeds 200' a permit will have to be issued by the office.

# Kentucky Justice and Public Safety Cabinet, Kentucky Vehicle Enforcement, August 31, 2004

They anticipate no problem with widening the roadway provided it is made a designated highway. A "designated highway" will accommodate 102" wide vehicles. Captain Edmondson who is Regional Commander for this area, states it would be a much needed improvement.

# Kentucky Commerce Cabinet, Department of Parks, September 1, 2004

This study will not directly impact any of their facilities.

### Kentucky Department of Agriculture, September 2, 2004

They had no specific concerns at this time.

### Kentucky Cabinet for Health and Family Services, September 7, 2004

This Cabinet does lease property in the immediate area, they do not anticipate that the construction will create a hardship on their staff nor clients unless US 421 is shut down for long periods of time. Given the goals of the study, they believe the changes would ultimately have a positive impact on the traffic flow within the area.

### **KYTC Traffic Operations, September 8, 2004**

Due to the critical crash rate on the northernmost section of US 421, crash reports for the intersection of US 421 and US 42 in Bedford were reviewed. They thought that the intersection may be a source of the higher crash numbers on this section. Based on the available crash reports, there does not appear to be a significant pattern of crashes at the southernmost junction of US 421 and US 42. As a result, they do not think that the high crash rate on this section can be attributed to that intersection. They said it appeared to be advantageous to consider realigning US 421 and US 42 to provide one intersection as opposed to the existing two intersections.

## John Logan Brent, Henry County Judge/Executive, September 8, 2004

There are no specific issues to address. He knows from first hand experience that it is not a pleasant road to drive. Straightening the road would not only be a safety benefit, it would also be a huge boost to commerce in the region as travel from Madison and Bedford to locations along I-71 would become much more feasible. He is 100% behind seeing this project move forward and will work with Transportation Department on it in whatever capacity he can be of assistance.

### United States Coast Guard, September 10, 2004

It has been determined that the project is located in an area of a waterway where the Coast Guard has elected to not exercise jurisdiction for Bridge Administration purposes. A Coast Guard bridge permit will not be needed.

### **Trimble County Schools, September 13, 2004**

They believe travel time for school transportation will be reduced and safety will be improved. The only negative impact would be the rerouting of buses during the construction phase of the project.

### KYTC Permits Branch, September 13, 2004

The Branch urges the Cabinet to classify this project as a partially controlled access facility. Assuming the project is a partially controlled access, they encourage all possible access points be set on the plans. When buying R/W for this, assuming the access control is partially controlled, new deeds for all adjoining property owners need to be executed to identify the access control even if no new R/W is acquired. They would like to make every effort possible to have the design speed to be the same as the anticipated posted speed when the project is complete. They would like to see an access control fence installed with the project. Please notify this office if the proposed roadway is to be placed on the National Highway System (NHS). This information is needed to assist this office in regulating the installation of any outdoor advertising device. If the proposed roadway is to be on the NHS, early notification of the final line and grade is needed. enables them to monitor outdoor advertising devices prior to road construction being completed.

### Kentucky State Police, September 13, 2004

Members of the Kentucky State Police assigned to the Campbellsburg Post have thoroughly reviewed the referenced planning study. Post 5 personnel are in complete agreement with the draft statement of the project goals, particularly those goals that address correcting the roadway's horizontal and vertical deficiencies and improving the lane and shoulder widths, as well as possible improvements to the Milton-Madison Bridge. Based

on the information provided in the study and their general knowledge of the area and roadway, the Kentucky State Police is unaware of any issues that may negatively impact the proposed project.

# Kentucky Transportation Cabinet, Division of Structures, Geotechnical Branch, September 27, 2004

Glacial drift may be encountered on the ridge tops in and around the town of Bedford. The Glacial Drift should only be encountered in the vicinity of the intersection of US 421 and US 42. The material is considered to be highly erosive and flatter cut and fill slopes may be required.

The branch has no preferred line or corridor and no major geotechnical issues are expected to be encountered. The quality of the limestone from roadway excavation may not be suitable for rock roadbed.

### Kentucky Commerce Cabinet, October 5, 2004

Based upon the information provided, this improvement will positively impact the area in both the tourism and industrial development segments of the economy.

The maps provided do not indicate historical structures or wildlife management areas. These are areas of interest in the development and stability of the tourism industry and cultural activities in the area. They asked that the Kentucky Historical Society, Kentucky Heritage Council and the Kentucky Department of Fish and Wildlife be contacted, if this has not already occurred, to insure properties of interest to these agencies are not impacted in a negative manner.

[The Kentucky Historical Society, Kentucky Heritage Council and the Kentucky Department of Fish and Wildlife were contacted as part of this resource agency coordination. As of 10/13/04, only the Department of Fish and Wildlife has responded.]

# Kentucky Environmental and Public Protection Cabinet, Department for Natural Resources, Division of Forestry, October 14, 2004

In relation to the potential widening of US 421 in the counties of Henry and Trimble, there is not a huge concern with the type of woodland being affected. Most of the woodland is second growth with a variety of species included. It would appear that the biggest concern would be the woodland areas affected along the stream channels that are near the existing roadbed. The Division of Forestry would greatly encourage the Transportation Cabinet to consider planting a variety of tree species to replace the ones being removed. Mr. James R. Wright of the Bluegrass District

could provide any technical assistance the Transportation Cabinet may need in determining the type species to re-plant.

Please contact Leah MacSwords in the Division of Forestry at (502) 564-4496 or Mr. James R. Wright of the Bluegrass District at (502) 573-1085 if you need any additional information pertaining to this project.

# Kentucky Environmental and Public Protection Cabinet, Division of Conservation, October 14, 2004

There are no agricultural districts established in the project area, therefore land enrolled in the Agricultural District Program will not have to be mitigated by the Department of Transportation.

They would like to see the issue of the loss of farmland addressed. Both prime farmland and farmland of statewide importance could be impacted by this project. Every year pressure imposed by utility right-of-ways, urban expansion, and new roads reduce the land available for agricultural use in the Commonwealth. There are two documents that could be utilized to identify these farmland designations: the Soil Survey of Henry and Trimble Counties (NRCS 1992) and Important Farmland Soils of Kentucky (NRCS 1981). This information is available through our office or the offices of Henry and Trimble County Conservation Districts. The soil survey information can also be downloaded at the following web site: <a href="http://soildatamart.nrcs.usda.gov/">http://soildatamart.nrcs.usda.gov/</a>

One other concern they would like to comment on is the control of erosion and sedimentation during and after earth-disturbing activities once this project begins. They recommend best management practices (BMPs) be utilized to prevent non-point source water pollution. This would protect the water quality and aquatic habitat of several perennial and intermittent streams that this project could impact.

The manual, Best Management Practices for Construction Activities, contains information on the kinds of BMPs most appropriate for this project and is available through the Henry and Trimble County Conservation Districts or this office. Also, an electronic version of the Kentucky Erosion Prevention and Sediment Control Field Guide can be located on their web site: <a href="http://www.water.ky.gov/sw/nps/Publications.htm">http://www.water.ky.gov/sw/nps/Publications.htm</a>.

### 4.0 DEVELOPMENT PROCESS

Following the existing conditions review and the first round of public involvement, preliminary alternates were developed both on and off the existing US 421 route. This chapter details the sequence of events that preludes the developing of alternates for this study.

### 4.1 Second Project Team Meeting

On June 8, 2007, at KYTC District 5, a meeting was held to bring the Project Team, including new members, up to date on the status of this study. The team brainstormed ideas and discussed possible alternates to present to the next local officials meeting and public meeting. Several alternates were discussed, but the team concluded by deciding to have all the alternates reviewed by the Local Officials when they have obtained the cost estimates. Lastly, a schedule for completion was drafted and assignments were made in order to move the project forward. The details of this meeting are recorded in the minutes in Appendix H.

### 4.2 Draft Statement of Project Goals

In the 2<sup>nd</sup> Project Team meeting there were discussions that led to having the "Draft Statement of Project Goals" reevaluated. This description is separated from subsection 4.1 because it had its own process that helped develop the final "Statement of Project Goals" as stated in Chapter 5. The Draft Statement was first introduced at the first project team meeting. During the course of this study, the team felt that some edits were needed due to more current projects in the surrounding area. The project team worked via e-mail to clarify and define the Project Goals. See Appendix H for generated e-mail discussion on this topic from the team.

### 5.0 STATEMENT OF PROJECT GOALS

Based on consideration of all of the identified corridor issues, input from local officials, public opinion, resource agencies, and evaluation of existing and forecasted highway conditions, the project team generated the project goals for improving US 421 from I-71 to Bedford as follows:

- 1. Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north of Bedford.
- 2. Improve safety for the traveling public and school busses, by addressing less than optimal horizontal and vertical alignments and by utilizing a typical highway cross-section that more closely meets current guidelines.
- 3. Improve access to Henry and Trimble Counties to support development in the region by providing better access to I-71.

### 6.0 STUDY ALTERNATES

Following the existing conditions information, the public input and the Project Team's review, four alternates were developed to improve US 421. A brief description of each alternate is given. All alternates have the southern termini at the same location, which is at the interchange of I-71 (MP 24.113, Henry Co.). Maps and aerials of the alternates are in Appendix G.

### 6.1 Alternate #1 - Do Nothing

This alternate is self explanatory.

#### 6.2 Alternate #2 – Eastern Quire-Joslin Route

Starting at its southern termini with an upgrade to the existing US 421, this alternate involves a new eastern corridor that diverges from its current alignment at Burton Hill Road (Trimble MP 3.850) then establishes an eastern corridor using Quire-Joslin Lane to connect US 421 at US 42 which is 1.9 miles east of Bedford.

### 6.3 Alternate #3 – Rebuild Existing Route

This alternate has two sub alternates:

- **3a)** Rebuild the existing route by widening and correcting US 421 to current design standards of 12' lanes and 8' shoulders. The major horizontal curve is from Trimble MP 1.100 to Trimble MP 2.400.
- **3b)** Spot improvements along the US 421 corridor based on high crash spots and input from the public and project team. Below is a brief description of the spots:
- Spot #1 ~ widen US 421 to four lanes for safer access near I-71 Interchange (Henry MP 21.113 to 24.486).
- Spot #2 ~ re-grade the roadway with shoulder improvements and clearing vegetation to alleviate inadequate sight distance. (Henry MP 24.600 to Trimble MP 0.100).
- Spot #3 ~ improve by eliminating the major horizontal curve (Trimble 1.000 to 2.400).
- Spot #4 ~ improve shoulders and hillside rock cuts at the entrance of the Antioch Baptist Church. Clear vegetation from right-of-way to improve sight distances.
- Spot #5 ~ two options (Trimble MP 6.700-6.800)
  - 1) Add turning lanes and widen the combined US 421/US 42 route.
  - 2) Develop a new alignment between US 421 and US 42 for approaches to cross at a 90 degree angle. Move both US 421 approaches east near Hughes Drive.
- Spot #6 ~ widen lanes and shoulders through this 40 mph curve to current design standards (Trimble MP 0.200 to 0.600).
- Spot #7 ~ improve shoulders and add specified passing bays along the whole existing route (Henry MP 24.280 to Trimble MP 6.704).

### 6.4 Alternate #4 – Western KY 3175 Route

Starting at its southern termini with an upgrade to the existing US 421, this alternate diverges from its current alignment at Meadow Clark Court (Trimble MP 0.500) then establishes a western corridor using KY 3175 to connect US 421 at US 42 southwest of Bedford.

#### 6.5 Cost Estimates for Alternates

TABLE 5

### **Cost Estimates for Alternates**

Alternate	ernate Planning		Design			ROW	Utilities		Construction		Total	
1	\$	-	\$		\$	-	\$	-	\$	-	\$	-
2	\$	500,000.00	\$	6,246,000.00	\$	9,498,000.00	\$	7,915,000.00	\$	50,121,000.00	\$	74,280,000.00
3a	\$	200,000.00	\$	4,000,000.00	\$	3,937,500.00	\$	2,362,500.00	\$	31,500,000.00	\$	42,000,000.00
4	\$	500,000.00	\$	6,833,533.00	\$	10,308,000.00	\$	13,590,000.00	\$	78,155,667.00	\$	109,387,200.00

Note: #3b is not on this table. For clarity this Alternate has a separate table. See Table 6.

TABLE 6

### **Cost Estimates for Spots (3b)**

Spot #	Design	ROW	Utilities			onstruction	Total	
1	\$ 300,000.00	\$ 350,000.00	\$	300,000.00	\$	4,300,000.00	\$	5,250,000.00
2	\$ 230,000.00	\$ 470,000.00	\$	470,000.00	\$	1,410,000.00	\$	2,580,000.00
3	\$ 650,000.00	\$ 1,550,000.00	\$	1,300,000.00	\$	6,300,000.00	\$	9,800,000.00
4	\$ -	\$ -	\$	-	\$	50,000.00	\$	50,000.00
5 (1)	\$ 450,000.00	\$ 1,200,000.00	\$	720,000.00	\$	4,776,000.00	\$	7,146,000.00
5 (2)	\$ 600,000.00	\$ 1,440,000.00	\$	1,200,000.00	\$	7,572,000.00	\$	10,812,000.00
6	\$ 200,000.00	\$ 400,000.00	\$	250,000.00	\$	1,200,000.00	\$	2,050,000.00
7	\$ 50,000.00	\$ -	\$	-	\$	200,000.00	\$	250,000.00

Grand Totals OPT #1 → \$ 27,126,000.00 with OPT #2 → \$ 30,792,000.00

### 7.0 ADDITIONAL PUBLIC INPUT

### 7.1 Second Local Officials Meeting

The second local officials' meeting was held on August 28, 2007. This meeting's purpose was to update everyone on the current status of the project. Traffic and crash data were updated and explained to the group. Alternates along with their estimated costs were introduced. The estimated costs were based on current design standards of 12-foot lanes and 8-foot shoulders. Participants had concerns of land changes/uses in the route's future. It was noted that the Milton Madison Bridge project was underway with \$41 million allotted for its rehabilitation. The Draft Statement of Projects Goals was also reintroduced. Appendix H has details of the 2<sup>nd</sup> Local Officials Meeting Minutes.

### 7.2 Second Public Meeting

This final public meeting was held at the Trimble County Middle School on September 25, 2007. The meeting was intended to communicate the study process, update the public on the current status, and solicit input on potential

alternates. Handouts were distributed which included, *The Draft Statement of Project Goals*, current traffic and crash data, suggested alternates with cost estimates and spot improvements. The minutes to this 2<sup>nd</sup> public meeting can be found in Appendix H.

Exhibit boards were displayed for the public to review and make comments. KYTC Staff members were available to address any questions or suggestions made by the attendees. The exhibits posted were the exact copies of what was given in the handouts.

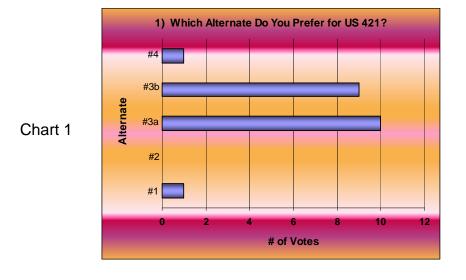
Attendees were also given a survey for feedback on the alternates. The survey could be submitted at this meeting or be mailed with a self addressed stamped envelope that was available. Responses to the three questions are summarized and depicted in Tables 7, 8 & 9 and Charts 1 & 2.

1. Which Alternate Do You Prefer for US 421? (21 Respondents)

#1 #2 #3a #3b #4

1 0 10 9 1

Table 7



Which Top Three Spot Improvements Do You Feel Are Most Needed? (21 Respondents)

	Spot Improvements											
#1	#2	#3	#4	#5	#6	#7	Table 8					
6	7	18	10	8	5	1						

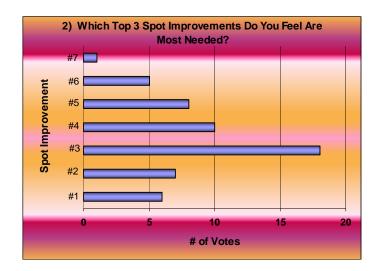


Chart 2

3. The Spot Improvement @ Crash Spot #5 is at the intersection of US 421 and US 42. There are 2 Options. Please choose which Option you think is Better or Give Suggestions or Comments. (18 Respondents)

Opti	ons	
#1	#2	Table 9
15	3	

A more descriptive summary and list of comments are in Appendix E as *Survey Results*. A total of 21 Surveys were returned.

The information presented in this meeting is included in a second notebook on file with the KYTC Division of Highway Design and Division of Planning: September 25, 2007 Public Meeting Notebook #2.

### 8.0 CONCLUSIONS & RECOMMENDATIONS

This chapter details the conclusion process of this study along with recommended improvements to US 421 from I-71 to Bedford. The recommendations are the result of the total Alternatives Study process for the US 421 corridor.

### 8.1 Final Project Team Meeting

The project team meeting held its last meeting at the KYTC District 5 office on October 24, 2007. This meeting was to provide the team members with the results of the final survey from the 2<sup>nd</sup> Public Meeting. A brief review of the project's alternates and survey summary was made. The meeting concluded with recommendations being made for this report. The meeting minutes are in Appendix H.

### 8.2 Study Recommendation

Based upon consideration of the project goals, transportation issues, potential environmental and community impacts, and public/agency input, the project team agreed on the following:

- 1) Alternate #3a was chosen to be primary recommendation based on local officials, public input and technical analysis. This alternate includes the improvements to the large horizontal curve along with widening and upgrading the existing route to current design criteria. The estimated cost for this rebuild is \$62,000,000.
- 2) The team also decided that Alternate #3b should be considered as an interim recommended choice if funding does not become immediately available for the primary recommendation. This would provide the opportunity for lower-cost improvements to be programmed if lesser funding became available.
  - Prioritization for Spot Improvements are as follows: (For a more details see Section 6.3, Table 9 and Appendix H)
    - 1 ~ #3 improvements to eliminate the major horizontal curve
    - $2 \sim #4$  minor improvements to shoulders, hillside cuts and clear vegetation for better sight distances
    - $3 \sim #5^*$  develop a new alignment for a better US 421 and US 42 intersection (Option #2)
    - $4 \sim #2$  re-grade the roadway, shoulder improvements and clearing vegetation
    - $5 \sim #1$  widen US 421 at the I-71 Interchange
    - $6 \sim \#6$  widen lanes & shoulders through the 40 mph curve to current standards
    - $7 \sim #7$  improve shoulders and add specified passing bays along the whole existing route

\*In regard to Spot Improvements, the team chose to recommend the bypass option (Option #2). The team concluded the bypass option better meets the needs and project goals of improving regional connectivity between I-71 and Bedford and to points north of Bedford. It also addresses the concerns expressed by the local officials of improving the entire corridor. Finally, this option would better serve the public by alleviating congestion and improving safety.

### 9.0 ACKNOWLEDGEMENTS & CONTACTS

Several individuals contributed to the completion of this Alternatives Study. It is with much gratitude and appreciation for the time, effort, and knowledge from the following participants:

- Thanks to Steve Ross, P.E. for his experience, guidance, and patience throughout the whole process.
- In great appreciation to the District 5 personnel namely Mary Ann Bond, P.E. and Tom Hall, P.E., who both have helped me; have a better understanding of the whole picture.
- And, finally, Randall Embry, Transportation Planner with the KIPDA, who was instrumental in coordinating local events for this project to proceed and given support where needed.

Additional information regarding the US 421 Alternatives Study can be obtained from the following KYTC Division of Planning staff members:

### Address written comments to:

Mr. Keith R Damron, P.E. Director Kentucky Transportation Cabinet Division of Planning 200 Mero Street, 5<sup>th</sup> Floor West Frankfort, KY 40622

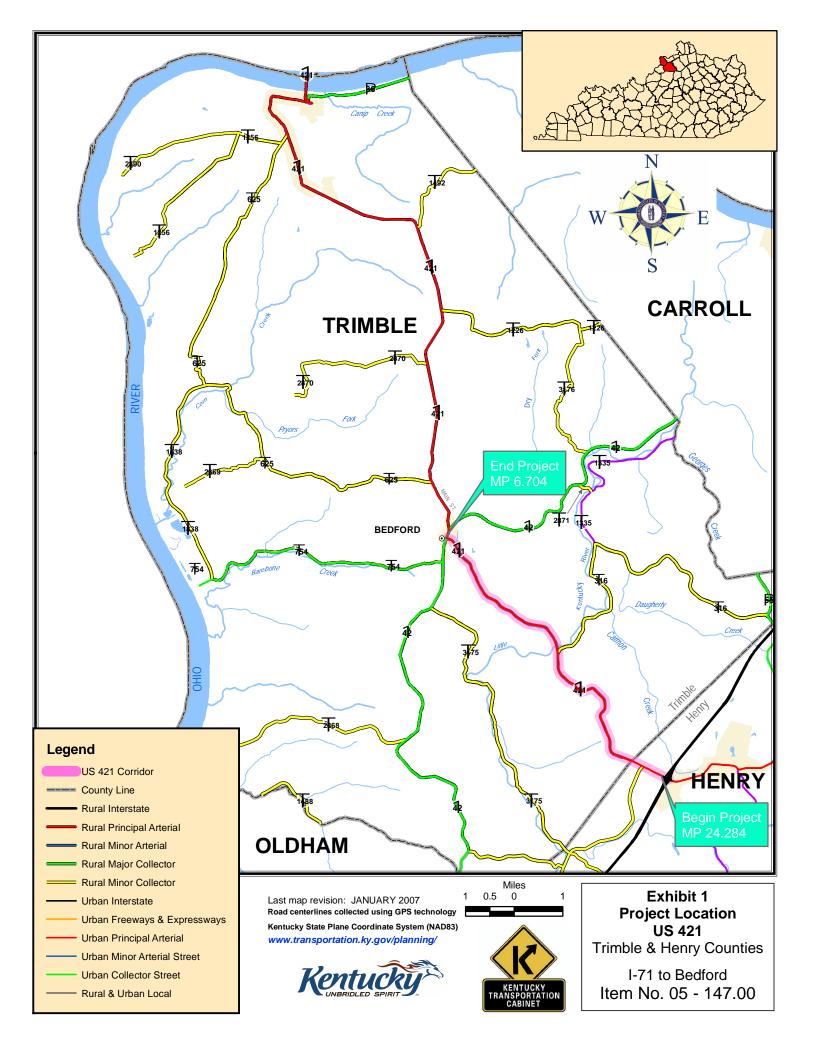
### Or you may contact by phone or e-mail:

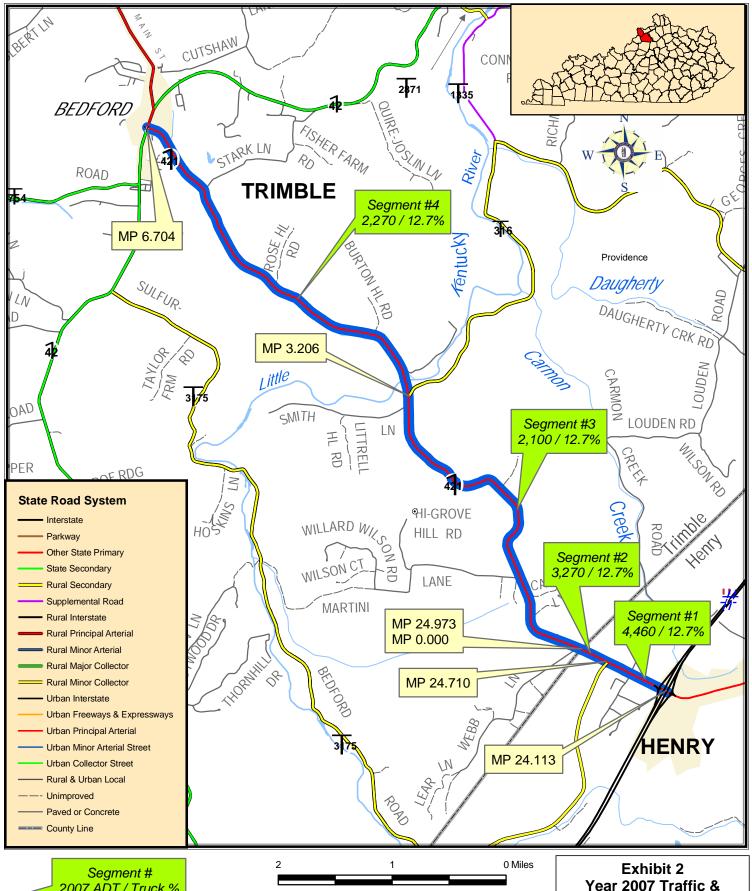
Ms. Boday Borres, P.E.
Project Manager
Kentucky Transportation Cabinet
Division of Planning
(502) 564-7183 ext. 3275
boday.borres@ky.gov

Mr. David Martin, P.E. SPAC Team Leader Kentucky Transportation Cabinet Division of Planning (502) 564-7183 ext. 3280 charles.martin@ky.gov

# **Appendix A**

**Exhibits** 









Last map revision: JANUARY 2007 Road centerlines collected using GPS technology

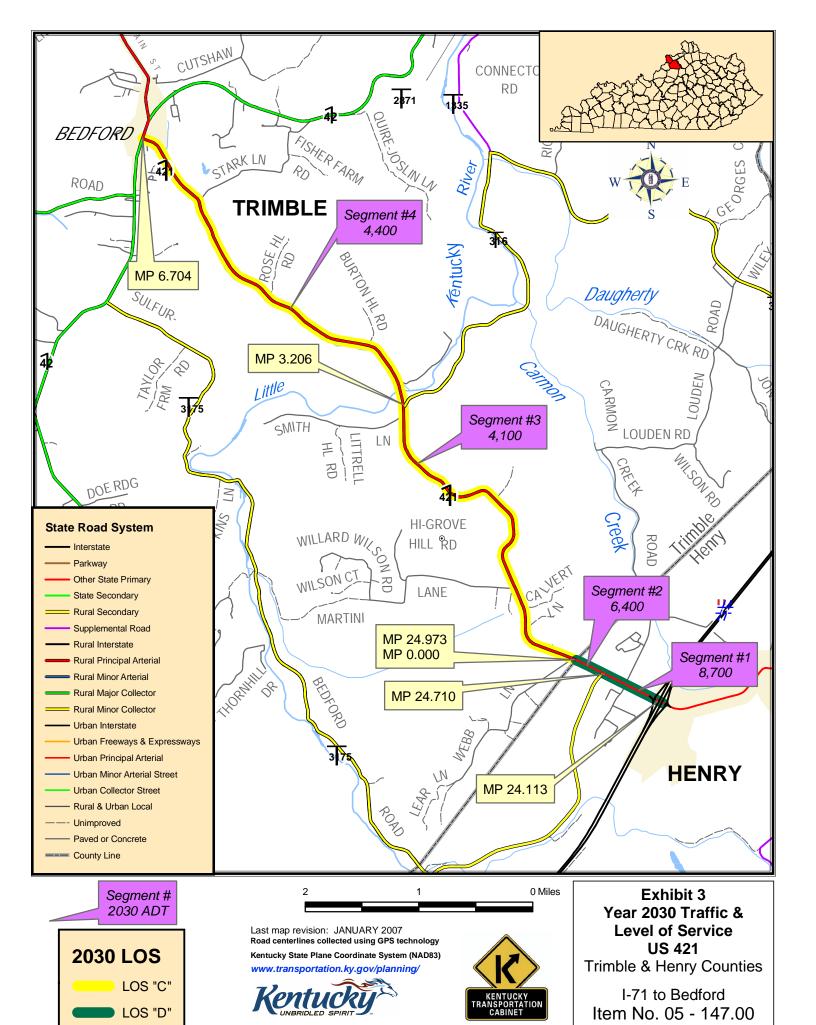
Kentucky State Plane Coordinate System (NAD83)

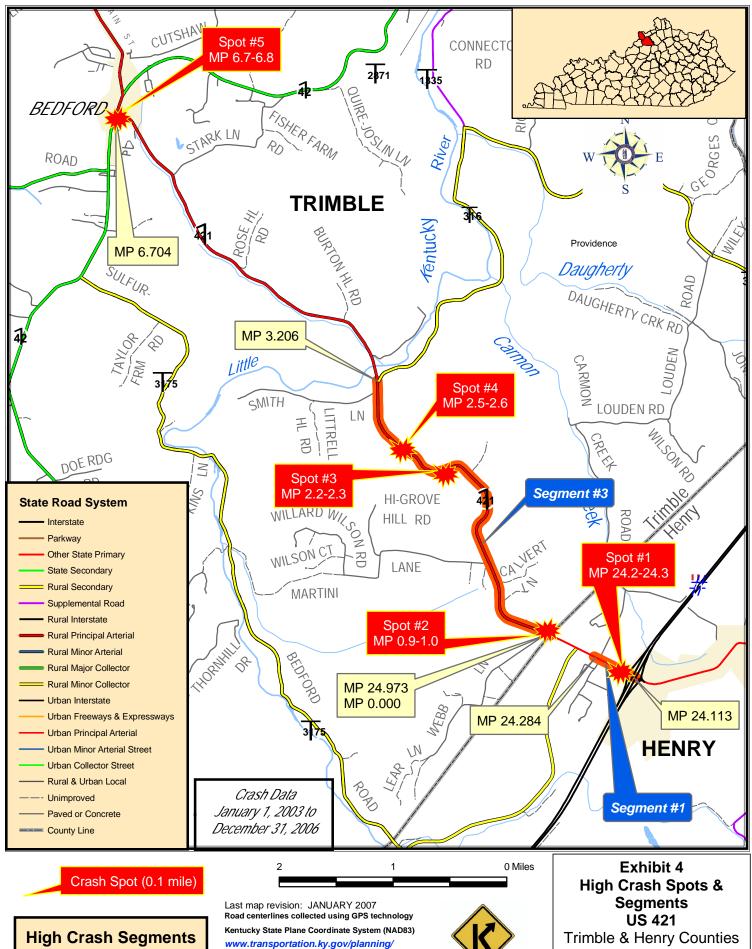


Year 2007 Traffic & **Level of Service US 421** 

Trimble & Henry Counties

I-71 to Bedford Item No. 05 - 147.00



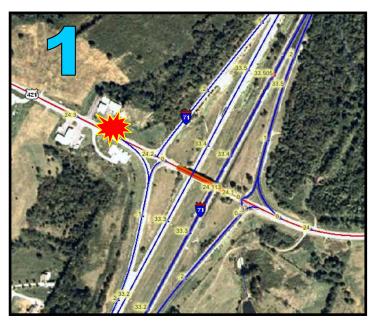


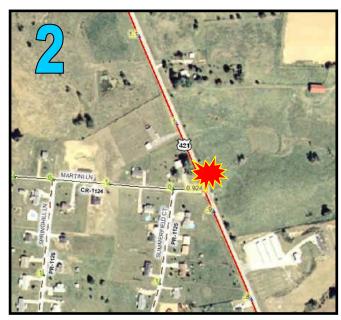
High Crashes

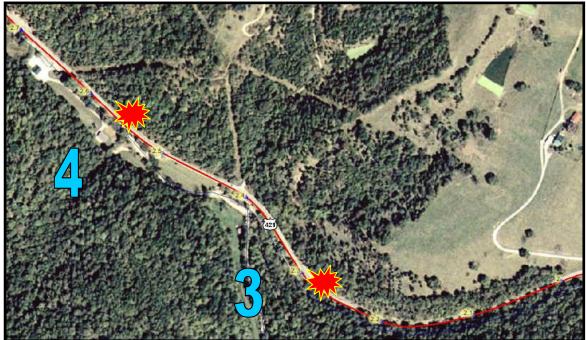


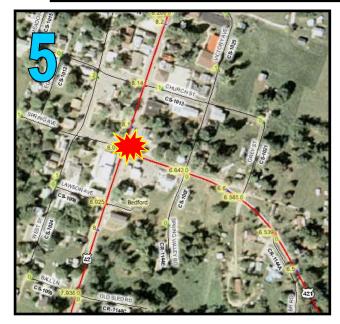


I-71 to Bedford Item No. 05 - 147.00











- I-71 Interstate
- . Martini Lane Intersection
- 3. US 421 Horizontal Curve
- 4. US 421 Vertical Curve
- 5. US 421/ US 42 Intersection in Bedford





Exhibit 5
Aerial View –
High Crash Spots
US 421
Trimble & Henry
Counties

I-71 to Bedford Item No. 05 - 147.00

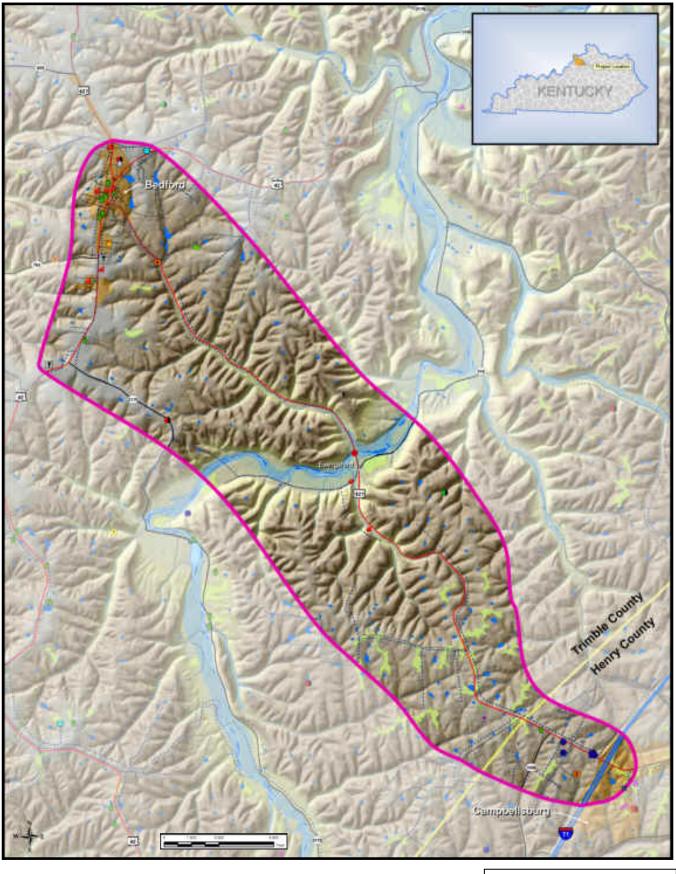








Exhibit 6
Environmental
Footprint
US 421
Trimble & Henry

# **Appendix B**

Environmental Footprint Report

# Environmental Footprint FINAL

US 421
Henry and Trimble Counties
From I-71 to Bedford
Item No. 5-147.00

**June 2004** 







Prepared for:
Kentucky Transportation
Cabinet



Prepared by: Wilbur Smith Associates



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APPENDIX A. Environmental Resource Information

APPENDIX B. Project Area Photographs

#### **ENVIRONMENTAL FOOTPRINT**

US 421 - Henry and Trimble Counties - Item #5-147.00

#### A. Study Area

An environmental footprint was developed for the US 421 study area, which can be seen in **Figure 1** through **Figure 3**. As shown, the study area extends from Campbellsburg at I-71 (Exit 34) in Henry County northwest to the city of Bedford, primarily following US 421 in Trimble County. The shape of the study area originated from a buffer zone on either side of US 421 from Campbellsburg and gets wider the closer it gets to Bedford to accommodate the possibility of relocating US 421. The buffer zone comprises a portion of US 42 from the northern end of the city of Bedford and south to KY 3175 to address the possibility of using KY 3175 as a corridor. A preliminary environmental analysis was completed to identify potential issues and concerns within the defined US 421 study area.

#### **Issues Considered**

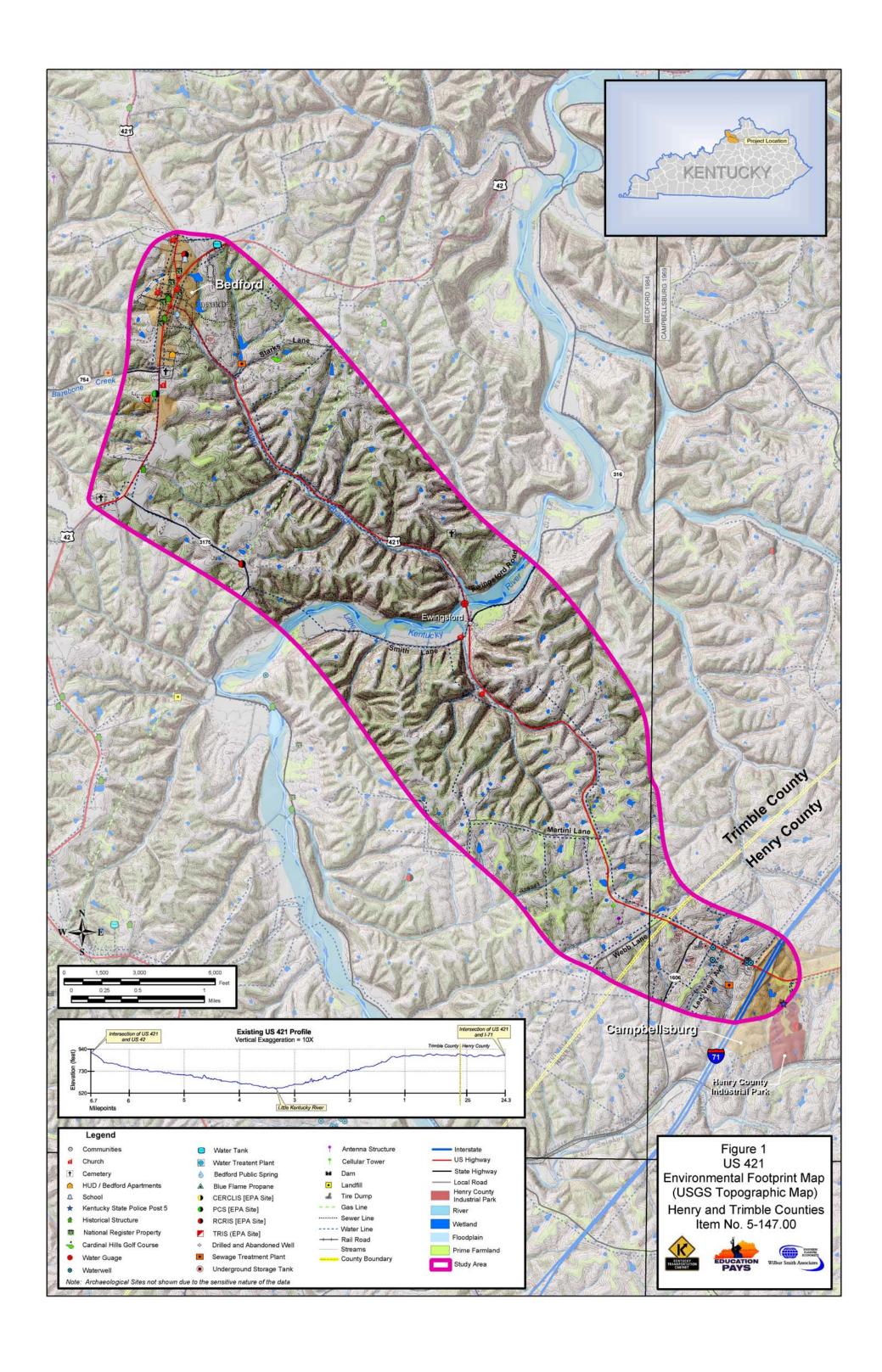
- Natural and Manmade Features
- ✓ Biotic Communities
- Social, Economic and Environmental Justice Concerns
- ✓ Historic and Archaeological Sites
- ✓ Prime and Unique Farmland
- ✓ UST/HazMat, Oil and Gas Sites
- Additional Concerns such as Noise and Air Quality

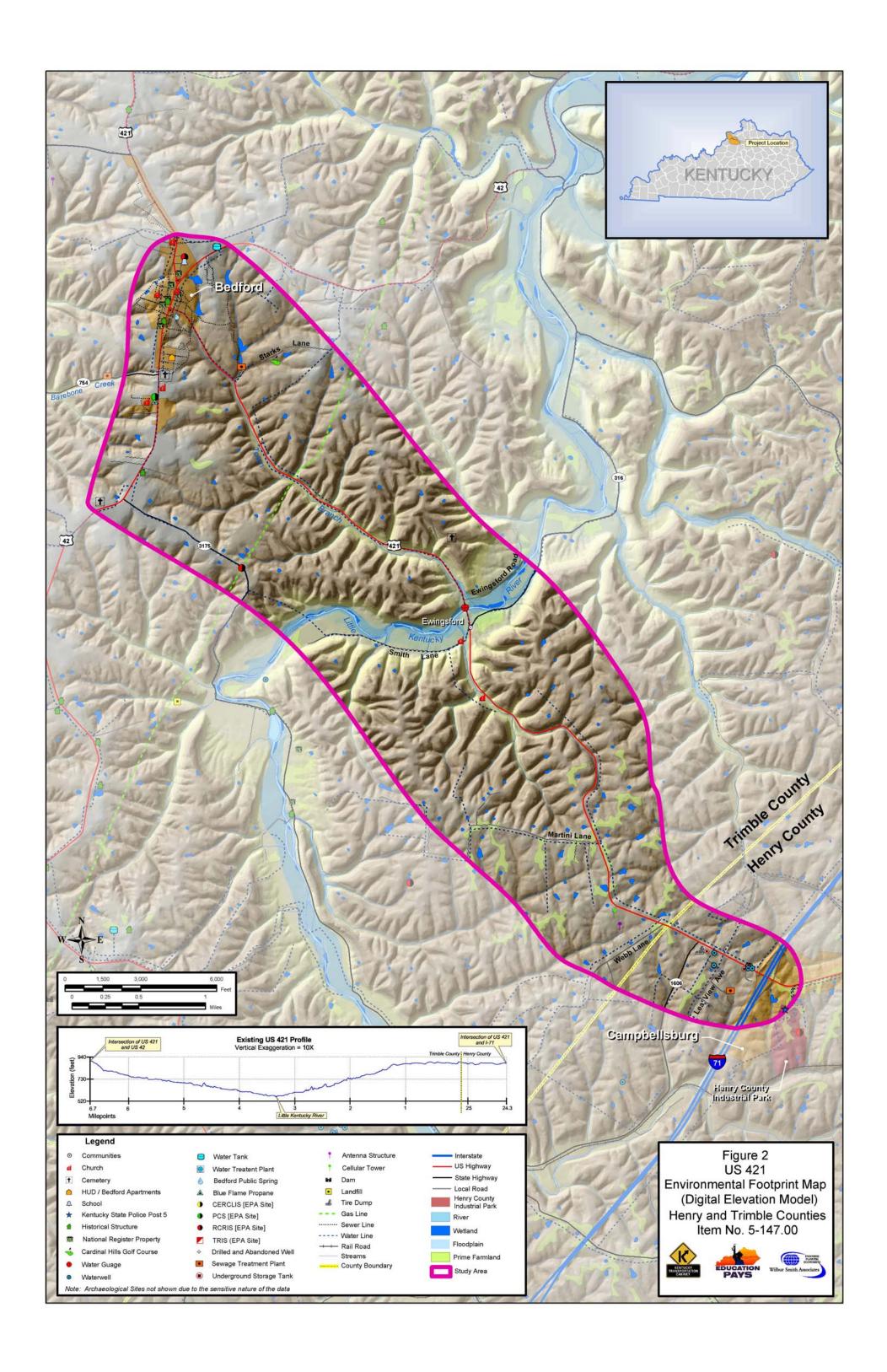
The study area is located geographically within the Outer Bluegrass region of northern Kentucky and centrally located between Louisville and Cincinnati. The region can be characterized by long, winding, broad to narrow rolling ridges with short and sometimes steep slopes. Elevation within the study area ranges from 549 feet above sea level at the lowest point to 941 feet at the highest, a difference of 392 feet. The lowest point is located where the Little Kentucky River exits the study area. The highest point is located at the northern end of the study area, 130 feet south of Cutshaw Lane, 0.2 miles east of the intersection of Cutshaw Lane and US 421. Level land (0 to 5 degrees of slope), which constitutes approximately 2,039 acres (28.5%) of the 7,166 total acres in the study area, is primarily in the low lying bottomlands or floodplains and on the ridge tops.

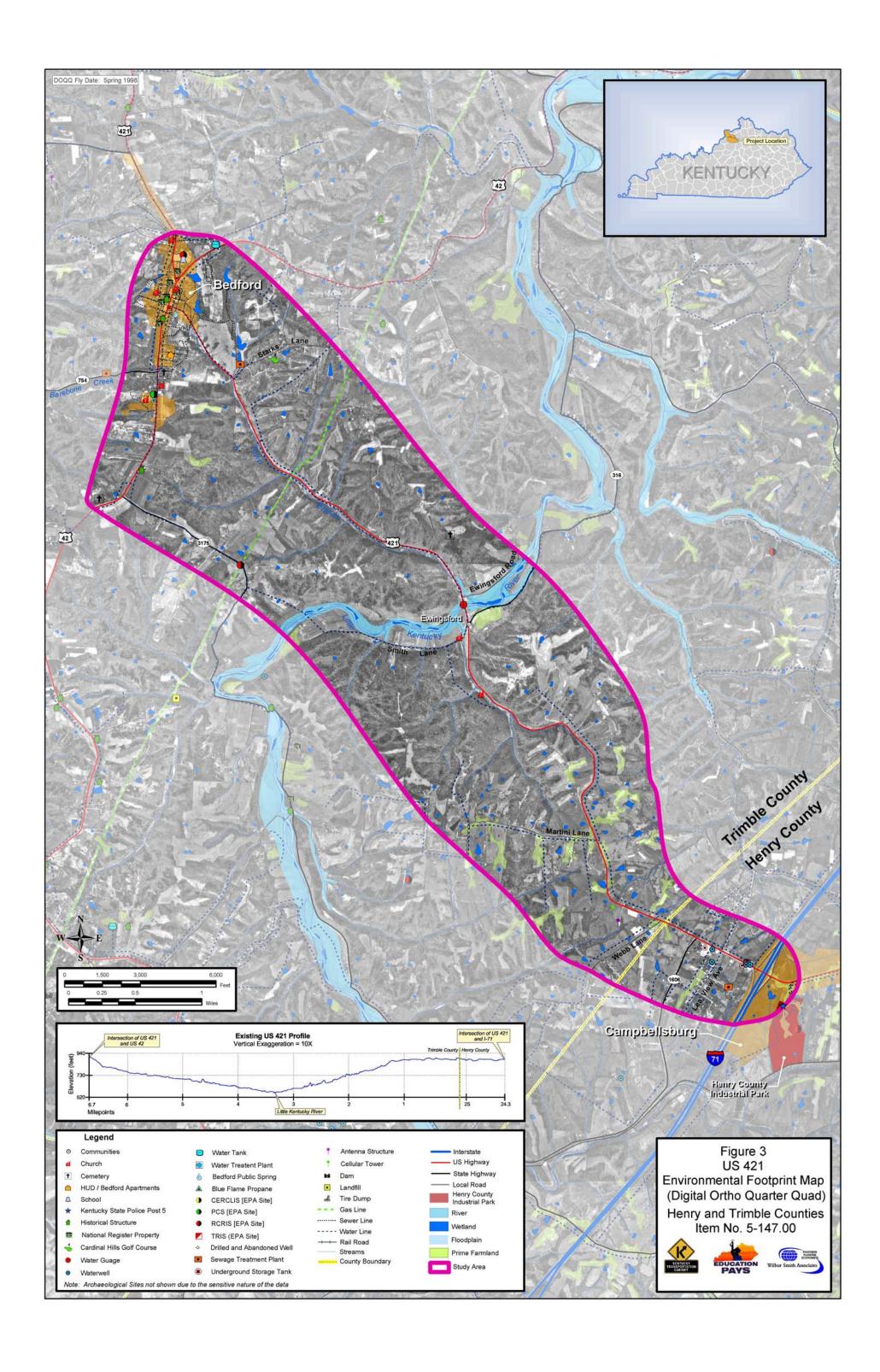
A Geographic Information System (GIS) was assembled for the defined study area using relevant environmental data collected from numerous sources that include: federal, state, and local databases; agency contacts; field investigations; and existing in-house data. Resource information, including contacts and web site locations for each source (as available), is included in **Appendix A**. The compiled data was geo-referenced as needed using the GIS developed for the project.

Windshield surveys were conducted which included consideration of known and unknown environmental issues within the project area. Photo documentation of identified sites was undertaken where possible. Project area photographs are included throughout this report and are located within **Appendix B**. In some instances, the development of graphics was assisted by the use of a global positioning system (GPS) unit for field data collection and application in the GIS database.

This study identified environmental issues that should be considered when developing recommendations for this study as well as for future phases of project development for the proposed transportation improvements. **Figures 1, 2, and 3** show environmental features identified within the study area on a United States Geological Survey (USGS) Topographic Map, on a Digital Elevation Model (DEM), and on a Digital Ortho Quarter Quadrangle (aerial photography), respectively. The environmental issues considered as part of the overview analysis include: Natural and Manmade Features; Biotic Communities; Social, Economic, and Environmental Justice Concerns; Historic and Archaeological Sites; Prime and Unique Farmlands; Monitored Sites and Wells; Air Quality and Noise; and Additional Concerns.







It should be noted that the features displayed on the map may be deceiving in that one symbol representing a feature can often represent more than one of that particular feature. For instance, a symbol indicating one individual well, may actually represent multiple water wells. The following text addresses such occurrences where possible.

#### **B. Natural and Manmade Water Features**

Natural and manmade features considered as part of this analysis are divided into five (5) categories: water resources, surface water, lakes/ponds, wetlands, and floodplains.

#### 1. Water Resources

A number of manmade water resources are located within the project study area. A summary is provided below:

- There are 23.9 miles of water lines in the study area. These water lines primarily run parallel with roads within the study area. Of the 23.9 miles:
  - 14.1 miles is owned by Trimble County Water District and piping material for all of these lines is AC (asbestos containing);
  - 9.7 miles is owned by Henry County Water District and piping material for all of these lines is PVC (polyvinyl chloride); and
  - 0.1 miles is owned by the Campellsburg Water Works and piping material for this line is CI (cast iron).
- There are 7.3 miles of municipal sewer lines which are owned by Bedford Wastewater. The sewer treatment plant that processes sewage from these lines is the Bedford Lagoon. All of these sewer lines are PVC pipes.
- There is one (1) water tank in the study area which is located next to US 42 approximately 0.4 miles northeast of the US 42 and US 421 intersection in northern Bedford. This tank, known as the "town tank", is a 100,000 gallon capacity, elevated steel structure.
- There are fourteen (14) known water wells located in the study area. The primary usage for all of these wells is listed as "monitoring." All of these known water wells are located near I-71 (exit 34) in Campbellsburg. Additional water wells used for monitoring ground water conditions or for agricultural irrigation are likely to be present.
- One (1) USGS water gauge is located at the Little Kentucky River where US 421 crosses the river.

#### 2. Surface Water

There are two significant watersheds located within the US 421 study area and both are direct tributaries of the Ohio River:

- The Little Kentucky River watershed; and
- The Barebone Creek watershed.

There are a total of 23.7 miles of streams within the study area, including:

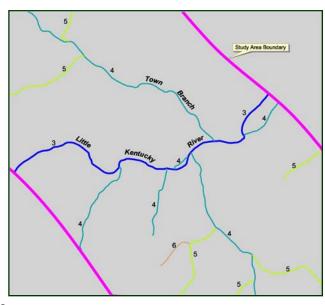
- 19.7 miles (83.1%) originating in the study area; and
- 4.0 miles (16.9%) originating outside the study area, such as the Little Kentucky River.



Little Kentucky River at US 421

The Little Kentucky River is the largest stream that passes through the study area and flows for approximately 2.4 miles. It can be characterized as having a "braided" channel in which several small stream channels separate from the main channel and eventually converge back into the main channel. This is a river system of primarily shallow channels, numerous islands, and eroding banks.

A stream is given a stream level number to categorize its status in a stream network. The stream level is a numeric code that identifies the paths of water flow through a drainage network and all tributaries branching from it. The lowest level, Level 1, is given to the main stem of a stream network at its terminus at the ocean all the way upstream to its origin. Any stream that terminates on this



Stream Levels

Level 1 main stem is Level 2 over its entire course, any stream that terminates on a Level 2 is a Level 3 over its entire course, and so on. An example of a network could be as follows: the Kentucky River is a Level 3 stream, it empties into the Ohio River which is a Level 2 stream, it empties into the Mississippi River which is a Level 1 stream and it empties into the Gulf of Mexico.

Stream level designations in the study area include:

- There are no streams that are Level 2 or higher in the study area.
- There are two (2) Level 3 streams and both empty into the Ohio River:
  - The Little Kentucky River, which flows for 2.4 miles through the study area; and
  - Barebone Creek, which flows for 0.1 miles.
- There are 8.6 miles of Level 4 streams, including:
  - Town Branch (3.7 miles);
  - Demeree Branch (0.6 miles); and
  - 4.3 miles of unnamed streams.
- There are 9.8 miles of Level 5 streams.
- There are 2.1 miles of Level 6 streams.
- There are 0.7 miles of Level 7 streams.

There is a public spring located off of Victory Avenue within the city of Bedford. This spring was Bedford's only source of water from 1806 to 1955. It is thought to have been used by Native Americans as well. During the 1930's, the Works Progress Administration (WPA) built a stone spring house to basically serve as a dam to make the water more assessable. Many wells were dug in the area to tap into the spring but it never affected its endless flow.

Correspondence with the Water Quality Branch of the Natural Resources and Environmental Protection Cabinet (NREPC) indicates there are no Outstanding Resource Waters or Wild Rivers within the proposed corridor.

As recommended by the Department of Environmental Analysis, all channel changes should be avoided as part of this project, if possible.

#### 3. Lakes/Ponds

There are no lakes in the study area. There are, however, numerous manmade ponds throughout. These ponds, many of which are also considered wetlands, are discussed further in the following section.

#### 4. Wetlands

According to the National Wetlands Inventory (NWI) mapping for Henry and Trimble Counties, the study area includes 156 individual wetlands, totaling 71.2 acres.

- Of the total wetland acreage, 66.0 acres (92.7%) are considered to be Palustrine wetlands, which include all wetlands dominated by trees, shrubs, emergent plants, emergent mosses or lichens, shallow depth, permanent or intermittent water bodies (ponds).
- The remaining 5.2 wetland acres (7.3%) are considered Riverine wetlands, which occur in floodplains and along streams, except those dominated by vegetation. Typical Riverine communities include sand bars, mud flats, and gravel/cobble bars.



Wetland located along Starks Lane

A field inspection of each of these areas will be necessary to determine their jurisdictional status

(i.e., they may or may not require a nationwide or individual permit from the US Army Corps of Engineers).

Also, further inspection of these wetlands would have to take place in order to determine whether any are considered critical. A wetland is considered to be critical when a floral or faunal species exclusively relies on it for existence.

#### 5. Floodplains

The Q-3 digital Federal Emergency Management Agency (FEMA) data for Kentucky floodplains are digital representations of FEMA's Flood Insurance Rate Map (FIRM). Floodplain management, risk assessment, disaster response activities, land-use planning, and environmental analyses are just some of its uses. The Q3 data shows floodplains in the Little Kentucky River valley totaling 124 acres. This area is the 100 year floodplain (Zone A).

The geographic characteristics of the rest of the study area are inconsistent with floodplains. These areas are either ridge tops where the elevation is higher and where many streams originate, or small valleys with intermittent streams and narrow valley bottoms. In these two types of regions, there is no evidence of floodplains.



Little Kentucky River Floodplain along Ewingsford Road

#### C. Biotic Communities

The Standard Occurrence Report is a document submitted by the Kentucky State Nature Preserves Commission (KSNPC) after a "request for data" inquiry has been established. The KSNPC monitors a number of endangered, threatened, or special concern plants or animals within the US 421 study area. The KSNPC data is updated on a regular basis and may be verified as needed in future phases of this project. To further ensure the accuracy of this analysis, a cross-check was completed with data collected from the Kentucky Department of Fish and Wildlife (KDFW) and the United States Fish and Wildlife Service (USFWS). Biotic communities considered as part of this analysis are divided into floral and faunal categories as discussed in the following sections. Due to the sensitive nature of the data, potential habitat locations are not shown in **Figures 1**, **2** or **3**.

#### 1. Floral Communities

According to the KSNPC, USFWS and KDFW database information, there are no known threatened or endangered floral communities within the study area.

While no occurrences of monitored floral species are recorded, the project area is located within a large forest block. Forest blocks are now monitored by the KSNPC, which are defined as 900 or more acres of contiguous forest in areas west of the Cumberland Plateau, and 4500 or more contiguous acres in areas east of the Cumberland Plateau. Forest fragmentation is one of the primary impacts to plants and animals that require large tracts of forest for all parts of their life cycles. Fragmenting or impacting large forest blocks should be avoided.

#### 2. Faunal Communities

Based upon the KSNPC's most current information, the following species are monitored in the study area:

- One occurrence of an endangered species, the American Burying Beetle (Nicrophorus americanus), is recorded within the US 421 study area. This species can be generally found near carrion (animal remains) and vegetation structures or certain soil types within a given area.
- One threatened species, the Evening Bat (Nycticeius humeralis) is known to occur near the US 421 study area. Summer habitats include bottomland forests, swamps, and riparian corridors. A thorough survey for this species should include a search for potential roost and winter sites, and a mistnetting census at numerous points within the proposed corridor, particularly in preferred summer habitat.



The Endangered American Burying
Beetle
www.chaparraltree.com/mn/
tomentose-mitesclose-th.jpg

Data collected from the KDFW is based on the Bedford and Campbellsburg USGS Quad maps and is not specifically listed for the study area. The KDFW information revealed the following:

- The Great Blue Heron (Ardea Herodius), listed as a special concern species, is known to occur in the Bedford Quad area.
- No species are listed for the Campbellsburg Quad area.

Data from the USFWS for the same two Quad areas indicates the presence of four (4) endangered species with "partial status." Partial status refers to only a portion of the species' range, which may include a population defined by geopolitical boundaries or defined administratively, such as experimental populations. These include the following:

- The Broad-Winged Hawk (Buteo Platypterus) in the Bedford Quad area;
- The Eastern Fox Squirrel (Sciurus Niger) in the Bedford Quad area;
- The Grasshopper Sparrow (Ammodramus Savannarum) in the Campbellsburg Quad area;
   and
- The Northern Bobwhite (Colinus Virginianus) in the Campbellsburg Quad area.

#### D. Social, Economic and Environmental Justice Concerns

Socioeconomic concerns considered as part of this analysis include social and economic locations, and environmental justice. These items are discussed in the following sections.

#### 1. Social and Economic Locations

A number of community sensitive locations were identified in the study area. These locations include eight (8) churches, one (1) school, three (3) cemeteries, and one (1) public housing complex.

The eight (8) churches located in the study area include:

- Antioch Baptist, established in 1870, is located on US 421, 0.5 miles south of the intersection of US 421 and KY 316:
- Apostolic Pentecostal Church of the Living God is located along Smith Lane approximately 0.2 miles from US 421 in the community of Ewingsford;
- Bedford Christian Church is located in Bedford at the intersection of Main Street (US 42) and Miller Avenue;
- New Life Community Assemblies of God is located in Bedford at the end of Church Street;
- Fellowship Baptist Church is located in Bedford on Smith Lane between Church Street and Luckett Avenue;
- Bedford United Methodist Church is located in Bedford at the northern tip of the study area at the intersection of US 421 and Fairview Road;
- Bedford Pentecostal Church is located in Bedford on US 42, approximately 0.1 miles south of the intersection of US 42 and KY 754; and
- Bedford Springs Church is located on Shepherd Lane in Bedford, approximately 0.1 miles west of the intersection of Shepherd Lane and US 421.



Bedford Christian Church



Independent Order of Odd Fellows (IOOF) Cemetery located on both sides US 42 (Bedford)

The one (1) school located in the study area is:

• Trimble County Middle School (grades 6 through 8), located at the northern tip of the study area at the intersection of US 421 and Wentworth Avenue.

The three (3) cemeteries located in the study area are all found in Trimble County:

- One cemetery, known as The Independent Order of Odd Fellows (IOOF) Cemetery, is located on both sides of US 42 in Bedford at the intersection of US 42 and KY 754;
- Another cemetery is located at the westernmost corner of the study area north of US 42, 0.2 miles southwest of the intersection of US 42 and KY 3175; and
- The remaining cemetery is located off of Burton Hill Road, north of the community of Ewingsford.

There is one housing complex located within the study area: Bedford Apartments HUD Housing is located at the intersection of Pendleton Avenue and McDowell Lane in Bedford.

Other than these potential community sensitive locations, the study area is comprised mostly of rural areas with agricultural activity. To a lesser extent, it is also comprised of small urban areas with little industry in Bedford and Campbellsburg. With the exception of the area within the city limits of Bedford, there are few uniform residential areas or designated commercial areas. Characteristics of the area include:

- There are several commercial businesses including facilities such as restaurants, gas station/convenience marts, government offices, and banks in the city of Bedford and to a lesser extent in Campbellsburg.
- The Henry County Industrial Park is partially located within the study area on Citation Lane in Campbellsburg near I-71 (Exit 34). The site is served with water, sewer, gas, and electricity. It is zoned (I-I) light industrial with land tracts that are still available for purchase. The industrial park currently includes: the Kentucky State Police Post # 5, which serves Carroll, Gallatin, Henry, Oldham, Owen, and Trimble Counties; Calhoon Trucking; and an automotive parts manufacturing plant, Arvin Sango Inc.
- Of the approximate 7166 total acres in the study area, 301.1 acres (4.2%) are within city boundaries. The city of Campbellsburg comprises 119.5 acres (1.7%) of the study area
  - while Bedford totals 181.6 acres (2.5%). Most economic activity takes place in these two cities. The remaining 95.8% of the study area is primarily rural agricultural with houses located sporadically throughout.
- Evidence of family clusters was not detected as part of this environmental overview or preliminary field review.
- Historically, tobacco has been the main farm product of this region and still remains an important cash crop. According to the *Trimble* County Comprehensive Plan<sup>1</sup>, prepared by the Trimble County Agriculture Development Council, there has been a decline in tobacco quotas in recent years making it less profitable



Tobacco field located along KY 3175

than in the past. As a result there has been an increased conversion of farmland to housing developments. In spite of a 65 percent reduction in quota from 1998 to 2001, tobacco continues to account for almost 60 percent of all agricultural income. However, agriculture

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<sup>1</sup> http://www.uky.edu/Agriculture/AgPrograms/tobacco/councils/louisville/trimble1.html

accounted for only 4.3 percent of total personal income in 1997. Agriculture accounts for 35.9 percent of all jobs in Trimble County.

#### 2. Environmental Justice

An important consideration for highway reconstruction or new development is environmental justice. For this study, environmental justice was addressed by calculating the percentage of minorities and low-income persons residing in the project area. Information was gathered from U.S. Census Bureau Block Group level population counts. The Kentuckiana Regional Planning and Development Agency (KIPDA) is compiling an Environmental Justice document to be included in the final project study report. This document should be referenced for a more indepth analysis of the environmental justice issues in the study area.

The study is located within the following geographical areas:

- In Henry County, Block Group 001 (in Census Tract 901) and Block Group 003 (in Census Tract 902); and
- In Trimble County, Block Groups 002 and 003 (in Census Tract 1002).

Environmental justice concerns related to minority populations will not likely exist based on Census 2000 data for the project area:

- The study area block groups have minority populations ranging from 2.2 to 5.4 percent.
- This percentage is lower than that for Kentucky and the U.S. (9.9 and 24.9 percent, respectively).

Census 2000 data related to average income revealed low-income populations in the project area:

- The study area block groups have low-income populations ranging from 8.3 to 20.6 percent.
- The average low-income percentages for Kentucky and the U.S. are 15.8 and 12.4 percent, respectively, which indicates that low-income populations should be considered in the study area in future phases of this project.
- Block Group 001 in Census Tract 901 in Henry County and Block Group 002 in Census Tract 1002 in Trimble County are of particular concern with low-income populations of 13.3 and 20.6 percent, respectively. The first of these is located at the eastern most tip of the study area. The second includes most of the northeastern half of the study area.

#### E. Historic and Archaeological Sites

Henry County got its name for the Revolutionary statesman and patriot Patrick Henry, most known for his "Give me liberty or give me death" speech. According to *Kentucky Atlas & Gazateer*<sup>2</sup> the city of Campbellsburg, as a settlement, was first named Campbellsville, possibly after a local family. However, by legislative act on January 29, 1840 it was established as the town of Chiltonsville, named for Charles Chilton. Three weeks later another act changed the town name to Campbellsburg.

According to the historical marker in front of the courthouse, Trimble County was named in 1836 for Robert Trimble, U.S. Supreme Court Justice from 1826-1828, appointed by President John Quincy Adams. The city of Bedford, according to *Kentucky Place Names*<sup>3</sup>, is said to have been settled around 1808 by the family of Richard Bell who built his home on the hill above what was to become

<sup>&</sup>lt;sup>2</sup> http://www.uky.edu/KentuckyAtlas/ky-campbellsburg.html

<sup>&</sup>lt;sup>3</sup> Kentucky Place Names, Robert N. Rennick, 1984, The University Press of Kentucky

the famed antebellum resort of Bedford Springs. The town was chartered in 1816 and is believed to be named for Bell's Virginia hometown.

A number of historic and archaeological sites are located within the study area. A full historic baseline study is recommended early in project development to review cultural landscapes and other historic sites in the study area.

#### 1. Historic Sites

There are 31 historic structures recorded within the study area. Six (6) of these are listed on the National Register of Historic Places, one (1) structure's National Register status is pending, one (1) structure meets National Register criteria, and the remaining 23 are listed as historic structures with the Kentucky Heritage Council (KHC). All of these structures are located within or in close proximity to the city of Bedford. Locations of these structures were taken from the historic structures database and may not reflect their exact location.

Note: TMB and TM stand for Trimble while TOC stands for "turn of the century."

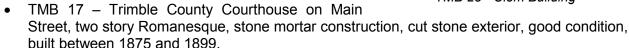
Properties listed on the National Register include:

- TMB 7 Unnamed House on Main Street, single dwelling, two story Greek Revival, frame construction, weatherboard exterior, in poor condition and sits vacant, built between 1825 and 1849.
- TMB 12 Hancock House on Main Street, single dwelling, two story Greek Revival, frame construction, weatherboard exterior, in excellent condition, built between 1850 and 1874.
- TMB 15 Peak House on Smith Drive at Spring Street, single dwelling, two story Federal, brick flemish-bond exterior, good condition, built between 1825 and 1849.
- TMB 19 Trimble County Jail on Main Street, two story Vernacular-Antebellum, stone/mortar structure, cut stone exterior, in fair condition, built between 1825 and 1849.
- TMB 29 Coleman House on Main Street, single dwelling, 1½ story Federal, brick flemish-bond exterior, in excellent condition, built between 1800 and 1824.
- Old Kentucky Tavern on US 42, single dwelling, Federal, built between 1825 and 1849.

The structure with National Register Status pending is:

 TMB 25 – Unnamed House on Main Street, single dwelling, two story Vernacular-Settlement, log structure with weatherboard exterior, good condition and sits vacant, built between 1800 and 1824.

Another structure which meets National Register Criteria is:





Trimble County Jail Listed on the National Register of Historic Places



TMB 23 - Clem Building

Other listed Historic Structures include the following. With the exception of TM 14, all are represented in **Figure 1** by one historic structure symbol in the center of Bedford:

- TMB 1 Unnamed House on US 421, two story Vernacular-Victorian, in fair condition;
- TMB 2 Unnamed House on US 421, two story Vernacular-TOC, in fair condition;
- TMB 3 Callus House on US 421, two story Vernacular-TOC, in fair condition;
- TMB 4 W.R. Logan House on US 421, two story Vernacular-TOC, in good condition;
- TMB 5 Dr. Trout House on US 421, two story Vernacular-TOC, sits vacant in poor condition;
- TMB 6 Boires/McMann House on US 421, two story Vernacular-Victorian, multiple dwelling, in good condition;
- TMB 8 Unnamed House on Main Street, two story Vernacular-TOC, in fair condition;
- TMB 9 Unnamed House, 2½ story Colonial Revival, sits vacant in poor condition;
- TMB 10 Unnamed House, two story Greek Revival, in good condition;
- TMB 11 John Stanley House, two story Greek Revival, business structure, in good condition;
- TMB 13 Commercial Building on Main Street, 1½ story Commercial-TOC, in good condition;
- TMB 14 Unnamed House on Main Street, 1½ story Vernacular-TOC, in good condition;
- TM 14 Unnamed House on US 42, two story Vernacular-Settlement house, sits vacant and in ruins;
- TMB 16 Unnamed House, two story Vernacular-TOC, in good condition;
- TMB 18 County Office Building behind the court house, one story Commercial-20<sup>th</sup> Century, in good condition;
- TMB 20 Science Hollow School/Bedford Post Office, one story, Vernacular-TOC, in good condition;
- TMB 21 Unnamed House, two story Vernacular-TOC, in good condition;
- TMB 22 Bedford United Methodist Church, 1½ story Gothic Revival, in good condition;
- TMB 23 Clem Building on Main Street, two story Commercial-20<sup>th</sup> Century, in good condition;
- TMB 24 Unnamed House on Main Street, two story Vernacular-TOC, in good condition;
- TMB 26 Unnamed House on Main Street, two story Vernacular-TOC, in good condition;
- TMB 27 Unnamed House on US 42, two story Vernacular-TOC, in good condition; and
- TMB 28 Unnamed House on US 42, two story Vernacular-TOC, in good condition.

There are three (3) historic markers located in the study area and two (2) of these are located in front of the Trimble County courthouse:

- The first marker, titled "County Named," describes who Trimble County was named after.
- The second marker, titled "Trimble County Jail," describes the history and significance of the jail which is located adjacent to the courthouse.
- The other historic marker in the study area, titled "Bedford Springs and Hotel," is located at the former location of Bedford Springs Hotel on Shepherd Lane. According to the marker, the hotel was built near where mineral springs were discovered in 1840. It became a well known health resort and fostered Bedford's growth. The hotel burned in 1967.

#### 2. Archaeological Sites

There are two (2) archaeology sites officially recorded within the study area. Review of information at the Office of State Archaeology revealed site survey forms for both sites. Based on the available database and site survey form information, the study area archaeological sites are summarized below.

- 15Tm29: This site is classified as an indeterminate prehistoric, open habitation site without mounds. The midden (previous living surface) is listed as absent (none found); the site has not been vandalized; condition is 50 75% disturbed; initial land use was woods and present land use is forest; physiographic location is in the Outer Bluegrass; landform described as dissected uplands; and the locality is listed as a ridge. National Register eligibility for this site was not assessed.
- 15Hy31: This site is dated from 1851-1950 and is listed as historic farm/residence; the midden is listed as absent; the site has not been vandalized; condition is listed as "apparently undisturbed"; present land use is pastureland; physiographic location is in the Outer Bluegrass; landform described as dissected uplands; and the locality is listed as a slope. Investigation revealed that this site is not eligible for the National Register.

#### F. Prime and Unique Farmland Concerns

Prime farmland is defined by the United States Department of Agriculture (USDA) and Soil Conservation Service as "land with the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops." Cropland, pastureland, rangeland, forest land or other land, but not urban built-up land or water, can be prime farmland.

A review of the Soil Survey Geographic (SSURGO) Database obtained from the USDA reveals that there are prime or unique farmlands within the study area. In this area of Kentucky, prime farmland is usually located in or near the low lying bottomlands and floodplains or on the top of broad ridge tops. The narrow ridge tops and the steep slopes are areas where prime farmland is not found.

There are a total of 156.4 acres of prime farmland found within the study area. Additionally, there are 304.0 acres exclusively in the Little Kentucky River Valley that if protected from flooding or not frequently flooded during the growing season would also be considered prime farmland.

According to the *Trimble County Comprehensive Plan*<sup>4</sup>, prepared by the Trimble County Agriculture Development



Prime Farmland
(Little Kentucky River Valley)

Council, the breakdown of agricultural crops grown in the area includes tobacco, corn, soybean, winter wheat, alfalfa hay, and other hay. A breakdown of horticultural crops grown in the area includes apples, peaches, strawberries, brambles, grapes, tomatoes, sweet corn, cabbage, pumpkins, melons, and summer squash.

#### G. Monitored Sites and Wells

Oil wells, gas wells and sites monitored by the Environmental Protection Agency (EPA) were considered as part of this study. Sites identified within the US 421 study area are identified below:

<sup>4</sup> http://www.uky.edu/Agriculture/AgPrograms/tobacco/councils/louisville/trimble1.html

- There are four (4) known underground storage tank (UST) sites within the study area, including:
  - Kwik-E-Mart Marathon located at I-71 (Exit 34) in Campbellsburg;
  - Citgo located at I-71 (Exit 34) in Campbellsburg;
  - Shell in Bedford at the intersection of US 421 and US 42; and
  - Marathon in northern Bedford at the intersection of US 421 and US 42.

#### **Monitored Sites and Wells**

- ✓ Four (4) known UST locations
- ✓ One (1) probable UST location
- ✓ Two (2) RCRIS sites
- ✓ One (1) PCS site
- ✓ Two (2) Sewer Treatment Plants
- One (1) probable underground storage tank (UST) site is located within the study area. This is an abandoned truck stop located at the intersection of Carmen Creek Road and US 421 in Henry County.
- There are two (2) Resource Conservation and Recovery Information System (RCRIS) sites in the study area. RCRIS is a national information system which supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of facilities which generate, transport, treat, store or dispose of hazardous waste. The two (2) RCRIS sites that were verified within the study area include:
  - One site located at the Trimble County Board of Education on Wentworth Avenue next to the Trimble County Middle School; and
  - A site owned by Louisville Gas and Electric located on KY 3175, one mile southeast of the intersection with US 42. A 26 inch gas pipeline that passes through the study area crosses at this location.
- There is one (1) Permit Compliance System (PCS) site in the study area. PCS is a computerized management information system which contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. The one (1) PCS site located in the study area, Bedford Health Care Center, is located at the intersection of US 42 and Shepherd Lane. Sites categorized as PCS sites do not necessarily represent a particular environmental hazard for highway project development considerations, but further investigation of any potentially impacted sites is recommended during the project development process.
- Two (2) Sewer Treatment Plants are also located in the study area, including:
  - One site located along Paul Nora Drive approximately 0.2 miles from the intersection with Lea View Avenue in Henry County; and
  - The Bedford Municipal Sewer Plant on Starks Lane, approximately 0.1 miles from the intersection with US 421.
- Field review identified a tire dump located at an abandoned truck stop at the intersection of Carmen Creek Road and US 421 near I-71 (Exit 34) in Henry County.

Additional UST/HazMat concerns are likely to be associated with farming operations in the study area. In the development of corridor alignments, consideration should be given to opportunities to avoid the locations where underground storage tanks currently exist or did exist to avoid the need to remove existing tanks or assume liability for right-of-way that may be contaminated.

#### H. Air Quality and Noise

The United States Environmental Protection Agency (EPA) has established criteria for ambient levels of transportation related air pollutants, which have also been adopted by the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC). Trimble and Henry Counties

are part of the North Central Kentucky Intrastate Air Quality Control Region. The project area is currently in attainment for all criteria pollutants and does not require transportation control measures. With respect to the latest conforming Statewide Transportation Improvement Program (STIP) for FY 2003-2008, the proposed project is located on page 209. There are no air quality monitors within the project area that are part of the EPA's Aerometric Information Retrieval System (AIRS).

The Federal Highway Administration (FHWA) has established noise impact criteria for various land uses close to highways. These criteria are also supported by the KYTC's Noise Abatement Policy. The study area includes residential units and public areas that may be sensitive to traffic noise impacts related to the proposed project. Potential receptor sites include residential areas, churches and a school in the urban areas of Bedford and Campbellsburg, as well as additional church locations just south of the Little Kentucky River. A project specific noise impact analysis will be required in upcoming project phases to identify potential noise impacts on receptors within the project area.

#### I. Additional Concerns

Other items identified within the US 421 study area include:

- A 26-inch diameter Gas Pipeline passes through the study area, crossing both US 421 and KY 3175;
- Blue Flame propane distribution site located at the intersection of Shepherd Lane and US 42;
- Cardinal Hills Golf Course located along Starks Lane, an 18-hole course built in 1969; and
- Cell tower and antenna structures located along US 421 in Trimble County near the Henry and Trimble County line.

#### J. Summary of Environmental Issues

The potential environmental concerns identified for the US 421 study area have been identified through this preliminary analysis. Environmental issues that are likely to require consideration during future phases of this project include the following:

- Water quality issues related to the Little Kentucky River, Town Branch, Barebone Creek, and
  the associated tributaries should be considered. Water resources in the project area may be
  affected by increased erosion and runoff during construction activities and increased non-point
  source pollution after construction is complete. Erosion control measures and methods to
  decrease non-point source pollution should be considered in future phases.
- There are many small wetland and ponding water areas throughout the study area. A field inspection of each of the wetland areas will be necessary to determine their jurisdictional status (i.e., they may or may not require a nationwide or individual permit from the US Army Corps of Engineers). Also, further inspection of these wetlands will be necessary to determine whether any are considered critical (i.e., a floral or faunal species exclusively relies on it for existence). The project area ponds will not require mitigation, but replacement should be considered to maintain sediment retention capabilities and wildlife habitats.
- There are a number of public and private water sources in the study area, such as water lines, wells, tanks and other facilities. Since groundwater is typically impacted by the same pollution sources that influence surface water quality, erosion control measures and methods to decrease non-point source pollution should be considered to decrease potential impacts to wells in the project area. Other water sources in the project area should be avoided where possible to minimize interruption of service.

- The project area is located within a large forest block. Forest fragmentation is one of the primary impacts to plants and animals that require large tracts of forest for all parts of their life cycles. Fragmenting or impacting large forest blocks should be avoided.
- Potential occurrences of monitored faunal species have been identified within or near the
  project area, including endangered, endangered with partial status, threatened and special
  concern species. Further fieldwork will be necessary in future project phases to determine if
  these species exist within the project's corridor.
- Community sensitive locations such as churches, schools, cemeteries and public housing are
  located within the project area. The majority of these facilities are located in the urban area of
  Bedford on the northern end of the project corridor, with a few located further south along the
  corridor near the Little Kentucky River. Present locations of these resources should be noted
  for future design corridor considerations to minimize potential impacts and relocations. In
  addition, any affected cemetery will require future evaluation for cultural significance.
- Federal Environmental Justice standards require that the transportation project development process avoids or minimizes disproportionately affecting minority and low-income populations. The standards also ensure the full and fair participation by all potentially affected communities in the transportation decision-making process. Low-income populations identified in several study area tracts and block groups through this preliminary analysis should be verified through detailed Environmental Base Studies in subsequent phases of this project. Future public involvement efforts for this project should strive to involve study area low-income populations in the decision making process.
- There are some local industry and commercial developments within the urban areas of Bedford and Campbellsburg. It is expected that any transportation improvements in this area would provide increased traffic and potential benefit to local industry. The remaining portion of the study area is primarily rural agricultural, including about 150 acres of prime farmland. While a decline in tobacco quotas in recent years has made agriculture in this area less profitable, consideration should be given to limiting the net loss of farmland within the project area.
- There are a number of historic structures and archaeological sites within the project area. These include six structures listed on the National Register of Historic Places, as well as other historic and archaeological sites which have not been assessed or have pending eligibility. A full historic baseline study is recommended early in project development to review cultural landscapes and other historic sites in the study area. The presence of previously recorded archaeological sites within the project area suggests that unrecorded archaeological sites may be found upon further investigation.
- The project area includes a number of underground storage tanks, sewage treatment plants, and EPA monitored sites. An Environmental Site Assessment of the project area should be conducted in future phases of this project to determine if any of these sites could potentially impact decisions about transportation improvements in the area.
- Air and noise considerations should be carried through future phases of this project. At this time, the project area is in attainment for all criteria air pollutants and does not require transportation control measures. The study area includes residential units and public areas that may be sensitive to traffic noise impacts related to the proposed project. A project specific noise impact analysis will be required in upcoming project phases to identify potential noise impacts on receptors within the project area.

# APPENDIX A Environmental Resource Information

# Appendix A

Granting Agency						
Con	tact Information	Data Obtained				
Department of Fish & wildlife Resources						
Web Address	fw.ky.gov/navigation.asp?ci d=267	Wetlands Information - U.S. Department of Fish and Wildlife Quad Maps, 1983-				
Mailing Address	#1 Game Farm Road Frankfort, KY 40601	1987				
Phone Number	(800) 858-1549					
Kentucky Divisio	Kentucky Division of Waste Management / Underground Storage Tank Division					
Web Address	www.waste.ky.gov/program s/ust	Underground Storage Tank Data				
Mailing Address	14 Reilly Road Frankfort, KY 40601					
Phone Number	(502) 564-6716					
Kentucky Naturo	al Resources and Environmen	tal Protection Cabinet				
Web Address	www.environment.ky.gov	Tire Dump Locations				
Mailing Address	500 Mero Street 5th Floor,CPT Frankfort, KY 40601	Sewage Treatment Plants Public Water Supply Lakes - based on National Wetlands Inventory, 1981				
Phone Number	(502) 564-3350	Permitted Landfills, recorded 1965-1985 Wildlife Management Areas State Parks - Kentucky Department of Parks, 1991 Facilities Guide State Forests				
Kentucky Heritage Council						
Web Address	www.state.ky.us/agencies/k hc/khchome.htm	Archaeological Sites Historic Structures				
Mailing Address	300 Washington Street Frankfort, KY 40601					
Phone Number	(502) 564-7005					

## Appendix A (continued)

Granting Agency						
Cor	ntact Information	Data Obtained				
Kentucky Geological Survey						
Web Address	www.uky.edu/KGS	Faults				
Mailing Address	228 Mining and Mineral Resources Building University of Kentucky Lexington, KY 40506-0107	Blueline Streams Oil and Gas Wells Coal Exploration USGS Water Monitoring Sites Water Wells				
Phone Number	(859) 257-5500					
Kentucky State Nature Preserves Commission						
Web Address	www.naturepreserves.ky.gov	Threatened and Endangered Species				
Mailing Address	801 Schenkel Lane Frankfort, KY 40601					
Phone Number	(502) 573-2886					
Kentucky Depart	ment for Surface Mining Recla	mation and Enforcement				
Web Address	www.surfacemining.ky.gov	Graphic database for all mining				
Mailing Address	#2 Hudson Hollow Rd Frankfort, KY 40601	activities since 1961				
Phone Number	(502) 564-6940					
U.S. Army Corps	of Engineers					
Web Address	www.usace.army.mil	Dams (National Inventory of Dams,				
Mailing Address	20 Massachusetts Ave, NW Washington, DC 20314	1998-1991) Locks Ports				
Phone Number	(202) 761-0001					

## Appendix A (continued)

Granting Agency							
Con	tact Information	Data Obtained					
Abandoned Mine Land Program							
Web Address	www.osmre.gov/aml/intro/zi ntro2.htm	Abandoned Mine Lands Data					
Mailing Address	2521 Lawrenceburg Road Frankfort, KY 40601						
Phone Number	(502) 564-2141						
U.S. Geological Survey							
Web Address	gnis.usgs.gov	GNIS (Geographical Name Information					
Mailing Address	523 National Center Reston, VA 20192	Server) DRG (Digital Raster Graphic)					
Phone Number	(703) 648-7411						
National Park Se	ervice						
Web Address	www.nps.gov/gis	Dataset for 340 National Park System					
Mailing Address	1848 C Street, NW Washington, DC 20240	Unit Boundaries					
Phone Number	(202) 208-4621						
National Forest Service							
Web Address	www.southernregion.fs.fed.u s/gis	Polygon Coverage Showing Surface Ownership / Jurisdictions of Lands					
Mailing Address	1400 Independence Ave, SW Washington, DC 20250						
Phone Number	(202) 205-8333						

## Appendix A (continued)

Granting Agency					
Con	tact Information	Data Obtained			
Bureau of Transportation					
Web Address	www.bts.gov/programs/geog raphic_information_services	United States Military Installations Database			
Mailing Address	400 7th Street, SW Room 310 Washington, DC 20590				
Phone Number	(800 853-1351				
Environmental Protection Agency					
Web Address	www.epa.gov/region4/gis/in dex.html	AFS (AIRS Facility Subsystem) CERCL (Comprehensive Environmental			
Mailing Address	U.S. EPA Region 4 Sam Nunn Atlanta Federal Center 61 Forsyth St., S.W. Atlanta, Georgia USA	Response, Compensation and Liability ERNS (Emergency Response Notification System) FINDS (Facility Identification Initiative) PCS (Permit Compliance System) RCRIS (Resource Conservation and Recovery Information System) TRIS (Toxics Release Inventory System)			
Phone Number	(404) 562-8027				

APPENDIX B Project Area Photographs



US 421 and I-71 (Exit 34)



Kentucky State Police Post #5 Tocated on Citation Lane in Campbellsburg (Henry County Industrial Park)



Marathon Kwik-E-Mart located on US 421 at the intersection of US 421 and I-71 (Exit 34)



Abandoned Truck Stop located on US 421 0.5 miles West of the intersection of US 421 and I-71 (Exit 34)



Communication Antennas located along US 421, 0.4 miles west of the Henry and Trimble County line



Tire Dump located beside the Abandoned Truck Stop (see picture above)



Pond located along US 421 at milepoint 0.6



Summerfield Trace Subdivision located on Martini Lane



Antioch Baptist Church located on US 421 near milepoint 2.7



Curvy Section of US 421 at milepoint 2.3



Intersection of US 421 and KY 316



Apostolic Pentecostal Church of the Living God located on Smith Lane



Little Kentucky River (Main Channel)



Little Kentucky River (Braided Channel)



Intermittent Unnamed Tributary of the Little Kentucky River



Hay Field Little Kentucky River Valley



Potential Historic Structure located on Smith Lane



Bedford Municipal Sewer Plant



Cardinal Hills Golf Course located on Stark Lane



Trimble County Court House



TMB 15 – Peak House (Bedford Inn) Listed on the National Register of Historic Places



Main Street Bedford



TMB 12 - Hancock House Listed on the National Register of Historic Places



Fellowship Baptist Church



Trimble County Middle School



Stop N' Go Marathon US 421 and US 42 intersection (north)



Bedford United Methodist Church



Bedford Springs Church



Louisville Gas & Electric Check Station located on KY3175



Gas Pipeline Right-of-Way

# **Appendix C**

Environmental Justice Report

## ENVIRONMENTAL JUSTICE REVIEW

### ALTERNATIVES STUDY FOR US 421 FROM I-71 TO BEDFORD

Henry and Trimble Counties, Kentucky

Prepared for: Kentucky Transportation Cabinet

June 13, 2003

By: Kentuckiana Regional Planning and Development Agency 11520 Commonwealth Drive Louisville, Kentucky 40299



# SCOPING STUDY FOR US 421 FROM I-71 TO BEDFORD CONTACT LIST

Name	Address	Phone
Randy Stevens Trimble County Judge Executive	P.O. Box 251 Bedford, KY 40006	(502) 255-7196
John Logan Brent Henry County Judge Executive	P.O. Box 202 New Castle, KY 40050	(502) 845-5707
Russell Clifton Mayor of Bedford Carl L. Rucker	P.O. Box 1 Bedford, KY 40006 P.O. Box 183	(502) 255-3684 (502) 532-6050
Mayor of Campbellsburg  Gary Jackson  Trimble County Superintendent	Campbellsburg, KY 40011  68 Wentworth Ave Bedford, KY 40006	(502) 255-3201
Marcia Dunaway Trimble County Schools	P.O. Box 115 Bedford, KY 40006	(502) 255-3201
Captain John Thorpe Kentucky State Police Post 5	160 Citation Lane Campbellsburg, KY 40011	(502) 532-6363
James Hurst-President Trimble County Rotary Club	111 Locust Lane Bedford, KY 40006	(502) 255-7382
Sharon Law Trimble County EMS	30 Highway 42 East Bedford, KY 40006	(502) 255-0062
Jeff Troxel Bedford Fire and Rescue	23 Church Street Bedford, KY 40006	(502) 255-7529

#### ALTERNATIVES STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00

#### INTRODUCTION:

This report presents findings of the community and environmental conditions existing in and around the scoping study area on US 421 from Bedford to Campbellsburg. The data in this report was collected from the US Census Bureau, Local Elected Officials, Local Residents, Community Leaders and the KIPDA Area Development District.

#### **METHODOLOGY:**

The first process was collecting data from the US Census Data on the census tracts and block groups for the Trimble and Henry County area. The next process was gathering information from the local elected officials and community leaders on the project area. Enclosed is a contact list for the study area on US 421. The last process was mapping the project location in regards to census boundaries. Enclosed is a map containing the project location, census tracts, and census block groups for Trimble and Henry counties.

#### **BUSINESS/INDUSTRY:**

US 421, being a scenic corridor linking the city of Bedford and the I-71 interchange at Campbellsburg, has also become a viable commerce and trade route. An industrial park has emerged at this interchange with a state police post and one industry. The company (Arvin Sango) also has a plant in Madison, IN. The City of Madison is directly north on US 421. The section of US 421 that is subject to this study also has many smaller businesses along its route. These include but are not limited to: Cardinal Hills Golf Course, Country Gardens Produce, J.R. Auto Repair and Towing, Doll's Dairy Barn Restaurant, Mini-Storage and U-Haul, and two truck stops. The expected future for this corridor includes not only industrial trade and commerce but also additional growth in residential housing.

#### POPULATION/CENSUS DATA:

The alternatives study for US 421 from I-71 to Bedford effects the two block groups 1002 BG 2,1002 BG 3, 901 BG 1, and 902 BG 3. The rural area around US 421 is made up of predominantly farmland. In summary, the census data reveals that poverty levels in the 18-64 age range in block groups 901 BG 1 and 1002 BG 3 are lower than in the state as whole, yet they are higher in 902 BG 3 and 1002 BG 2 in the same age group. The 901 BG 1 and 902 BG 3 shows a higher poverty level than state as whole in the 65 and older age range where as 1002 BG 2 and 1002 BG 3 shows a lower poverty rate.

Minority populations in these four block groups are significantly lower than the overall state percentages. There seems to be a higher percentage of Asian population in 901 BG 1 as compared to the other block groups and a higher number of other population in 902 BG 3. The percentage of 0-17 population by age table shows that 901 BG 1, 902 BG 3, 1002 BG 2, and 1002 BG 3 is slightly higher than the state average. The percentages of the 62 and older in the four block groups are slightly lower than the state average.

There are no concentrations or communities that share a common religious, cultural, ethnic, or other background along the US 421 planning study from Bedford to I-71 in Campbellsburg. Also, there are no concentrations or common employment, religious center, or educational institutions with members within walking distance of facilities. There are two churches off of US 421. From Bedford, Church of the Living God is the first church at US 421 and KY 316. The second church off of US 421 is the Antioch Church. The potential effects of the US 421 planning study is positive; it would improve safety and economic development to the region.

POPULATION BY AGE

# ALTERNATIVES STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00

The below chart reflects the 2000 census data on age in Kentucky, Trimble County, Henry County, Census Tract Boundaries, and Block Groups. The highlighted block groups are the areas directly impacted by the project.

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1)

	Total	281,421,906	4,041,769	15,060	2,796	3,204	8, 125	3,091	5,034		1.319	833	644	1,246	808	1,150	1,201	868	992	1,557	1,705	1,772
	% of Total	12.4	12.5	12.3	12.5	13.2	11.4	12	11.1		12.6	13.5	11.0	18.5	8.6	8.6	10.3	15.8	10.4	13.3	11.3	8.9
א דוור ז לז דכו ד אוו ז	os and olider	34,991,753	504,793	1,854	350	423	926	369	557		167	112	71	231	79	113	124	142	103	207	193	157
ZOUV OUIIIIIA	Vási rotá Populaton	61.9	62.9	62.3	61.3	62.5	62.2	63.5	61.4		60.0	62.5	62.6	58.8	64.5	65.1	63.7	61.8	64.8	60.4	61.2	62.5
Source: 0.3. Census Durcau, Census 2000 Summary 1 no 1 (St. 1)	13.64	174,136,341	2,542,158	9,386	1,715	2002	5054	1,963	3,091		791	521	403	733	521	748	765	555	643	940	1,043	1,168
1100: O.D. Com	Population	25.7	24.6	25.4	26.1	24.3	26.4	24.5	27.5		27.4	24.0	26.4	22.6	25.7	25.1	26.0	22.4	24.8	26.3	27.5	28.6
noc.	0.17	72,293,812	994,818	3,820	731	779	2,145	759	1,386	1000000	361	200	170	282	208	289	312	201	246	410	469	507
	Papalonion (grantis), by Conmissionwealth? County, & Census Tracti	U.S.	Kentucky	Henry County	TR 901	TR 902	Trimble County	TR 1001	TR 1002	Block Groups	901 BG.1	901 BG 2	901 BG 3	902 BG 1	902 BG 2	902 BG 3	1001-BG 1	1001-BG 2	1001-BG 3	1002-BG 1	1002-BG 2	1002-BG 3

## ALTERNATIVES STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00 POVERTY STATUS

The below chart reflects the 2000 census data on the numbers and percentage of persons in poverty in Kentucky, Trimble County, Henry County, Census Tracts Boundaries, and Block Groups.

The highlighted block groups are the areas directly impacted by the project.

Source: U.S. Census Bureau, Census 2000 of Population and Housing (SF 3)

	Pouvation Fostina Poveny	12.4%	15.8%	13.7%	11.1%	16.8%	13.6%	11.1%	15.1%	13:3%	%9.6	7.8%	23.6%	18.1%	8.3%	7.6%	19.6%	7.6%	12.1%	20.6%	12.4%
	Variantor Persons the Powers	33,899,812	621,096	2,041	307	525	1,092	342	750	182	79	46	277	158	06	94	175	73	182	351	217
	Personnes Polyce Hatthre	6.7	10.9	17.5	16.3	17.7	13.5	25.1	8.1	20.3	7.6	15.2	13.0	20.9	26.7	19.2	20.6	43.8	14.8	6.3	5.5
	Number of Fersons for and Aver 11 Payora (Percentage of Persons 65 and Over 10 Poverta)	3,287,774 (9.4%)	67,477 (13.4%)	357 (19.3%)	50 (14.3%)	93 (22%)	147 (15.9%)	86 (23.3%)	61 (11%)	37 (22.2%)	6 (5.4%)	7 (9.9%)	36 (15.6%)	33 (41.8%)	24 (21,2%)	18 (14.5%)	36 (25.4%)	32 (31.1%)	27 (13%)	.22-(11.4%)	12 (7.6%)
-	Persons in Pover that are 18-94	55.6	56.4	52.3	58.6	54.3	57.3	51.8	59.9	49.5	67.1	80.4	53.4	50.6	63.3	43.6	57.1	49.3	62.6	83.8	51.2
	Number of Persons 18-64. In Poslett (Bernellage of Persons 18-64 to Postary).	18,865,180 (10.8%)	350,072 (13.8%)	1,068 (11.4%)	180 (10.5%)	285 (14.2%)	626 (12.4%)	177 (9%)	449 (14.5%)	90 (11.4%)	53 (10.2%)	37 (9.2%)	148 (20.2%)	80 (15.4%)	57 (7.6%)	41 (5.4%)	100 (18.0%)	36 (5.6%)	114 (12.1%)	224 (21.5%)	111 (10.0%)
	Persons in Privoid, little, inc Uniter 18	34.7	32.7	30.2	25.1	28.0	29.5	23.1	32.0	30.2	25.3	4.4	33.6	28.5	10.0	37.2	22.3	8.9	22.5	29.9	43.3
		11,746,858 (16.2%)	203,547 (20.5%)	616 (16.1%)	77 (10.5%)	147 (18.9%)	319 (14.9%)	79 (10.4%)	240 (17.3%)	55 (15.2%)	20 (10%)	2 (1.2)	93 (33 %)	45 (21.6%)	9,(3.1)	35 (11.2%)	39 (19.4%)	5 (2%)	41 (10%)	105 (22.4%)	94 (18.5%)
	Centration transports of Central Centr	U.S.	Kentucky	Henry County	TR 901	TR 902	Trimble County	TR 1001	TR 1002	Block Groups 901 BG 1	901 BG 2	901 BG 3	902 BG 1	902 BG 2	902 BG 3	1001 BG 1	1001 BG 2	1001 BG 3	1002 BG 1	1002 BG 2	*1002 BG 3

## SCOPING STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00 POPULATION BY RACE

The below chart reflects the 2000 census data numbers and percentages of persons by race in Kentucky, Trimble County, Henry County,

Census Tract Boundaries, and Block Groups.

The highlighted block groups are the areas directly impacted by the project.

	Torai Population	281,421,906	4,041,769	15,060	2,796	3,204	8,125	3,091	5 034	100,0	1,319	833	644
	% of Pop.	∞	1.6	2.1	1.2	2.3	1.3	1.4	1.4	:	1.5	∞.	1.4
	Other	22,185,301	990'59	320	34	74	111	43	89	8	20	7	7
	% of Pop.	<del>L</del> .	0	<del>-:</del>	-:	ω	0	0	c		1.	0 -	.2
(1)	Native Hawaiian	398,835	1,460	m	2		0	0	C		P	0	1
File 1 (SF	% of Pop.	o;	7	77	<del>-</del> -	ι.i	4.	1.	ų	;	.3	0	0
000 Summary	American Indian	2,475,956	8,616	36	4	10	30	£.	7.7	ī	4	0	0
Census 2	% of Pop.	3.6	7.	κi	6.	.1	1.	<del></del> :	-	:	1.3	0	1.1
Census Bureau, Census 2000 Summary File 1 (SF 1)	Asian	10,242,998	29,744	52	24	8	9	2	4	-	3.70 May 2.00	0	7
Source: U.S.	% of Pop.	12.3	7.3	3.3	1.5	3.1	£Ĵ.	.2	'n	9	2.2	.5	1.4
	Black	34,658,190	295,994	497	42	100	24	7	17		29	4	6
	% of Pop.	75.1	90.1	94.0	96.2	94.1	97.9	98.2	7.76		ः रहे	7.86	96.2
	White	211,460,626	3,640,889	14,152	2,690	3,016	7,954	3,036	4.918		1,248	822	620
		U.S.	Kentucky	Henry County	TR 901	TR 902	Trimble County	TR 1001	TR 1002	Block	901 BG I	901 BG 2	901 BG 3

## POPULATION BY RACE

# SCOPING STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00

The below chart reflects the 2000 census data numbers and percentages of persons by race in Kentucky, Trimble County, Henry County, County, County, Action Special Spe

The highlighted block groups are the areas directly impacted by the project. Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1)

Total Population	1,246	1,246	808	1,201	868	992	1,557	.1,705	1,772
% of Job.	1.4	2.2	3	6.	2.6	6.	1.0	9:	2.4
Other	18	18	₩.638	11	23	6	16	10	42
% of P9j.	0		0	0	0	0	0	0	0
Native Hawaiian	0	1	0	0	0	0	0	0	0
% of Pop.	1.	.3	. 9.	.1	.1	.1	4.	.5	$ L \sim  $
American Indian	1	2	7	1	1	-	9	8	13
% of	0	0	.3	0	.1	Ι.	г.	.2	0
Asian	0	0	8	0	1	1	1	6	0
Pop.	6.2	1.4	1.0	0	7.	1.	0	4.	9.
Black	77	11	1	0	9	1	0	<b>C</b>	10
% of Pop	92.3	0.96	94.8	0.66	96.5	8.86	98.5	8.76	96.3
White	1,150	922	1,090	1,189	298	086	1,534	1.677	1,707*
	902 BG 1	902 BG 2	902 BG 3	1001-BG 1	1001-BG 2	1001-BG 3	1002-BG 1	1002-BG2	1002-BG3

## SCOPING STUDY FOR US 421 FROM I-71 TO BEDFORD ITEM #05-147.00 **HISPANIC POPULATION**

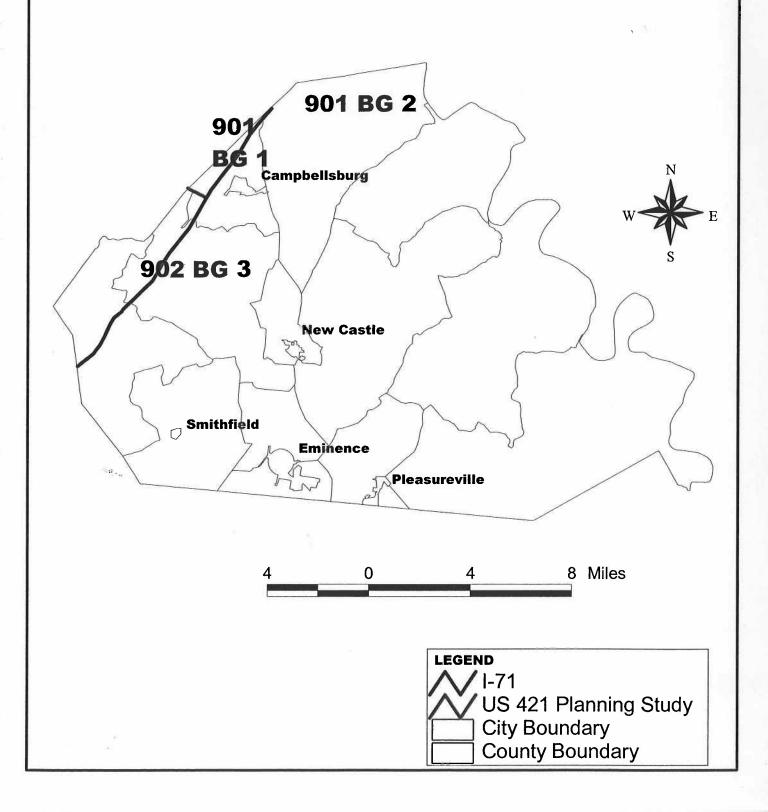
The below chart reflects the 2000 census data on Hispanic Population in Kentucky, Trimble County, Henry County,

Census Tract Boundaries, and Block Groups.

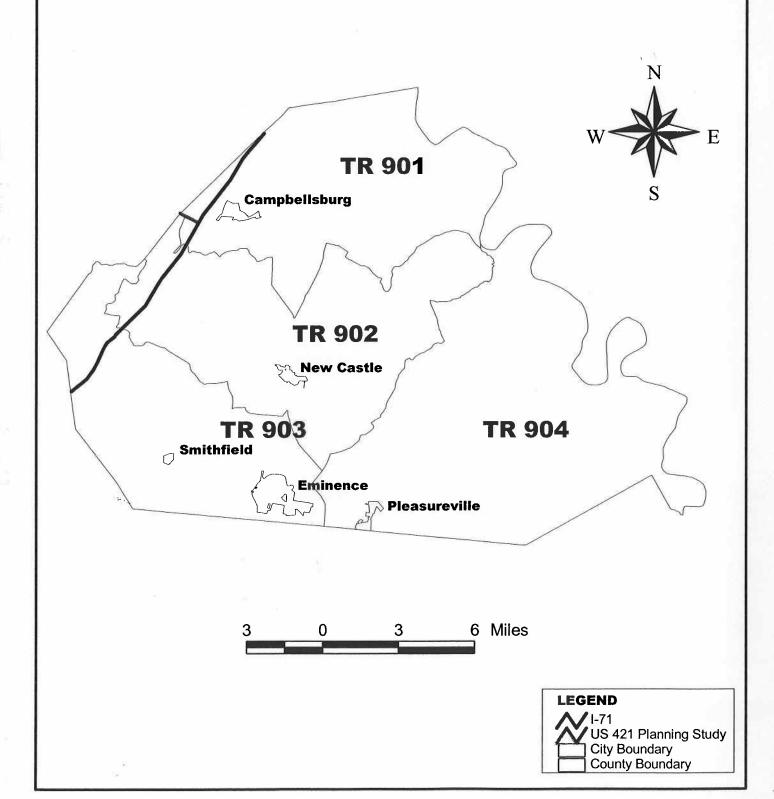
The highlighted block groups are the areas directly impacted by the project. Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1)

	Fotal Population	281,421,906	4,041,769	15,060	2,796	3,204	8,125	3,091	5,034		1,319	833	644	1,246	808	1.150	1,201	868	992	1,557	1,705	1,772
(or 1)	% of Pap.	87.5	98.5	98.0	9.86	97.4	98.6	8.86	98.5		0.86	99.0	99.1	98.6	2.96	9.96	98.4	98.4	9.66	99.3	99.3	97.1
Source. O.S. Census Dureau, Census 2000 Summary 1 ne 1 (St. 1)	Non Hispanic	246,116,088	3,981,830	14,751	2,756	3,120	8,014	3,054	4,960	100000000000000000000000000000000000000	1,293	825	638	1,228	781		1,182	884	886	1,546	1,693	1,972.1
	% of Pop.	12.5	1.5	2.0	1.4	2.6	1.4	1.2	1.5		2.0	1.0	6.0	1.4	3.3	3.4	1.6	1.6	9.4	0.7	<b>2</b> 0	2.9
Somee.	Hisparic	35,305,818	59,939	339	40	84	111	37	74		- 26	8	9	18	27	39	19	14	4	11	· (数据) (20% 12 m)	51
		United States	Kentucky	Henry	TR 901	TR 902	Trimble	TR 1001	TR 1002	Block Groups	901 BG 1	901 BG 2	901 BG 3	902 BG 1	902 BG 2	902 BG 3	1001 BG 1	1001 BG 2	1001 BG 3	1002 BG 1	1002 BG 2	1002 BG 3

### **Block Groups in Henry County**

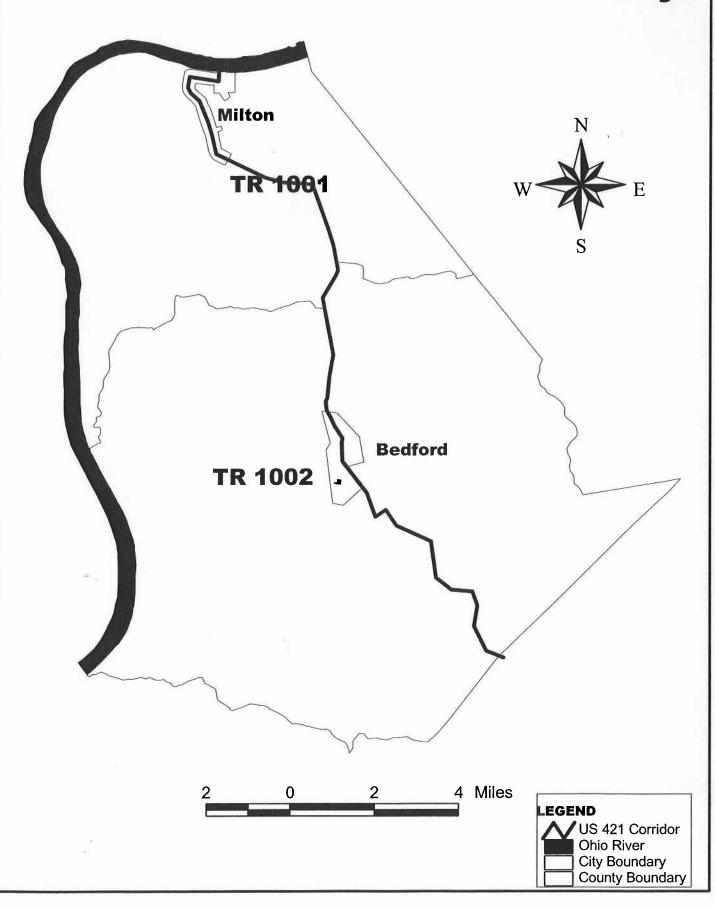


### **Census Tracts in Henry County**



### **Block Groups in Trimble County** 1001 BG 1 1001 BG 1 001 BG 3 1002 BG 2 1002 BG 1 Bedford 1002 BG 3 4 Miles US 421 Corridor US 421 Planning Study Ohio River City Boundary **County Boundary**

### **Census Tracts in Trimble County**



### **Appendix D**

Initial Meeting Minutes

### **Minutes**

### Alternatives Study - Initial Team Meeting Trimble County, Item No. 05-147.00 US 421 From I-71 to Bedford

**Meeting Location:** District 5 Office, Conference Room

Meeting Date: April 23, 2003

### **Introduction & Purpose**

The meeting began around 10:30 a.m. local time. Handouts were distributed. Those present were:

Bill Monhollon D-5 Chief District Engineer

Greg Groves D-5 Preconstruction
Barry Sanders D-5 Construction

Brian Meade D-5 Traffic Chad Larue D-5 Planning

Kevin Dant D-5 Environmental Coordinator Randall Embry KIPDA Transportation Planner

Daryl Greer CO Planning
Danny Jasper CO Planning
Steve Ross CO Planning

The project was described as being listed in the 2002 Six-Year Highway Plan as "Scoping Study for US-421 from I-71 to Bedford," with no other phases other than planning currently listed in the Six-Year Plan.

The project was noted as being the number 2 priority for the ADD. This probably reflects a former judges views. The Milton/ Madison Bridge (which is in the current 6-Year Plan) may have taken priority with the new judge. Traffic near the bridge is industrial, factory-type traffic. A past county judge initiated the project to promote access from Bedford to I 71. Hoping to attract jobs to the county.

The purpose of the study is to evaluate various roadway improvements, prioritize projects for future programming documents, and to provide input for the statewide transportation plan.

### **Project Description**

Project Area

The general project area is from I-71 in Henry County to Bedford at US-42 in Trimble County.

### Available Data

Traffic Data

Existing traffic ranges from 1890 to 4260 vehicles per day with the highest traffic being near I-71.

It was noted that Level of Service (LOS) is not a problem and is not anticipated to be a problem in the future.

### Crash Data

Crashes were noted as not being a major problem. No segments are currently operating with a critical rate factor (CRF) greater than one. According to the March 1, 2000 to March 1, 2003 CRASH Data some segments are close to a CRF of one and should be evaluated further. A spot analysis is also needed on the Crash Data.

### Roadway Geometry

- No old plans have been found.
- The road was noted as being functionally obsolete

### Available Reports

There are no known past reports on this segment of roadway.

### Problems with Existing Roadway

- There are connectivity problems between I-71 and Bedford.
- US-421 is located on rugged terrain.
- There has been some flooding, but not frequent. It takes a major, perhaps 10-year storm.
- US-421 crosses the Little Kentucky River.
- Another stream runs parallel with roadway for much of the segment.

### Benefits of Proposed Project

- An improved US-421 would promote economic development in the area and attract jobs to Bedford.
- The project will improve connectivity to other roadways in the area.
- An improved US-421 will provide a connection to the improvements on US-42 and future improvements to the Milton/ Madison Bridge.
- The project will improve safety by improving the cross sections to meet current design standards. Currently there are narrow shoulders, little to no clear zone, and vertical and horizontal sight distance problems.

### Additional Information Needed

Traffic Data

- The counts program should be checked to see actual growth in traffic rather than using the Functional Class Rate from Multimodal. Trimble's population growth has lagged behind.
- Possible future traffic generators such as the Milton/Madison Bridge and a better connection to I-71 should be considered in the traffic projections.

Other (ITS/Bikes/Peds.)

There are no apparent ITS solutions.

Rural terrain, but there are a few bikes now. Bikers could be accommodated on the shoulder. May want to pave enough shoulder, probably 10-foot.

Sidewalks are not anticipated because there are very few pedestrians with the rural environment and only sparse strip housing.

### **Environmental Justice**

The Area Development District will be asked to do an environmental justice report, and a letter request will be sent out.

Some low-income housing, "shanties," located at individual locations. Finding available housing would not be problem if necessary, but would need to upgrade. These shanties may relate to safe and sanitary housing issues, but there should be sufficient housing in Trimble to handle all relocations.

Houses along existing route are close to the road.

Farms in the area, orchards, send most of their products to Indiana.

There is some farmland on the south end of the segment, but not prime farmland like along US-42.

Logical Termini

The termini should remain as written: I-71 to US-42 in Bedford.

### Project Goals and Objectives

- 1. Provide corridor and system connectivity.
- 2. Improve safety by correcting horizontal, vertical, and providing lane and shoulder widths that meet current standards.
- 3. Enhance regional and local network by providing improved access to areas of regional importance.

### **Cost Estimates**

The figures in the handout may be too low, given the rugged nature of the segment. The existing bridges are non-standard and replacements will be very expensive.

### **Possible Alternatives and Corridors**

- US-421 will be a difficult reconstruction without relocation, perhaps a nobuild.
- Possible spot improvements, including minor widening and straightening of curves.
- Possible relocation using partial segment of KY 3175 west of Bedford.
- No obvious solution yet.

### **Environmental Footprint Area**

An environmental footprint will be developed. The team sketched out an expanded area on the large topo map. There may be some issues with the Little Kentucky River, some sedimentation problems, but nothing controversial.

### Probable Design Criteria

### **Functional Class**

Rural Minor Arterial- will discuss with Jay Hoskins the effects of these improvements on the functional class.

### Future ADT/ DHV

Design year 2030 traffic of ADT 8300/ DHV 940 using 2.4% growth rate from KYTC Division of Multimodal's Traffic Forecasting Report. These traffic numbers will be modified after looking at the counts program to see actual growth in traffic in the past.

Currently half of the motorists use the US-42 to KY-153 route to connect to I-71 and the other half use US-421. With an improved US-421 most of these motorists would use US-421 and this increase in traffic should be considered.

### Design Speed

Mainly 55 mph speed with some 35 mph on the north end.

### **Typical Section**

If total reconstruction is recommended, then the typical should be a two-lane highway consistent with current design standards with 10-foot shoulders to accommodate bicycle traffic.

### Other

Access to adjacent property owners will be difficult due to a stream located along the roadway.

Context sensitive design should also be considered.

### **Agency Coordination Needs**

Agencies to be included:

- Rotary Club
- EMS
- School Board
- Industrial Board
- No Chamber of Commerce.

### **Public Involvement Needs**

- Hold public meetings in Bedford where there are 3 schools. The courtroom is too small.
- Open format type meetings, evenings, either 4-7PM or 6-8PM since the area is rural with farming or commuters.
- Both counties have weekly newspapers.
- Radio stations in Eminence and Madison.

### Field Review of Project Area

The meeting was concluded with a field review following.

### **Minutes**

### Alternatives Study – Officials Meeting Henry and Trimble Counties, Item No. 05-147.00 US 421 from I-71 to Bedford

Meeting Location: Trimble County Fiscal Court Building

Meeting Date: June 17, 2003

### 1. INTRODUCTION AND PURPOSE

The meeting began at approximately 10:00 a.m. local time. Those present were:

Randy Stevens Trimble County Judge Executive

Peggy Bryant Henry County Deputy Judge Executive

Stephen Stark Trimble County Magistrate

Randall Embry KIPDA

Bill Monhollon KYTC- Chief District Engineer for District 5

Greg Groves KYTC- Preconstruction Branch Manager for District 5

Daryl Greer KYTC- Division of Planning Steve Ross KYTC- Division of Planning Robert Brown KYTC- Division of Planning KYTC- Division of Planning

The following Handouts were distributed:

Agenda

- General Information and Project Location
- Segment Crash Data
- Level of Service Calculations
- Year 2002 Traffic & Level of Service
- Year 2030 Traffic & Level of Service
- High Crash Locations & Segments
- Topographic View
- Aerial View

The project was described as a planning study for US 421 from I-71 to Bedford with objectives of evaluating roadway improvements, prioritizing projects for future programming documents, and providing input for the statewide transportation plan.

### 2. PROJECT GOALS AND OBJECTIVES

### a) General project area

- Defined as US 421 from I-71 to Bedford.

### b) Available data and reports

- i) Crash Data
  - Some crashes may not have shown up in the handout.
  - High crash locations were noted at the intersection of US 421 and US 42 in Bedford and at a curve near milepoint 2.2.
  - Near miss crashes were noted, especially those involving trucks.
  - Narrow lanes, lack of shoulders, sight distance at entrances, and steep grades were believed to be the cause of many of the crashes and near miss crashes.
- ii) Level of Service
  - An improved two-lane roadway would provide a satisfactory future Level of Service.

### c) Problems with existing roadway or network

- The roadway is signed at 55 mph, but drivers can not actually achieve that speed.
- Shoulders are needed for the safety of the traveling public.
- Sight distance at entrances and curves is restricted due to vegetation. Stark Lane was given as an example.
- Horizontal curves and the steep grades were cited as current problems.
- A new plant, Arvin Sango, is locating at the industrial park at Cambellsburg's I-71 interchange. Improved US 421 would serve as an industrial link.
   Currently a state police post is located there with one other business. The local officials believe the low occupancy in the industrial park to be due to the lack of a north/south corridor.

### d) Benefits of proposed project

- An improved US 421 would promote economic development and shorten travel times between I-71 and Bedford.
- Trimble County needs a North-South linkage for economic development.
- US 421 is currently a scenic route, but it is desirable to also be commerce driven.

### e) Other Issues

- Truck percentages are expected to grow between Madison and Campbellsburg due to Arvin Sango, Inc.'s growth and it feeding the Georgetown Toyota Plant.
- There is a lot of traffic coming up KY 55 from I-64 in Shelbyville.
- Residential growth is expected along the study area.
- The Milton-Madison Bridge is considered a slightly higher priority than this section of US 421. Both are considered very high priorities and both are needed to improve the connectivity and truck access.
- Pedestrians are not expected along the route and few bicyclist are currently using the route.
- Trimble and Henry county have recently been added to the Louisville MSA.

### f) Places to Avoid, Special Concerns

- Golf Course
- Church
- U-haul business
- Produce Stand
- Little KY River- the Little KY River was noted as requiring a lot of time maintaining the streambed. It has a rocky, loose, gravel streambed and there are also flood plain issues to consider.

### g) Project Goals and Objectives

- The previously developed goals and their ranking were agreed upon.
- Henry County should be added into the affected region listed in goal number three.
- School bus access should be mentioned in goal number two.
- The following goals were agreed upon:
  - 1. Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.
  - 2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current guidelines and provide improved safety for school buses.
  - 3. Improve access to Henry and Trimble County to support economic development in the region.

### 3. Possible Alternatives and Corridors

- There are sections that may require new construction to occur off of the current alignment. Maintenance of traffic will be an issue.
- New construction should stay mainly on the east side of the existing roadway.
- There is adequate housing available for relocations although there are not many relocations anticipated.
- Two curves near MP 2.0 in Trimble County were pointed out as the most needed realignment in the study area. There is only one landowner between these curves on the west side of US 421. It was noted that there is a steep vertical grade that must be considered in this area.

### 4. AGENCY COORDINATION NEEDS

There are no known opposition groups to contact at this time.

### 5. PUBLIC INVOLVEMENT NEEDS

- The open house format with blank maps will be used.
- The police post at Campbellsburg may be a possible location to have the meetings.
- The Extension Office in Bedford is currently adding more space and may be used for the meetings.
- The public meetings will be held around the first of the year.

### **Minutes**

### Alternatives Study – Stakeholders Meeting Henry and Trimble Counties, Item No. 05-147.00 US 421 from I-71 to Bedford

Meeting Location: Trimble County Fiscal Court Building

Meeting Date: June 17, 2003

### 1. INTRODUCTION AND PURPOSE

The meeting began at approximately 1:00 p.m. local time. Those present were:

Randy Stevens Trimble County Judge Executive

Ernie Harris State Senator

Stephen Stark Trimble County Magistrate

Garry Jackson Trimble County Schools- Superintendent John Thorpe Kentucky State Police- Post 5 Commander

Bill Prouly Business Owner George Yenowine EMS & Tourism

John A. Dunlap Bedford Loan & Deposit Bank
Clayton Prouly Citizen of Trimble County
Randall Embry KIPDA- Transportation Planner

Bill Monhollon KYTC- Chief District Engineer for District 5

Greg Groves KYTC- Preconstruction Branch Manager for District 5

Daryl Greer KYTC- Division of Planning Steve Ross KYTC- Division of Planning Robert Brown KYTC- Division of Planning KYTC- Division of Planning

The following Handouts were distributed:

- Agenda
- General Information and Project Location
- Segment Crash Data
- Level of Service Calculations
- Year 2002 Traffic & Level of Service
- Year 2030 Traffic & Level of Service
- High Crash Locations & Segments
- Topographic View
- Aerial View

The project was described as a planning study for US 421 from I-71 to Bedford with objectives of evaluating roadway improvements, prioritizing projects for future programming documents, and providing input for the statewide transportation plan.

The planning phase was dictated by the Kentucky Six-Year Highway Plan. No other phases are currently scheduled.

### 2. PROJECT GOALS AND OBJECTIVES

### a) General project area

Defined as US 421 from I-71 to Bedford.

### b) Available data and reports

- i) Crash Data
  - Intersection with US 42 is a high accident location.
  - Spot near curve at MP 2.2 is a high accident location.
- ii) Level of Service
  - A two-lane facility with wider lanes and shoulders is expected to be adequate to handle future traffic volumes.
  - Two-lane road similar to KY 55 between Eminence and Shelbyville is envisioned.

### c) Problems with existing roadway or network

- US 421 has narrow driving lanes and shoulders.
- Crashes are believed to be occurring with vehicles on down grades.
- It was stated that there have been some very serious crashes occurring, but almost no fatalities, therefore the statistics on fatalities may be misleading.
- Limited sight distances along the route is a problem, particularly for school buses when picking up and dropping off students.
- The roadway is not well lit and has drop-offs from the current shoulders.

### d) Benefits of proposed project

 Citizens who drive the road regularly know about the challenges the road presents, but people just passing through have difficulty with the current roadway alignment.

### e) Other Issues

- Arvin Sango, Inc. is located at the Campbellsburg interchange and is headquartered in Madison, Indiana. Arvin Sango makes mufflers for the Toyota Camry and serves the Georgetown Toyota plant.
- Calhoun trucking has recently moved into the industrial park at the Campbellsburg interchange.
- Trimble and Henry counties are now part of the Louisville MSA, but this is not expected to affect funding.
- Future funding for design and construction is not known at this time.
- More commercial traffic along the route between Madison and Campbellsburg is expected.

### f) Spots, Segments to Address

- The bridge over Little Kentucky River is in good shape and it may be possible to incorporate it into the project.
- The spot around the curves near MP 2 needs to be addressed. The signage needs to be checked to make sure that it is adequate.
- There is a turning radius problem for trucks at the intersection of US 421 and US 42 in Bedford.

### g) Project Goals and Objectives

The previously developed goals and their ranking were agreed upon:

- 1. Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.
- 2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current guidelines and provide improved safety for school buses.
- 3. Improve access to Henry and Trimble County and support economic development in the region by developing an important north-south corridor.

### 3. Possible Alternatives and Corridors

- Realignment should be considered for curves near MP 2.0.
- It would be preferable to stay along the existing alignment due to the topography
  of the land and in order to minimize community impacts.

### 4. AGENCY COORDINATION NEEDS

There are no known opposition groups to contact at this time.

### 5. PUBLIC INVOLVEMENT NEEDS

- The open house format with blank maps will be used.
- The public meetings will be held around the first of the year.

### **MINUTES**

Public Meeting 1: Alternatives Study
Henry/Trimble Counties
KYTC Item No. 05-147.00
Bedford Elementary School
November 18, 2004, 5:00 P.M. – 7:00 P.M.

A public involvement open house meeting was held on Thursday November 18, 2004 from 5:00 P.M. to 7:00 P.M. at the Bedford Elementary School in Bedford, Kentucky. The purpose of the meeting was to provide preliminary information to the public on the proposed project and to get public input on possible issues, impacts and alternates. The following Kentucky Transportation Cabinet (KYTC), Area Development District (ADD) and consultant staff attended:

Randall Embry Kentuckiana Regional Planning & Development Agency (KIPDA)

Brady Johnson Wilbur Smith Associates KYTC, District 5 Office **Barry Sanders Eddy Callis** KYTC, District 5 Office Chris Phillips KYTC, District 5 Office KYTC, District 5 Office Charlene Barnett Barbara Hockensmith KYTC. District 5 Office KYTC, District 5 Office Rick Cusick KYTC, District 5 Office **Greg Groves** KYTC, District 5 Office Krista Seymour



Jim Wilson KYTC Central Office, Division of Planning
Jamie Bewley KYTC Central Office, Division of Planning
Steve Ross KYTC Central Office, Division of Planning

The public involvement open house was arranged into several stations, with KYTC, ADD, and consultant staff available to answer questions and discuss issues. As attendees entered the meeting room, they were invited to participate in the following areas:

### Sign-In

On arrival, attendees were greeted at the door and asked to sign the attendance list. At this station, attendees were given a survey questionnaire, project information packet, and information regarding KYTC

roadway projects. Children's activities (crayons and coloring books) were also available. Attendees were asked to complete the survey questionnaire prior to leaving the meeting, or return it to the KYTC within two weeks in the postage-paid envelope provided. Steve Ross made an announcement at the beginning of the session welcoming attendees, encouraging them to view the slide presentation, see the exhibit boards, fill out a survey and talk to the staff.



### US 421 Alternatives Study Presentation

A PowerPoint slide presentation was prepared for the public involvement meeting, providing information on the current US 421 Alternatives Study. The screen was setup at the edge of the stage along one side of the cafeteria. The presentation included information such as: meeting purpose; the road building process; the study area; preliminary project goals; project schedule; existing conditions; traffic, environmental considerations; public involvement opportunities; and contact information. The

presentation lasted approximately seven minutes and ran continuously during the two-hour public involvement session.

### Exhibit Boards

Exhibit Boards were lined along one wall of the school cafeteria opposite the PowerPoint presentation area. The following project exhibits were displayed:

Project Location Map
Project Goals
Year 2002 Traffic and Level of Service (LOS)
Projected Year 2030 Traffic and Level of Service (LOS)
High Crash Locations and Segments
Environmental Footprint
Topographical View of the Project Area
Aerial View of the Project Area

Attendees were invited to view the project exhibits and discuss any questions or concerns with KYTC, ADD, and consultant staff. Comments made during the public involvement meeting could also be recorded on a large display flip chart in this area of the cafeteria although no comments were posted. Pens and markers were also available for drawing on exhibits to show locations with potential issues or for recommending reconstruction/relocation alternatives.

Some of the oral comments made by participants included:

Construct a bypass around the US 421/US 42 intersection in Bedford beginning north of the schools and continuing south along the east side of US 421 and rejoining US 421 south of the existing US 421/US 42 intersection. [The attendee drew the proposed bypass location on one of the exhibit displays.]

Recent paving of US 421 was several inches thick and much higher than my driveway.

Near the I-71 interchange, where US 421 has full shoulders, trucks park on the shoulder in front of the gas station creating a visual obstruction to drivers trying to pull out of the gas station onto US 421.

### Survey Area

Several tables were available in the middle of the cafeteria for attendees to read project handouts and fill out their survey forms.

67 people registered their attendance at the two-hour public session (this number includes the 13 staff members listed above). A total of 42 completed surveys were received. 39 were turned in at the meeting while many attendees took pre-addressed envelopes to mail their surveys in at a later date. Three additional completed surveys were received by mail in the two-week period following the meeting. The completed surveys and summary information will be included in the official meeting record.



In addition to the survey questionnaires, one hand-written comment was received during the meeting from Ms. Shirley Anderson. Another hand-written comment was received by mail after the meeting from Ms. Cherrie Winburn, attached to her completed survey. Both of these documents will also be included in the official meeting record.

The meeting closed at 7:00 P.M.

### Appendix E

Survey Results



### Commonwealth of Kentucky Transportation cabinet Questionnaire

### Proposed Reconstruction of US 421 from I-71 to Bedford

We need your help! The Kentucky Transportation cabinet is conducting a highway planning study for US 421 in Henry and Trimble County. A map of the project area is included on the back of this form.

To help us with the study, we would like for you to complete this questionnaire on the proposed project. This information will help us determine if there is a need for this route and what impacts this would have on your community and region. Please fill out this form and return it to Transportation cabinet staff here or use the postage-paid envelopes provided to submit your comments by December 31, 2003. We appreciate your participation!

### Please Print all Responses

Representing:

Name:

	letter	the	week
	Newsletter	o impact on	Once a week
	at apply)? Newspaper Meeting	o you feel this project would be (check one)? Beneficial to the regionNot beneficial to the region _Have little or no impact on the gionNo opinion hy?	e it (check one)? ore than twice per week
	this project (check all the Radio Friend/Family Other	would be (check one)? nNot beneficial to th	ghway existed today, would you use it (check one)? Less than twice per weekMore than twice per week
Address: Telephone (optional):	1. How did you hear about this project (check all that apply)?  TV  Direct Mai  Elected Official  Other	2. Do you feel this project would be (check one)?  —Beneficial to the region —Not beneficial to tregion —No opinion  Why?	fthis new highway existed today, would you use it (check one)?DailyLess than twice per weekMore than twice peNever
Tel	+	7	က်

If this highway were built, what do you think the most important benefit would be? (rank the items 1,2,3, etc., with 1 being the best)

If you travel this highway, what is the primary purpose of your trips?

Commuting to work \_\_Access to healthcare facilities \_\_Leisure/Recreation

Other

S.

Provide improved access to jobs in and out of the area.	Provide better access to educational institutions.	Provide opportunities for new jobs in the area.	Improve access, efficiency, and safety for emergency services, such as ambulances and	ø	Improve access to I-65.		Additional comments on these issues:	
Provide impr	Provide bette	Provide opport	Improve acc	police.	Improve acc	Other	Additional com	

Any additional comments about the study or issues to consider? one)? Yes If yes, please explain\_ 7.

Are you aware of any environmental concerns or sensitive areas, i.e. cemeteries, schools, historic features, natural areas, etc., in the project location that should be avoided (check

8

If you fail to receive a postage-paid envelope, you may send your written comments to:

R Ms. Annette Coffey, P.E. OF Director, Division of Planning Kertucky, Transportation Cabinet 125 Holmes Street Frankfort, Kentucky 40622

Mr. Joseph Tucker Project Manager, Division of Planning 125 Holmes Street Frankfort, Kentucky 40622

Survey Results
Public Meeting 1, November 18, 2004
US 421 Henry/Trimble Counties
Alternatives Planning Study
KYTC Item No. 05-147.00

Note: The following survey responses are reproduced as closely as possible to the original hand-written comments. No attempt was made to correct spelling, punctuation, etc.

# 1.) Do you think reconstruction of US 421 from I-71 to Bedford is needed? (42 Respondents)

Veither	res/No	4
Ž	No Ye	3
	les	35

### Comments from "Yes" respondents:

People go to fast for the curves that are on 421

To invite industry

Road is to narrow and curvy to travel at any given speed. And to improve industry groth to the county

Dangerous old road. County definitely needs a connector to 171

Very dangerous due to curves (Existing) between just north of Martini to

Because of 2 accidents in front of my house with an additional one last week!

Without proper access (better road) Trimble County can not attract industry, businesses or families relocating. 421 is a hazard to all who drive it

1. Safety 2. Improve access to 71 from S. Ind. if and when a new bridge is constructed

Too narrow

Too many holes in road and when you have a wreck on 71 we have semis commin thru and it is a huge mess

Too many large trucks and teenagers driving WAY too fast

Some places

Curves, Narrow, hills

Reroute the curves in front of my property near Antioch Church

Yes, due to bus safety and sight views for our drivers

Crooked Road

Way too curvy for semi traffic

Dangerous to drive on

To improve Traffic and promote a positive economic impact

Too narrow - Too many curves

Survey Results

Public Meeting 1 - November 18, 2004

Dangerous

Blind curves on narrow road with no place to go on the edges. Driving bus, I meet semi's and other wide loads

out dated road

Safety & Access (Note, this respondent also crossed out the word "reconstruction" in the question and inserted the word "relocation" so that the sentence read: Do you think relocation of US 421 from I-71 to Bedford is needed?)

Alot sharp curves

Mostly in winter road is dangerous and in rainy weather (Note, this respondent also crossed out the word "reconstruction" in the question and inserted the word "relocation" so that the sentence read: Do you think relocation of US 421 from I-71 to Bedford is needed?)

Poor dangerous road along with all Ky roads. Reconstruct north 421 and 42 merger.

It needs to be a bit wider or have more places to pull of for emergency. But the curviness keeps traffic a bit slower and allows people to enjoy our lovely scenery. Don't straighten it out very much, just give us afew safe spots to pass or pull off if needed. Then maintain it well.

Too narrow and curvey

It would help with truck's.

Road has no shoulder in some places, it is very narrow and some curves need to be straightened out.

### Comments from "No" respondents:

Because the state is in a defecit and the transportation dept is not fully funded now for req. jobs and because programs may be cut from disabled elderly or taxes raised.

The curves keep traffic slow. I enjoy the drive.

If think only improvements are needed at problem areas. It's a beautiful drive - I'd hate to see that lost.

To narrow, hills, and to many curves

### Comments from "Neither Yes/No" respondents:

Roads, Curves needed to be straightened and drainage needs to be done

Maybe - crooked, twisty, bumpy road. One has to drive slow - traffic crossing over center lane. I think however we need a new bridge worse than this!

Only places on 421

Relocation would be preferable to reconstruction

## should address? (Check all that apply.) (41 Respondents - Multiple selections made by several respondents) 2) What problems currently exist on US 421 that the proposed project

Low TravelFew PassingSharpSteepPoorNarrowNarrowLargeDownSpeedHigh SpeedsOpportunitiesCurvesGradesVisibilityLanesShouldersTrucksVehiclesCongestion13183624352488
High Speeds Opportunities Curves Grades Visibility Lanes Shoulders Trucks Vehicles (3 14 35 24 8
High Speeds       Opportunities       Curves       Grades       Visibility       Lanes       Shoulders       Trucks         3       18       29       35       16       30       24       35       24
High SpeedsPoper OpportunitiesSteep CurvesPoor GradesNarrow VisibilityNarrow LanesShoulders Shoulders318293516302435
High Speeds       Opportunities       Curves       Grades       Visibility       Lanes       Shoulder         3       18       29       35       16       30       24       35
High Speeds Opportunities   Curves   Grades Visibility   30
Few Passing Sharp Steep   High Speeds Opportunities Curves Grades   16   16   16   16   16   16   16   1
Few Passing Sharp High Speeds Opportunities Curves
Few Passing High Speeds Opportunities
Low Travel Speed High Speeds Opportunities  13 18 29
Low Travel Speed High Speeds
Low Travel Speed

### Comment from "Narrow Shoulders" respondent: or NONE

### Comments from "Congestion" respondents:

at times

sometimes

### Comments from "Other" respondents:

Bumpy road - twisty - confined travel!

It is a disaster as it exists today. It needs to be straightened from a little north of Martini to Rte 316

Shoulders are so steep that you cant even walk down the road unless you walk on the white line.

Just drive this corridor and it will be self explanatory. It is out of date in all areas of safety.

Steep highway with sharp curves is a danger.

travel 3-4 times a week. Low visibility in the mornings and around bends, and road too narrow if something was to happen (a breakdown)

too many speeders

Wait several minutes before getting on highway

Sometimes have to wait several minutes before you can enter hwy.

I live in a blind curve and its impossible to see to pull out

People drive to fast on most roads and do not obey the law

Hardly any shoulder from Ewing Ford to Powells

Most of south side of road is a creek with NO shoulder and NO guardrail

Places on 421 needs reconstruct

Blind curves on narrow road with no place to go on the edges. Driving bus, I meet semi's and other wide loads. Bank on one side and creek on the other

makes curves and wide loads passing each other difficult

Slower vehicles that need to be passed makes visibility poor

Narrow and steep curves

At the light at Bedford and getting onto 421 from businesses close to I-71, there is very poor visibility.

## 3) How often do you use US 421 now? (check one) (42 Respondents)

	3-4 times per	s per 1-2 times per 3-4 times per	3-4 times per	1 time per		
Daily	week	week	month	month	Never	Other
23	9	9	9	0	0	

## Comment from "3-4 times per month" respondent:

As little as possible

### Comment from "Other" respondent: Sometimes

4) If you use this route now, what is the <u>primary purpose</u> of your trips? (check <u>one</u>) (42 Respondents - Multiple selections made by several respondents)

			7
		Other	
To visit	friends or	family	16
	To go to the To take trips friends or	or vacations	5
	To go to the	doctor	6
	To go	shopping	10
To go to or	take kids to	school	9
	elated For personal take kids to	business	19
To go to To conduct	work-related	business	16
To go to	place of work-rel	work	16

Comment from "To conduct work-related business" respondent:

Comment from "To go to or take kids to school" respondent:

I drive the school bus on this route.

Comments from "Other" respondents:

Travel to my farm

l live on 421 South

Food Stamp Office, Go to Tri Co Comm. Action or to Madison

To go any place

Live there too

To go to church Everything

5) Are there sensitive areas that should be considered if this new route is constructed? Please check a box for areas to consider and identify any specific locations:

(24 Respondents - Multiple selections made by several respondents)

			7
		Other	
	Prime	farmland	8
Hazardous Scenic areas	o	viewsheds	3
Hazardous	or monitored	sites	2
	Historic or	cultural sites	9
	Recreational	areas	0
	rcial Natural areas Recreational Historic or or monitored	or habitats	4
Personal Businesses/	commercial	property	3
Personal	properties or commerc	homes	20

## Comments from "Personal Properties of homes" respondents:

Always consider someone's property – this is what they've worked for all of their lives.

Any change will effect homeowners and their futures

2 1/2 miles north of I 71 on 421

Hwy 15 Carlisle off of 421

15 Hwy 316 Bedford KY 40006

Between Bedford and Milton

Minimal impact to ancestral land

## Comments from "Businesses/commercial property" respondents:

Perhaps more business could be drawn into area if road is made better.

My business (Bill Proulx, Another Room Mini Storage)

If part of the goal is to improve economics, it would be foolish for businesses to suffer due to this project. I would like to see controlled commercial development to keep a rural-scenic look to the area

## Comments from "Historic or cultural sites" respondents:

Cemetary behind our house on our farm 316 off 421 (David Smith, 15 Hwy 316 Bedford Ky 40006) Cemetary on our farm behind our house (Rhonda Smith, 15 Hwy 316 Bedford, Ky 40006)

These should be preserved or assistance given for full documentation and/or relocation

## Comments from "Hazardous or monitored sites" respondents:

(1606 very dangerous off of I-71 to turn to Bedford)(Very bad can't see!)

## Comments from "Scenic areas or viewsheds" respondents:

The drive itself is relaxing – not everyone is in a hurry to get where they're going.

## Comments from "Prime farmland" respondents:

How else is the farmer to make money – if you take his prime land – you take his MONEY!

Hwy 15 Carlisle Rd off of 421

15 Hwy 316 Bedford

We're losing it fast in the US – Trimble has unique soil for fruits.

### Comments from "Other" respondents: Topography of area

Infrastructure

Note: One respondent circled the words "this new route" in the question and wrote: No new route was displayed.

6) How did you hear about this meeting? (check all that apply) (42 Respondents - Multiple selections made by several respondents)

					Friend/	Elected	Message	
≥	Radio	Newspaper	Direct Mail	Flyer	Family	Official	Sign	Other
0	0	18	3	1	4	2	30	7-

Comment from "Other" respondent:



### **SURVEY QUESTIONNAIRE**



### Alternatives Study for US 421 from I-71 to Bedford

PUBLIC MEETING
Trimble County Middle School
Bedford, Kentucky
September 25, 2007

We need your help! The Kentucky Transportation Cabinet (KYTC) is conducting a highway planning study for US 421 in Henry and Trimble Counties. A map of the project area is included on the back of this form.

To help us with the study, we would like for you to complete this questionnaire on this project. This information will help us determine your preference for the alternates and what impacts this would have on your community and region. Please fill out this survey and return it to the KYTC Staff Members who are here or use the postage-paid envelopes provided to submit your comments by October 9, 2007. We appreciate your participation!

### Please review the EXHIBITS or HANDOUTS before Printing Responses

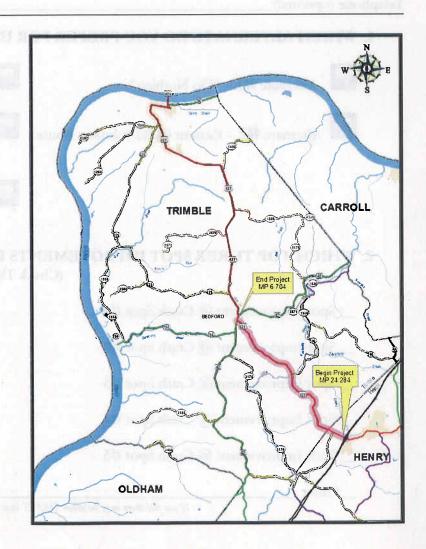
Name:	Organization:
Address:	
(Include City, State	& Zip Code)
Telephone (optional):	
1. WHICH ALTERNATE DO YOU PREFER FO	R US 421? (Check One)
Alternate #1 – "Do Nothing"	Alternate #3a – Rebuild Existing Route
Alternate #2 – Eastern Quire-Johnson Route	Alternate #3b – Spot Improvements Along Existing Route
	Alternate #4 – Western KY 3175 Route
	TTS DO YOU FEEL ARE THE MOST NEEDED?
Spot Improvement @ Crash Spot #1	Spot Improvement #6
Spot Improvement @ Crash Spot #2	Spot Improvement #7
Spot Improvement @ Crash Spot #3	
Spot Improvement @ Crash Spot #4	
Spot Improvement @ Crash Spot #5	
Other	

	ETTER or GIVE SUGGESTIONS or COMMENTS.)
	OPTION #1 – Add Turning Lanes OPTION #2 – Develop New Alignment
WHY	We word your bady? Tay be about a franceward on Calmer (ICVIII) is simulating a highest planting.  21. In thems and library between Amanon the presentation is included on the library that have a first from Calmer and with the second library was an example of the present. The
EF 30	If you feel you may have another solution, suggestion or comment, please describe.
	NY ADDITIONAL COMMENTS ABOUT THIS STUDY OR ISSUES TO CONSIDER?
	Capalarasin, Diganlarasin,

3. THE SPOT IMPROVEMENT @ CRASH SPOT #5 IS AT THE US 421/US 42

If you fail to receive a postage-paid envelope, you may send your written comments to:

Mr. Daryl J. Greer, P.E. Director, Division of Planning Kentucky Transportation Cabinet 200 Mero Street, 5<sup>th</sup> Floor Station: W5-05-01 Frankfort, Kentucky 40622



2<sup>nd</sup> Public Meeting, September 25, 2007 US 421 Henry/Trimble Counties

Alternatives Planning Study

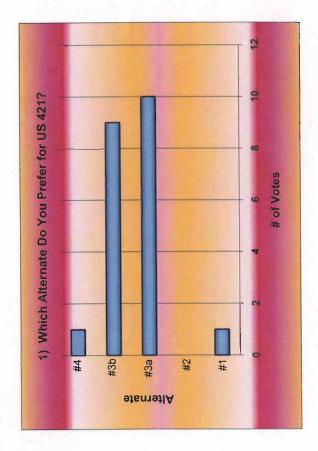
KYTC Item No. 05-147.00

Which Alternate Do You Prefer for US 421? (21 Respondents) 1:

### **ALTERNATES**

	#2	#3a	#3b	#4
$\overline{}$	0	10	6	

Note: The following survey responses are reproduced as closely as possible to the original hand-written comments. No attempt was made to correct spelling, punctuation, etc.



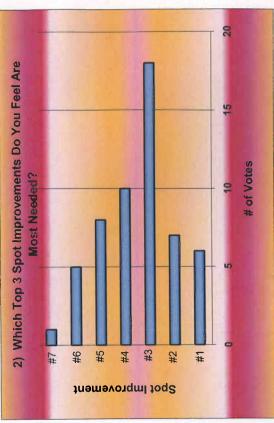
### Which top tree Spot Improvements Do You Feel Are Most Needed? (21 Respondents) 7

### Spot Improvements

47	1
9#	5
#2	80
#4	10
#3	18
#2	7
#1	9

### Comments from "Other":

- ★ After Rose Hill Rd South
   ★ Tie the total road picture to the Bridge Project which will define the need for the overall approach to 1-71.
  - ☆ T. Lights for 71 intersection
- ★ Webb Lane & Traffic Light @ I-71
   ★ Webb Ln. & 1606 Sulpher Rd. are bad blind spots to pull out on 421



### The Spot Improvement @ Crash Spot #5 is at the US 421/US 42 Intersection. There are 2 Options. Please choose which Option you think is Better or Give Suggestions or Comments. (18 Respondents) 3.

### #2 Options 15 ¥

### Comments from "Why?":

- Configuration of 3 way intersection plus existing commercial business leaves little room for new turning lanes... Possible traffic stop lite?
  - Because drivers are impatient, and many have to wait a long time because traffic is steady at certain times
- Approaching Hughes Lane would incur large property costs, disruption of business approaches with still ineffective alignment with North 421.
  - Don't mess up Bedford \*
- You have (1) Fast Stop (2) Little T&C (3) The Banner (4) Modern Hairshop (5) Post Office (6) Morgan Drug Store (7) Christian Church all pulling on to US 42 at the same time - something needs to be done
- Semis can't turn at light 公女
- Option #2 puts traffic east of 421/42 intersection
- It is not wide enough for two large vehicles to make a right turn
- Option #2 is no improvement, would make getting onto 421N harder. 公公
  - Less impact to residential and green spaces with in the city
- It will give the semi more room for turning
- Traffic will flow better. Most of the traffic turns to the right at the stop light

# Any Additional Comments About This Study Or Issues To Consider? (10 Respondents)

- Possible "New" consideration for sidewalk or walks due to foot traffic from high school and middle school. Thanks for the study and your time!
  - I've noticed sunglare is a big Problem in the morning at crash site 3 & 4.
- Please answer who developed these propsals their points of interest and why such expensive alternatives (#Alt #2 #Alt#4). More public input needed. ☆
  - Straighten 421 from 171 to Bedford over current route
- that it is to narrow (squeezed between the hillside & creek) 7 too curvy (follows the line of least resistance "the creek hollows") This section from MP 2.0 to MP ★ Leave speed limit to 45 mph all of 421 so.
   ★ I think the main highway concern in Trimble County is the Milton-Madison Ohio bridge & the approaches to it. The problem with the road under discussion is 2.4 needs to be upgraded. This section is difficult to drive, especially the north bound lanes.
  - ★ I think we need to put more effort in to the Milton Madison Bridge. This Bridge is our most important link to growth in this area.
    - ★ 421 is a beautiful, senic, country road that should be left alone.
- Guardrails are needed badly along the creekside between Stuck Ln. & Rose Hill Rd. If you go off the road you will flip over a vehicle blind spots are bad at Webb Lane & 1606 Sulpher Rd. ₩
  - From Starks Lane to Ewingsford, the hwy & creek are parallel & close with little or no shoulder & no guardrail. Surely that should be fixed in my lifetime. \*

### **Appendix F**

Resource Agencies

Send	38116 Y	42023 1 40601 V	40001 ×	> 100	>	V 12424 V	7 000	V FA7	40601 Y	522 iY	40601 Y	40601 Y	501 Y	40601 Y	406011Y	40601 Y	40601 Y	40601 Y	40601 Y	× 500	40001 Y	40601 Y	40622 Y	40601 Y	40601 Y	40601 Y	40001	40300 I	40601 Y	→ 68	40507 Y	40601 Y	1601 Y	40601 Y	40201 Y	40601 Y	40601 Y	1622 Y	40622 Y	622 Y	40622 Y	40622 Y	40601 Y	40201 Y	40507 Y	30303 Y	40503 Y	× 770	40601 Y	3103 Y	20510 Y	7510 Y	42420 Y/N	1515 Y/N	40202 Y/N	
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Address1	ays Blvd., Suite 302		Boone Nat'l Guard Ctr., 100 Minuteman Pky.	10th, floor, Capital Plaza Tower, 500 Mero St.	211 Lafferty Hall				105 Reams Street			30 King's Daugmers Drive	464 Chenaurt Koad	Capitol Annex, Room 188	14 Kelly Koad	Amoid L. Mitchell Bidg., #1 Gaine Fairli Ng.	663 Teton Trail	010 Vorsilles Road	# 2 Hudson Hollow		803 Schenkel Lane	627 Comanche Trail	Building, Suite T-500		14 Reilly Road	Catillal Plaza Tower, 500 Mero St.	54 Chenault Road	228 Mining and Mineral Resources Bidg.	JU Washington Street	100 W. Broadway	11 Fast Vine Street Ste. 600	34 Walnut Street	Capital Plaza Tower, 5th Floor		Transportation Office Building, W3-10-01			E3-16-01		I ransportation Office Building, WS-22-02		Transportation Office Building, E3-04-03	apital Plaza Tower, 2nd Floor				711 Corporate Drive, Suite 110		3781 Geographown Road	1222 Spruce Street	316 Hart Senate Office Building	61-A Russell Senate Office Building			1237 LUIKIWUIII TUUSE OIIIUE BUIIUM	III West Broadway
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fix Title	District Manager		Adjutant General	Commissioner		Ph.D. Regional Environmental Officer		President		Secretary		Executive Director	President	Commissioner	Commissioner	Commissioner	Commissioner	Director	Action Commissioner		Director		Commissioner	Actino Director	Director	Secretary	Executive Director	State Geologist & Director	Executive Director	Director		Precident	Secretary	Executive Director	Executive Director	Executive Director	Secretary	Activa Director	Director	Director	Director	Branch Mananer	Secretary	Director	President	Attorney	State Conservationist			Field Supervisor	United States Senator	United States Senator	Executive Director	District Engineer	United States Representative - District 4	ı
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PO Box 251   PO Box 202   PO Box 183   PO Box 183   PO Box 184   Fo Box 275   Fo Catalon Lane   Fo Catalon Lane   Fo Catalon Lane   Fo Catalon Lane   Fo Box 275	Trimble Country Judge Executive         Trimble Country Judge Executive         Trimble Country Judge Executive         From Source         PO Box 251           Henry Country Judge Executive         Henry Country Executive         PO Box 183         PO Box 183           Mayor of Campbelishurg         City of Campbelishurg         PO Box 183         PO Box 183           Mayor of Eadford         City of Eedford         190 Catalon Lare         160 Catalon Lare           Commander KSP Post 5         Trimble Country EMS & Tourism         196 Tandywood         PO Box 273           Superintendant         Trimble Country Schools         PO Box 277         PO Box 277	New Castle KY 40050 Y	Michigan Apple 0	Sedior IX Bediate	Ou KY	Pendleton KY 400001	Bedford KY 4000011	
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# KENTUCKY TRANSPORTATION CABINET FRANKFORT, KENTUCKY 40622 www.kentucky.gov

ERNIE FLETCHER GOVERNOR MAXWELL C. BAILEY
SECRETARY

August 13, 2004

(See Attached List)

«Mailing Title» «First Name» «Last Name» «Suffix»

«Title»

«Organization»

«Address1»

«Address2»

«City», «State» «Zip»

Dear «Letter\_Title» «Last\_Name»:

SUBJECT:

Alternatives Study

Henry and Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

We are requesting your agency's input and comments on a planning study to determine the need and potential impacts for a proposed highway project. The Kentucky Transportation Cabinet has assembled a study team to evaluate the proposed widening and/or relocation reconstruction of US 421 in Henry and Trimble Counties from I-71 in Campbellsburg to US 42 in Bedford. The study is currently in the initial data-gathering stage.

We ask that you identify specific issues or concerns of your agency that could affect the development of the project. This planning study will include a scoping process for the early identification of potential alternatives, environmental issues, and impacts related to the proposed project. We believe that early identification of issues or concerns can help us develop highway project alternatives to avoid or minimize negative impacts.

We respectfully ask that you provide us with your comments by October 15, 2004, to ensure timely progress in this planning effort.

During the development of this planning study, comments will be solicited from federal, state, and local agencies, as well as other interested persons and the general public, in accordance with principles set forth in the National Environmental Policy Act (NEPA) of 1969. The Federal Highway Administration is partnering with us in these efforts.

«Mailing\_Title» «First\_Name» «Last\_Name» «Suffix» Page 2 August 13, 2004

Other Transportation Cabinet offices or consultants working on behalf of the Transportation Cabinet may also contact you seeking more detailed data or information to assist them in completing their environmental studies for this phase of the project.

We have enclosed the following project information for your review and comment:

- Purpose, Issues, Schedule, & Project Goals
- County Map & Project Location
- General Information
- Level of Service Calculations
- Exhibit 1 Year 2002 Traffic and Level of Service
- Exhibit 2 Year 2030 Traffic and Level of Service
- Crash Analysis
- Exhibit 3 High Crash Locations & Segments
- Exhibit 4 Topographic View
- Exhibit 5 Aerial View
- Topographic Environmental Footprint Exhibit

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Steve Ross, P.E., of the Division of Planning by phone at (502) 564-7183 or by email at <a href="mailto:Steve.Ross@ky.gov">Steve.Ross@ky.gov</a>. Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 200 Mero Street, Frankfort, KY 40622.

Sincerely,

Annette Coffey, P.E.

Runtte Coffeey

Director

Division of Planning

AC:DJG:RSR:RC

Enclosures

c/att: Jose Sepulveda

Bob Farley

Anthony Goodman Randall Embry Barry G. Sanders Greg Groves

Christopher Phillips

Kevin Dant David Waldner Ananias Calvin



# Purpose, Issues, Schedule, & Project Goals Alternatives Study Henry and Trimble Counties US 421 From I-71 to Bedford Item No. 05-147.00

#### STUDY PURPOSE

The purpose of this Alternate Planning study is to evaluate US 421 from I-71 to Bedford and determine possible alternatives to improve safety and traffic flow. The study is intended to help define the location and purpose of the project and better meet federal requirements regarding consideration of environmental issues as defined in the National Environmental Policy Act (NEPA). Items involved with this study include:

- Define project goals;
- Identify the beginning and ending points of the project as well as potential project locations and design concepts;
- Discuss project needs and issues with public officials, government agencies and other groups with a special interest in the project;
- · Identify known environmental concerns; and
- Listen to and share information with the public.

#### **ISSUES**

US 421 is Bedford's most direct connection to the interstate, and the most pressing problems on this section of roadway are improving this connection. The current roadway alignment has narrow lanes and shoulders. The most frequent accident type in the project area was a vehicle running off the road. Other issues are as follows:

- The existing route is a narrow two-lane roadway with curves and grades that do not meet current guidelines or provide adequate sight distance for on-coming vehicles or vehicles pulling into traffic from side roads.
- An improved route may decrease the travel time between Bedford and I-71 and promote new industry in the region.

# PROJECT SCHEDULE

Only the Planning phase is approved for funding at this time. All other project phases will be considered for approval and funding during future legislative sessions.

# **DRAFT STATEMENT OF PROJECT GOALS**

The project goals for reconstructing US 421 from I-71 to Bedford are:

- 1. Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.
- 2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current guidelines and provide improved safety for school buses.
- 3. Improve access to Henry and Trimble Counties to support economic development in the region.

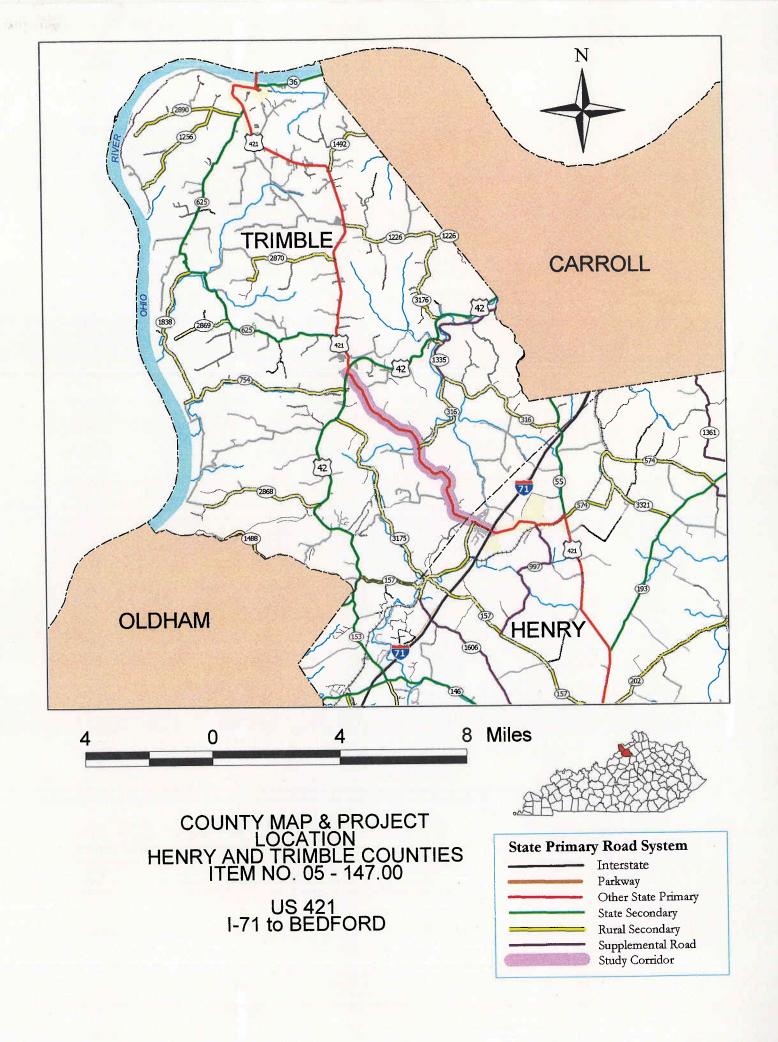
# **CONTACTS**

Address written comments to:

Ms. Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinet 125 Holmes Street Frankfort, KY 40622

Or you may contact by phone or email:

Mr. Steve Ross, P.E. Project Manager, Division of Planning Kentucky Transportation Cabinet (502) 564-7183 Steve.Ross@ ky.gov



# **General Information**

Counties:	Henry and Trimble	
Route:	US 421 Beg MP:	24.284End MP:6.704
Item No:	147.00	
Description:	Alternatives study for US-42	1 from I-71 to Bedford.
	Area Development District (ADD):	Kentuckiana Regional Planning and Development Agency (KIPDA)
	Average Right of Way:	60 Feet
	Bike Route:	No
	Coal Haul Route:	No
	Defense Highway Network:	Yes
	District:	5
	Extended Weight:	No
	Functional Classification:	Rural Minor Arterial
	National Truck Network:	No
	National Highway System (NHS):	No
	Number of Bridges:	4, Two over 100 feet in length
	Pavement type:	Henry- High Flexible
		Trimble- Composite; Flex. over Rigid
	Scenic Byway:	No .
	State System:	State Primary
	Truck Weight Class:	AAA (80,000 lb. Gross Load Limit)
2.14	Type Road:	Undivided Highway
	Type of Terrain:	Rolling

		L	eve	of S	ervi	ce C	alcula	ation	S		
Begin	End	2002 Average	Annual	2030 Average	Percent	Lane	Shoulder	2002 Level of	2030 LOS		OS with vements
Milepoint	Milepoint	Daily Traffic	Growth Rate	Daily Traffic	Trucks	Width (Feet)	Width (Feet)	Service (LOS)	No Improv.	4- Lane	Improved 2-lane
24.284	24.881	4,260	2.4%	8300	7.8%	10	8	С	D	А	С
24.881	25.144	3,120	2.4%	6100	7.8%	10	2	С	С	A,	В
0.000	3.206	2,520	2.4%	4900	8.9%	10	4	В	С	Α	В
3.206	5.948	1,890	2.4%	3700	8.9%	10	4	В	С	Α	А
5.948	6.587	2,030	2.4%	3900	8.9%	10	4	В	С	Α	Α
6.587	6.704	2,540	2.4%	4900	8.9%	10	4	С	С	Α	В

Milepoint	Descriptions
24.284	I-71
24.881	KY 1606
25.144/ 0.000	Henry/ Trimble County Line
3.206	KY 316 & Smith Lane
5.948	Starks Lane

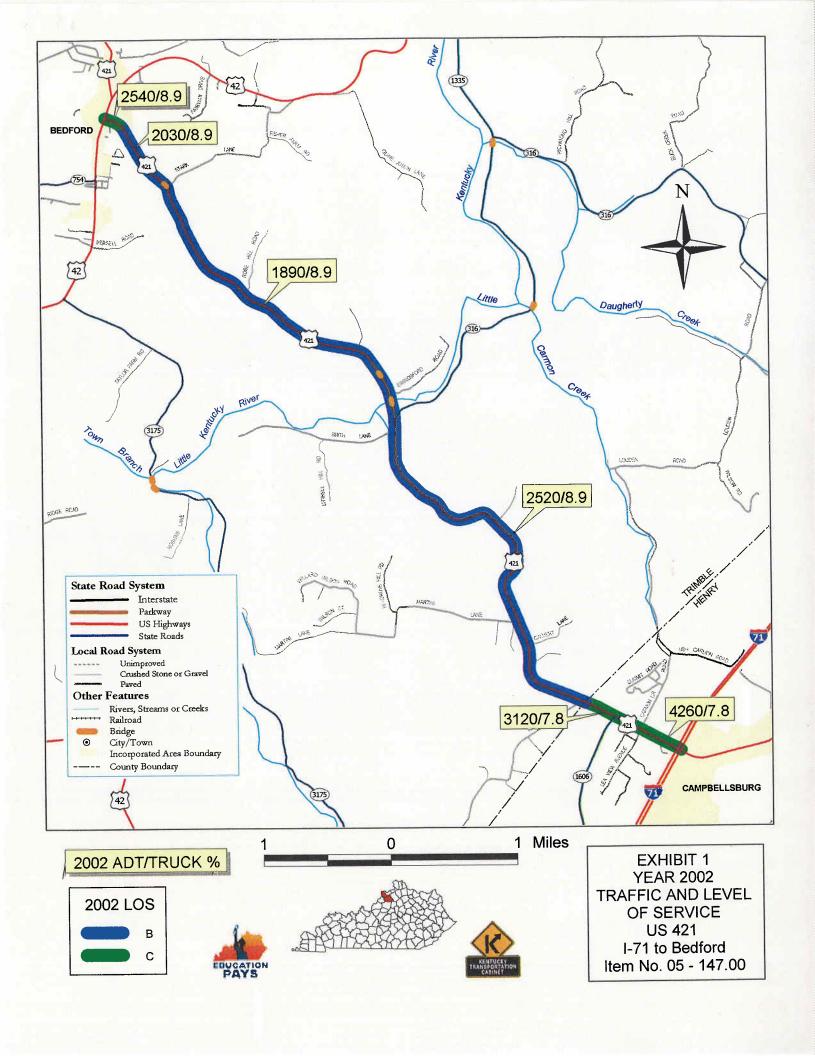
5.948 Starks Lane 6.587 Grey Street 6.704 US 42 (Main Street)

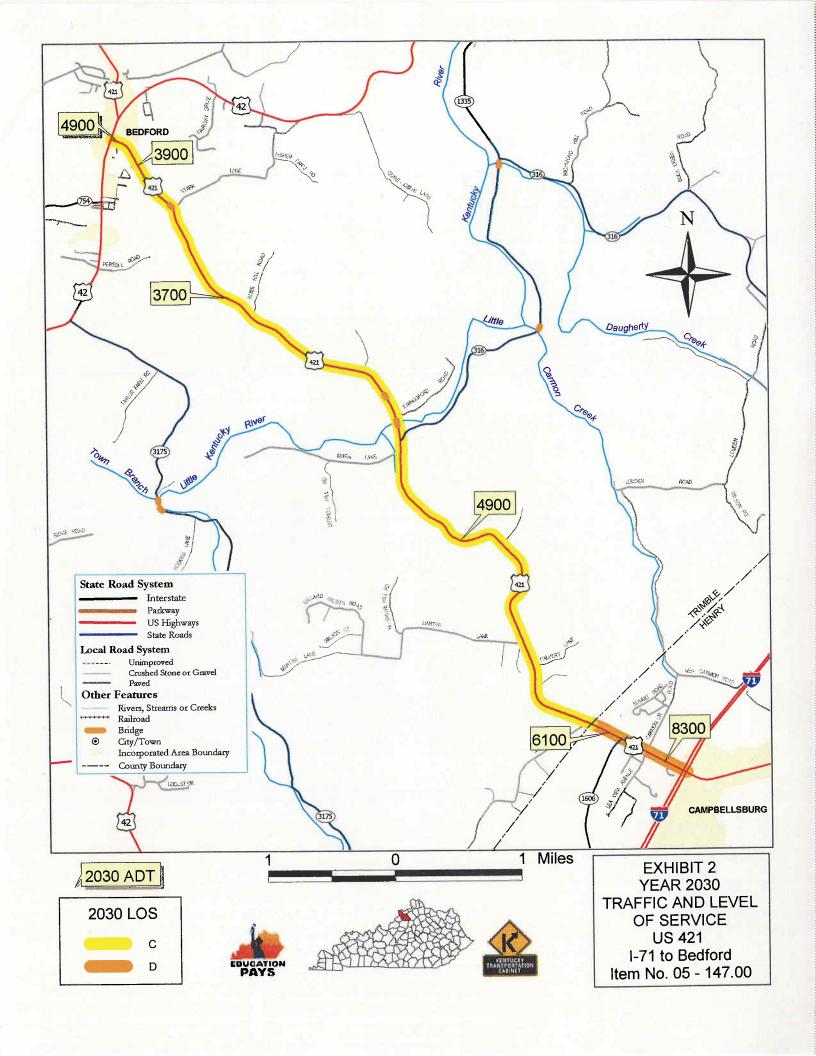
#### Note:

Level of Service (LOS) is used to describe traffic conditions and includes consideration of speeds, travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. LOS is given letter designations from A to F, with LOS A representing free flow conditions and LOS F representing severe congestion. Typically, a minimum LOS D is acceptable in urban areas and LOS C in rural areas.

Exhibit 1 on the next page shows a visual representation of the current LOS on US 421 between I-71 and Bedford.

Exhibit 2 shows a visual representation of the projected LOS in the year 2030 on an unimproved US 421 between I-71 and Bedford.





				Crash A	Analysis					
					Average		Cra	ashes		Critical
Segment	County	Begin Milepoint	End Milepoint	Length (Miles)	Daily Traffic	Fatal	Injury	Property Damage Only	Total	Rate Factor
13			January 1,	1996 to Dec	ember 31, 1	999 HIS	Data			
1	Henry	24.284	24.880	0.596	4260	0	3	13	16	0.903
2	Henry	24.881	25.143	0.262	3120	0	0	1	1	0.125
3	Trimble	0.000	3.205	3.205	2520	0	10	12	22	0.497
4	Trimble	3.206	5.947	2.741	1890	0	7	6	13	0.422
5	Trimble	5.948	6.586	0.638	2030	0	1	4	5	0.459
6	Trimble	6.587	6.704	0.117	2540	0	4	8	12	2.799
Total		24.284	6.704	7.563	2407	0	25	44	69	0.779
		J	anuary 1,20	00 to Dece	mber 31, 200	3 CRASI	l Data			
1	Henry	24.284	24.880	0.596	4260	0	2	9	11	0.768
2	Henry	24.881	25.143	0.262	3120	0	3	2	5	0.755
3	Trimble	0.000	3.205	3.205	2520	1	12	21	34	0.973
4	Trimble	3.206	5.947	2.741	1890	0	4	16	20	0.815
5	Trimble	5.948	6.586	0.638	2030	0	3	1	4	0.447
6	Trimble	6.587	6.704	0.117	2540	0	0	12	12	3.285
Total	,,,,,,	24.284	6.704	7.563	2407	1	24	61	86	1.247

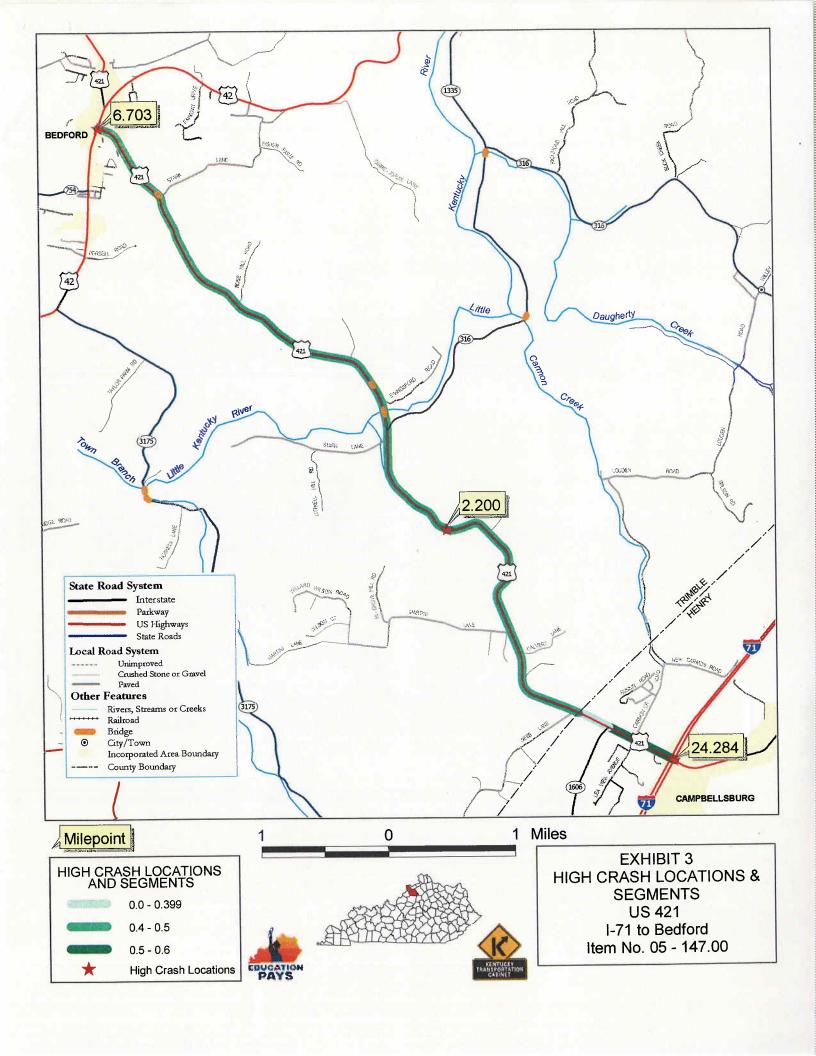
<sup>\*</sup> Segments in gray indicate Critical Rate Factor greater than 1.0.

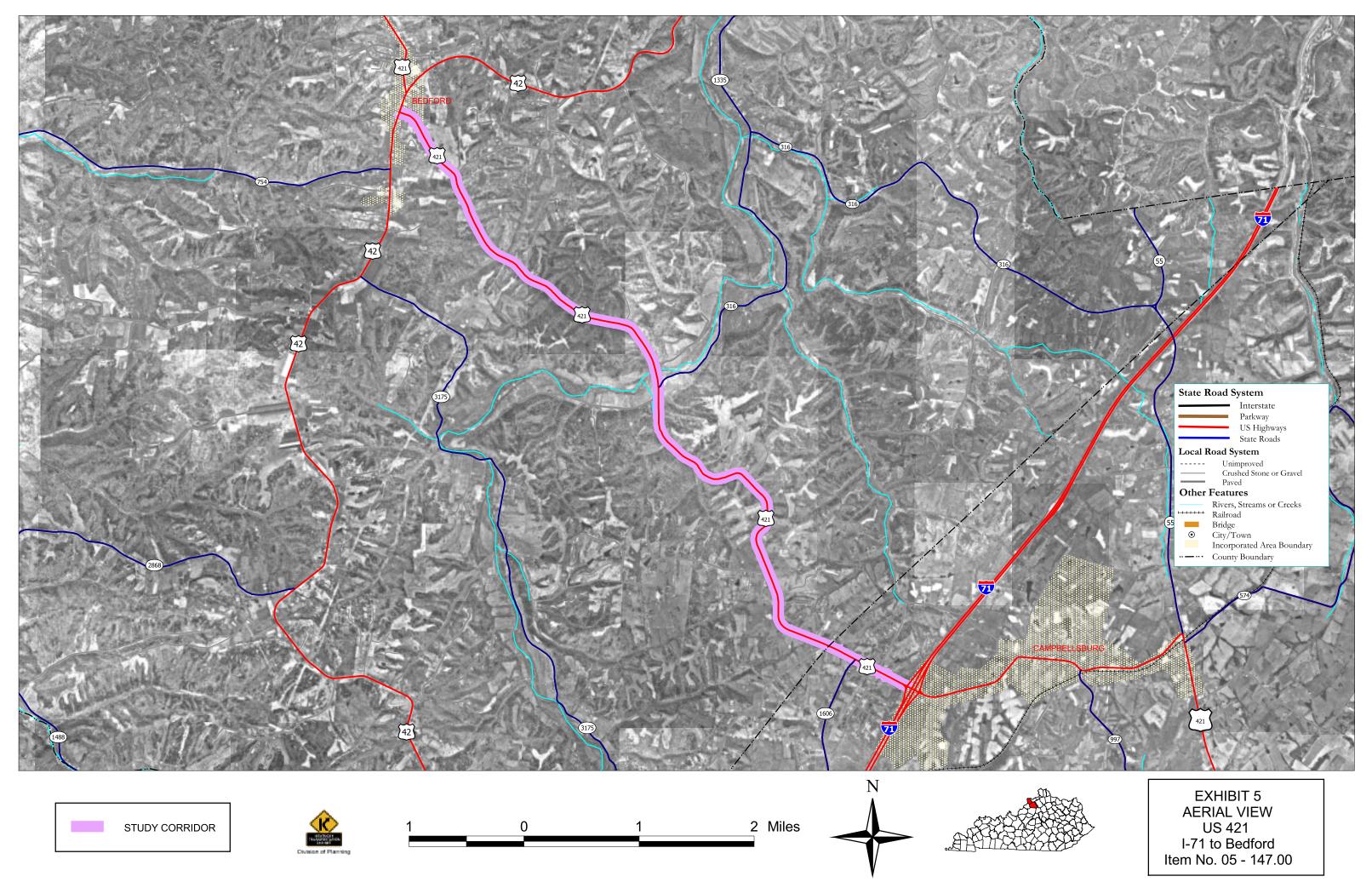
Milepoir	nt Descriptions
24.284	1-71
24.881	KY 1606
0.000	Henry/ Trimble County Line
3.206	KY 316 & Smith Lane
5.948	Starks Lane
6.587	Grey Street
6.704	US 42 (Main Street)

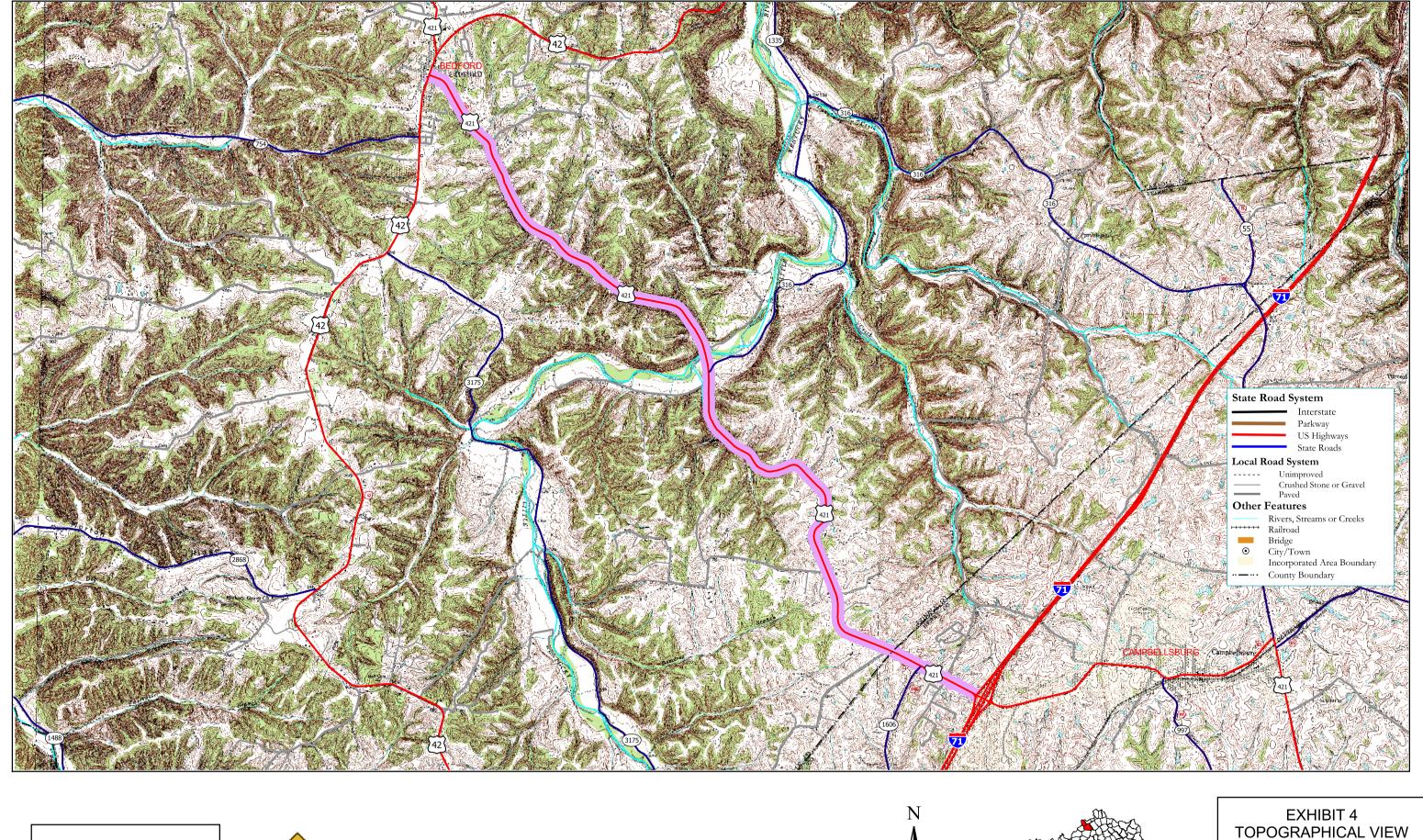
# Note:

When a spot or segment has a Critical Rate Factor (CRF) greater than 1.00, it indicates that crashes at that location may not be occurring randomly.

Exhibit 3 on the next page shows a visual representation of the high crash locations. Between January 1, 1996 and December 31, 2003, three specific spots had 5 or more reported and validated crashes. Milepoint 6.703 at the intersection of US 421 and US 42 in Bedf ord had 19 total crashes, of which 12 were rear end collisions. Milepoint 24.284 at the intersection of US 421 and I-71 had a total of 8 crashes, of which 5 were angle collisions involving vehicles turning left. Milepoint 2.200 located on a sharp horizontal curve in Trimble County 2.2 miles from the Henry County Line had a total of 5 crashes, of which 4 involved a single vehicle running of f of the roadway.















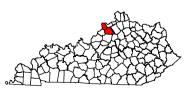



EXHIBIT 4
TOPOGRAPHICAL VIEW
US 421
I-71 to Bedford
Item No. 05 - 147.00



C-17 Geotechnical Branch Blevins

PIANNING W5-05-01

# MEMORANDUM

DIV OF PLANNING

7004 SEP 30 A 11: 49

TO:

Annette Coffey

Director

Division of Planning

FROM:

William Broyles PE

Geotechnical Engineering

Branch Manager Division of Materials

BY:

Michael Blevins PG MB

Geotechnical Branch

DATE:

September 27, 2004

**SUBJECT:** 

Henry and Trimble County

FD04 112 0421 000-007 P US 421, From I-71 to Bedford

Item 5-147.00 Mars # 73355001P

At your request, the branch has completed a review of the proposed project and the following comments are provided:

The project is located on the Campbellsburg and Bedford Geologic Quadrangle Map. The formations that may be encountered along the proposed corridor are Alluvium, Glacial Drift, Calloway Creek Limestone, Grant Lake Limestone, Bull Fork and Drakes Formation.

The alluvium consists of clay, silt, sand and gravel which is mainly found along the Little Kentucky River and its tributaries. The alluvium ranges from 0 to 20 feet in thickness.

Glacial Drift may be encountered on the ridge tops in and around the town of Bedford. The Glacial Drift should only be encountered in the vicinity of the intersection of US 421 and US 42. The material is considered to be highly erosive and flatter cut and fill slopes may be required.

The Calloway Creek Limestone consists of Limestone and Shale. Limestone makes up approximately 75 percent of the formation and the beds can be as thick as 2 feet. The Shale occurs as partings or in thin irregular beds.

Memorandum Annette Coffey September 29, 2004 Page-2-

The Grant Lake Limestone is mainly an argillaceous (shaley) limestone and the Bull Fork consist of interbedded limestone and shale in equal amounts. The Drakes Formation consists mainly of dolomite, and limestone and shales.

The branch has no preferred line or corridor and no major geotechnical issues are expected to be encountered. The quality of the limestone from roadway excavation may not be suitable for rock roadbed.

If there are any questions, please advise.



#### Kentucky Geological Survey

Research and Graduate Studies
228 Mining and Mineral Resources Building
Lexington, KY 40506-0107
Phone: (859) 257-5500
Fax: (859) 257-1147
www.uky.edu/kgs

August 19, 2004

Annette Coffey, P.E.
Director
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40622

Dear Ms. Coffey:

This letter is to summarize any geologic concerns for the alternatives study:
Henry and Trimble Counties
U.S. 421, Study from I-71 to Bedford.
Item No. 05-147.00

# Physiographic Region

This alternatives study area is in the Outer Bluegrass physiographic region near the Ohio River, is underlain by clay, silt, sand, gravel, limestone, siltstone, and shale.

#### Karst Potential

This alternatives study area might encounter karst features such as sinkholes and caves.

## Landslide Potential

This alternatives study area would encounter sections of unconsolidated sediments near streams that would be prone to landslides.

# **Unconsolidated Sediments**

This alternatives study area would encounter unconsolidated sediments.

## Resource Conflicts

This alternatives study area might encounter resource conflicts such as prior ownership of property for quarrying or mining.

# Materials Suitability

This alternatives study area would encounter rock units that would be suitable as construction stone.



# Fault Potential

This alternatives study area would not encounter any faulted areas.

# Earthquake Ground Motions

This alternatives study area has a probable peak ground acceleration (PGA) due to earthquake ground motion of 0.09g. There would be a very low potential for liquefication or slope failure in the unconsolidated sediments at or near streams caused by earthquake bedrock ground motion.

Sincerely,

Geologist

cc: Mike Blevins



# DIV OF PLANNING

ERNIE FLETCHER GOVERNOR

# ENVIRONMENTAL AND PUBLIC PROTECTION PRINTER 9 31-04 ANA S. WILCHER

SECRETARY

DIVISION OF CONSERVATION 663 TETON TRAIL

FRANKFORT, KENTUCKY 40601 PHONE (502) 564-3080 Fax (502) 564-9195 www.kentucky.gov

STEPHEN A. COLEMAN DIRECTOR

October 14, 2004

Ms. Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinent 200 Mero Street Frankfort, KY 40622

Subject: US 421 in Henry and Trimble Counties

Dear Ms. Coffey:

As requested, the Division of Conservation has reviewed the proposed widening and/or reconstruction of US 421 from I-71 in Campbellsburg to US 42 in Bedford and would like to provide the following comments and express concerns that may help in the initial data-gathering stage.

There are no agricultural districts established in the project area, therefore land enrolled in the Agricultural District Program will not have to be mitigated by the Department of Transportation.

We would like to see the issue of the loss of farmland addressed. Both prime farmland and farmland of statewide importance could be impacted by this project. Every year pressure imposed by utility right-of-ways, urban expansion, and new roads reduce the land available for agricultural use in the Commonwealth. There are two documents that could be utilized to identify these farmland designations: the Soil Survey of Henry and Trimble Counties (NRCS 1992) and Important Farmland Soils of Kentucky (NRCS 1981). This information is available through our office or the offices of Henry and Trimble County Conservation Districts. The soil information downloaded following web site: can also be at the http://soildatamart.nrcs.usda.gov/.

One other concern we would like to comment on is the control of erosion and sedimentation during and after earth-disturbing activities once this project begins. We recommend best management practices (BMPs) be utilized to prevent nonpoint source water pollution. This would protect the water quality and aquatic habitat of several perennial and intermittent streams that this project could impact.

Ms. Annette Coffey, P.E. October 14, 2004 Page Two

The manual, Best Management Practices for Construction Activities, contains information on the kinds of BMPs most appropriate for this project and is available through the Henry and Trimble County Conservation Districts or this office. Also an electronic version of the Kentucky Erosion Prevention and Sediment Control Field Guide is available online at <a href="http://www.water.ky.gov/sw/nps/Publications.htm">http://www.water.ky.gov/sw/nps/Publications.htm</a>

We appreciate the opportunity to comment on this project. If you have any questions, please contact this office any time.

Sincerely,

Stephen A. Coleman, Director

Kentucky Division of Conservation

SAC/aeh

Enclosure



ERNIE FLETCHER
GOVERNOR

# ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR NATURAL RESOURCES
663 TETON TRAIL
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-2184 FAX (502) 564-6193

www.naturalresources.ky.gov www.kentucky.gov

October 14, 2004

LAJUANA S. WILCHER SECRETARY

> SUSAN C. BUSH COMMISSIONER

Annette Coffey, P.E. Director Division of Planning Kentucky Transportation Cabinet 200 Mero Street Frankfort, Kentucky 40622

RE: Alternative Study for Henry and Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

Dear Ms. Coffey:

The Department for Natural Resources has examined the documentation for the above Alternative Study. The Kentucky Division of Forestry states that in relation to the potential widening of US 421 in the counties of Henry and Trimble, there is not a huge concern with the type of woodland being affected. Most of the woodland is second growth with a variety of species included. It would appear that the biggest concern would be the woodland areas affected along the stream channels that are near the existing roadbed. The Division of Forestry would greatly encourage the transportation cabinet to consider planting a variety of tree species to replace the ones being removed. Mr. James R. Wright of the Bluegrass District would be more than happy to provide any technical assistance the Transportation Cabinet may need when it comes to determining the type species to re-plant.

Please contact Leah MacSwords in the Division of Forestry at (502) 564-4496 or Mr. James R. Wright of the Bluegrass District at (502) 573-1085 if you need any additional information pertaining to this project.

Sincerely,

Susan C. Bush, P.E.

Commissioner

C T CARNER



ERNIE FLETCHER
GOVERNOR

# DIV OF PLANNING

# COMMERCE CABINET

2004 OCT 13 A II:W20 AMES HOST SECRETARY

CAPITAL PLAZA TOWER
500 MERO STREET, 24TH FLOOR

COMMERCE CABINET

FRANKFORT, KENTUCKY 40601-1974
PHONE (502) 564-4270 Fax (502) 564-1512
commerce.ky.gov

DERRICK K. RAMSEY
DEPUTY SECRETARY
COMMERCE CABINET

October 5, 2004

Annette Coffey, P.E. Kentucky Transportation Cabinet Director Division of Planning 200 Mero Street Frankfort, Kentucky 40622

Subject:

Henry and Trimble Counties

US 421, from I-71 to Bedford

Item No. 05-147.00

Dear Ms. Coffey,

Thank you for providing the opportunity to review and comment upon the alternatives being considered for the restructuring of US 421 from I-71 in Campbellsville to US 42 in Bedford.

I have reviewed the material provided by your office relating to this project. Based upon the information provided, this improvement will positively impact the area in both the tourism and industrial development segments of the economy.

The maps provided do not indicate historical structures or wildlife management areas in the past of constructions. These are areas of interest in the development and stability of the tourism industry and cultural activities in the area. I ask that the Kentucky Historical Society, Kentucky Heritage Council and the Kentucky Department of Fish and Wildlife be contacted, if this has not already occurred, to insure properties of interest to these agencies are not impacted in a negative manner.

Your efforts to improve the Kentucky roadways are greatly appreciated. Providing safe and pleasant diving experiences will assist in our efforts to grow the tourism industry within the Commonwealth.

If I may be of further assistance please do not hesitate to contact my office. I can be reached at 564-4270.

Sincerely,

W. Jum / 
W. James Host
Secretary



DIV OF PLANNING

2004 SEP 30 P 12: 11

# COMMONWEALTH OF KENTUCKY KENTUCKY STATE POLICE

919 VERSAILLES ROAD FRANKFORT KY, 40601

MARK L. MILLER COMMISSIONER

ERNIE FLETCHER
GOVERNOR

September 13, 2004

Ms. Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinet 200 Mero Street Frankfort, Kentucky 40622

RE:

Alternative Study

Henry and Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

Dear Ms. Coffey:

Members of the Kentucky State Police assigned to the Campbellsburg Post have thoroughly reviewed the referenced planning study. Post 5 personnel are in complete agreement with the draft statement of the project goals, particularly those goals that address correcting the roadways horizontal and vertical deficiencies and improving the lane and shoulder widths, as well as possible improvements to the Milton-Madison Bridge. Based on the information provided in the study and our general knowledge of the area and roadway, the Kentucky State Police is unaware of any issues that may negatively impact the proposed project.

The Kentucky State Police is committed to ensuring that the motoring public is as safe as possible. To aid us is that endeavor, I appreciate the opportunity to have reviewed this particular study and provide our thoughts and comments.

Sincerely,

Mark L. Miller, Commissioner

Kentucky State Police



AN EQUAL OPPORTUNITY EMPLOYER M/F/D



# KENTUCKY TRANSPORTATION CABINET FRANKFORT, KENTUCKY 40622 www.kentucky.gov

DIV OF PLANNING

2004 SEP 20 A 11: 41

MAXWELL C. BAILEY
SECRETARY

# ERNIE FLETCHER GOVERNOR

# **MEMORANDUM**

TO:

Annette Coffey

Director

Division of Planning

FROM:

M. Chad LaRue

Branch Manager

Permits

DATE:

September 13, 2004

RE:

Henry and Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 5-147.00

The Permits Branch has reviewed the data provided for subject study site and wish to offer the following.

- 1. We urge the Cabinet to classify this project and as a partially controlled access facility.
- Assuming the project is partial control access, we encourage all possible access points be set on the plans in accordance with 603 KAR 5:120, even if they are not to be constructed at that time. We encourage using the existing roadway as a frontage road to provide access to closely spaced entrances to reduce the amount of conflict points.
- 3. When buying R/W for this and all reconstruction routes, assuming the access control is partial control, new deed for all adjoining property owners need to be executed to identify the access control even if no new R/W is acquired.
- 4. In addition, we would like to make every effort possible to have the design speed to be the same as anticipated posted speed when the project is complete.
- 5. We would like to see access control fence installed with the project.
- 6. If the proposed roadway is to be on the N. H. S., early notification of the final line and grade is needed. This enables us to monitor outdoor advertising devices prior to road construction being completed.
- 7. Please notify this office if the proposed roadway is to be placed on the National Highway System. This information is needed to assist this office in regulating the installation of any outdoor advertising device.

Thank you for the opportunity to verbalize our concerns.

MCL/pm

# Trimble County Schools

GARRY D. JACKSON, SUPERINTENDENT
MARCIA DUNAWAY, ASST. SUPERINTENDENT
SHEILA DAVIS, FEDERAL COORD/INST. SUPERVISOR
KAY BISHOP, FINANCIAL MANAGER
ROD SMOTHERS, CHIEF INFORMATION OFFICER
JEAN ADAMS, DIRECTOR OF SPECIAL EDUCATION
PHYLLIS PENISTON, FOOD SERVICE DIRECTOR

BOARD OF EDUCATION
JAN JOYCE, CHAIRMAN
THOMAS COOK, VICE CHAIRMAN
J.W. SACHLEBEN, MEMBER
JILL SIMMONS, MEMBER
ROBERT YOWLER, MEMBER

To Whom It May Concern:

Subject:

Alternatives Study

Henry and Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

Thank you for including the Trimble County Schools in your planning study and giving us the opportunity to give input and comments regarding the proposed highway 421 project.

After reviewing the proposed project information, I believe travel time for school transportation will be reduced and safety will be improved.

The only negative impact would be the rerouting of buses during the construction phase of the project.

If you have any questions, you may call me at 502-255-3201.

Sincerely,

Marcia Haney Dunaway Assistant Superintendent

**Trimble County Schools** 

DIV OF PLANNING



Commander Eighth Coast Guard District 1222 Spruce Street St. Louis, MO 63103-2832 Staff Symbol: obr Phone: (314) 539-3900 x 2380 Fax: (314) 539-3755 Email:

16591.1 September 10, 2004

Mr. Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinet Frankfort, KY 40622

Subj: ALTERNATIVES STUDY, HENRY AND TRIMBLE COUNTIES, U. S. 421, STUDY FROM I-71 TO BEDFORD ITEM NO. 05-147.00

Dear Ms. Coffey:

We have reviewed your proposal for the planning study for the subject project. Under the provisions of the Coast Guard Authorization Act of 1982, it has been determined that the project is located in an area of a waterway where the Coast Guard has elected to not exercise jurisdiction for Bridge Administration purposes. A Coast Guard bridge permit will not be needed.

Thank you for providing the opportunity to comment on this project. If you should need any further information about our permit process, you can call my office at the above number.

Sincerely,

ROGER K. WIEBUSCI

Bridge Administrator

By direction of the District Commander

Phone 502-845-5707
Office Email
hcjudgeexec@hotmail.com

# JOHN LOGAN BRENT

P.O. BOX 202 NEW CASTLE, KENTUCKY 40050



September 8, 2004

Ms. Annette Coffey, P.E. Director – Division of Planning Kentucky Transportation Cabinet 200 Mero ST Frankfort, KY 40622

Dear Ms. Coffey,

After review of the "Hwy 421 Alternatives Study" from I-71 to Bedford I have no specific issues to address. In general I would tell you that I have been on the road many times and know from first hand experience that it is not a pleasant road to drive. Straightening the road would not only be a safety benefit, it would also be a huge boost to commerce in the region as travel from Madison and Bedford to locations along I-71 would become much more feasible.

I am 100% behind seeing this project move forward and will work with Transportation Department on it in whatever capacity I can be of assistance.

Sincerely,

John Logan Brent

Henry County Judge/Executive

ohn & Brent



ERNIE FLETCHER
GOVERNOR

# CABINET FOR HEALTH AND FAMILY SERVICES

ADMINISTRATIVE AND FISCAL AFFAIRS 275 EAST MAIN STREET, 5C-B FRANKFORT, KENTUCKY 40621-0001 (502) 564-6631 FAX (502) 564-2608 WWW.KENTUCKY.GOV

JAMES W. HOLSINGER, JR., M.D. SECRETARY

September 7, 2004

Annette Coffey, P. E.
Director, Division of Planning
Kentucky Transportation Cabinet
200 Mero Street
Frankfort, Kentucky 40622

Re: Alternatives Study

Henry and Trimble Counties

U.S. 421, Study from I-71 to Bedford

Item No.: 05-147.00

Dear Ms. Coffey:

As requested in your August 13, 2004 letter to Secretary Holsinger, the Cabinet for Health and Family Services has reviewed the impact of the reconstruction of U.S. 421 in Henry and Trimble Counties as it relates to the services we provide in this region. While the Cabinet does lease property in the immediate area, we do not anticipate that the construction will create a hardship on our staff nor clients unless U.S. 421 is shut down for long periods of time. Given the goals of the study, I believe the changes would ultimately have a positive impact on the traffic flow within the area.

If you require any additional information, do not hesitate to contact me at 564-6631.

Sincerely,

Lisa B. Detherage, Branch Manager Facilities Management Branch

Luia B. Detrerage

Division of Facilities Management

c: Dr. James W. Holsinger, Jr., M.D.

# Ross, Steve (KYTC)

From:

Wolfe, Jeff (KYTC)

Sent:

Wednesday, September 08, 2004 11:44 AM

To:

Ross, Steve (KYTC)

Subject:

Henry and Trimble County -US 421 (I-71 to Bedford) Alternatives Study - Traffic Operations

Comments

Steve,

Our Traffic Engineering and Systems Operations Branches have reviewed the subject study. Our comments are as follows:

Due to the critical crash rate on the northernmost section of US 421, we pulled crash reports for the intersection of US 421 and US 42 in Bedford. We thought that the intersection may be a source of the higher crash numbers on this section. Based on the available crash reports, there does not appear to be a significant pattern of crashes an the southernmost junction of US 421 and US 42. As a result, we do not think that the high crash rate on this section can be attributed to the US 421/US 42 intersection.

It would appear to be advantageous to consider realigning US 421 and US 42 to provide one intersection as opposed to the existing two intersections.



COMMONWEALTH OF KENTUCKY

DEPARTMENT OF AGRICULTURE

OFFICE OF THE COMMISSIONER

CAPITOL ANNEX, SUITE 188

FRANKFORT, KY 40601

OFFICE TELEPHONE (502) 564-5126 DIV OFTPL (502) 564-5016 2075

2004 SEP -3 P 3: 45

September 2, 2004

Ms. Annette Coffey, P.E.
Director
Division of Planning
Kentucky Transportation Cabinet
W5-05-01
200 Mero Street
Frankfort, Kentucky 40622

RE: Alternatives Study

Henry and Trimble counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

Dear Ms. Coffey:

Please be advised that this agency has no specific concerns or issues concerning the above-noted project.

Yours truly,

Ann Stewart
Staff Assistant



ERNIE FLETCHER
GOVERNOR

# DEPARTMENT OF PARKS

COMMERCE CABINET
CAPITAL PLAZA TOWER
500 MERO STREET, 11<sup>TH</sup> FLOOR
FRANKFORT, KENTUCKY 40601-1974
PHONE (502) 564-2172 FAX (502) 564-9015
parks.ky.gov

September 1, 2004

W. JAMES HOST SECRETARY COMMERCE CABINET

GEORGE WARD
COMMISSIONER
DEPARTMENT OF PARKS

Ms. Annette Coffey, P.E., Director Division of Planning Kentucky Transportation Cabinet 200 Mero Street Frankfort, Kentucky 40622

Re: Alternatives Study

Henry & Trimble Counties

US 421, Study from I-71 to Bedford

Item No. 05-147.00

Dear Ms. Coffey:

The Department of Parks has reviewed your correspondence to me regarding the subject. The study will not directly impact any of our facilities. I would like to state in general that our Agency's mission is protecting the environment associated with our facilities and we are certainly concerned about environmental impacts for the entire Commonwealth.

I appreciate you seeking our Agency's comments on this project.

Sincerely:

Mr. George Ward, Commissioner Kentucky Department of Parks

C: John Drake

x) wad



ERNIE FLETCHER GOVERNOR

# COMMONWEALTH OF KENTUCKY JUSTICE AND PUBLIC SAFETY CABINET

KENTUCKY VEHICLE ENFORCEMENT FRANKFORT, KY 40601

LT. GOV. STEPHEN B. PENCE SECRETARY

> GREG HOWARD COMMISSIONER

# MEMORANDUM

TO:

Annette Coffey, P.E.

Director

Division of Planning **Transportation Cabinet** 

FROM:

Greg Howard Commissioner 9-1-04

Department of Kentucky Vehicle Enforcement

Justice and Public Safety Cabinet

DATE:

August 31, 2004

SUBJECT:

Alternative Study

Henry and Trimble Counties

US 421, Study from I-71 to Beford

Item Number 05-147.00

In reference to the above study, we can see no problem with widening the roadway provided it is made a designated highway. This meaning it will accommodate 102" wide vehicles. Captain Edmondson, who is Regional Commander for this area, states it would be a much needed improvement.

If you need any other information, please let us know.

# Ross, Steve (KYTC)

From:

Houlihan, John (KYTC)

Sent:

Thursday, August 26, 2004 10:14 AM

To: Subject: Ross, Steve (KYTC) US 421 Item No. 5-147

The above proposed project will not affect any airport in that area. However if construction equipment exceed 200' a permit will have to be issued by this office. If you need to file an application with us, give me a call and I can get you the forms. Let me know if you have any questions. Thank you.



## DIV OF PLANNING

# COMMONWEALTH OF KENTUCKY ENVIRONMENTAL AND PUBLIC PROTECTION (CLASSIC) P 3: 22

## DEPARTMENT FOR ENVIRONMENTAL PROTECTION

DIVISION FOR AIR QUALITY 803 SCHENKEL LN FRANKFORT, KY 40601-1403

August 25, 2004

Ms. Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinet 200 Mero Street Station W5-05-01 Frankfort, Kentucky 40622

Dear Ms. Coffey,

The Division has reviewed the Planning Study for evaluating the proposed widening and/or relocation reconstruction of US 421 in Henry and Trimble Counties from I-71 in Campbellsburg to US 42 in Bedford, Item Number 05-147.00. The following Kentucky Administrative Regulations apply to this proposed project:

Kentucky Division for Air Quality Regulation 401 KAR 63:010 Fugitive Emissions states that no person shall cause, suffer, or allow any material to be handled, processed, transported, or stored without taking reasonable precaution to prevent particulate matter from becoming airborne. Additional requirements include the covering of open bodied trucks, operating outside the work area transporting materials likely to become airborne, and that no one shall allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. Please note the Fugitive Emissions Fact Sheet located at http://www.air.ky.gov/e clearinghouse.html.

Kentucky Division for Air Quality Regulation 401 KAR 63:005 states that open burning is prohibited. Open Burning is defined as the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the outdoor atmosphere without passing through a stack or chimney. However, open burning may be utilized for the expressed purposes listed on the Open Burning Fact Sheet incorporated by reference in 401 KAR 63:005 Section 3, Prohibition of Open Burning. The Fact Sheet is located at http://www.air.ky.gov/e clearinghouse.html.

Finally, the projects listed in this document must meet the conformity requirements of the Clean Air Act as amended and the transportation planning provisions of Title 23 and Title 49 of United States Code.

Ms. Annette Coffey Letter August 25, 2004 Page 2

Every effort should be made to maintain compliance with the preceding regulations and requirements. The Division also suggests an investigation into compliance with applicable regulations in the local governments. If there are any questions relating to this matter, please contact me at (502) 573-3382 extension 347.

Sincerely

John E. Gowins

Supervisor, Evaluation Section

Program Planning & Administration Branch

JEG/jmf



## DIV OF PLANNING

ERNIE FLETCHER
GOVERNOR

## COMMERCE CABINET

2004 AUG 26 A 10: 26. JAMES HOST
URGES SECRETARY, COMMERCE CABINET

DEPARTMENT OF FISH & WILDLIFE RESOURCES
#1 GAME FARM ROAD
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-3400 FAX (502) 564-0506
(800) 858-1549

www.kentucky.gov

man, commence ones.

C. TOM BENNETT COMMISSIONER

August 24, 2004

Annette Coffey, P.E. Director, Division of Planning Kentucky Transportation Cabinet 200 Mero Street Station W5-05-01 Frankfort, KY 40622

Re:

Threatened/Endangered species review; Pre-Design Scoping Study, Widening and/or Relocation Construction of US 421, Item No. 05-147.00, Henry and Trimble Counties, Kentucky

Dear Ms. Coffey:

The Kentucky Department of Fish and Wildlife Resources (KDFWR) has received your request for the above-referenced information. The Kentucky Fish and Wildlife Information System indicates that no federally threatened or endangered (T&E) fish and wildlife are known to occur in the Bedford and Campbellsburg 7.5 minute USGS quadrangle(s). Please be aware that our database system is a dynamic one that only represents our current knowledge of the various species distributions.

The KDFWR recommends the following for the portions of the project that cross intermittent and perennial streams:

- 1. Development/excavation during a low flow period to minimize disturbance;
- 2. Preservation of tree canopy overhanging the stream;
- 3. The applicant use a comprehensive sediment control plan consisting of silt barriers, diversion ditches, and immediate seeding and mulching of disturbed areas during and upon completion of the project;
- 4. Any excavation of stream channel for placement of bridge piers should be kept at a minimum;
- 5. The existing transportation corridors should be used as the main crossing of the stream during bridge construction if possible to minimize impacts to the aquatic resources.

Page Two Ms.Coffey August 24, 2004

Based on the information provided, KDFWR cannot determine the extent of impacts to fish and wildlife resources without knowing the extent of the proposed project. When further information is available to our agency we can make a final determination regarding environmental impacts.

I hope this information will be helpful to you. Should you require additional information, please contact me at (502) 564-7109, ext. 367.

Sincerely, Mark Darbour Callaghan

Maria T. Barbour Callaghan

Fisheries Biologist III

cc: Environmental Section File

## Ross, Steve (KYTC)

From:

Harman, Charles L (WFD-FK)

Sent:

Thursday, August 19, 2004 2:51 PM

To:

Coffey, Annette (KYTC) Ross, Steve (KYTC)

Cc: Subject:

Item No. 05-147.00

Annette - The Education Cabinet has reviewed the subject alternative study, and have no comments at this time.

ch

Charlie Harman
Office of Budget and Administrative Services
Education Cabinet
502.564.6606

This message contains information which is confidential. It is for the exclusive use of the intended recipient(s). If you are not the intended recipient(s) please note that any form of distribution, copying, forwarding or use of this communication or the information in it or attached to it is strictly prohibited and may be unlawful. If you have received this communication in error please return it to me, delete the email, and destroy any copies of it. Thank you.

## Ross, Steve (KYTC)

From: Sent: Palmer-Ball, Brainard (EPPC, KSNPC) Wednesday, August 18, 2004 8:59 AM

To: Subject: Ross, Steve (KYTC) US 421, Trimble Co

TO: Steve Ross, Ky Transportation Cabinet

FROM: Brainard Palmer-Ball, Jr., KSNPC

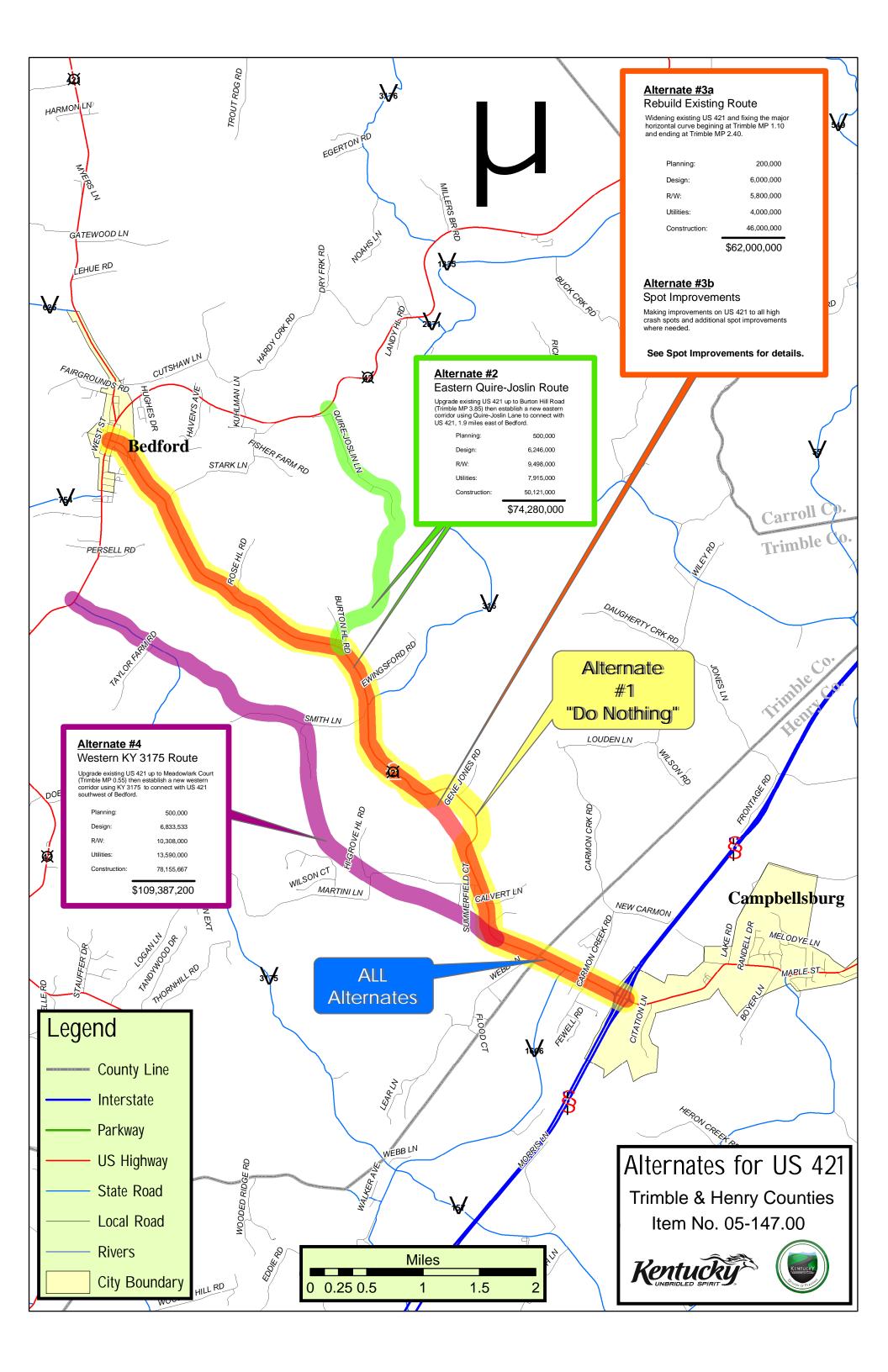
**DATE: August 18, 2004** 

RE: US 421 realignment in Trimble County

KSNPC has reviewed the project summary and has no comment at this time. There are likely several rare species issues that will need to be dealt with including Indiana bat and Running buffalo clover.

# **Appendix G**

Map of Alternatives & Aerials of Spot Improvements





# Spot Improvements

## Alternate #3b

Trimble & Henry Counties Item No. 5-147.00

## Spot Improvement @ Crash Spot #1

Widen US 421 to 4 lanes for safer access near the I-71 Interchange. (Henry MP 24.113 to 24.486)

 Design:
 300,000

 R/W
 350,000

 Utilities
 300,000

 Construction
 4,300,000

\$5,250,000







## Spot Improvement @ Crash Spot #2

After a field review, it was concluded that the geometry and sight distances for this spot are adequate and no further improvements are needed. (Trimble MP 0.90 to 1.00)

The field review did identify a spot south of this location with possible sight distance problems. Re-grade the roadway with shoulder improvements and clear vegetation. (Henry MP 24.60 to Trimble MP 0.10)

 Design:
 230,000

 R/W
 470,000

 Utilities
 470,000

 Construction
 1,410,000

\$2,580,000



Baptist Church. Clear vegetation from Right-of-Way to improve sight distances. (Trimble MP 2.40

Construction

50,000

\$50,000

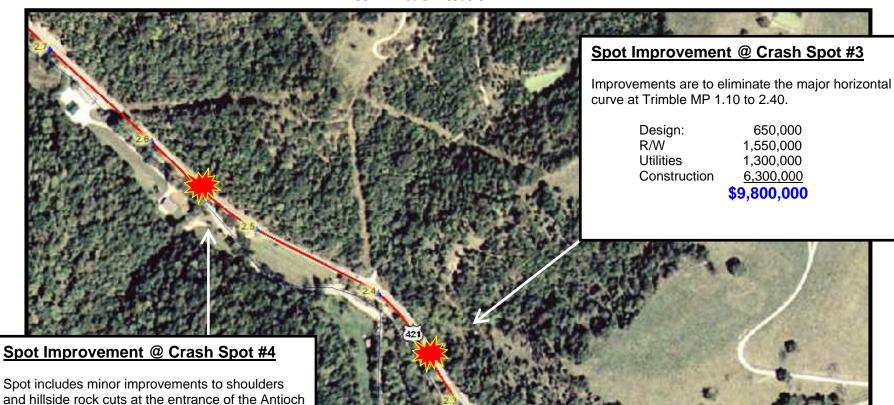
to 2.70)

# Spot Improvements

## Alternate #3b

Trimble & Henry Counties Item No. 5-147.00







# Spot Improvements

## Alternate #3b

Trimble & Henry Counties Item No. 5-147.00



## OPTION #1

## Spot Improvement @ Crash Spot #5

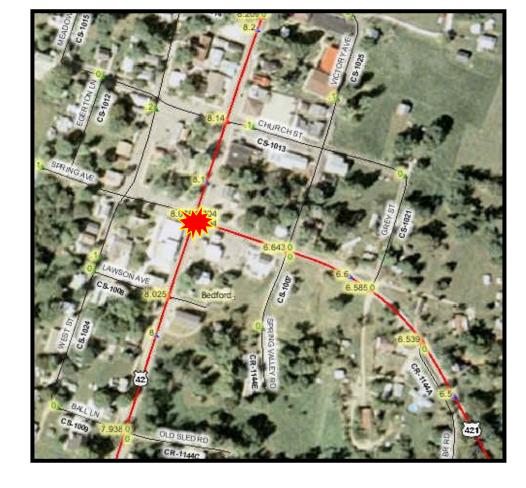
Add turning lanes and widen the combined US 421/US 42 route for improved safety and flow through Bedford. (Trimble MP 6.70 to 6.80)

Design: 450,000 R/W 1,200,000 Utilities 720,000 Construction 4,776,000 \$7,146,000

# OPTION #2 Spot Improvement @ Crash Spot #5

Develop a new alignment between US 421 and US 42 so the approaches cross at and angle closer to 90 degrees. Move both US 421 approaches east near Hughes Drive. (Trimble MP 6.70 to 6.80)

Design: 600,000 R/W 1,440,000 Utilities 1,200,000 Construction 7,572,000 \$10,812,000



# Spot Improvements



## Alternate #3b

Trimble & Henry Counties Item No. 5-147.00





Widen lanes and shoulders through this 40 MPH curve to current standards and soften curve radius. (Trimble MP 0.20 to 0.60)

Design: 200,000 R/W 400,000 Utilities 250,000 Construction 1,200,000 \$2,050,000

TRIMBLE MP 6.704 BEDFORD HENRY **Spot Improvement #7** Improve shoulders and add specified passing bays along the whole existing route. (Henry MP 24.280 to Trimble MP 6.704) Design: 50,000 200,000 Construction \$250,000

# Appendix H

Additional Meeting Minutes

## **Final Minutes**

Alternatives Study – 2<sup>nd</sup> Project Team Meeting Henry & Trimble Counties, Item No. 05-147.00 US 421 – from I-71 Interchange to Bedford

Meeting Location: KYTC – District 5 Office Conference Room

Meeting Date: June 8, 2007, Friday

## 1. Introduction and Purpose

The meeting began at approximately 1:05 p.m. local time. Those present were:

Tom Wright KYTC – District 5 Maintenance Jason Richardson KYTC – District 5 Traffic

Mary Ann Bond KYTC – District 5 Planning Branch Manager

Tom Hall KTYC – District 5 Planning

Jeff Schaefer KYTC – District 5 Environmental Coordinator Derek Adams KYTC – Division of Environmental Analysis

Tala Quinio KYTC – District 5 Design
Ananias Calvin III KYTC – Division of Design
Steve Ross KYTC – Division of Planning
Sheree Gabbard KYTC – Division of Planning
Thomas Witt KYTC – Division of Planning
Boday Borres KYTC – Division of Planning

The following Handouts were distributed:

- Agenda
- General Information and Project Location
- Year 2007 and Year 2030 Traffic & Level of Service
- High Crash Spots & Segments
- Aerial View of High Crash Spots
- Environmental Footprint
- Alternatives for US 421
- Material from Previous Public Involvement Meeting for recapping purposes

The completion of this study has been delayed because of a staffing shortage and other higher priorities. Boday Borres, P.E. in the Division of Planning was recently assigned as the new Project Manager. The purposes of this meeting were to:

- Introduce Ms. Borres as the new Project Manager,
- Bring the Project Team, including any new members, up to date on the status of the study,
- Discuss possible alternates to be presented at the next round of public involvement meetings (local officials/stakeholders meeting and public meeting), and
- Establish a schedule for completion of the study.

## 2. BRIEF PROJECT RECAP & UPDATE

## a) Recap

A chronological order of milestones for this project.

## <u>MEETINGS</u>

4/23/03 – Initial Project Team Meeting @ D5

6/17/03 – Officials and Stakeholders Meeting @ Trimble Co. Fiscal Court Bldg.

11/18/04 - Public Meeting @ Bedford Elementary School

## AGENCY COORDINATION

8/10/04 - Agency Letters mailed out

10/15/04 – Deadline for responses

10/26/04 – Summarized responses

## ENVIRONMENTAL FOOTPRINT

9/3/02 – Scoping Meeting

6/20/03 – Negotiation Meeting

7/21/04 - Final Completion/Submitted

## b) Update

- Presented revised crash analysis and level of service to reflect current data.
- Mary Ann Bond, Steve Ross and Boday Borres drove the project for a windshield survey May 11, 2007. Proposed alternates were mapped and brought to this meeting for discussion.

## 3. Comments & Suggestions about the Current Alternatives

The team reviewed and discussed all four alternates: Alternate #1 is the "Do Nothing". Alternate #2 uses the existing US 421 up to Burton Hill Road and then a new connection using Quire-Joslin Lane to US 42 east of Bedford. Alternate #3 is along the existing corridor including the correction of the large horizontal curve. And, Alternate #4 uses a portion of US 421, which connects to a new corridor from Meadowlark Court northward to a connection at US 42 south of Bedford.

The team concluded that Alternate #3 appeared to be the most feasible. Specific items for Alternate #3 discussed; widening improvements throughout the length of the US 421 segment, spot improvements at the various high crash spots, other additional spot improvements where needed and estimated costs.

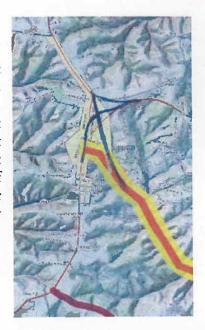
The team commented that Alternate #3 could be broken into two sub alternates:

- 3a) Widening existing US 421 and fixing the major horizontal curve and/or;
- 3b) Making improvements to all high crash spots and additional spot improvements where needed.

It was the general consensus of the team that Alternate #2 and #4 would probably not be feasible, but the team decided not to remove these alternates from the map for the Local Officials Meeting. It was decided to present the cost estimates concurrently with the alternates to allow the local officials to review and make their comments and suggestions.

## 4. OPEN DISCUSSION FOR MORE POSSIBLE ALTERNATIVES

The team agreed that improvements are needed at US 421 through Bedford and particularly to the US 421/US 42 intersection. One suggestion was to move the current intersection to a new northern location and realign all of the approaches so they cross at an angle closer to 90 degrees. This would most likely require moving US 421 east of its current location through Bedford and US 42 north of its current location as it approaches the existing intersection. A short connector allowing direct movements between the north leg of US 421 and the east leg of US 42 was also suggested. Other improvement options may be developed as the study progresses. (To the right is a sketch of what was suggested.)



## Other discussions:

- Central Office requested the District prepare the cost estimates for all Alternates to take to the next officials meeting. The cost estimates should be ready within 4-6 weeks.
- The "Draft Statement of Project Goals" in the handouts from the Public Involvement Meeting was reviewed. Jeff Schaefer suggested that item #3 needed to be eliminated. He also proposed the combining of the first two goals. There was discussion of rewording Item #1 about the description of connectivity between I-71 and Bedford and to "points north". Below are the current "Draft Statement Project Goals:
  - Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.
  - Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current guidelines and provide improved safety for school buses.
  - 3. Improve access to Henry and Trimble Counties to support economic development in the region.

At the time, the team could not come to an agreement on changing any of the goals or the structure of these goals. It was decided that Ms. Borres will e-mail the team with some suggested revisions. The responses will be compiled and sent to the Project Team for review.

-A timeline for completion of this study was established. Ms. Borres will start by contacting Randal Embry at the KIPDA ADD Office to discuss setting up the 2<sup>nd</sup> Local Officials Meeting to be held in mid August. District 5 Planning will work on completing cost estimates before that meeting. The 2<sup>nd</sup> Public Involvement Meeting will tentatively be scheduled for the middle or end of September. It is anticipated that the rough draft report could be reviewed by the end of November with a final report by the end of December.

From: Borres, Boday (KYTC)

Sent: Monday, July 23, 2007 12:58 PM

To: Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R

(KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Quinio, Tala

(KYTC-D05); Calvin III, Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC)

Subject: US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

#### Hi Folks.

In the final minutes of our last project team meeting I was to send an e-mail of a "Revised" Draft Statement of Project Goals. Below are the Original and the "Revised" forms.

Please send your comments on this. I'm open to edits for the "Revised" or leaving the Original as is or anything in between. I will take your responses to compile and hopefully have some type of team consensus. Dead line for comments/suggestions July 30, 2007 (COB).

We will be getting ready for our Local Officials meeting in the time frame of mid to late August.

Original:

1. Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.

2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current quidelines and provide improved safety for school buses.

3. Improve access to Henry and Trimble Counties to support economic development in the region.

#### Revised:

- 1) Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north.
- 2) Stays the same as the "Original #2"
- 3) Improve access to Henry and Trimble Counties to support development in the region by access to I-71.

Thank you,

## Boday Borres, P.E.

Transportation Engineer Specialist

Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622

(502)564-7183 ext. 3275

(502)564-2865 ~ FAX

E-mail: boday.borres@ky.gov

Visit our web page at <a href="http://transportation.ky.gov/planning">http://transportation.ky.gov/planning</a>

From: Quinio, Tala (KYTC-D05)

Sent: Tuesday, July 24, 2007 11:17 AM

To: Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R

(KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Calvin III,

Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC); Callihan,

John E (KYTC-D05)

Subject: RE: US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

## Boday,

These are my suggestions: (I'm a design person, so my wordings may be more design than planning)

1) Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north of Bedford.

2) Improve safety for the travelling public and school buses by improving the horizontal and vertical alignments and by utilizing a typical section that meets current guidelines.

3) Support development in the region by improving access to Henry and Trimble Counties from Interstate 71.

## Thanks, Tala

From: Borres, Boday (KYTC)

Sent: Monday, July 23, 2007 12:58 PM

**To:** Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R (KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Quinio, Tala (KYTC-D05); Calvin III,

Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC)

**Subject:** US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

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- 2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder

widths that meet current guidelines and provide improved safety for school buses.

3. Improve access to Henry and Trimble Counties to support economic development in the region.

## Revised:

- 1) Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north.
- 2) Stays the same as the "Original #2"
- 3) Improve access to Henry and Trimble Counties to support development in the region by access to I-71.

Thank you,

## Boddy Borres, P.E.

Transportation Engineer Specialist
Division of Planning
200 Mero Street, W5-10-04
Frankfort, KY 40622
(502)564-7183 ext. 3275
(502)564-2865 ~ FAX

È-mail: boday.borres@ky.gov
Visit our web page at http:\\transportation.ky.gov\planning

From: Adams, Derek (KYTC)

Sent: Tuesday, July 24, 2007 4:09 PM

To: Borres, Boday (KYTC)

Subject: RE: US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

This is looking good!!!

From: Borres, Boday (KYTC)

Sent: Monday, July 23, 2007 12:58 PM

**To:** Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R (KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Quinio, Tala (KYTC-D05); Calvin III,

Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC)

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#### Revised:

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## Thank you,

## Boddy Borres, P.E.

Transportation Engineer Specialist

**Division of Planning** 200 Mero Street, W5-10-04 Frankfort, KY 40622 (502)564-7183 ext. 3275

(502)564-2865 ~ FAX
E-mail: boday.borres@ky.gov
Visit our web page at http:\\transportation.ky.gov\planning

From: Hall, Tom (KYTC-D05)

Sent: Wednesday, July 25, 2007 7:48 AM

To: Borres, Boday (KYTC)

Cc: Bond, Mary A (KYTC-D05)

Subject: RE: US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

#### Boday:

I vote for leaving the Original goals as is. They are reasonably clear. Also, I don't think revising the project expectations halfway through makes sense.

Regards, Tom Hall D5 Planning Engineer

From: Borres, Boday (KYTC)

Sent: Monday, July 23, 2007 12:58 PM

To: Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R (KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Quinio, Tala (KYTC-D05); Calvin III,

Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC)

Subject: US 421 ~ Re-evaluate the "Draft Statement of Project Goals"

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3) Improve access to Henry and Trimble Counties to support development in the region by access to I-71.

## Thank you,

## Bodes Borres, P.E. Transportation Engineer Specialist

Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622 (502)564-7183 ext. 3275 (502)564-2865 ~ FAX

E-mail: boday.borres@ky.gov

Visit our web page at http://transportation.ky.gov/planning

From: Borres, Boday (KYTC)

Sent: Monday, August 20, 2007 12:12 PM

To: Quinio, Tala (KYTC-D05); Bond, Mary A (KYTC-D05); Wright, Tom (KYTC-D05); Richardson, Jason R

(KYTC-D05); Hall, Tom (KYTC-D05); Schaefer, Jeff (KYTC-D05); Adams, Derek (KYTC); Calvin III,

Ananias (KYTC); Embry, Randall (KIPDA)

Cc: Ross, Steve (KYTC); Wilson, Jimmy (KYTC); Witt, Thomas (KYTC); Gabbard, Sheree (KYTC); Callihan,

John E (KYTC-D05)

Subject: Follow up: US 421 ~ Re-evaluated "Draft Statement of Project Goals"

This is what we've come up with for the **Draft Statement of Project Goals**: (Original is below the new version.)

## Revised:

- 1) Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north of Bedford.
- 2) Improve safety for the traveling public and school buses, by addressing less than optimal horizontal and vertical alignment and by utilizing a typical section that more closely meets current guidelines.
- 3) Improve access to Henry and Trimble Counties to support development in the region by providing better access to I-71.

## Original:

- 1. Improve connectivity between Bedford and I-71 and to possible future improvements to US 421 north of Bedford including the Milton-Madison Bridge and improvements to US 42.
- 2. Improve safety by correcting horizontal and vertical deficiencies, and providing lane and shoulder widths that meet current guidelines and provide improved safety for school buses.
- 3. Improve access to Henry and Trimble Counties to support economic development in the region.

Thank you for all your suggestions,

## Boddy Borres, P.E.

Transportation Engineer Specialist

Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622

(502)564-7183 ext. 3275 (502)564-2865 ~ FAX

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## **Alternatives Study**

## **Draft Statement of Project Goals**

- 1) Enhance regional connectivity by improving the connection from I-71 to Bedford and to points north of Bedford.
- 2) Improve safety for the traveling public and school buses, by addressing less than optimal horizontal and vertical alignment and by utilizing a typical section that more closely meets current guidelines.
- 3) Improve access to Henry and Trimble Counties to support development in the region by providing better access to I-71.

# KENTUCKY

TRANSPORTATION CABINET

Phone: (502) 564-7183

Address: Division of Planning

Kentucky Transportation Cabinet

Mail Code W5-05-01

Transportation Office Building

200 Mero Street Frankfort, KY 40622

## **Final Minutes**

Alternatives Study — 2<sup>nd</sup> Local Officials Meeting Trimble & Henry Counties, Item No. 5-147.00 US 421 — from I-71 to Bedford

**Meeting Location:** 

Trimble County UK Extension Office - Conference Room

**Meeting Date:** 

August 28, 2007

## I. WELCOME AND INTRODUCTIONS

The meeting began at approximately 10:00 a.m. local time.

Those present were:

Hon. Rick Rand Kentucky State Representative – District 47

Hon. John Brent
Hon. Randy Stevens
Nolan Hamilton
Kirby Melvin
Dave Scott
Henry County Judge Executive
Trimble County Magistrate – District 1
Trimble County Magistrate – District 2
Trimble County Magistrate – District 3

Christina Poole Congressman Geoff Davis Field Representative

Randall Embry KIPDA – Planning

Mary Ann Bond KYTC - District 5 Planning Branch Manager

Tom Hall KYTC – District 5 Planning

Jeff Teague KYTC – District 5 Maintenance Engineer
Steve Ross KYTC – Division of Planning Branch Manager
Boday Borres KYTC – Division of Planning Project Manager

Boday Borres, Project Manager, welcomed everyone and invited participants to introduce themselves around the table. A sign-in sheet was provided for the attendees to register. Randall Embry of KIPDA thanked the Trimble County Judge Executive, Randy Stevens and the local UK Extension Office for providing the location and hosting the meeting.

The following Handouts were distributed:

- Agenda
- General Information and Project Location
- Year 2007 and Year 2030 Traffic & Level of Service
- High Crash Spot & Segment
- Aerial View
- Environmental Footprint
- Alternates

This project was included in the Approved 2000-2002 Biennial Highway Construction Program and Identified Preconstruction Program Plan for FY 2003 Through FY 2006, and is described as follows:

Item No.RouteLengthDescription5-147.00US 4217.500Scoping Study for US 421 from I-71 to Bedford.

The planning phase was the only phase of this project scheduled at this time.

#### II. PURPOSE OF MEETING

## a) Recap

Boday went over the Draft Statement of Project Goals. Afterwards, Judge Stevens noted the Milton-Madison Bridge project is currently underway with funds of \$41 million for rehabilitation. Due to circumstances of the bridge project, he mentioned that now it is imperative for this subject US 421 project to move forward for the future of transportation in the area.

## b) Update

With the handouts, Boday reviewed the information and explained the updates that were made from the previous data to the current data. A display map which has proposed alternates and the topography was posted in front of the room as a reference tool for discussion.

A couple of the Crash Spots were addressed by the participants.

Spot #2: Martini Lane has been paved since it was identified in this study process. It was noted that the entrance to this road had received a significant widening to improve sight distance and turning movements. The factors that may have contributed to high crash rates appear to be addressed via these improvements.

Spot #3: On US 421, this location had a large rock near the roadway. KYTC's district highway crew removed the rock.

Another issue that was brought to the group's attention is that land use in the immediate area changing. Property north of Martini Lane and west of US 421 is waiting for development approval for an 84-lot subdivision. The group expressed concern that this is an area that could possibly be used to realign and straighten the most significant horizontal alignment issue on the route.

#### III. ALTERNATES WITH COST ESTIMATES

As each of the alternates was introduced, participants asked specific questions for clarity and understanding. It was made clear from Tom Hall, District 5 Planner; Spot Improvement #2 was not at Martini Lane due to a site review and engineering judgment, but further south, near KY 1606 intersection. This improvement/estimate was for correcting the "dips" or vertical curves and sight distance issues. Also for Alternate #3a, it was clarified that the estimate was based on 12 foot lanes with 8 foot shoulders.

#### IV. GROUP DISCUSSION

The following points were made during the discussion period:

- Judge Stevens noted that Alternate #3a (rebuild existing route) and #3b (spot improvements) get his vote along with improving the intersection in Bedford. It was explained that options could be viewed as "cafeteria style" for picking and choosing projects that would fit a budget or prioritization purpose.
- Henry County Judge Executive Brent noted that this project is a commerce issue and stressed that US 421 is their connector to the Interstate.

- Judge Brent's preference is to just widen the road all the way through.
- State Representative Rick Rand entered the meeting and introduced himself. His
  preference was for widening the current route.
- It was discussed that the estimate to widen the full length of the road to 12' lanes and 8' shoulders is probably low given the terrain. It was noted that the location of the existing road between the rock cliff on one side and the creek on the other would make widening the road very difficult.
- It was noted that Madison Precision Products, a Toyota feeder plant is located in the area.
- Judge Stevens noted it would be nice to purchase right of way early before land use changes any more.
- It was noted that Alternate #3a is currently on the UPL.

The group discussed that the next step in the process will be to have one more public meeting to take these proposed alternates to the public and get additional feedback. A date toward the end of September has been proposed and the team will look at having this meeting at one of the Bedford schools. The Final Report is projected to be available by the end of this year for legislators and local officials use.

The meeting adjourned at approximately 11:40 a.m.

#### **FINAL MINUTES**

Public Meeting 2: Alternatives Study
Henry/Trimble Counties
KYTC Item No. 05-147.00
Bedford Middle School
September 25, 2007, 5:00 P.M. – 7:00 P.M.

A public involvement open house meeting was held on Tuesday September 25, 2007 from 5:00 P.M. to 7:00 P.M. at the Bedford Middle School in Bedford, Kentucky. The purpose of the meeting was to update the public on the project's status, to show the proposed alternates and to get public input on possible issues, impacts of the alternates. The following Kentucky Transportation Cabinet (KYTC) and Area Development District (ADD) staff attended:

Randall Embry

Kentuckiana Regional Planning & Development Agency (KIPDA)

Mary Ann Bond

KYTC, District 5 Office

Steve Ross Boday Borres KYTC Central Office, Division of Planning KYTC Central Office, Division of Planning

The public involvement open house was arranged into two separate stations, with KYTC and ADD staff available to answer questions and discuss issues. As attendees entered the meeting room, they were invited to participate in the following areas:

## Sign-In

Upon entry of the school cafeteria, attendees were greeted at the door and asked to sign the attendance list. At this station, attendees were given a survey questionnaire, project information packet, and information regarding the layout of the room i.e., children's activity table with crayons and coloring books, the refreshment table and the exhibits. Attendees were asked to complete the survey questionnaire prior to leaving the meeting, or return it to the KYTC within two weeks in the postage-paid envelope provided.

#### Exhibit Boards

One Exhibit Board was displayed in the hallway just before the entrance to the school cafeteria. This board described the Project's Goals and had contact information.

Identical sets of Exhibit Boards were lined along opposite walls of the school cafeteria. This choice of layout was for the purpose for large groups of people to view without the feeling of being crowed. The following project exhibits were displayed:

Year 2007 Traffic and Level of Service (LOS)
Projected Year 2030 Traffic and Level of Service (LOS)
High Crash Spots and Segments
Alternatives Map
Various Spot Improvements

Attendees were invited to view the project exhibits and discuss any questions or concerns with KYTC, ADD, and consultant staff. Comments made during the public involvement meeting could also be recorded on a large display flip chart in the corners of the cafeteria. Several comments were posted. Pens and markers were also available for drawing on exhibits to show locations with potential issues or for recommending reconstruction/relocation alternatives.

Some of the oral comments made by participants included:

At least 3 crashes have occurred at the intersection of US 421 and Rose Hill Rd. There was an
oncoming vehicle that forced me off the road and there were narrow shoulders.

- On US 421 at Meadowlark Ct. (Spot 6) has a school bus pickup and needs flashing lights.
- Need a culvert or guardrail in curve around the 4.6 mile marker. There have been 13 wrecks in the cabin yard caused by striking the culvert.
- Coal trucks going to the power plant travel north on US 421 through Bedford and south on US 42 then north on KY 754.
- Concrete headwall for culvert between Burton Hill and Rose Hill Roads is just off the shoulder and is contributing to the crashes.
- Northbound ramp off I-71 onto US 412 is hard to see pulling up from the ramp. Also, trucks try to turn around at this interchange.
- Some of the Alternates don't go to Bedford...isn't that what this project is supposed to do; go through Bedford?
- Alternate's 2 and 4 are way out of range and there is too much property to disturb, to expensive and they got to consider the crossing for the rivers. No way.

## Survey Area

Several tables were available in the middle of the cafeteria for attendees to read project handouts and fill out their survey forms.

38 people registered their attendance at the two-hour public session (this number includes the 4 staff members listed above). A total of 19 completed surveys were received. There were 15 surveys turned in at the meeting while many attendees took pre-addressed envelopes to mail their surveys in at a later date. Four additional completed surveys were received by mail in the two-week period following the meeting. The completed surveys and summary information will be included in the official meeting record.

KYTC and ADD staff have extra handouts, surveys and envelopes at their office for anyone to pick up.

#### Miscellaneous Handouts

On one table there were several informational brochures available for the public to take home. These items are listed below:

- Title VI Program Policies & Assurances
- Title VI of the Civil Rights Act of 1964
- 511 Traffic & Travel Info
- Smart Growth in Kentucky
- Road Work Ahead in Kentucky
- Buckle Up Kentucky
- A Citizen's Quick Reference Guide to Transportation Decisionmaking

The meeting closed at 7:00 P.M.

## **Draft Minutes**

A lternatives Study – FINAL Project Team Meeting Henry & Trimble Counties, Item No. 05-147.00 US 421 – from I-71 Interchange to Bedford

Meeting Location: KYTC – District 5 Office Conference Room

Meeting Date: October 24, 2007, Wednesday ~10:00 a.m. (ET)

## 1. INTRODUCTION AND PURPOSE

The meeting began at approximately 10:05 a.m. local time. Those present were:

Matt Bullock KYTC – District 5 Executive Director

Mary Ann Bond KYTC – District 5 Planning Branch Manager

Tom Hall KTYC – District 5 Planning

Brian Meade KTYC – District 5 Traffic Branch Manager

Rob Harris KYTC – District 5 Construction
Tony McGaha KYTC – District 5 Construction
Chris Poe KYTC – District 5 Construction
Matt Looney KYTC – District 5 Construction

Jeff Schaefer KYTC – District 5 Environmental Coordinator Derek Adams KYTC – Division of Environmental Analysis

Randall Embry
Steve Ross
Boday Borres

KIPDA Area Development District
KYTC – Division of Planning
KYTC – Division of Planning

The following Handouts were distributed:

- Agenda
- Material from the second Public Meeting for recapping purposes
- Second Public Meeting Survey Results

## 1. Welcome and Introduction

Boday Borres began the meeting by welcoming the participants and asking the project team members to introduce themselves.

## 2. Purpose

Boday briefly outlined the purpose of the meeting: to review public input received during the second public meeting and discuss final study recommendations.

## 3. Review of Alternatives

To frame the upcoming recommendations discussion, Boday briefly outlined the study process leading up to this meeting. She reviewed the all the Alternatives for the project: Alternate No. 1 is the "Do Nothing" alternate. Alternate No. 2 uses the existing US 421 up to Burton Hill Road and then a new connection using Quire-Joslin Lane to US 42 east of Bedford. Alternate No. 3 is along the existing corridor including a realignment of the large horizontal curve. And, Alternate No. 4 uses a portion of US 421 which connects to a new corridor from Meadowlark Court northward to a connection at US 42 south of Bedford.

She described in detail the two variations for Alternate No. 3:

- 3a ~Upgrade existing route to current standards and improve the large horizontal curve.
- 3b ~Spot Improvements along the existing corridor.

Within Alternate No. 3b, there was an in depth explanation for the two options for Spot Improvement No. 5.

- Option 1 ~ Add turning lanes and widen the southernmost combined US 421/US 42 intersection.
- Option 2 ~ Develop a new alignment between US 421 and US 42 to "bypass" the southernmost US 421/US 42 intersection and realign the northernmost US 421/US 42 "Y" intersection.

4. Public Meeting Survey Results

Boday gave an overview of the results from the public meeting survey. The deadline for collection was October 9, 2007. There were 21 surveys completed and returned (15 submitted the day of the meeting and six via mailings). The survey indicated that the public favored Alternates No. 3a and No. 3b (10 & 9 votes respectively). Of the spot improvements, the survey indicated that the public thought that eliminating the major horizontal curve, Trimble MP 1.10 to 2.40 was most needed. For Spot Improvement No. 5, Option 1, add turn lanes to the southernmost US 421/ US 42 intersection was favored by respondents over Option 2, construct a bypass (15 votes to 3 respectively).

5. Study Recommendations

The team concluded that Alternate No. 3a appeared to be the most favorable. The primary recommendation is based on local officials and public input and technical analysis. This alternate includes the improvements to the large horizontal curve along with widening and upgrading the existing route to current design criteria. The estimated cost for this rebuild is \$62,000,000.

The team also decided that Alternate No. 3b has consideration as an interim recommended choice if funding does not become immediately available for the primary recommendation. This would provide the opportunity for lower-cost improvements to be programmed if only those lesser funding amounts became available.

In regard to Spot Improvement No. 5 (US 421/ US 42 intersection), the Project Team chose to recommend the bypass option (Option 2). The team had lengthy discussion over the fact that the survey responses from the public meeting showed that the public voted 15 to 3 for adding turning lanes versus constructing a bypass. However, the team concluded that the bypass option better met the needs and project goals of improving regional connectivity between I-71 and Bedford and to points north of Bedford. Option 2 also better addressed concerns expressed by local officials for improving the entire corridor. Team members also noted that the bypass option would better serve through traffic moving between I-71 and I-74 therefore, address safety issues, school bus routes and Emergency Medical Services (EMS).

At the time of the Project Team meeting, the team decided not to prioritize the spot improvements. [Note: The decision was rethought after the meeting and an e-mail was sent to the project team asking for input on spot improvement prioritizations, using the public meeting survey responses as a starting point for those priorities.]

Subject: US 421 ~Last Request for the Project Team

Sent: Wed 10/24/2007 3:23 PM

## 6. Potential Issues

Derek Adams noted that Environmental Justice would not be expected to be an issue with any of the project team recommendations. Steve Ross brought to the team's attention that the Environmental Overview prepared by Wilbur Smith Associates did identify any major issues. Randall Embry mentioned the importance of this corridor for school bus routing and EMS access. It was also discussed that if a bypass option was selected, Historical Structures would probably not be affected.

## 7. Group Discussion

The "Draft Statement of Project Goals" in the handouts was reviewed and the team was in agreement with the goals set forth. Steve Ross explained that the draft goals established in the study will carry forward into the future phases of this project should those phases be funded.

Boday addressed the timeline for completion of this study. It is anticipated that the rough draft report could be reviewed by the end of November with a final report by the end of December.

## 8. Adjourn

Meeting adjourned approximately 11:15 a.m.

From:

Borres, Boday (KYTC)

Sent:

Wednesday, October 24, 2007 3:23 PM

To:

Bond, Mary A (KYTC-D05); Embry, Randall (KIPDA); Adams, Derek (KYTC); Hall, Tom (KYTC-D05); Bullock, Matt (KYTC-D05); Harris, Rob (KYTC-D05); McGaha, Tony (KYTC-D05); Poe, Chris (KYTC-D05);

D05); Schaefer, Jeff (KYTC-D05); Looney, Matt (KYTC-D05); Meade, Brian (KYTC-D05)

Cc:

Ross, Steve (KYTC)

Subject: US 421 ~ Last Request for the Project Team

#### Hi Folks,

I got to thinking about our decision of NOT prioritizing the spot improvements and when I started writing, the thought came to me that this report/study is to help those who need information on which project (whether it be the preferred recommendation or spot improvement(s)) is best to start off if funding was available based on our findings. I've prioritized the spots based on the public opinion (survey). If you have different thoughts on this please reply to me by October 31, 2007 (COB). If you are OK with this, just let me know that also.

## **Prioritization for Spot Improvements:**

 $1 \sim #3$ 

2~#4

3~#5

4~#2

5~#1

6~#6

7 ~ #7

## Thanks for your input,

## Boday Borres, P.E.

Transportation Engineer Specialist

**Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622**(502)564-7183 ext. 3275
(502)564-2865 ~ FAX

E-mail: boday.borres@ky.gov

Visit our web page at http://transportation.ky.gov/planning

From: Hall, Tom (KYTC-D05)

Wednesday, October 24, 2007 3:44 PM Sent:

Borres, Boday (KYTC); Bond, Mary A (KYTC-D05); Embry, Randall (KIPDA); Adams, Derek (KYTC); To:

Bullock, Matt (KYTC-D05); Harris, Rob (KYTC-D05); McGaha, Tony (KYTC-D05); Poe, Chris (KYTC-

D05); Schaefer, Jeff (KYTC-D05); Looney, Matt (KYTC-D05); Meade, Brian (KYTC-D05)

Ross, Steve (KYTC) Cc:

Subject: RE: US 421 ~ Last Request for the Project Team

## Boday:

I think prioritizing the Spot Improvements is a good idea. It will provide a useful tool for those who might push projects forward in the future.

However, I think the report should prioritize the spot improvements categorically in several ways:

1. By Public Opinion

2. By Crash Significance

3. By Cost

4. By Project Team Ranking (I personally agree with the Public Opinion ranking)

5. By Local Officials Ranking

You might poll the Project Team and revisit the Local Officials briefly to verify their positions, but other than that, most of this prioritization work is already done.

Regards, Tom Hall Planning Engineer I District 5 (502) 367-6411

From: Borres, Boday (KYTC)

Sent: Wednesday, October 24, 2007 3:23 PM

To: Bond, Mary A (KYTC-D05); Embry, Randall (KIPDA); Adams, Derek (KYTC); Hall, Tom (KYTC-D05); Bullock, Matt (KYTC-D05); Harris, Rob (KYTC-D05); McGaha, Tony (KYTC-D05); Poe, Chris (KYTC-D05); Schaefer, Jeff (KYTC-D05); Poe, Chris (KYTC-D05); Schaefer, Jeff (KYTC-D05); Poe, Chris (KYTC-D05); Schaefer, Jeff (KYTC-D05); Poe, Chris (KYTC-D D05); Looney, Matt (KYTC-D05); Meade, Brian (KYTC-D05)

Cc: Ross, Steve (KYTC)

Subject: US 421 ~ Last Request for the Project Team

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1~#3

2~#4

3~#5

4~#2

5 ~ #1 6~#6 7 ~ #7

## Thanks for your input,

# Boday Borres, P.E. Transportation Engineer Specialist

**Division of Planning** 200 Mero Street, W5-10-04 Frankfort, KY 40622

(502)564-7183 ext. 3275

(502)564-2865 ~ FAX
E-mail: boday.borres@ky.gov
Visit our web page at http:\\transportation.ky.gov\planning

From: Embry, Randall (KIPDA)

Sent: Wednesday, October 31, 2007 3:27 PM

To: Borres, Boday (KYTC)

Subject: RE: US 421 ~ Last Request for the Project Team

These prioritize spot improvements are fine with me. Have a great Halloween!

Randall Embry
Transportation Planner
KIPDA Area Development District
11520 Commonwealth Drive
Louisville, KY 40299
Phone: (502) 266-6084

Phone: (502) 266-6084 Fax: (502) 266-5047

Email: randall.embry@ky.gov Website: www.kipda.org

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----Original Message----

From: Borres, Boday (KYTC)

Sent: Wednesday, October 24, 2007 3:23 PM

**To:** Bond, Mary A (KYTC-D05); Embry, Randall (KIPDA); Adams, Derek (KYTC); Hall, Tom (KYTC-D05); Bullock, Matt (KYTC-D05); Harris, Rob (KYTC-D05); McGaha, Tony (KYTC-D05); Poe, Chris (KYTC-D05);

Schaefer, Jeff (KYTC-D05); Looney, Matt (KYTC-D05); Meade, Brian (KYTC-D05)

Cc: Ross, Steve (KYTC)

**Subject:** US 421 ~ Last Request for the Project Team

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 $3 \sim #5$ 

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Thanks for your input,

# Boday Borres, P.E. Transportation Engineer Specialist

Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622 (502)564-7183 ext. 3275

(502)564-2865 ~ FAX
E-mail: boday.borres@ky.gov
Visit our web page at http:\\transportation.ky.gov\planning

From:

Borres, Boday (KYTC)

Sent:

Friday, November 02, 2007 9:54 AM

To:

Bond, Mary A (KYTC-D05); Embry, Randall (KIPDA); Hall, Tom (KYTC-D05); Ross, Steve (KYTC)

Subject:

US 421 ~ Last Project Team DRAFT Minutes

Attachments: Project Team Meeting\_3\_ Minutes\_Draft.doc

## Good Morning,

Attached is the DRAFT for the Final Project Meeting, October 24, 2007.

Please review and provide comments and/or suggestions by November 8, 2007 (COB).

As for the subject of prioritization, we will be using the public's input as a list of priorities for spot improvements.

## Thanks,

## Boday Borres, P.E.

Transportation Engineer Specialist

Division of Planning 200 Mero Street, W5-10-04 Frankfort, KY 40622 (502)564-7183 ext. 3275

 $(502)564-2865 \sim FAX$ E-mail: boday.borres@ky.gov

Visit our web page at http://transportation.ky.gov/planning

## **Final Minutes**

Alternatives Study – FINAL Project Team Meeting Henry & Trimble Counties, Item No. 05-147.00 US 421 – from I-71 Interchange to Bedford

Meeting Location: KYTC – District 5 Office Conference Room

Meeting Date: October 24, 2007, Wednesday ~ 10:00 a.m. (ET)

#### 1. Introduction and Purpose

The meeting began at approximately 10:05 a.m. local time. Those present were:

Matt Bullock KYTC – District 5 Executive Director

Mary Ann Bond KYTC – District 5 Planning Branch Manager

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Chris Poe KYTC – District 5 Construction
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Jeff Schaefer KYTC – District 5 Environmental Coordinator Derek Adams KYTC – Division of Environmental Analysis

Randall Embry KIPDA Area Development District Steve Ross KYTC – Division of Planning

Boday Borres KYTC – Division of Planning

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To frame the upcoming recommendations discussion, Boday briefly outlined the study process leading up to this meeting. She reviewed the all the Alternatives for the project: Alternate No. 1 is the "Do Nothing" alternate. Alternate No. 2 uses the existing US 421 up to Burton Hill Road and then a new connection using Quire-Joslin Lane to US 42 east of Bedford. Alternate No. 3 is along the existing corridor including a realignment of the large horizontal curve. And, Alternate No. 4 uses a portion of

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She described in detail the two variations for Alternate No. 3:

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- 3b ~ Spot Improvements along the existing corridor.

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Subject: US 421 ~ Last Request for the Project Team

Sent: Wed 10/24/2007 3:23 PM

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## 8. Adjourn

Meeting adjourned approximately 11:15 a.m.