Taylorsville NW Connector
Intermediate Planning Study

KY 44 West to
KY 55 North
Spencer County
Item No. 5-347.00

Prepared for:
Kentucky
Transportation Cabinet
Division Of Planning
Frankfort, Kentucky

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EDUCATION PAYS

KENTUCKY TRANSPORTATION CABINET

HNTB

Page

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

Executive Summary

The Taylorsville Northwest Connector Intermediate Planning Study has been prepared to assist the Kentucky Transportation Cabinet in defining the project limits, developing corridors, determining project impacts as well as benefits to the community, and determining if the project should continue to the design phase. It was apparent from the outset of the study that improved mobility provided by a KY 44/KY 55 connector is important to the local residents, as well as to tourists with destinations to and from downtown Taylorsville and Taylorsville Lake State Park. This corridor, therefore, could play an important role in terms of the economic development of Taylorsville, and could afford access to emergency services, jobs, recreation, and other opportunities in the region. Collectively, the above concerns formed the framework to establish project goals.

Establishment of the goals for the project included an active public involvement process. This involved inclusion of a variety of project stakeholders, such as local public officials, area residents, Kentuckiana Planning and Development Agency (KIPDA) staff, personnel from the Industrial Development Authority, and Kentucky Transportation Cabinet staff from both the Central Office and District 5. **Jointly, the stakeholders formulated the following goals for the project**:

- **Alleviate current and projected KY 44 and KY 55 traffic congestion**
- **Accommodate increasing commercial and industrial traffic**
- **Decrease crash rates on these routes**
- **Accommodate future population growth**
- **Improve access for recreation/tourism traffic to Taylorsville Lake**

A review of the existing conditions confirmed relatively poor levels of service for KY 44 and KY 55 near downtown Taylorsville. The traffic capacity of a new route was a major concern in the study process. Traffic forecasts and analyses were made to determine the type of facility that would be needed to keep pace with growth and meet capacity requirements in the design year 2025.

Several alternative actions were considered based upon project goals. **The corridors included a No-Build Option as well as two broad bands of corridors.** (See **Figure ES-1**.) The No-Build alternate was not recommended, because it did not address the project goals. The inner band of corridors was considered to potentially have more environmental impacts, as well as an environmental justice impact involving the community's only nursing home. Therefore, based on stakeholder input and the potential for less environmental impact, the outer band of corridors was determined to be preferred. It is estimated that routes within the outer band of corridors could cost from $7.9 million to $28.8 million, largely dependent on the length of structure needed to cross Brashear's Creek and it's floodplain.

The *2003-2008 Six-Year Highway Plan (SYP)* has identified funding for the design, right of way and utilities phases of this project. No construction funds have been identified. Anticipated funding and costs, by phase, for implementation of the corridors in the recommended band are shown in **Table ES-1.**

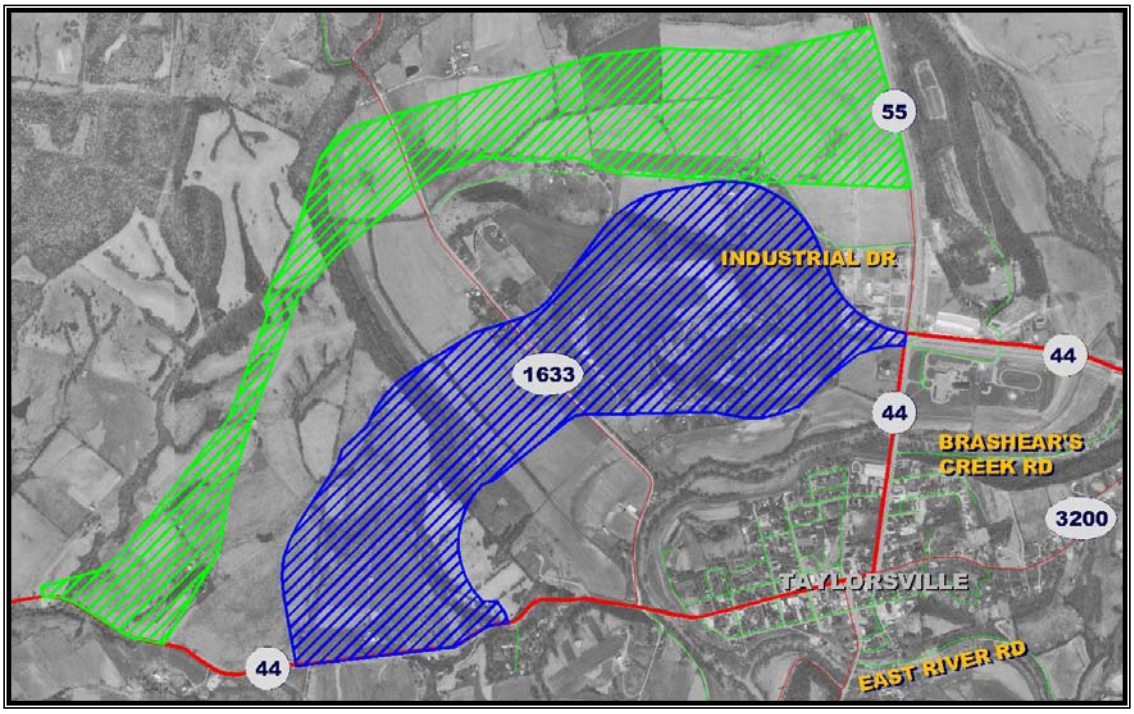


FIGURE ES-1
CORRIDOR BANDS

TABLE ES-1: IDENTIFIED FUNDING AND IMPLEMENTATION COSTS

	Identified Funding (Year of Funding)	Range of Implementation Costs for Preferred Corridor Band
Design	$1,000,000 (2005)	$480,000-$1,995,000
Right of Way	$1,500,000 (2007)	$180,000-$790,000
Utilities	$1,000,000 (2007)	$80,000-$85,000
Construction	Not Funded	$4,760,000-$19,920,000
TOTAL	**$3,500,000**	**$7,940,000-$28,810,000***

*Note: Total cost includes 30% contingency. Given the variation in the range of costs between the corridors in the corridor band, the phased costs listed here do not add up to the listed total cost. Individual corridor costs are found in **Appendix**

1.0 INTRODUCTION

The Taylorsville Northwest Connector Intermediate Planning Study, conducted by the Kentucky Transportation Cabinet (KYTC), was undertaken to provide a tool that would assist in addressing both the current and future needs of the area. Taylorsville, located in Spencer County, serves as a bedroom community to many people who work in Louisville and Mount Washington, and hosts many tourists who visit downtown Taylorsville and Taylorsville Lake State Park. **Figure 1** depicts the study area.

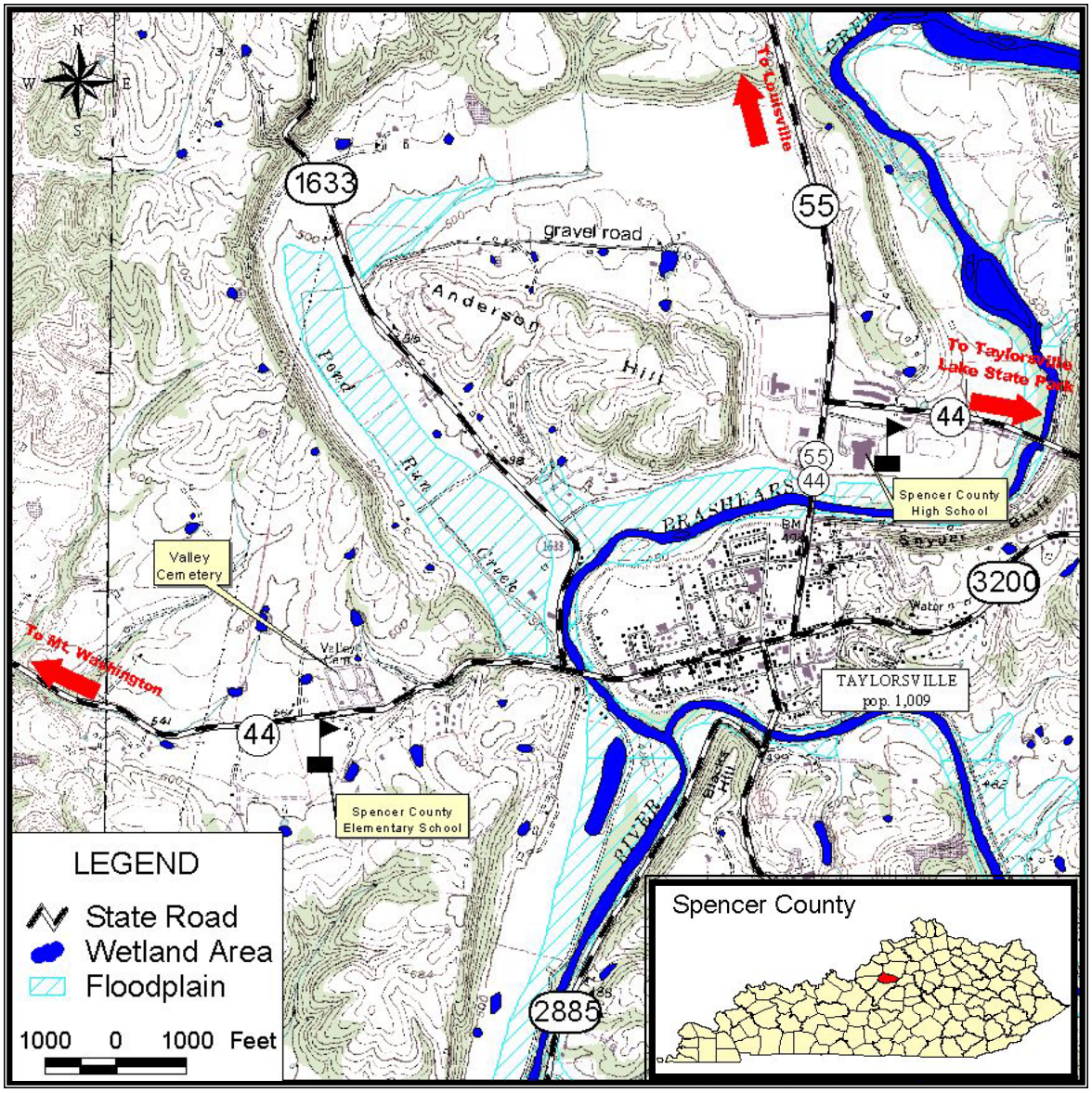


FIGURE 1
PROJECT STUDY AREA

1.1 Project History

A northwest connector, providing a link between KY 44 and KY 55 around the city of Taylorsville, was recommended in the June 1985 *Taylorsville Lake Transportation Study* completed by the Division of Planning. The report noted that annual visitation to the lake and the park's recreational resources was forecasted to reach 2,500,000 visitors per year by 2020, adding an additional 1,666,000 vehicle trips per year in the area. The study recommended several improvements to the area transportation system in an effort to address the need for additional capacity based on the demand of recreational traffic. The "KY 44 Northwest Connector" was recommended for development between 2000 and 2020, or as the number of visitors to the lake might dictate. It was anticipated that a large number of these visitors would travel to the lake via KY 44 from west of Taylorsville, and the connector would provide a better connection to KY 44 on the east side of the city and ease congestion in the downtown area.

Recreational traffic is only one factor driving the need for a better connection around Taylorsville. In terms of population growth, Spencer County is the fastest growing county in the state. According to the US Census Bureau, the county grew from a population of 6,801 in 1990 to 11,766 in 2000, equaling a growth rate of 73%. Additionally, Spencer County was the fastest growing county in Kentucky and the seventh fastest growing county in the United States between April 1, 2000, and July 1, 2001 in terms of population percentage growth. During that period, Spencer County grew by an estimated 10.8%, to 13,039 in 2001 (http://www.census.gov). The infrastructure in Spencer County has been unable to keep pace with this level of growth, particularly the transportation network.

Recognizing the need to develop a new route around downtown Taylorsville, the KYTC identified funds for an Intermediate Planning Study in the Six-Year Highway Plan. In August 2001, the study was initiated with an assessment of existing conditions. This included a review of existing reports and plans, an analysis of the existing and design year 2025 traffic conditions, and an analysis of the crash history of the road. Additionally, an environmental review/footprint was developed highlighting known environmentally sensitive areas and places.

1.2 Project Team Meeting

The first Project Team Meeting was held on October 2, 2001, in the KYTC District 5 Conference Room, to determine problems and issues associated with the existing roadway network and to develop a preliminary statement of project goals. Minutes of that meeting are included in **Appendix A** and are summarized in the following sections.

A. Project Issues

Issues identified at the Project Team Meeting for the existing KY 44/KY 55 corridor include both congestion and safety. Some of the most evident safety issues are narrow lanes and shoulders and restricted sight distances. Other issues are as follows:

- Existing routes are experiencing poor levels of service
- High occurrence of sideswipe and rear end crashes, although overall rates are low
- Poor geometrics on KY 44 west between Taylorsville and Mount Washington
- Desire by the county to develop industry north of town
- No definitive location for a tie-in of the bypass on KY 44 West due to lack of level terrain, poor horizontal and vertical curves

- Spencer County is the State's fastest growing county (in percentage population growth)
- Need to accommodate future industrial growth of the area
- Loss of the downtown area as a viable commercial center

B. Project Benefits

Similarly, possible benefits of the proposed project discussed at the Project Team Meeting include the following:

- Alleviating current KY 55 traffic congestion
- Alleviating projected KY 44 and KY 55 traffic congestion
- Accommodating industrial development
- Accommodating future population growth
- Relieving geometric deficiencies
- Improving the downtown atmosphere
- Improving safety
- Improving opportunities for recreational/tourism traffic to Taylorsville Lake

C. Preliminary Project Goals

Based on the issues and benefits in Sections 1.2A and 1.2B, the following were formulated as the preliminary project goals:

- Alleviate current and projected KY 44 and KY 55 traffic congestion
- Accommodate increasing commercial and industrial traffic
- Decrease crash rates on these routes
- Accommodate future population growth
- Improve access for recreational/tourism traffic to Taylorsville Lake

D. Logical Termini

At the first Project Team Meeting, the logical terminus for the connector on KY 55 was determined to be in the area from north of Brashear's Creek to just north of Industrial Drive. For KY 44, the likely project termini was proposed to be west of the elementary school. The existing topography was a major consideration in the determination of project termini.

E. Probable Design Criteria

The Project Team agreed that the functional class for the proposed corridors would be Rural Major Collector with a design speed of 55 mph. Unless future traffic volumes dictate otherwise, a typical section would be two lanes with 12-foot shoulders (on which bicycles could be used), with turning lanes added where required. In order to accommodate increased traffic flow during peak school hours, additional lanes may be necessary near Spencer County Elementary School. This

could result in the need for a four-lane curb and gutter section. Whether the corridor will be partially or fully access controlled was discussed but not resolved. A more in-depth study is needed to determine which of these would be more beneficial.

1.3 Local Officials/Stakeholders Meeting

The information discussed at the initial Project Team Meeting was taken to the first Local Officials/Stakeholders meeting. This meeting was held on October 19, 2001, in the Spencer County Farm Bureau Building. The local officials/stakeholders were presented with the project issues, benefits, and goals as established by the Project Team. The local officials/stakeholders were in agreement with the information presented and discussed. The stakeholders also encouraged the Project Team to utilize all means of notifying the public regarding public meetings on the proposed project. These suggestions included utilizing area web sites, the local newspaper, and flyers in local agencies and businesses.

1.4 Resource Agency Coordination

The KYTC Division of Planning sent letters to numerous agencies asking for input and comments on the Taylorsville Northwest Connector Intermediate Planning Study, in order to address their concerns early in the project development process. Twenty-five (25) agencies responded and their responses are included in **Appendix B.** The agencies responding to this request, as well as their general comments, are as follows:

Natural Resources and Environmental Protection Cabinet, Division of Waste Management: Recommends that all appropriate measures and activities be used to observe, detect, and handle any hazardous waste that may be discovered or generated from this project.

Kentucky Cabinet for Workforce Development: No comments.

Kentucky Department of Agriculture: Expressed concern regarding impact to farmland, particularly the permanent loss of prime farmland that each alternate would cause, and also the economic and other impacts to area farms from each alternate route.

Kentucky Department of Fish and Wildlife Resources: Recommends that development in or near streams occur during low flow periods to minimize disturbances. Recommends use of proper erosion control structures to minimize entry of silt to stream, and replanting of disturbed areas after construction, including stream banks and right-of-ways, with native vegetation.

Kentucky Department for Natural Resources, Division of Conservation: There are no agricultural districts established within or adjacent to the project area. However, the Department would like to see loss of Prime Farmland and Farmland of Statewide Importance addressed in the planning study. The Department also recommended that erosion and sedimentation be controlled during and after earth disturbing activities, and recommended the use of Best Management Practices (BMP) to prevent nonpoint source water pollution.

Kentucky Department for Natural Resources, Division of Water: The Division will comment on the proposed project when a specific location(s) is submitted to the State Environmental Review Officer.

Kentucky Heritage Council: An archaeological survey should be conducted for the connector right-of-way by a professional archaeologist, and a survey made of historic structures to determine if there are any sites eligible or potentially eligible for listing in the National Register for Historic Places which might be affected. This area has a high potential for unrecorded

prehistoric or historic archaeological sites. All archeological and historic structures reports must be submitted for review, comment and approval by the Kentucky Heritage Council Director.

Kentucky State Nature Preserves Commission: It is recommended that construction associated with any project, especially crossing Brashears Creek, should be planned to minimize impact to water quality in Brashears Creek and the Salt River, which are documented to have harbored populations of rare aquatic organisms.

Kentucky State Police, Post 12, Frankfort: The Kentucky State Police are in favor of this project due to its positive impact on the highway safety and traffic flow needs of Spencer County.

Kentucky Transportation Cabinet

- **District 5, Right-of-Way:** Right-of-way acquisition would be typical for the project involving farmland, businesses, a nursing home, a church, and a cemetery. A direct tie-in to improved KY 44 east of KY 55 could affect an apartment building and the nursing home.

- **Division of Environmental Analysis:** Stream and pond impacts should be avoided. Any federally listed endangered species would have to be addressed through either avoidance or mitigation. Site visits to obtain details concerning hazardous and/or non-hazardous waste facilities and underground storage tanks should be conducted. The Air Quality status of the project would not be a problem; the project appears to be outside of the area requiring conformity. Noise data would have to be collected and analyzed to determine the impact to residents of the area. More Socio-economic related information is needed regarding relocations and potential impacts to low-income and/or minority neighborhoods.

- **Division of Multimodal Programs:** The Louisville Bicycle Club tours extensively from Louisville to Taylorsville Lake. It is important, for economic and safety concerns, to provide an unobstructed paved shoulder width of at least 4 feet along this segment.

- **Division of Traffic – Permits Branch:** The Permits Branch urges the Cabinet to implement partially controlled access on any new facility constructed. They encourage all possible access points to be designated on the plans in accordance with 603 KAR 5:120. They would like to make every effort possible to have the design speed to be the same as anticipated posted speed. They would like to see access control fence installed with the project. If the proposed roadway is to be on the National Highway System, early notification of the final line and grade is needed.

Spencer County/Taylorsville

- **County Board of Education**: Spencer County Schools are the largest employers in the county. A connector in the vicinity of the new elementary school, as far west of the school as possible, would be better for school safety and student transportation.

- **County Judge Executive:** Spencer County is in need of various improvements as it relates to the project study area. KY 44 & KY 55 need to be straightened and widened first, then proceed with the connector being constructed for improved traffic flow and safer roads.

- ⇨ **County Magistrate, District 2:** The possible bypass of KY 44 west of Taylorsville to the new elementary school and proceeding west to Mt. Washington and Shepherdsville, would be good for the county, and also for growth and industrial development.

- ⇨ **Taylorsville Police Department:** A connector would divert traffic north on KY 55, away from the growth area of the city, and not back into the heavier traffic. It would allow for the possible industrial growth on the north side of the connector. Delaying the planning process may cause the property in question to be bought or developed, causing another 5 to 10 year delay.

- ⇨ **Taylorsville/Spencer County Industrial Development Authority:** The following changes have occurred since potential locations were discussed at the October 19, 2001 Local Officials/Stakeholders Meeting. The 447-acre site on KY 155 at the Taylorsville city limits is not currently an option. A 7-10 acre site is now being privately developed on KY 44 about 2 miles east of Taylorsville. The authority is considering a 154-acre site on KY 44, two miles east of Taylorsville; adjacent to the privately owned site named above. The authority is currently considering a 104-acre site on KY 44, one mile west of Taylorsville, across from the Spencer County Elementary School. The KY 44 corridor, both east and west is a prime target for industrial development in Spencer County. It is also unlikely that an industrial site will be located on KY 55/155 in the foreseeable future.

U. S. Army Corps of Engineers District – Louisville: The study area encompasses numerous streams subject to the regulatory authority under Section 404 of the Clean Water Act (CWA) (33 USC 1344). Among these are the Salt River, Pond Run Creek, Brashears Creek, Elk Creek, Chadbourn Branch, and numerous unnamed tributaries. The Corps of Engineers regulates the discharge of dredged and/or fill material into "waters of the United States" including wetlands. The data furnished indicates an authorization under this section of law may be required before beginning work. It is in the applicant's best interest to submit data in a formal permit application. If a permit is required, processing can begin immediately.

U. S. Coast Guard: This project does not cross waterways over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard bridge permit is not required.

U. S. Department of Agriculture - Natural Resources Conservation Service: Although there are a few registered historic places within the location map, and rock fences that could be considered historic, no known segment of the population would bear a disproportionate share of the consequences of environmental impacts attributed to this proposed project. According to the soil survey, the proposed area has approximately 50 acres of hydric soils, 300 acres of hydric inclusion soils, 600 acres of Prime Farmland soils, and numerous sinkholes. Also, there are numerous churches and cemeteries, and a couple of schools and parks within the proposed area.

U. S. Department of Health & Human Services: While they have no project specific comments to offer at this time, they do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate. Mitigation plans which are protective of the environment and public health should be described in the DEIS wherever warranted. Areas of potential public health concern are: air quality, water quality/quantity, wetlands and floodplains, hazardous materials/wastes, non-hazardous solid waste/other materials, noise, occupational health and safety, land use and housing, and

Environmental Justice. While this is not intended to be an exhaustive list of possible impact topics, it provides a guide for typical areas of potential public health concern which may be applicable to this project. Any health related topic which may be associated with the proposed project should receive consideration when developing the draft and final EISs.

U. S. Environmental Protection Agency: The EPA's review of the NEPA document will consist of looking at environmental affects of the project on the water, air, land, wildlife habitat in the area. Attached with their letter were preliminary scoping comments pertaining to the contents of a National Environmental Policy Act document. In addition, they also enclosed specific information regarding significant and priority ecological areas, environmental justice areas of concern, and general land cover types for the project area, titled "Elements of a National Environmental Policy Act (NEPA) Document for Transportation Projects." The EPA recommendation letter can be reviewed in its entirety in **Appendix B**.

U. S. Federal Aviation Administration: There are no public use airports in the vicinity of this proposed project. As long as construction activities do not exceed 200 feet in height above ground level, there will be no impacts on FAA programs, and no Notice of Proposed Construction will be required.

U. S. Fish and Wildlife Service: The major concern is with erosion and sediment control measures. The following recommendations were made: preventive planning, diversion channels, silt barriers, temporary seeding and mulching, and limited stream activities. Concrete box culverts should be placed in a manner that prevents any impediment to low flows, or movement of indigenous aquatic species. Overflow channel excavations should be confined to one side of the channel, leaving the opposite bank and its riparian vegetation intact. All fill should be stabilized immediately upon placement. Stream banks should be stabilized with riprap or other accepted bioengineering techniques. Existing transportation corridors should be used in lieu of temporary crossings where possible. Good water quality should be maintained during construction. The federally listed Indiana bat (*Myotis sodalis*) may be within the impact area of the project.

1.5 Public Involvement

One Public Information Meeting was conducted as part of the public involvement process. This meeting was held on November 8, 2001, at the Spencer County High School. The meeting was well attended by local officials and residents, with approximately 63 people in attendance. **The intent of this meeting was to achieve the following:**

- **To let the community know about the project**
- **To identify and address community concerns and issues**
- **To identify sensitive areas that should be avoided**
- **To explore corridors and discuss impacts**
- **To create a project that benefits the community and gains its support**

Following a formal presentation, attendees were directed to an open exhibit area where maps of the project area, crash data, traffic volumes, and levels of service were on display. The attendees expressed no preference for logical termini on KY 55, but preferred that the KY 44 terminus should lie west of the Elementary School. The public felt that Valley Cemetery, Hill View Apartments, and Anderson Hill should be avoided. Some attendees even suggested that Brashear's Creek not be crossed (see **Figure 2**).

Attendees were encouraged to complete the questionnaires provided in the handouts. They were also asked to draw their preferred alignment and to note issues of environmental concerns on a map of the study area included in the packet. In general, the public felt that the connector was needed. Their reasons included: better service to new industrial parks, safer access to the schools, reduced congestion, and improved traffic flow. Others felt that improvements to KY 55/KY 155 between Jefferson County and Taylorsville should be completed first.

2.0 EXISTING CONDITIONS

2.1 Roadway Characteristics

The following characteristics were extracted from the KYTC Highway Information System (HIS) database. KY 44 and KY 55 are both State Secondary Roads in the State Maintained Highway System. The initial project limits for KY 44 were from KY 623 (Lily Pike Road, milepost 4.335), just west of Taylorsville, to KY 3200 (Town Hill Road, milepost 11.045), just east of Taylorsville, approximately 6.7 miles in length. The initial project limits for KY 55 were from milepoint 5.518, just south of Taylorsville, to milepoint 7.518, just north of Taylorsville, approximately 2.0 miles in length. KY 44, designated as a Rural Major Collector from the Bullitt County line to KY 55 in Taylorsville, is situated through terrain that is primarily rolling. Several sharp curves in the road combined with that rolling terrain restrict sight distance. **Table 1** presents a summary of the HIS existing roadway characteristics for KY 44, and **Table 2** illustrates existing roadway characteristics for KY 55.

Bridge data for KY 44 are listed in **Table 1** and for KY 55 in **Table 2**. A bridge with a sufficiency rating less than fifty (50.0) is considered eligible for replacement with federal funds under the Federal-Aid Highway Bridge Replacement and Rehabilitation Program. Bridges can also be rated either structurally deficient or functionally obsolete. There are two bridges in the study area (one on KY 44 and one on KY 55) that are functionally obsolete. The functionally obsolete bridge on KY 55 also has a sufficiency rating less than 50.0.

The traffic volumes on each road vary dramatically depending on the distance from the downtown area, as shown in **Figure 2**. The segment of KY 44 from KY 55 (Taylorsville-Shelbyville Road) to KY 3200 (Main Street) currently carries approximately 10,950 vehicles per day (vpd), while the segment from KY 1633 to KY 1251 (Murray Road/Hardesty Ridge Road) carries only 3,530 vpd, according to 2000 counts. Truck percentages, including both single unit and combination trucks, are less than 5.0% for both routes. Traffic count data was provided by the KYTC.

2.2 Crash Analysis

One of the primary goals of any highway improvement project is to provide a safe and efficient roadway. A look at the recent crash history (January 1, 1996 – June 30, 2001) obtained from the KYTC's HIS database for KY 44 and KY 55 indicates that the overall crash rate is lower than the statewide crash rates for similar facilities. There were a total of 43 crashes reported in the survey period for KY 44 and a total of 9 crashes reported in the survey period for KY 55. A closer study of the crashes revealed a low percentage of injury crashes (23% for both KY 44 and KY 55) compared to total crashes. To gain a better understanding of these crashes, an analysis of Critical Crash Rate Factors (CRF) was conducted to determine the types and possible causes of these incidents. The total number of crashes, disaggregated by type and location, are found in **Table 3**.

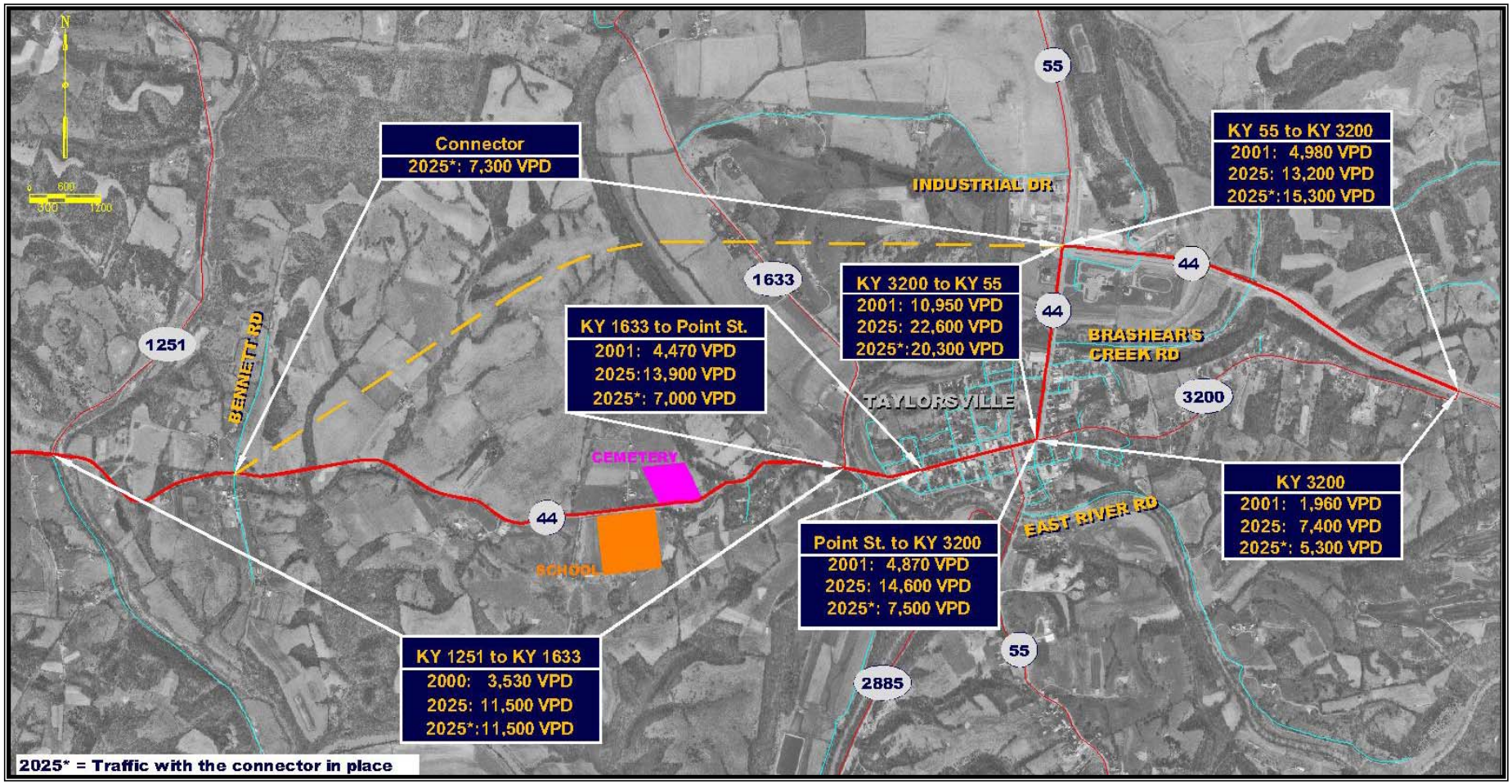
Roadway segments, as defined by the HIS route log, were analyzed to determine if the CRF exceeded 1.0. The CRF is calculated by dividing the total crash rate along a particular roadway segment by the critical crash rate. A CRF of 1.0 and above indicates a crash rate for which it can be said that crashes are not occurring randomly.

TABLE 1
KY 44 ROADWAY CHARACTERISTICS

HIS Roadway Characteristics							
Type of Roadway	Functional Classification			Rural Major Collector (MP 4.335-8.992 & MP 9.7-11.045), Rural Minor Arterial (MP 8.992-9.7)		
	State System Class			State Secondary		
	Type Road			Undivided Highway (MP 4.335-9.083 & MP 9.1-9.6), Divided Highway (MP 9.083-9.1 & MP 9.6—11.045)		
	Scenic Byway System			No		
	National Highway System			No		
	National Truck Network			No		
	Defense Highway			No		
	Truck Weight Class			AAA (80,000 lb)		
	Extended Weight System			No		
Geometrics	Average Right-of-Way Width (Feet)			60 (MP 4.335-9.084), 64 (MP 9.084-9.47), 120 (MP 9.47-9.7), 200 (MP 9.7-11.045)		
	Lane Width (Feet)			10 (MP 4.335-8.545), 11 (MP 8.545-9.083), 20 (MP 9.083-9.1), 12 (MP 9.1-11.045)		
	Driving Lanes			2 (MP 4.335-9.7), 4 (MP 9.7-11.045)		
	Shoulder Width (Feet)			3 (MP 4.335-8.545), 2 (MP 8.545-9.083 & MP 9.1-9.403), 0 (MP 9.083-9.1), 10 (MP 9.403-11.045)		
	Percent Passing Sight Distance			0		
	Type of Terrain			Rolling		
Bridges	**Bridge No.**	**MP**	**Length**	**Width**	**Functionally Obsolete?**	**Sufficiency Rating**
	B7	5.732	156′	22.3′	Yes	77.5
	B10	8.473	407′	35.5′	No	88.3
	B29	9.413	285′	51.7′	No	92.3
	B45	10.212	515′	43.3′	No	98.3
	B45P	10.213	515′	43.3′	No	98.3
Volumes	Current Volume (Vehicles per Day)			2,430-10,950		
	Percent trucks			4.4%		
Speeds	Speed Limit (Miles per Hour)			35-55		
Pavement	Surface Type			High Flexible		
	Last Year Surfaced			1986-1992		

TABLE 2
KY 55 ROADWAY CHARACTERISTICS

HIS Roadway Characteristics						
Type of Roadway	Functional Classification			Rural Major Collector (MP 5.518-6.518), Rural Minor Arterial (MP 6.518-7.518)		
	State System Class			State Secondary		
	Type Road			Undivided Highway (MP 5.518-6.518 & MP 6.7-7.518), Divided Highway (MP 6.518-6.7)		
	Scenic Byway System			No		
	National Highway System			No		
	National Truck Network			No		
	Defense Highway			No		
	Truck Weight Class			AAA (80,000 lb)		
	Extended Weight System			No		
Geometrics	Average Right-of-Way Width (Feet)			50 (MP 5.518-6.518), 225 (MP 6.518-7.518)		
	Lane Width (Feet)			10 (MP 5.518-6.34), 11 (MP 6.34-6.518), 12 (MP 6.518-7.518)		
	Driving Lanes			2		
	Shoulder Width (Feet)			3 (MP 5.518-6.34), 2 (MP 6.34-6.518), 10 (MP 6.518-7.518)		
	Percent Passing Sight Distance			0 (MP 5.518-6.232), 20 (MP 6.518-7.518)		
	Number of Bridges			1		
	Type of Terrain			Rolling		
Bridges	**Bridge No.**	**MP**	**Length**	**Width**	**Functionally Obsolete?**	**Sufficiency Rating**
	B4	6.234	378′	25.1′	Yes	45.0
Volumes	Current Volume (Vehicles per Day)			7,150-9,110		
	Percent trucks			4.6%		
Speeds	Speed Limit (Miles per Hour)			35-55		
Pavement	Surface Type			High Flexible		
	Last Year Surfaced			1988-2000		



Assumes 6.1% Trucks East of Taylorsville on KY 44, 4.1% Trucks West of Taylorsville on KY 44 and 4.1% Trucks on KY 55

FIGURE 2
EXISTING AND DESIGN YEAR (2025) TRAFFIC

TABLE 3
CRASH STATISTICS

Route	Begin MP	End MP	Total Crashes	Property Damage Only	Injury Crashes	Fatal Crashes	CRF
KY 44	4.335	5.727	6	4	2	0	0.21
KY 44	5.727	8.451	20	12	8	0	0.30
KY 44	8.451	8.997	12	12	0	0	0.51
KY 44	8.997	9.700	5	2	3	0	0.09
KY 44	9.700	11.045	0	0	0	0	0.00
KY 55	6.518	7.925	9	7	2	0	0.10

A segment of roadway is considered to have a high crash rate when the total crash rate is higher than the critical crash rate for similar roads in the state. When a segment has a CRF greater than one (1.0), this indicates that crashes at this location may not be occurring randomly. The critical rate factors are calculated based on the methodology presented in the Kentucky Transportation Center's *Analysis of Traffic Accident Data in Kentucky (1993-1997).*

For KY 44, the segment from KY 1633 to KY 55 had a CRF of 0.51, which was the highest for all of the segments and indicates that the roadway conditions were not likely a contributing factor to the crashes in the area. Further analysis indicated that the majority of the crashes on KY 44 and KY 55 involve sideswipe and rear end crashes. The CRFs for KY 44 are shown on **Figure 3**.

There is one notable intersection with a high occurrence of reported crashes. The southern intersection of KY 55 with KY 44 had 39 crashes on the KY 55 approach from January 1, 1996 to June 30, 2001. However, discussion with the Taylorsville Chief of Police found that that the intersection does not have a high occurrence of crashes. It was surmised during that discussion that some of those crashes may have been assigned to an incorrect location when crash reports were filed.

2.3 Traffic and Level of Service

KY 44 and KY 55 were divided into several segments for the purpose of evaluating existing and design year (2025) traffic volumes and for performing Level of Service (LOS) analyses. Several data sources were used, including land use plans obtained from Spencer County's Planning and Zoning and traffic counts that were taken at these segments to verify existing traffic conditions along KY 44 and KY 55.

A. Traffic Forecasts

The land use plans included significant amounts of industrial development both east and west of the City of Taylorsville. Information on Spencer County's overall historic traffic growth rate was provided by the Kentucky Transportation Cabinet.

The forecasting methodology utilized a combination of travel demand model outputs, trip generation, and compounded annual growth rates to forecast traffic volumes on major roadways

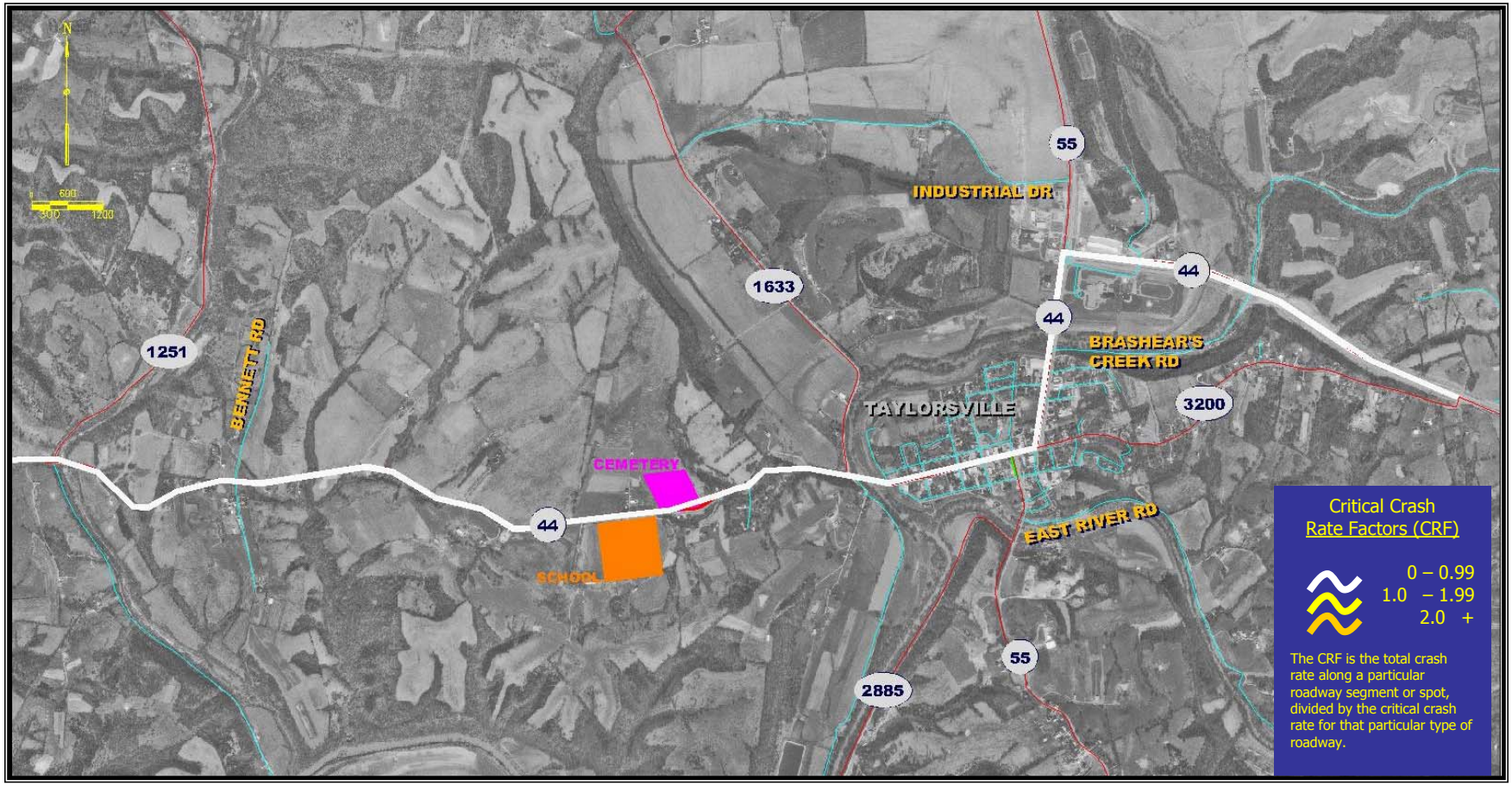


FIGURE 3
CRITICAL CRASH RATE FACTOR ANALYSIS

in the study area both with and without the proposed connector. The forecasting methodology steps included the following:

1. Use the Institute of Transportation Engineers (ITE) trip generation manual to estimate new trip generation values which would be attributed to the changes in local land use plans (three new industrial parks on KY 44).
2. Estimate "background" traffic growth. This would be the growth expected on study area highways due to increasing traffic volumes from non-Taylorsville trip generators. This growth rate is based on historic trends in traffic growth for Spencer County.
3. Estimate the amount of travel on the proposed connector using a manual gravity technique, checked against the travel demand model results, which provided data on the percent of traffic diverted to the connector from the existing KY 44 route through Taylorsville.
4. Assign the new locally-generated trips (from the industrial parks in step 1) to the study area highways. The traffic distribution patterns were determined based on data derived from the future year travel demand model trip assignments. A "select link" analysis was utilized. The select link technique isolates traffic movements on individual links or from individual zones.
5. Estimate the percent trucks anticipated in the daily traffic volumes projected for the new connector.
6. Estimate the impact on travel, if any, for two alternate alignments (one to the north of the KY44/55 "T" intersection and one to the south of that intersection). The base case would be the alignment directly across from the intersection.

The Taylorsville-Spencer County Industrial Development Authority was contacted regarding future development plans for the Taylorsville area. The Authority responded in a February 12, 2002, letter (located in Appendix B), indicating the following areas under consideration for development:

- A 7-10 acre site being privately developed on KY 44 approximately 2 miles east of Taylorsville.
- A 154-acre site approximately 2 miles east of Taylorsville adjacent to the privately owned 7-10 acre site
- A 104-acre site on KY 44 approximately one mile west of Taylorsville, across from the Spencer County Elementary School.

Inquiries were made about other land use changes planned for the area, but no further anticipated land use changes were provided by local officials. It was decided it would be acceptable to proceed since additional future changes in land use and trip generation would be accounted for in using a higher than (statewide) average growth rate for the background traffic estimated for Taylorsville roadways, consistent with the historic trends in overall Spencer County traffic volume growth rates.

The results of the traffic forecasts are shown in **Table 4.**

TABLE 4

FORECAST SUMMARY AND GROWTH RATES

Corridor/Segment	2000 Count	2025 Forecast Without Connector	% Growth Rate 00-25	2025 Forecast With Connector	% Growth Rate 00-25
KY 44					
KY 3200 to KY 2239	5,420	**12,500**	3.4	**12,500**	3.4
KY 55 to KY 3200	4,980	**13,200**	4.0	**15,300**	4.6
KY 3200 to KY 55	10,950	**22,600**	2.9	**20,300**	2.5
Point Street to KY 3200	4,870	**14,600**	4.5	**7,500**	1.7
KY 1633 to Point Street	4,470	**13,900**	4.6	**7,000**	1.8
KY 1251 to KY 1633	3,530	**11,500**	4.8	**11,500**	4.8
KY 44					
Proposed Connector	NA	**--**	--	**7,300**	--
KY 3200					
KY 55 to KY 44	1,960	**7,400**	5.5	**5,300**	4.1

Source: KYTC, HNTB

B. Level of Service

Level of Service (LOS) is an alphabetic representation of the traffic flow for a roadway segment. Calculated values can range from LOS A, completely free flowing traffic, to LOS F, completely gridlock traffic. Level of service analysis was performed using the Highway Capacity Software 3.1g on existing traffic conditions and the design year 2025 traffic forecasts discussed above. Existing LOS values are in the range of D and E, indicating KY 44 and KY 55 experience moderate to heavy levels of congestion. The future year traffic conditions are expected to worsen, resulting in LOS values of E to F. LOS E designation typically describes roadways that are approaching capacity accompanied with occasional delays and LOS F designation typically describes roadways that have reached or exceeded capacity and experience severe levels of congestion. A new connector would help maintain existing levels of service through 2025. **Figure 4** shows LOS values at various segments of KY 44 and KY 55 for both existing and future year 2025.

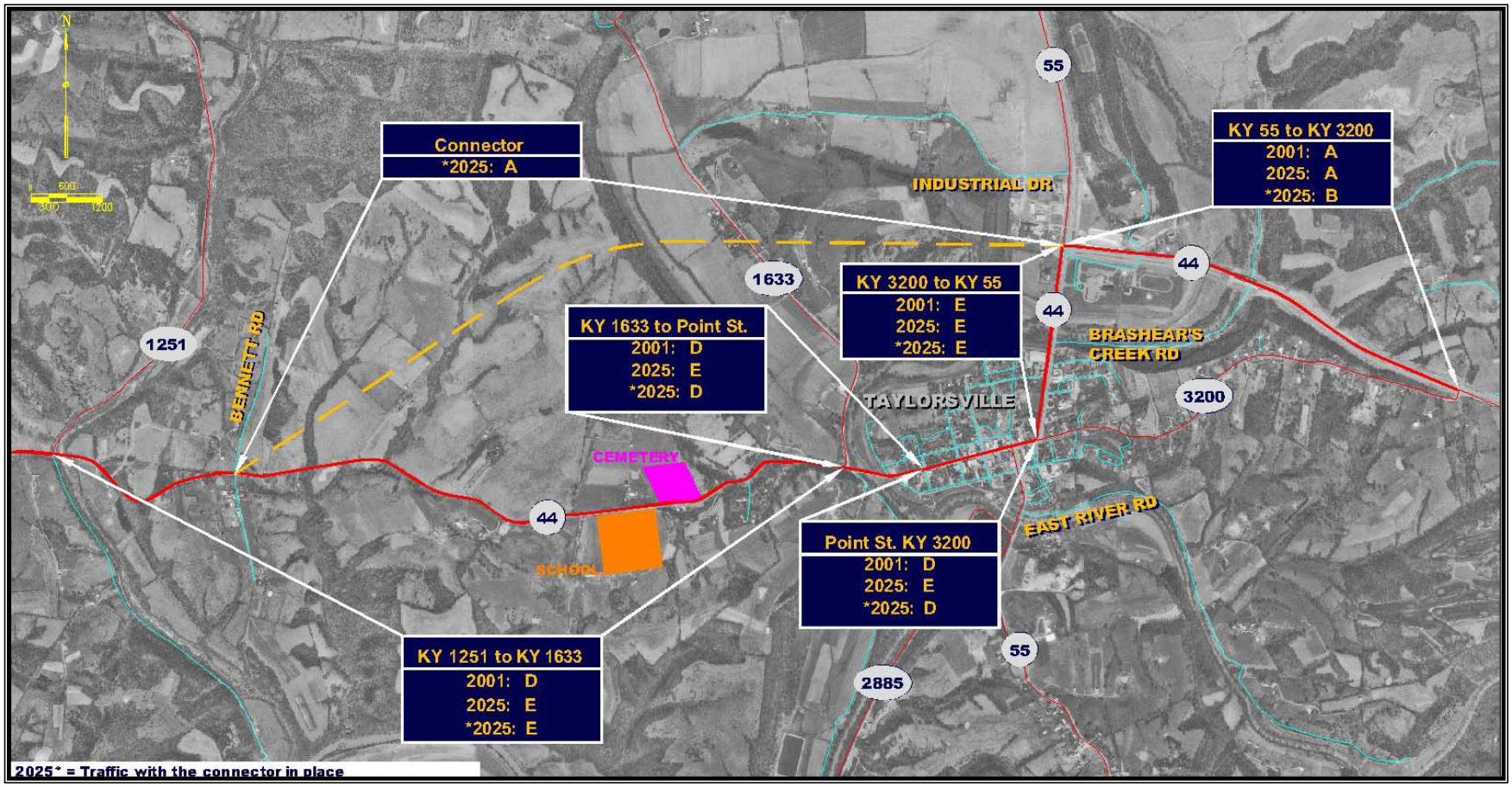


FIGURE 4
EXISTING AND DESIGN YEAR (2025) LEVEL OF SERVICE (LOS)

3. 0 ENVIRONMENTAL OVERVIEW

This section presents a general overview of the social, economic, and environmental (SEE) framework of the proposed project area. It verifies key SEE issues, which represent constraints upon project location within the study corridor. Also, preliminary evaluations of community impact, environmental justice, and other socioeconomic factors have been conducted to determine the need for avoidance considerations. The information presented is based on readily available public records and archival research supplemented with field reconnaissance and "windshield surveys". The resources identified as part of the environmental overview are shown in **Figure 5** on the following page. Full documentation of these resources is found in a separate environmental overview report, prepared as a part of this study.

3.1 Socioeconomic Considerations

Spencer County is currently experiencing one of the fastest growth rates in Kentucky with a growth rate of 73% between 1990 and 2000. Taylorsville experienced a growth rate of 30.4% between 1990 and 2000 with a current population of 1,009. This growth is in part due to Taylorsville Lake and Taylorsville Lake State Park, which have more than 780,000 visitors annually. The population of Spencer County from the 2000 Census Data is 11,766, while the gross annual income exceeds $200 million. The population growth and potential tourism income make this area ideal for future industrial and business growth.

The project study area is rural except within the Taylorsville City limits. There are a group of houses on KY 1633 that display neighborhood characteristics of similar design, style, and age. There do not appear to be any other neighborhoods or community units within the study corridor which have a cohesive structure or display the type of characteristics represented by similarities in design, style, age, ethnicity, race, culture, family composition, education, religion, or usage. This conclusion was preliminarily established through "windshield" surveys, but should be re-examined during subsequent project phases. Relocation activities associated with the acquisition of homes should not be complicated by the need to maintain associated cultural or social groups or extended family units.

Community cohesion for the anticipated small number of displacements will not adversely affect the residential units or small clusters along the project area required. It is expected that these crossroad clusters will continue to thrive. It is also expected that some displaced residents will be able to relocate their homes and structures on the same property, thereby maintaining established connections and social groups.

The available housing market in Spencer County is adequate for any replacement housing needed. However, every reasonable effort should be made during the project design and construction phases to avoid and minimize displacements on the project. At this time, displacement and relocation issues are not expected to significantly affect alignment selection and project advancement decisions. If it should be determined to be necessary, Last Resort Housing (housing that is made available to a removed person that cannot find a house priced in their financial range in a reasonable amount of time) can be implemented on a case by case basis. During subsequent project phases, relocation issues should be reexamined to determine if conditions and impacts have changed, and if relocation issues warrant higher status in the decision-making process for the selection of the preferred alternate.

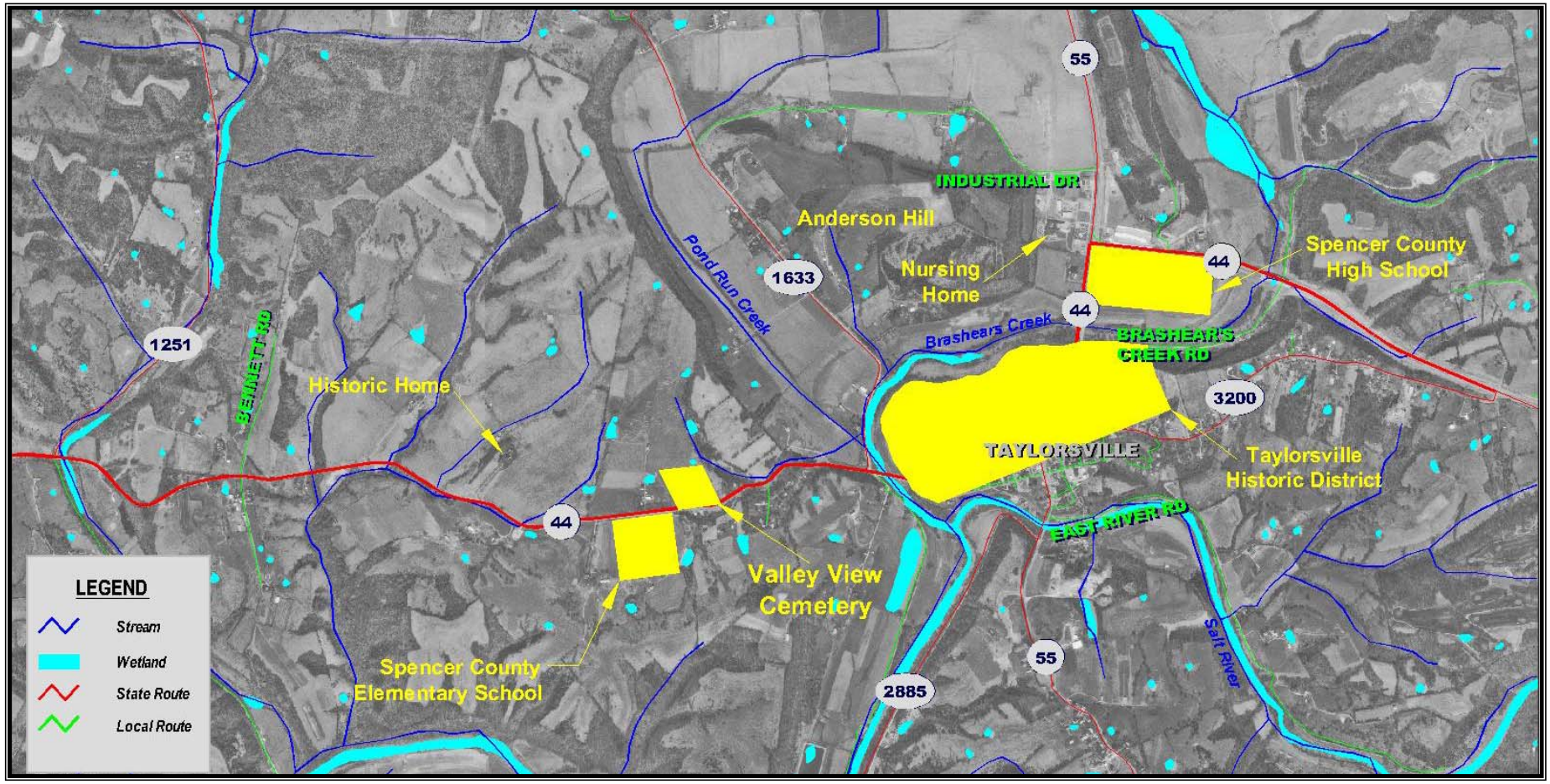


FIGURE 5

ENVIRONMENTAL OVERVIEW

There are currently no community resources such as airports or hospitals that are adversely affected in the proposed project corridor. The Spencer County Elementary School is located on the south side of KY 44 and should not be adversely affected by the project. Also, the Spencer County High School is located on the east side of KY 55 within the Taylorsville city limits and should not experience any adverse affects. A new community park (Taylorsville Park) is planned in Taylorsville on KY 44. Taylorsville Park will have football, softball, baseball, and soccer fields. Valley Cemetery (approximately 350+ graves) is the only cemetery within the project corridor and is located outside Taylorsville on the north side of KY 44. Another resource within the project corridor is the Taylorsville Masonic Lodge No. 210 located on KY 1633, which is an established fraternity of men who join together to work toward common goals. The present locations of these resources should be noted for future design alignment considerations to minimize or avoid impacts on the facility.

Farmland is an abundant resource in the project area. In 1997, total cash receipts from Spencer County reached approximately $20M, with receipts from crops being greater than livestock. The agriculture use is a mixture of pasture, row crops, and hayfields with the predominant cash crop being tobacco. Efforts should be made in subsequent project phases to further determine the effects on individual farms and reduce land conversion impacts by design modifications wherever practical. Coordination with the Natural Resources Conservation Service and development of Farm Practices Protection Act (FPPA) farmland impact assessment evaluations will also be required. Based on the current level of information available, no significant adverse social and economic impacts are anticipated from any of the alternates currently under consideration. However, these preliminary findings will require validation through appropriate detailed environmental base studies required in subsequent phases.

3.2 Environmental Justice Considerations

The Kentuckiana Regional Planning and Development Agency (KIPDA) investigated potential environmental justice considerations for the study. An environmental justice issue is said to exist where a proposed project affects a disproportionate percentage of low-income and/or minority populations, as compared to either county or statewide averages for those population groups. Through an examination of 2000 census block data (the study area comprises three block groups, supplemented with information gathered from local officials and community leaders) KIPDA found that poverty levels are higher than the state average in one block in the 18-64 age range, and poverty levels in the 65 and older range are higher in all three block groups. Additionally, there is a higher percentage of 62 and older in one block group than the state average. Minority populations are lower than the statewide average in all three groups. The complete KIPDA Environmental Justice Report is found in **Appendix D**.

3.3 Air Quality Considerations

The U.S. Environmental Protection Agency (EPA) has established criteria for ambient levels of common transportation related air pollutants including ozone (O_3), carbon monoxide (CO), oxides of nitrogen (Nox) and total suspended particulates (TSP). The Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC) has adopted these same air quality standards. These National Ambient Air Quality Standards (NAAQS) have been promulgated to represent the maximum allowable air pollutant levels and characterize conditions that pose no significant threat to human health and welfare.

Pursuant to the 1990 Clean Air Act Amendments, the project area has been designated an attainment area for all transportation-related pollutants (CO, HC, Nox, and TSP). This project is in an area that does not require transportation control measures. Therefore, the Amended Final Conformity Guidelines issued by the U.S. Environmental Protection Agency and the U.S. Department of Transportation will not apply for this project. With respect to the latest conforming State Transportation Improvement Program (STIP), the proposed project is located on page 345 of the STIP, Fiscal Years 2001-2006, approved in October of 2000. Mobile source air pollution is not a problem in the project area and the existing ambient air environment is well within National Ambient Air Quality Standards (NAAQS).

Based on project corridor windshield surveys and inspections, no air quality sensitive land uses or susceptible sites were observed. With the location of the corridor being in an attainment area and traffic volumes predicted for the design year expected to be low, it is anticipated that concentrations of carbon monoxide will remain below both the one-hour standard (35ppm) and the eight-hour standard (9ppm) regardless of the alternate alignment used. In accordance with KYTC/DEA Position Paper 006-2000, a microscale analysis following the guidance specified in *Air Quality Guidance for Project Level Analysis*, revised October 2000, will be required for this project. Within the study corridor there are approximately 10 potential air receptors. Project level emission inventories shall not be developed because the project originates from a conforming STIP.

Finally, construction period air quality impacts will need to be evaluated to determine the potential short-term effects of site preparation, demolition, materials storage, and construction actions to determine if any appropriate mitigation commitments are to be incorporated into the project plans.

3.4 Highway Noise Considerations

Highway noise levels, at this time, are not expected to be a major concern on this project because most of the adjacent land use is undeveloped farmland. Most receptors are isolated single structures, and several of the potential receptors (residences) may be acquired for project construction. Within the study corridor, there are approximately twenty-five (25) potential noise receptors. With low concentrations of impacted noise receptors throughout the project area, noise mitigation by sound barriers would not be practical due to cost-benefit considerations as outlined within the context of KYTC's Noise Abatement Policy. Given the rural nature of the project area, the vehicle mix, traffic volumes, and the general absence of sensitive receptors, highway noise impacts are not expected to influence project feasibility or location decisions. However, a project specific noise impact analysis will be required in upcoming phases to verify noise impact conditions using the procedure for conducting field monitoring based on FHWA requirements and the KYTC Noise Abatement Policy.

3.5 Water Quality

Brashears Creek, which is a tributary of the Salt River, and Pond Run Creek, are the only perennial streams within the project area. From National Wetlands Inventory (NWI) mapping, large 100-year floodplains were shown along both perennial streams. These streams may be impacted by siltation and stormwater runoff. NWI maps (Taylorsville and Waterford Quadrangles) were also reviewed to determine the presence of wetlands in the corridor and are indicated in **Figure 5**. Fifty-one (51) wetlands were identified with forty-three (43) of those

being listed as impounded or diked ponds that are part of farming operations. A field inspection will be necessary to determine the jurisdictional status of each wetland area.

3.6 Wild and Scenic Rivers

No wild and scenic rivers or Outstanding Water Resources, as reported by the KNREPC, are found in the project study area. There are no exemplary natural communities, natural areas, recreational areas or wildlife and waterfowl refuges within the project area.

3.7 Flora and Fauna

The flora of the project area belongs to the Western Mesophytic Forest region of the Deciduous Forest of Eastern North America (Braun 1950). The Western Mesophytic Forest region is a mosaic of unlike climaxes and subclimaxes, and thus may be thought of as a transitional area between the Mixed Mesophytic Forest region to the east and the Oak-Hickory Forest region to the west. Representative examples of the Mixed Mesophytic Forest association occur frequently in its eastern part and more locally westward. Oak-hickory and prairie communities resembling the climaxes to the west and several intermediate types, such as oak-tulip tree and beech-chestnut, take place in the mosaic.

The original forests that covered the project area and in turn the Outer Bluegrass Section (OBS) appear to have been very similar to the Inner Bluegrass. Underdrainage is less pronounced, and sinks are rare. Perhaps related to the groundwater condition, beech trees are present along with the species commonly found in the Inner Bluegrass. Semi-natural areas are almost lacking, except on valley slopes and at the margins of the Outer Bluegrass.

Vegetation within the project area has low species diversity. Forests within the project area are basically oak/hickory with large amounts of Eastern red cedar in old fields. The number of exotic, introduced, and non-native species is considered to be high. Approximately 86% of the land within the project area has a land use of Crop/Pasture. Such land use produces disturbed habitats that are rapidly occupied by non-native species. A review of *Kentucky's Big Trees* by the Kentucky Division of Forestry (1995) indicated that no trees currently listed as state or national champion occur within Spencer County, Kentucky.

Common mammal species compatible with the habitats found in the project area were derived from range maps provided in Barbour and Davis (1974) and Hamilton and Whitaker (1979). Whitetail deer, raccoon, opossum, striped skunk, foxes, and coyote are mammals that have a broad home range and are likely to use any or all of habitats in the project area. Woodchuck and eastern cottontail are likely to occur along fence rows and forest edges and squirrels and eastern chipmunks are likely to occur in the more wooded areas. Wetlands in the project area will likely support muskrat.

Amphibian and reptile species that are likely to occur in the project were derived from range maps provided in *Amphibians and Reptiles of Kentucky* by Barbour (1971). Wetlands in the project area will likely support several species of frogs and toads, red spotted newt, northern water snake, and common snapping turtle.

The wooded slopes of the area provide suitable habitat for eastern garter snake, northern black racer, black rat snakes, northern copperhead, and eastern box turtle. The deeper side ravines

that contain greater soil moisture provide habitat for salamander species. Fence rows with cover vegetation likely will support northern fence lizard and five-lined skink.

Habitat types found in the project area provide suitable habitat for bird species that are associated with forest edges and open fields. Bird species that require extensive wooded areas are not likely to be found.

3.8 Threatened, Endangered, or Special Concern Species

According to information from U.S. Fish and Wildlife Service (USFWS) Indiana Bat Revised Recovery Plan (1999), the Indiana bat (*Myotis sodalis*) is a migratory species that is found throughout much of the eastern half of the United States. Potential roosting habitats may be found within the project area. Habitats for the federally endangered running buffalo clover (*Trifolium stoloniferum*) may also be found in the project area. Information from the Kentucky State Nature Preserves Commission (KSNPC) states there are four species of federally endangered mussels and seven state listed species of mussels. Fieldwork will be necessary in subsequent project phases to determine if these species exist within right-of-way of the alternates and minimize possible impacts to these species.

3.9 Cultural Historic Resources Evaluation

During 1992, a comprehensive survey of Spencer County was performed to document additional significant structures with related characteristics. The sites identified in this survey were not given Kentucky Heritage Council (KHC) survey numbers. Twenty-five cultural historic sites are located in the project area that were previously documented with this survey.

In addition to the sites discussed above, there are 135 individual sites and an historic district in Taylorsville that have been previously documented. Most of these sites appear to be located in the project corridor. There is no map available at the KHC that identifies their locations in the project corridor and they cannot be confirmed without field verification. The only exceptions are five individually recorded sites and the Taylorsville Historic District.

Field research will be needed to determine how many of these recorded properties have been demolished, or altered to the point that they would not be considered eligible for nomination to the National Register of Historic Places. A final determination of eligibility of potential sites and National Register boundaries cannot be determined until each site has been examined more closely and site-specific archival research has been completed in subsequent project phases.

3.10 Archaeological Resources Evaluation

A search of Office of State Archaeology (OSA) records at the University of Kentucky was completed for the overview with no fieldwork or detailed archival research being performed. Based on this search, eight previously recorded archaeological sites are within the study area: One site is listed as an earthen mound, another is recorded as a collection of isolated burials, three sites are undetermined prehistoric habitation sites, and the final three are reported as open prehistoric habitation sites without mounds. The present condition of these sites has not been verified and is therefore unknown. Two of the sites are not considered eligible to the National Register and two sites are listed as National Register properties. The eligibility of the four remaining sites is listed as unknown or not assessed. Additional fieldwork will be necessary to determine their eligibility.

A review of several historic maps of the study area was initiated to identify any structures or other information within the study corridor that would indicated the location of potential historic period archaeological sites. The potential historic archaeological sites within the study corridor are farm/residence sites in the rural areas. A cemetery was depicted on the early 1882 atlas that was not observed on any of the other maps. Valley Cemetery seems to date at least as early as 1928. A Sour Mash Distillery and a Tollhouse were also noted on the 1882 atlas. Although the distillery no longer appears to be standing, the Tollhouse may still be standing. Finally, a mill complex is depicted on the early atlas. Although the buildings no longer appear to be standing, the millrace is still depicted on the current topographic quadrangle. The presence of these potential sites has not been verified. They are noted here because they are considered to be areas of archaeological interest that could contain significant remains, which if present, would be considered eligible for the National Register.

3.11 Underground Storage Tanks (UST)/Hazmat Considerations

A government records search, in addition to preliminary screening/windshield survey of the project area, was performed to locate any current or formerly listed UST sites as well as all mapable Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Emergency Response Notification System (ERNS) sites. No National Priorities List (NPL) sites are listed as occurring in the project area. A records research revealed one site of potential environmental concern within the project corridor. The site is the Spencer County Recycling Center. Onsite personnel stated that only non-hazardous waste was recycled at this site. No staining or distressed vegetation was observed at this site during the pedestrian survey. Since hazardous waste is not collected at this site, it does not appear to be an environmental concern to the project corridor.

No above ground gasoline/diesel storage tanks (AST) were observed. Any AST's encountered during the right-of-way acquisition phase that are not identified should be accounted for during normal right-of-way acquisition procedures and decommissioned in accordance with ASTM International's (formerly known as the American Society for Testing and Materials) standard practices.

Residential heating requirements throughout the area are met through the use of electricity. No heating oil tanks were detected. The removal of propane tanks should be accommodated routinely during the right-of-way acquisition phase.

3.12 Geotechnical Overview

The KYTC Division of Materials, Geotechnical Branch, performed a preliminary review of the study area to determine potential impacts that soil and subsurface conditions may have on the proposed corridor. It was noted that alluvium and lacustrine deposits, as shown in yellow in **Figure 6**, can be found north of KY 44, east of Elk Creek, and north of the Salt River. The issue with these water-related soil conditions is that slope protection may be necessary due to their highly erodible nature, and foundation settlement and unstable subgrades are possible unless adequate measures are taken to ensure stability. These measures include the use of filter fabric in conjunction with 2-3 feet of aggregate for stabilization. The Geotechnical Branch prefers to avoid them if possible. The complete geotechnical overview can be found in **Appendix E**.

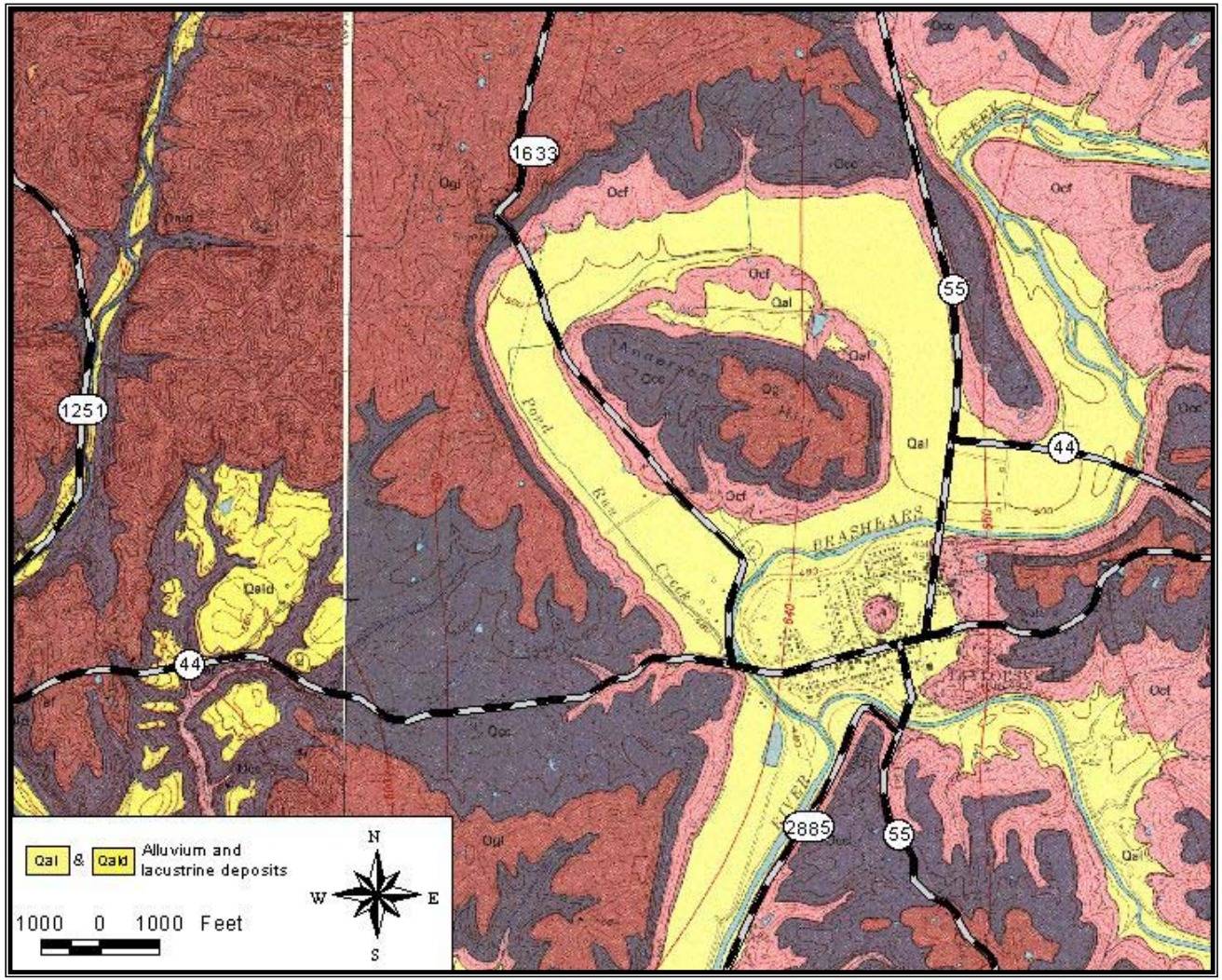


FIGURE 6

GEOLOGIC QUADRANGLE MAP

4.0 STUDY CORRIDORS

The following corridors were selected for study, and were evaluated with respect to the goals and objectives established through the study process. See **Figure 7** for the layout of the corridors. **Table 5** shows a comparison of the elements of each corridor.

4.1 Do Nothing/No Build

This corridor involves no action to improve the facility other than routine maintenance, such as resurfacing and restriping the roadway. It was presented to and discussed among the project stakeholders, and was not supported because it did not address the project goals.

4.2 Corridor One - Construction of a Connector from KY 44 a mile east of KY 1251 to KY 44 near Brashears Creek Bridge

This corridor involves the construction of a northwest connector around downtown Taylorsville and just north of Anderson Hill. This corridor would have an option for a future through route where it ties into KY 44 to the west, depending on the traffic volume projected. It would go north approximately 1.2 miles and then turn east. A bridge would be required over the floodplain of Pond Run Creek and KY 1633. After the bridge, the corridor would continue east and go just north of Anderson Hill and intersect with KY 55. The corridor would continue through KY 55 and connect with KY 44 just before the Brashears Creek Bridge east of downtown Taylorsville.

4.3 Corridor Two - Construction of a Connector from KY 44 a mile east of KY 1251 to KY 55

This corridor involves improving the geometry of KY 44 for about a half-mile on each side of the intersection with the connector a mile east of KY 1251. The new intersection would be a T-intersection and would follow approximately the same route as Corridor One, except this corridor would go north of the farmland located north of Anderson Hill and end at an intersection with KY 55. The intersection with KY 55 involves a potential connector to KY 44 east if a warranted because of through traffic volumes. This corridor would involve the construction of a bridge over KY 1633 and the adjacent floodplain of Pond Run Creek.

4.4 Corridor Three - Construction of a Connector from KY 44 (west of Spencer County Elementary School) to the Intersection of KY 44 and KY 55 (Taylorsville-Shelbyville Road)

This corridor involves intersecting the connector with KY 44 just west of Spencer County Elementary School and going northeast and connecting back into KY 44 at KY 55 (Taylorsville-Shelbyville Road) just north of downtown Taylorsville. This corridor would involve the construction of a bridge over KY 1633 and the adjacent floodplain of Pond Run Creek.

4.5 Corridor Four - Construction of a Connector from KY 44 (east of the Valley Cemetery) to the intersection of KY 44 and KY 55 (Taylorsville-Shelbyville Road)

This corridor involves intersecting the connector with KY 44 east of Valley Cemetery about one mile west of downtown. The new intersection would be a T-intersection and would include improving the geometry of KY 44 for about a half mile on each side of the intersection. The connector would travel north and then turn east, and a bridge would be constructed to go over

KY 1633 and the adjacent floodplain of Pond Run Creek. This corridor would involve a greater amount of earthwork than Corridor Three, but the route would be more direct, as it would cut through Anderson Hill and connect back with KY 44 and KY 55 at the Taylorsville-Shelbyville Road intersection just north of downtown Taylorsville.

4.6 Corridor Five - Construction of a Connector from KY 44 (east of Valley Cemetery) to the intersection of KY 44 and KY 55 (Taylorsville-Shelbyville Road)

This corridor is very similar to Corridor Four except it requires less earthwork. This connector would start at an intersection with KY 44 east of the cemetery and include improved geometry to KY 44 for about a half mile on each side of the intersection. This corridor, however, would go south of Anderson Hill starting at the constructed bridge going over KY 1633 and the adjacent floodplain of Pond Run Creek. Corridor Five would go just north of downtown Taylorsville and connect back with KY 44 and KY 55 at the Taylorsville-Shelbyville Road intersection. The main difference between Corridor Five and Corridor Four is that this corridor reduces the cut needed, while remaining out of the floodplain.

4.7 Corridor Six - Construction of a Connector from KY 44 a mile east of KY 1251 to KY 55

This corridor was developed based on comments from the final Local Officials Meeting. The rationale behind the development of the corridor was to use the desired tie in on KY 55 from Corridor 1 (thereby spurring development by not adversely impacting available land north of Taylorsville) while using the route around the potential 100-year floodplain of Pond Run Creek from Corridor 2. By avoiding the floodplain, no bridge structure (beyond drainage structures) will be required for this corridor. The possibility of extending the connector east to KY 44 near Brashears Creek Bridge was discussed by the Study Team, but no decision was made to include or exclude the addition to the connector.

TABLE 5
COMPARISON OF CORRIDORS

	Corridors						
	0	**1***	**2**	**3**	**4**	**5**	**6**
Length (miles)		2.82	2.78	2.50	1.69	1.64	2.93
Relocation Impacts	None	Up to 1 barn	Up to 2 barns	Up to 5 businesses (including nursing home) and 2 homes	Up to 2 businesses, 2 homes and 1 barn	Up to 2 businesses and 2 homes	Up to 2 homes and 3 barns
Geotechnical Impacts	None	Major cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes; Longest portion in undesirable alluvial deposits	Major cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes; Portion in undesirable alluvial deposits	Major cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes; Portion in undesirable alluvial deposits	Highest cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes	Major cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes	Major cut and fill quantities anticipated to meet 2:1 cut slopes and 3:1 fill slopes; Portion in undesirable alluvial deposits
Environmental Impacts	None	Highest impact to wetlands	Minimal impact to wetlands	Moderate wetland impact; Impacts nursing home	Impacts potential archeological sites; Moderate wetland impact; Impacts nursing home	Impacts potential archeological sites; Moderate wetland impact; Impacts nursing home	Minimal impact to wetlands; avoids floodplain areas
Conceptual Cost Estimate	$0	$28,809,000	$11,619,000	$28,260,000	$34,060,000	$21,625,000	$7,937,000
Relation to Project Goals	Meets None.	Meets most Project Goals; May improve tourism traffic opportunities	Meets most Project Goals; May improve tourism traffic opportunities	Meets most Project Goals; May improve tourism traffic opportunities	Meets most Project Goals; May improve tourism traffic opportunities	Meets most Project Goals; May improve tourism traffic opportunities	Meets most Project Goals; May improve tourism traffic opportunities

*Does not include impacts, length or cost of northeast connector.

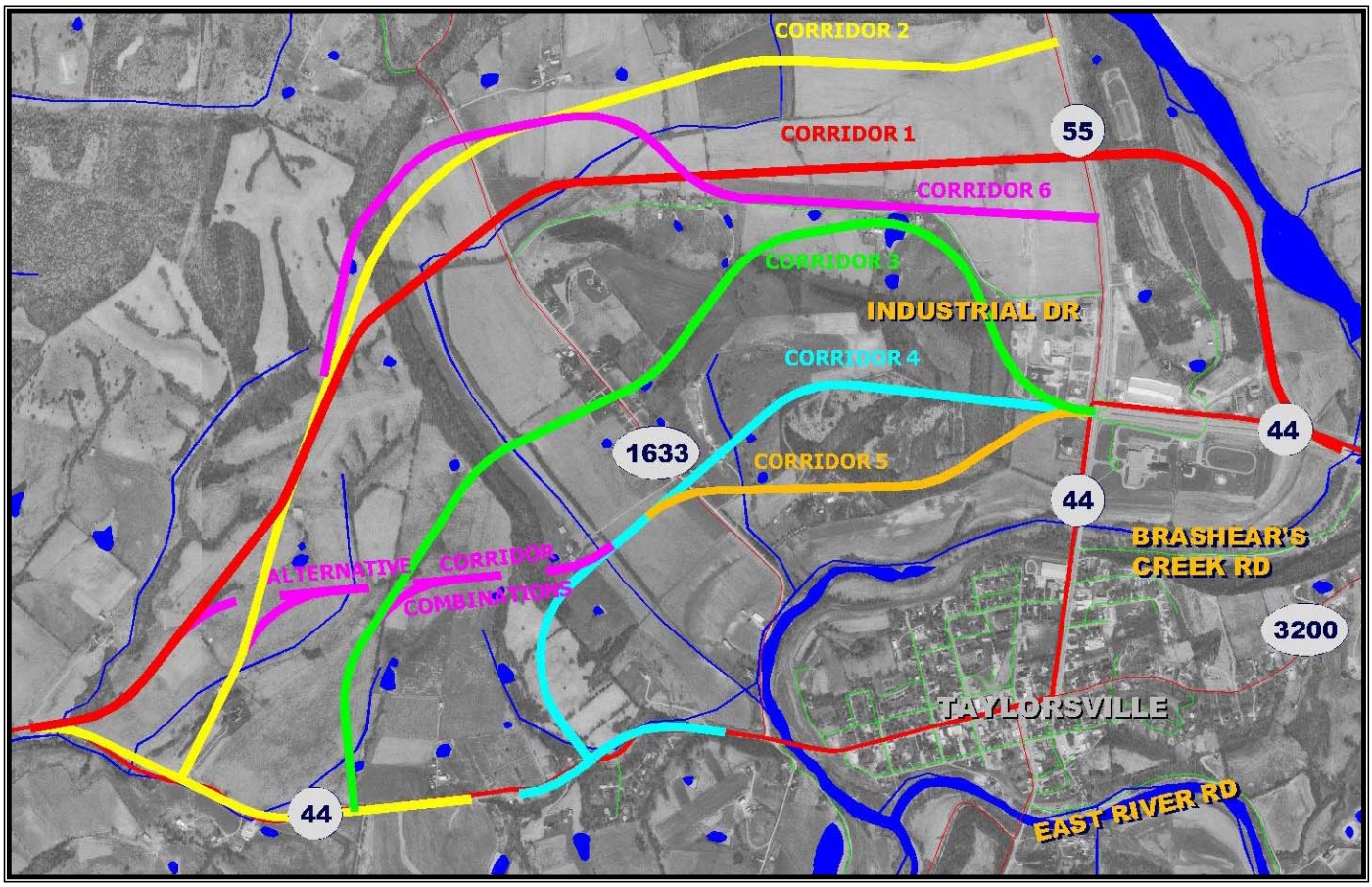


FIGURE 7
STUDY CORRIDORS

5.0 RECOMMENDATION

5.1 Preferred Corridor(s)

The Project Study Team met again with local officials and stakeholders on July 23, 2002, in the Spencer County Courthouse, to review the initial six corridors, the five study corridor and the do nothing/no build option. The stakeholders expressed concern regarding the positioning of new developments within the connector. They were notified that the projected traffic volumes on the new connector would be low and that issues such as costs, constructability, and aesthetics would most likely be used to determine a location, particularly in regards to excavating through Anderson Hill and crossing Pond Run Creek.

After reviewing the corridors, the Project Team members discussed the issues for each corridor. The following is a summary of comments from the discussion:

- ⇨ Corridors Four and Five (Blue and Gold) are too close to town and would not offer access to much developable land.
- ⇨ Carrying Corridor One (Red) past KY 55 would not be needed, since it would require an expensive cut through the hill northeast of the KY 44/KY 55 intersection and would not likely improve traffic flow. Instead, the alignment could begin at KY 55.
- ⇨ No corridors should tie into the existing KY 44/KY 55 intersection. The area's only nursing home is located there.
- ⇨ Corridor Three (Green) should tie into KY 55 parallel to Corridor One.
- ⇨ None of the corridors should tie into KY 44 close to the Valley Cemetery, since that will preclude some types of development from occurring.
- ⇨ The School District has stated that they would prefer to see the road tie into KY 44 west of the elementary school.
- ⇨ Corridor Two (Yellow) is located in a floodplain and would not provide access to as much developable land as Corridors One and Three.
- ⇨ In the north an alternate following Corridor Six (Magenta) would be ideal, since it would provide prime land for development on both sides of the road.
- ⇨ The potentially historic properties between Corridors 1 and 3 are abandoned homes. This area also contains archeological sites.
- ⇨ Adjusting Corridor Three on the west so that it is located further north would allow the County to make better use of the Sagesser property that they are in a position to purchase. It would also avoid any views of the cemetery property limits.

At the final Project Study Team meeting, held on August 2, 2002, recommendations on the Taylorsville Northwest Connector Intermediate Planning Study were discussed. Based on the Local Officials desires for the route to spur development, the consensus by meeting members was to reorder the listing of the Preliminary Projects goals with "Accommodate increasing commercial and industrial traffic" as the second goal, while shifting the others down one spot. Therefore the final project goals are as follows:

- Alleviate current and projected KY 44 and KY 55 traffic congestion
- Accommodate increasing commercial and industrial traffic

- Decrease crash rates on these routes
- Accommodate future population growth
- Improve access for recreational/tourism traffic to Taylorsville Lake

Based on comments at the final Local Officials/Stakeholders meeting, a new alternate (Corridor Six) was developed. The primary impetus for this alternate was to use the desired tie-in on KY 55 from Corridor One (thereby spurring development), while using the route around the potential 100-year floodplain from Corridor Two.

The Project Study Team determined that the 6 build alternates should be narrowed to 2 bands, an inner (composed of Corridors 3-5) and an outer (Corridors 1,2, & 6) band. The purpose behind the bands is that an alignment would not be recommended in this study, but a preferred corridor band with some room to develop an alignment would be recommended. These corridor bands are shown below in **Figure 8**.

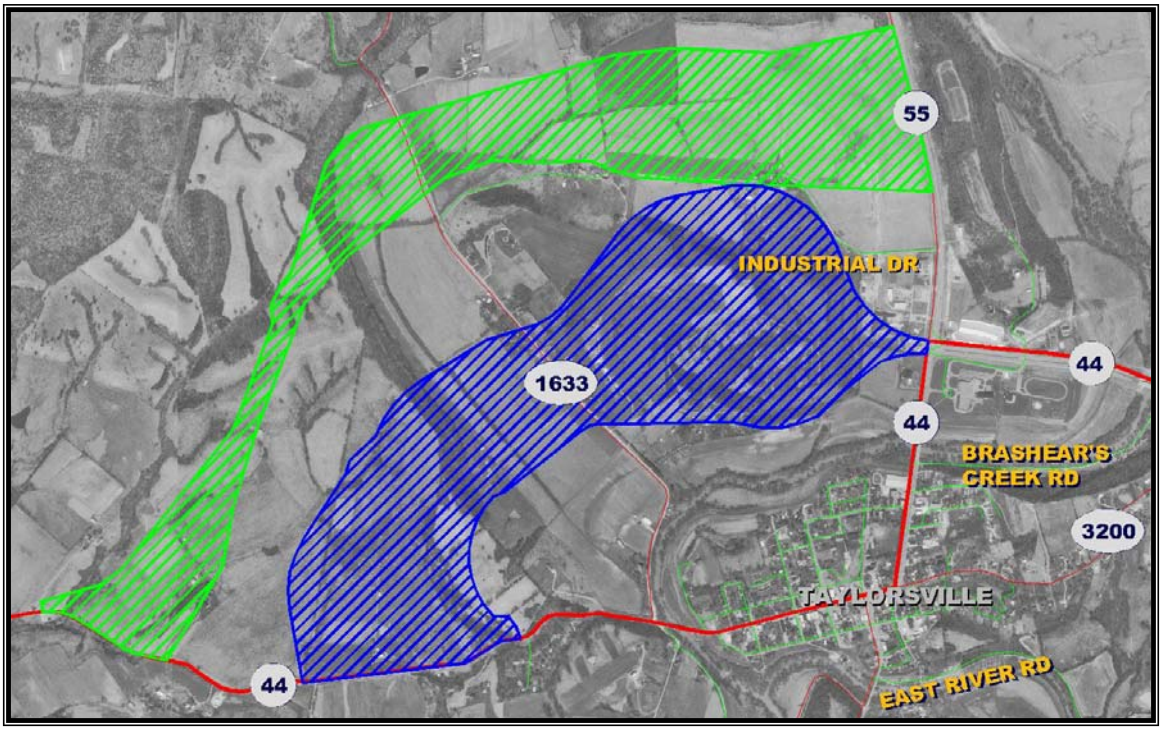


FIGURE 8
CORRIDOR BANDS

A band between the inner and outer band was considered inadvisable due to the presence of archeological sites and lengthy floodplains. In determining the recommended band of corridors, discussions included whether the inner band could be dismissed from further consideration due primarily to public comments. Neither of the bands could be dismissed from further consideration based strictly on project needs and goals, as both bands would meet the project goals, albeit at different degrees. It was determined that environmental justice issues may render the inner corridor less feasible due to the proximity of the nursing home. Therefore,

given stakeholder input and the potential for environmental justice issues, the outer corridor band was recommended.

The approximate range of costs for the Preferred Corridor Band are listed in **Table 6** below.

TABLE 6
PREFERRED BAND RANGE OF IMPLEMENTATION COSTS

Phase	Range of Implementation Costs for Preferred Corridor Band (Includes Corridor 1,2 & 6)	
	Corridor 6 (Lowest Cost)	Corridor 1 (Highest Cost)
Design	$476,000	$1,992,000
Right of Way	$788,000	$176,000
Utilities	$82,000	$76,000
Construction*	$6,591,000	$26,565,000
TOTAL	**$7,937,000**	**$28,809,000**

*Includes 30% contingency.

5.2 Contact Information

For further information regarding this project the following people may be contacted:

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

Mr. Ted Noe, PE
Project Manager
KY Transportation Cabinet
Division of Planning
125 Holmes Street
Frankfort, KY 40622

5.3 Acknowledgements

The Study Team wishes to acknowledge the following organizations for their contributions to this study:

- ⇨ Spencer County
- ⇨ City of Taylorsville
- ⇨ KIPDA
- ⇨ Spencer County School Board
- ⇨ Spencer County Industrial Development Authority
- ⇨ Spencer County Planning and Zoning

5.4 Commitments

During the course of this study, no commitments were made by the Project Team.

APPENDIX A

MEETING MINUTES

SUMMARY OF MEETINGS

TEAM MEETING #1	**October 2, 2001**
LOCAL OFFICIALS MEETING	**October 19, 2001**
LOCAL AGENCY MEETING	**October 19, 2001**
PUBLIC MEETING	**November 8, 2001**
SECOND LOCAL OFFICIALS MEETING	**July 23, 2002**
TEAM MEETING #2	**August 2, 2002**

STATEWIDE CORRIDOR PLANNING SERVICES

TAYLORSVILLE NW CONNECTOR - TEAM MEETING #1

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Transportation Department Manager
HNTB-Louisville

DATE: October 2, 2001

SUBJECT: Statewide Corridor Planning
Spencer County
Taylorsville NW Connector
Item No. 5-347.00

A meeting was held October 2, 2001 in the District 5 Conference Room to discuss the scope and schedule for the Taylorsville NW Connector project. Those in attendance were:

Bill Monhollon	District 5 - Chief District Engineer
John Callihan	District 5 Planning - TEBM
Greg Groves	District 5 Preconstruction-TEBM
Barry Sanders	District 5 Construction – TEBM
Matt Looney	District 5 Construction
Tony McGaha	District 5 Construction
Kevin Villier	District 5 Design
Mark Anderson	District 5 Planning
Andrea Clifford	District 5 Public Relations
Greg Geiser	District 5 Utilities
Bob Flener	District 5 Traffic
David Jones	Division of Design
Tony Vinegar	Division of Environmental Analysis
Ted Noe	Division of Planning
Jim Wilson	Division of Planning
David Martin	Division of Planning
Randall Embry	KIPDA
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Introductions and Purpose

Ted Noe opened the meeting by stating that the purpose was to discuss a potential connector from KY 44 to KY 55 northwest of Taylorsville, and notified the group that the next phases of the project are in the Six-Year Highway Plan for 2003-2006. Introductions were given, and it was stated that this is the first Intermediate Planning Study done in District 5. The intent of the project is to come up with the project goals and begin the public involvement process. Jim Wilson added that this is the type of work normally done prior to the design work, and it will not necessarily tie down an alignment. Larry Chaney added that

the team also needs input on anything the team knows about the area that might be important for the study.

Bill Monhollon informed the group that he had met with the Industrial Foundation, and was told that the Riverport Authority may be extending into that area. That may lead to considerable additional growth in the project area. If so, the area near Industrial Road may be an obvious place to begin the bypass, because turning movements would be greater than through movements.

Karen Mohammadi then went through the handouts. (See attached.) Some questions were raised regarding the milepoints on KY 44 and KY 55, and Larry Chaney requested a copy of the Official Order for the routes in Spencer County. Additional traffic counts were also requested, since the latest ones available were done in 1995 and 1998. Greg Groves said that the District had trouble recently with traffic counts and projections.

Kevin Villier asked of the group if a high level flight for aerial photographs would be performed. He was informed that no additional mapping will be obtained for this project, and that HNTB will utilize either existing aerial maps, USGS maps, or mapping from other readily available sources.

Project Goals and Objectives

Some problems and issues associated with the existing roadway or network include:

- Poor Level of Service on 2 segments
- High occurrence of sideswipe and rear end accidents, although overall rates are low
- Loss of the downtown area as a viable commercial center
- Poor roadway geometry on KY 44 west between Mount Washington and Taylorsville
- Difficulty in finding a good place to tie the connector into KY 44 west (lack of level terrain, poor horizontal and vertical curves)
- Need to develop industry north of town
- Spencer County has been the fastest growing county in the Commonwealth
- Need to accommodate future growth

Some benefits of the proposed project include:

- Alleviating current KY 55 traffic congestion
- Alleviating projected KY 44 and KY 55 traffic congestion
- Development of industry
- Accommodation of future population growth
- Relieving geometric deficiencies
- Improving the downtown atmosphere
- Improving safety
- Improving opportunities for recreational/tourism traffic to Taylorsville Lake

The logical terminus for the connector on KY 55 would be in the area from north of Brashear's Creek to just north of Industrial Drive. For KY 44, the project termini would likely be west of the elementary school. Interest was expressed in extending the project termini as far as KY 623. Bob Farley questioned whether that location is logical termini, or is it too far along KY 44. John Callihan stated that the worst part of KY 44 is between KY 1241 and town, and that the area should likely be avoided. It was decided that logical termini would be addressed at the public officials meeting.

Possible Alternatives and Corridors

Some possible alternatives are a connector near the school and a connector to KY 623. This may become a priority section of a possible reconstruction of KY 44 to Dixie Highway. The circle on the project

study area map indicating the study limits will not be used with the local officials meeting, in order that they may indicate where they think the logical termini should be.

Define Environmental Footprint Area

It was determined that the environmental footprint area should be agreed upon after the local officials meeting. Some environmental issues included the cemetery and school on KY 44, Brashear's Creek, and the community park in Waterford, which is actually a regional attraction.

Probable Design Criteria

The functional class would be rural major collector with a design speed of 55 mph. A typical section would likely be two lanes with 12-foot shoulders and turning lanes where required. The road may widen at the school with a four-lane curb and gutter section. Paved shoulders could be used by bikes on the rural section. Access will be an issue, with 600-1200 feet of spacing on a partially controlled facility.

Agency Coordination Needs

The proposed project will be discussed with a list of 60-70 local, State, and Federal agencies that the Division of Planning already has developed. It was suggested that local judges, mayors, police officers, school boards, Taylorsville Lake State Park, the Chamber of Commerce, the Industrial Foundation, and the Renaissance Coordinator be added to the list. .

Public Involvement Needs

KIPDA will set up the meetings with local officials and stakeholders. The District Office will organize the public meetings. Information similar to that taken to the local officials meeting, without any proposed corridors, will be taken to the public meeting. The proposed length of the corridor should not be referred to in the handouts. A possible location for the public meeting is the Spencer County High School cafeteria.

Greg Groves suggested that the local officials and stakeholders meetings (and perhaps the public meeting, as well) be held before a decision is made as to whether the project should be redefined as a Scoping Study. He may request that design be pushed back a year in the Six-Year Highway Plan to accommodate this additional effort. He noted that identification of historic properties will be a big issue, and that early identification is needed.

Discuss Documentation/Reports

All meetings will be documented. If the Project Team feels that additional meetings beyond those already described are necessary, the Division of Planning should be informed immediately for their approval..

STATEWIDE CORRIDOR PLANNING SERVICES

TAYLORSVILLE NW CONNECTOR – LOCAL AGENCY MEETING

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Transportation Department Manager
HNTB-Louisville

DATE: November 2, 2001

SUBJECT: Statewide Corridor Planning
Spencer County
Taylorsville NW Connector
Item No. 5-347.00

A meeting was held October 19, 2001 in the Spencer County Farm Bureau Building on the Taylorsville NW Connector project with local agencies (stakeholders). Those in attendance were:

Hilda G. Snider	Historical and Genealogical Society
John C. Nation	Planning and Zoning
Claude L. Brock	Industrial Development Authority
Randall Embry	KIPDA
John Callihan	District 5 Planning
Andrea Clifford	District 5 Public Relations
Rick Cusick	District 5 ADA Compliance Officer
Greg Geiser	District 5 Utilities
Daryl Greer	Division of Planning
David Martin	Division of Planning
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Daryl Greer opened the meeting by stating that the purpose was to discuss a potential connector from KY 44 to KY 55 northwest of Taylorsville. He explained that the old highway approach was decide-act-defend (D.A.D.) but the new method is based on "publicly owned projects" (P.O.P.) where the community assists the Cabinet in determining the best transportation solutions for their communities. This method addresses public concerns up front and reduces public resistance.

Larry Chaney then told the group that the purpose of this study was to better define the project, determine project limits, determine project impacts and benefits to the community, develop corridors, address development needs and determine if the project should continue to the design phase.

Karen Mohammadi then went through the handouts. (See attached.) Hilda Snider stated her concerns about driving on KY 44. She feels it is a very dangerous road and the condition is often worsened in the mornings under heavy fog conditions. She stated that she felt the potential for a serious accident existed.

She referred to the Taylorsville Lake Transportation Study done in June 1985 and said that the connector depicted in the study was a good solution since it would connect the schools and involve few properties.

John Nation added that the land should have been reserved for the connector as shown in the 1985 study. He also wanted to know if this connector would stay out of the floodplain. Larry Chaney responded that the study would look at everything initially.

Mr. Nation continued stating that Planning and Zoning have not looked at the possible connector locations. Land use is not a popular subject in the County and traffic is needed downtown to support the businesses. He felt that residents on KY 55 do most of their shopping in Jefferson and Shelby County and that this project would therefore benefit those who don't help businesses in Spencer County. He expressed a desire to see improvements made to KY 44 South first. John Callihan replied that the status of the KY 55 South project depends on the next Six-Year Plan. However, the plan to rehabilitate the bridge will likely be funded.

Mr. Nation then asked if a connection from the cemetery on KY 44 to Industrial Drive off KY 55 was being considered. He was told that all feasible connections would be considered.

Claude Brock suggested that Mr. Nation mention the upcoming public meeting at the Chamber of Commerce Meeting. The Public Meeting will be held from 6:00 PM to 8:00 P.M on November 8, 2001, at the Spencer County High School. Mr. Brock also expressed interest in having a link to the Division of Planning's website placed on the Industrial Board's website. He suggested that project information be placed in the Judge-Executive's office, the library, and the Industrial Board's office. He also suggested that articles be placed in the local paper and flyers placed in business, especially the Briar Ridge General Store. He ended by stating that he feels the community is ready for a change.

STATEWIDE CORRIDOR PLANNING SERVICES

TAYLORSVILLE NW CONNECTOR – LOCAL OFFICIALS MEETING

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Transportation Department Manager
HNTB-Louisville

DATE: November 2, 2001

SUBJECT: Statewide Corridor Planning
Spencer County
Taylorsville NW Connector
Item No. 5-347.00

A meeting was held October 19, 2001 in the Spencer County Farm Bureau Building on the Taylorsville NW Connector project with local officials. Those in attendance were:

David Jenkins	Spencer County Judge Executive
David E. Goodlett	Spencer County Magistrate
Ray Jewell	Spencer County Magistrate
Bill Drury	Spencer County Magistrate
Claude L. Brock	Industrial Development Authority
John Callihan	District 5 Planning - TEBM
Andrea Clifford	District 5 Public Relations
Rick Cusick	District 5 ADA Compliance Officer
Greg Geiser	District 5 Utilities
Daryl Greer	Division of Planning
David Martin	Division of Planning
Randall Embry	KIPDA
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Introductions and Purpose

Daryl Greer opened the meeting by stating that the purpose was to discuss a potential connector from KY 44 to KY 55 northwest of Taylorsville. He explained that the old highway approach was decide-act-defend (D.A.D.) but the new method is based on "publicly owned projects" (P.O.P.) where the community assists the Cabinet in determining the best transportation solutions for their communities. This method addresses public concerns up front and reduces public resistance.

Larry Chaney then told the group that the purpose of this study was to better define the project, determine project limits, determine project impacts and benefits to the community, develop corridors, address development needs and determine if the project should continue to the design phase.

Karen Mohammadi then went through the handouts. (See attached.) One of the key concerns of the local officials was school traffic near the new elementary school on KY 44. The traffic already backs up in the morning and there are discussions about moving the middle school to a site adjacent to the elementary school. The local officials would like to see the posted speed limits reduced in the area.

Claude Brock stated that the development of KY 44 and KY 55 are equally important to the Industrial Board. The location for the new industrial park has not been determined. He felt that the goal addressing industrial traffic should be expanded to include commercial traffic. Also, Taylorsville Lake is very important to the economy of the community and should be included in the goals.

The attendees asked where the connector would tie in on KY 55. Mr. Chaney explained that the study would look at cross traffic and attempt to determine the origin of the traffic. The attendees also questioned the type of input they could provide to help the study. Mr. Chaney explained that knowledge of future residential, commercial and industrial development is important, as are any plans to build more schools. Mr. Greer added that Planning and Zoning could be a tremendous help by making sure that their comprehensive plan addresses traffic along the new development. Otherwise it is easy for communities to "build themselves in" thereby not allowing for the construction of new corridors. Judge-Executive Jenkins stated that a copy of the comprehensive plan would be provided to HNTB.

The Judge-Executive noted that for the past couple of years the County has been trying to address road development. The County has looked at what roads can be supported and has required developers to improve roads to new developments. He felt that the projected traffic volume on KY 44 from the Oak Creek area to the Waterford community would grow significantly. He would like to see new development occurring only in places that can support the traffic.

The next discussion item was funding for the project. Mr. Greer explained that projects scheduled for 2003 would be funded in the next Legislative Session. There are more projects in the Six-Year Plan that can be funded so some projects will be delayed. He encouraged the attendees to speak to their Senators to voice their opinion about funding of this project.

Mr. Greer then went on to explain the environmental issues surrounding the project. The study will identify major environmental issues such as wildlife, parks, schools, cemeteries, etc. The Judge-Executive stated that the area around the Salt River has a lot of Native American artifacts.

Mr. Greer then asked the local officials about the public perceptions and level of knowledge about the project. The Judge-Executive stated that parents at the school are concerned about traffic and downtown merchants will be concerned about a potential loss of customers. He added that preservation and extension of business is important, as is preservation of downtown. Mr. Greer added that the new connector could be developed as a partially controlled facility, which would restrict commercial development and could make the downtown area more viable since it would be less congested.

Mr. Greer stated that the project would be completed near the end of the year. Mr. Chaney added that the project would then go to design of a specific alignment with a full environmental study. The purpose of this study is to determine a corridor as narrow as 1000 feet. Another recommendation could be that only improvements to the existing roads are needed and no other connector is needed. The Judge-Executive stated that he would favor a recommendation that discussed immediate needs (a connector) plus other desired improvements (to downtown). He also stated that the community would prefer to wait for a better project. They do not want to see a "Band-Aid" fix to their transportation problems.

Mr. Greer ended the meeting by explaining that coordination letters would be sent out and that the attendees would each receive one. The responses to these letters will be made part of the final report. He

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STATEWIDE CORRIDOR PLANNING SERVICES
TAYLORSVILLE NW CONNECTOR
PUBLIC MEETING

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E.
Director of Transportation
HNTB-Louisville

DATE: November 29, 2001

SUBJECT: Statewide Corridor Planning
Item No. 5-347.00
Spencer County – Taylorsville NW Connector

A public meeting was held Thursday, November 8, 2001, at the Spencer County High School concerning the study of a possible connector from KY 55 to KY 44 northwest of the City of Taylorsville. Approximately 63 people attended the meeting, and a list of those in attendance is attached.

The purpose of the meeting was to let the community know about the project, to identify and address community concerns and issues, to identify sensitive areas that should be considered, and to assist the Cabinet in creating a project that would both benefit the community and gain its support.

The meeting began at 6:00 p.m., and included a presentation at 6:15 p.m. by Ted Noe and Karen Mohammadi. The presentation began with a discussion of the road building process. Ms. Mohammadi explained the Cabinet's Unscheduled Needs List, along with other transportation planning and funding mechanisms. Funding for the project in the State's current Six-Year Highway Plan includes Design in 2003 and both Right of Way and Utilities in 2005.

Preliminary goals for the NW Connector Study were presented to the group, and were the following:

- To alleviate current and projected KY 44 and KY 55 traffic congestion
- To decrease accident rates on these routes
- To accommodate future population growth
- To improve opportunities for recreation/tourism traffic to Taylorsville Lake

Attendees were encouraged to complete the questionnaires provided in the handouts. They were also asked to draw their preferred alignment and to note issues of environmental concerns on a map of the study area included in the packet.

Following the presentation, attendees were directed to an open exhibit area where maps of the project area, accident data, traffic volumes, and levels of service were on display. Thirteen representatives from the Cabinet, KIPDA, and HNTB were on hand to answer questions and to receive input. Flipcharts were available for recording comments made during this time as well. The meeting concluded at approximately 8:00 p.m., and attendees were allowed to take additional handout packets to other interested citizens not able to attend the meeting.

also urged the local officials to help spread the news about the Public Meeting scheduled from 6:00 PM to 8:00 PM on November 8, 2001, at the High School. The local officials encouraged the Cabinet to contact the Spencer Magnet, the Courier Journal and "Dial the News" for publicity.

* Bill Drury requested a copy of the meeting minutes.

STATEWIDE CORRIDOR PLANNING SERVICES

TAYLORSVILLE NW CONNECTOR – SECOND LOCAL OFFICIALS MEETING

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Transportation Department Manager
HNTB-Louisville

DATE: July 25, 2002

SUBJECT: Statewide Corridor Planning
Spencer County
Taylorsville NW Connector
Item No. 5-347.00

A meeting was held July 23, 2002, in the Spencer County Courthouse on the Taylorsville NW Connector. Those in attendance were:

David Jenkins	Spencer County Judge Executive
Steve Tichener	Spencer County Economic Development Authority
Claude Brock	Industrial Development Authority
Bill Monhollan	District 5 – Chief District Engineer
Greg Groves	District 5 Preconstruction-TEBM
Jim Wilson	Division of Planning
Ted Noe	Division of Planning
Randall Embry	KIPDA
Karen Mohammadi	HNTB Corporation
Larry Chaney	HNTB Corporation

Judge David Jenkins opened the meeting by stating that the purpose was to discuss potential alternatives for the connector from KY 44 to KY 55 northwest of Taylorsville. He explained that the County's concerns/interests were for economic development and the positioning of new developments including the type of access that would be provided on the connector.

Larry Chaney noted that the project team wanted to get an idea of a preferred alignment from the public at the first public meeting. However, very few people actually drew an alignment on the sheet provided. Since the meeting, HNTB has completed the traffic forecasts to determine if traffic volumes would be a factor in alignment selection. Traffic volumes are not high enough to be a factor in determining a location. Finally, Mr. Chaney concluded that constructability and aesthetics were considered two primary issues in determining a location, particularly in regards to excavating through the hill and crossing the creek.

Bill Monhollon stated that the location of the road could guide the location of other developments in the County or vice versa. The important issue is that a decision is made, and that the group avoid indecisiveness.

The Spencer County representatives and project team members then discussed the pros and cons of each alignment. The following is a summary of comments from the discussion:

- Alternative 4 and 5 (Blue and Gold) are too close to town and would not offer very much developable land.
- Carrying Alternative 1 (Red) past KY 55 would not be needed since it would require an expensive cut through the hill and would not likely improve traffic flow. Instead the alignment could begin at KY 55.
- No alternatives should tie into the KY 44/KY 55 intersection. The area's only nursing home is located there.
- Alternative 3 (Green) should tie into KY 55 parallel to Alternative 1.
- None of the alternatives should tie into KY 44 close to the cemetery since that will preclude some types of development from occurring.
- The school district has stated that they would prefer to see the road tie into KY 44 west of the elementary school.
- Alternative 2 (Yellow) is located in a floodplain and would not provide as much developable land as Alternatives 1 and 3.
- An alternative located between Alternatives 1 and 3 would be ideal since it would provide prime lane for development on both sides of the road.
- The potentially historic properties between Alternatives 1 and 3 are abandoned homes.
- Adjusting Alternative 3 on the west so that it is located further north would allow the County to make better use of the 104-acre Sagester property that they are in a position to purchase. It would also avoid any views of the cemetery property limits.
- Alternative 1 (Red) has bad drainage and is near a park.
- Alternative 2 (Yellow) impacts a pre-Civil War home.
- Alternative 3 (Green) goes through 3-4 farms that could be utilized for economic development.

Other comments made by the Spencer County representatives were that improving KY 44 from the school to Mount Washington is also important to the community. With such an improvement, along with the plans for KY 55 north and south, the 'spokes' around the community will be in place. Bill Monhollon concluded the conversation by noting that prioritizing the community's needs will involve obtaining consensus and making tradeoffs.

STATEWIDE CORRIDOR PLANNING SERVICES

TAYLORSVILLE NW CONNECTOR - TEAM MEETING #2

TO: Annette Coffey, P.E.
Director
KYTC Division of Planning

FROM: Larry D. Chaney, P.E., L.S.
Transportation Department Manager
HNTB-Louisville

FINAL

DATE: August 23, 2002

SUBJECT: Statewide Corridor Planning
Spencer County
Taylorsville NW Connector
Item No. 5-347.00

A meeting was held August 2, 2002 in the District 5 Conference Room to discuss recommendations on the Taylorsville NW Connector project. Those in attendance were:

Bill Monhollon	District 5 - Chief District Engineer
Greg Groves	District 5 Preconstruction - TEBM
Kevin Villier	District 5 Design
Brian Meade	District 5 Traffic
Kevin Dant	District 5 Environmental
Ted Noe	Division of Planning
Jim Wilson	Division of Planning
Randall Embry	KIPDA
Karen Mohammadi	HNTB Corporation
Derek Barnes	HNTB Corporation

After a brief statement for the meeting purpose and introductions by Mr. Noe, Ms. Mohammadi began a discussion of topics in the meeting handout. Within the handout were the preliminary project goals, accident locations, and traffic volumes with levels of service for current and 2025 traffic. Ms. Mohammadi noted that while a good number of the accidents that occur are sideswipes, the accident rate for the roads within the study area do not exceed the rates for similar roads within Kentucky. Additionally it was noted that while current traffic on the existing corridor through Taylorsville has tolerable to moderate congestion, by 2025 the same segments would be facing levels of severe congestion.

At this point Ms. Mohammadi turned the discussion to comments received from the public during the Public Meeting held on November 8 and from the last Local Officials Meeting held on July 23, 2002. Ms. Mohammadi noted that while the Public Meeting was heavily attended, actual response to the questionnaire was low. She also indicated that some of the response was not related to this project but was for improvements to KY 55. Other topics covered by the questionnaire were project end points on KY 44 and KY 55, perceived benefits, and sites in the study area to be avoided. Ms. Mohammadi

indicated the 5 alternatives that have been developed address most issues brought forward by the public comments.

Based on the comments from the Local Officials meeting, Mr. Groves indicated the locals were against alternatives 4 and 5 as they may impact already existing commercial areas. Additionally they stated that neither alternative would help develop the land north of the existing industrial area. The local officials also expressed similar concerns with alternative 3. Mr. Groves also indicated locals were against alternative 2 as it terminates too far north on KY 55. The indication from the Local Officials is that the alternative should be somewhere between current alternatives 2 & 3. Based on the Local Officials desires for the route to spur development, the consensus by meeting members was to reorder the listing of the Preliminary Projects goals with "Accommodate increasing commercial and industrial traffic" as the second goal while shifting the others down one spot.

Ms. Mohammadi noted that since the time of the last local officials meeting a 6th alternative has been developed. The primary cause for this alternative was to use the desired tie in on KY 55 from alternative 1 (thereby spurring development) while using the route around the potential 100-year flood plain from alternative 2. Comments from the KYTC were that the 6 alternatives should be narrowed to 2 bands, an inner (composed of alternatives 3-5) and an outer (alternatives 1,2, & 6). The purpose behind this is that an alignment would not be recommended in the study but a preferred corridor with some room to develop an alignment would be recommended. Future exhibits are to retain the 6 present alignments but also include shaded regions as the inner and out corridors. Additionally the KYTC indicated that consideration should be shown for a northeast connector to KY 44 from proposed corridor.

Mr. Barnes next presented preliminary costs for each alternative. It was noted that the cost developed to date only included earthwork, pavement, and structure costs but that HNTB would develop right of way and utilities costs. Based on this discussion Mr. Groves decided to request that the programmed construction cost be moved from $6 million to $15 million. He also noted that the Design would be during FY 2005.

The next discussion involved whether the inner corridor could be dismissed from further consideration due primarily to public comments. Ms. Mohammadi noted that the team could not summarily dismiss any of the corridors strictly on project needs and goals, as either band would meet the project goals albeit at different degrees. Environmental justice or fatal flaw issues might be enough to eliminate one of the alternative alignments but it was noted that since the study is going to be recommending wider corridors those issues may be able to be avoided. The most notable issue is the proximity of a nursing home (the lone one in the area) to the point of divergence for alternatives 3-5. It was therefore decided that the inner corridor would not be eliminated so as to allow it to be revisited should the need arise; however, the outer corridor is to be designated as the preferred corridor for the study. Finally, the KYTC indicated that information concerning the project would be released via press release as opposed to public meetings from this point forward.

APPENDIX B

RESOURCE AGENCY RESPONSES

RESOURCE AGENCY RESPONSES

1. Agency Coordination Letter
2. State Environmental Review Officer, Natural Resources and Environmental Protection Cabinet (includes comments from Division of Waste Management)
3. Kentucky Cabinet for Workforce Development
4. Kentucky Department of Agriculture
5. Kentucky Department of Fish and Wildlife Resources
6. Kentucky Department for Natural Resources, Division of Conservation
7. Kentucky Department for Natural Resources, Division of Water
8. Kentucky Heritage Council
9. Kentucky State Nature Preserves Commission
10. Kentucky State Police, Post 12, Frankfort
11. KYTC, District 5, Right-of-Way
12. KYTC, Division of Environmental Analysis
13. KYTC, Division of Multimodal Programs
14. KYTC, Division of Traffic – Permits Branch
15. Spencer County Board of Education
16. Spencer County Judge Executive
17. Spencer County Magistrate, District 2
18. Taylorsville Police Department
19. Taylorsville/Spencer County Industrial Development Authority
20. U. S. Army Corps of Engineers District – Louisville
21. U. S. Coast Guard
22. U. S. Department of Agriculture – Natural Resources Conservation Service
23. U. S. Department of Health & Human Services
24. U. S. Environmental Protection Agency
25. U. S. Federal Aviation Administration
26. U. S. Fish and Wildlife Service

James C. Codell, III
Secretary of Transportation

Clifford C. Linkes, P.E.
Deputy Secretary

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

Paul E. Patton
Governor

December 21, 2001

«LastName»
«JobTitle»
«Company»
«Address1»
«Address2»
«City»

«Salutation»

The Kentucky Transportation Cabinet is requesting your agency's input and comments on the needs and potential impacts of a proposed highway project. We are asking for you to notify us of specific issues or concerns of your agency that could affect the development of project alternatives for future phases of the project described below. We respectfully ask that you provide us with your comments by January 19, 2002, to ensure timely progress in this planning effort.

We believe that early identification of issues or concerns in your area of interest can help us select highway project alternatives that avoid or minimize negative impacts. The Intermodal Surface Transportation Efficiency Act (ISTEA) and Transportation Efficiency Act for the 21st Century (TEA-21) encourage early coordination between government agencies in order to streamline environmental reviews during the project development process. The Federal Highway Administration is partnering with us in these efforts.

The Kentucky Transportation Cabinet has assembled a study team to evaluate the effectiveness and environmental consequences resulting from the construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Spencer County, Kentucky. This study is currently in the initial data-gathering stage. This request is intended to address public and agency concerns early in the project development process.

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

- Study Purpose, Issues, and Project Goals
- Location Map

- Map Showing Year 2001 and Year 2025 Traffic Volumes
- Map Showing Year 2001 and Year 2025 Levels of Service
- Accident Information from January 1996 to June 2001
- Map Showing Known Environmental Issues

We understand that you may not be able to provide extensive detail at this time within the time requested, but we would like to receive enough information to identify the general nature and relative magnitude of each issue or concern. More detailed information will be gathered in the future phases, if any, of project implementation. Any input and/or insight you can provide concerning this proposed improvement would be welcomed.

We are also emphasizing the issue of environmental justice. The purpose of this emphasis is to ensure equitable environmental protection regardless of race, ethnicity, age, disability, economic status or community, so that no segment of the population bears a disproportionate share of the consequences of environmental impacts attributable to a proposed project. Therefore, if you have information on this issue, please let us know if you are aware of any such groups or individuals in the project area that could possibly be impacted either positively or negatively.

We appreciate any input you can provide concerning this project. Please direct any comments, questions, or requests for additional information to Ted Noe of the Division of Planning at 502/564-7183 or at ted.noe@mail.state.ky.us. Please address all written correspondence to Annette Coffey, P.E., Director, Division of Planning, Kentucky Transportation Cabinet, 125 Holmes Street, Frankfort, KY 40622.

Sincerely,

Annette Coffey, P.E.
Director
Division of Planning

AC:TN:NH

Enclosures

c: Larry Chaney, HNTB
Jose Sepulveda
Jack L. Scriber
William Monhollon
David Jones

STUDY PURPOSE, ISSUES AND PROJECT GOALS
Taylorsville NW KY 44/KY 55 Connector
Intermediate Planning Study
Spencer County
Item No. 5-347.00

Study Purpose

The purpose of this Intermediate Planning Study is to identify and gather critical information about the project corridor prior to the design phase, and to help define the location of possible roadway improvements that might better serve the residents of Spencer County. It will also aid the Kentucky Transportation Cabinet in addressing the Federal requirements regarding consideration of environmental issues, as defined in the National Environmental Policy Act (NEPA). The ultimate objectives of this study include:

- Defining project needs and goals
- Identifying the beginning and ending points of the project, as well as potential project locations and design concepts
- Discussing project needs and issues with public officials, government agencies, concerned citizens, and other groups with interest in the project
- Identifying known environmental concerns
- Exchanging information with the public

Preliminary Corridor Issues

Issues currently identified along the existing KY 44/KY 55 corridor include both congestion and safety. Some of the most evident safety issues are narrow lanes and shoulders and restricted sight distances. Other issues are as follows:

- The existing routes are experiencing poor levels of service
- Occurrences of sideswipe and rear end accidents although overall accident rates are low
- Poor geometrics on KY 44 west between Taylorsville and Mount Washington
- Possible development of new industrial area in Spencer County
- Spencer County is the State's fastest growing county (in percentage population growth)
- Need to accommodate future growth of the area
- Traffic between schools causes congestion through town

Preliminary Project Goals

KY 44 is functionally classified as a Rural Major Collector and KY 55 is designated as a Rural Major Collector from the Bullitt County line to KY 55 in Taylorsville and a Rural Minor Arterial from KY 55 South to KY 55 North in Taylorsville. Both routes are designated as State Secondary on the State System Classification. A proposed Northwest Connector would likely also have a functional class of a rural major collector road. Several preliminary goals have been identified for the Taylorsville NW KY 44/KY 55 Connector project, including:

- Alleviate current and projected KY 44 and KY 55 traffic congestion.
- Decrease accident rates on these routes.
- Accommodate future population growth
- Improve access for recreational/tourism traffic to Taylorsville Lake
- Accommodate increasing commercial and industrial traffic

Project Schedule

The current schedule for the project is:

Phase	Year	Funding
Design	FY 2003	$1,000,000
Right-of-Way Acquisition	FY 2005	$1,500,000
Utility Relocation	FY 2005	$1,000,000
Construction	Not Scheduled	--

Contacts:

Written comments may be addressed to:

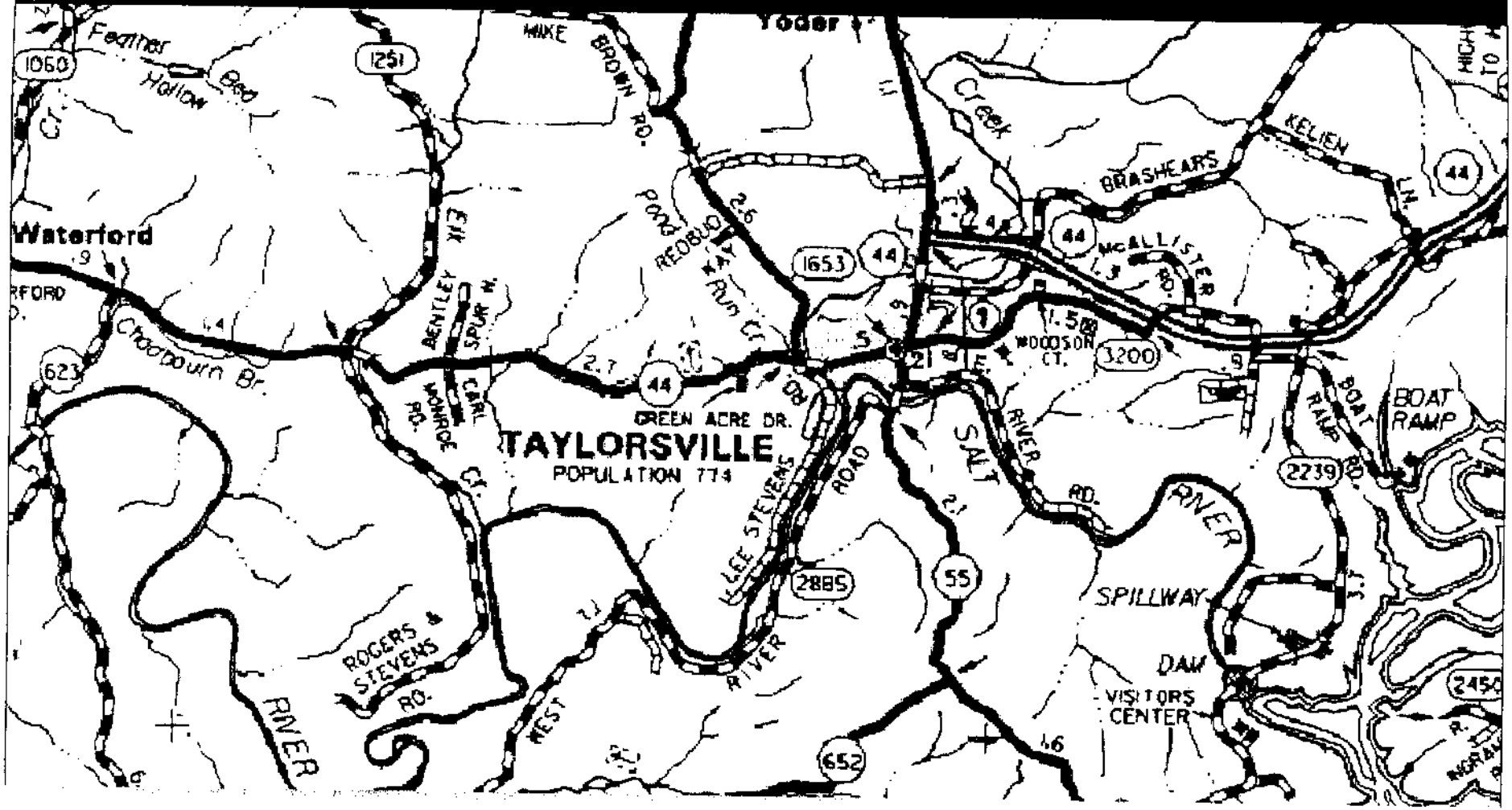
Ms. Annette Coffey, P.E.
Director
Division of Planning (A-2)
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

Or you may contact:

Mr. Ted Noe, P.E.
Project Manager
Division of Planning (A-2)
Kentucky Transportation Cabinet
(502) 564-7183
Email: ted.noe@mail.state.ky.us

Visit our web page at http://www.kytc.state.ky.us/planning/index.htm

STUDY AREA

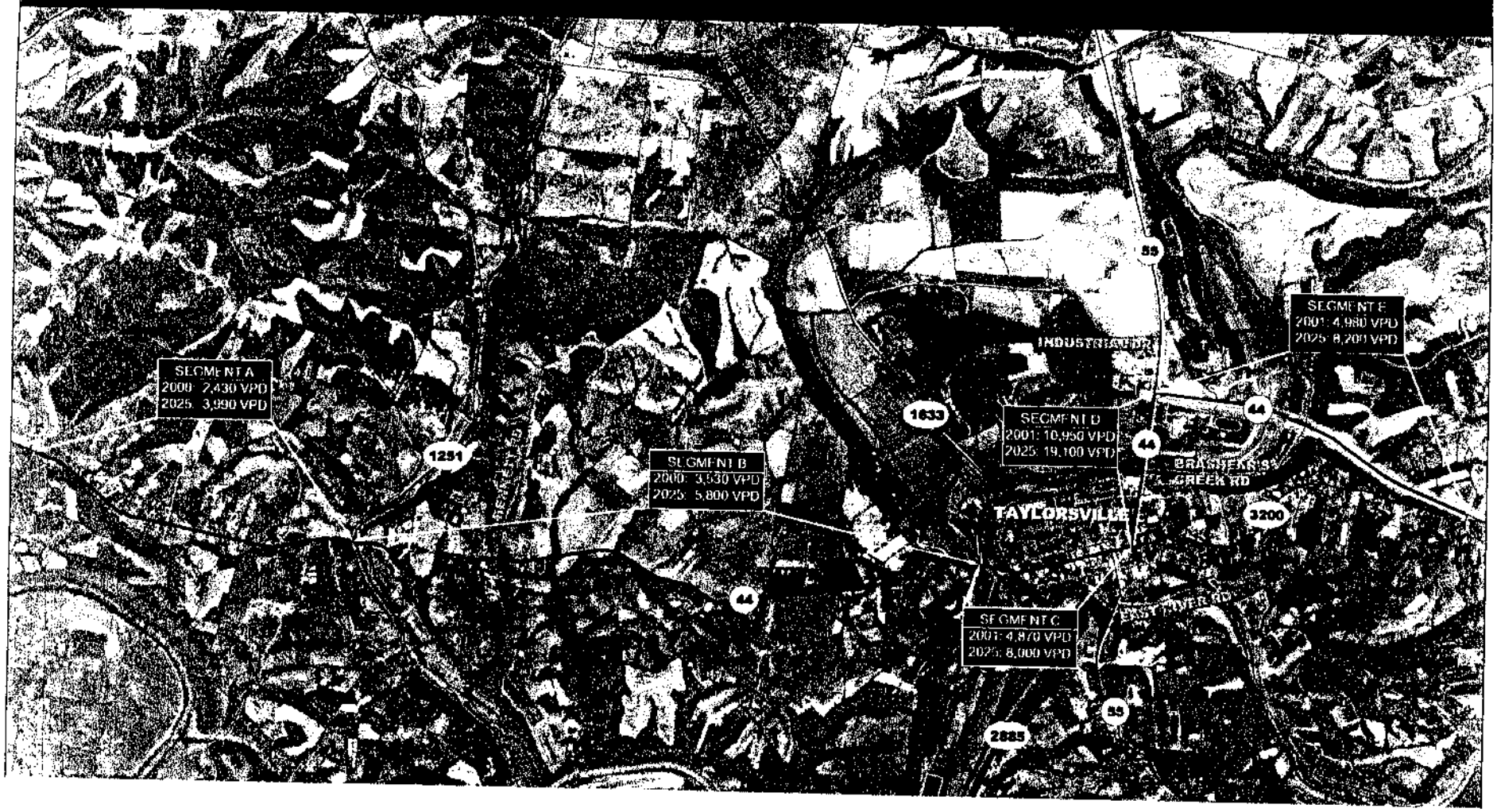


Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

TRAFFIC VOLUMES

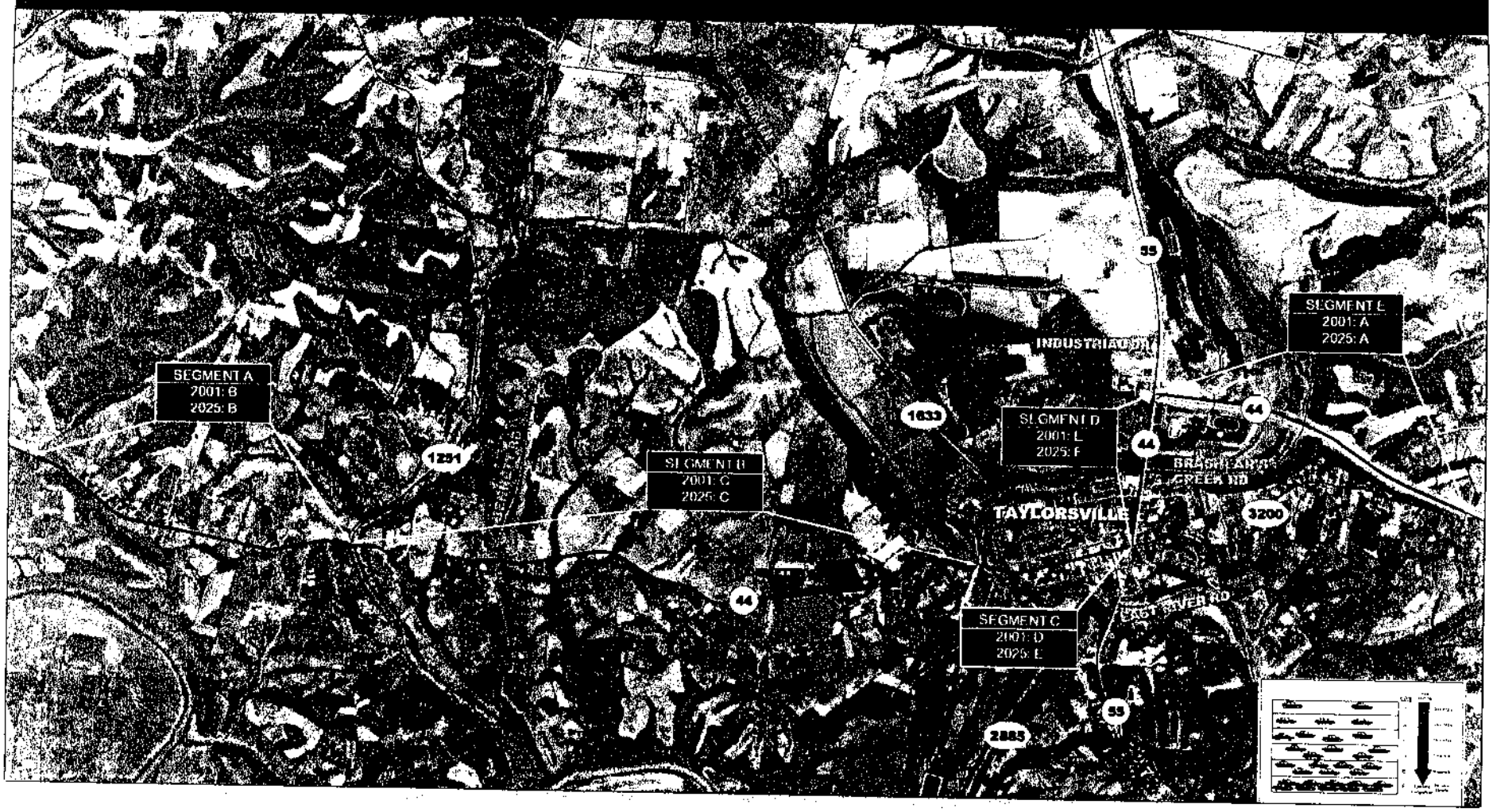


Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

LEVEL OF SERVICE



Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

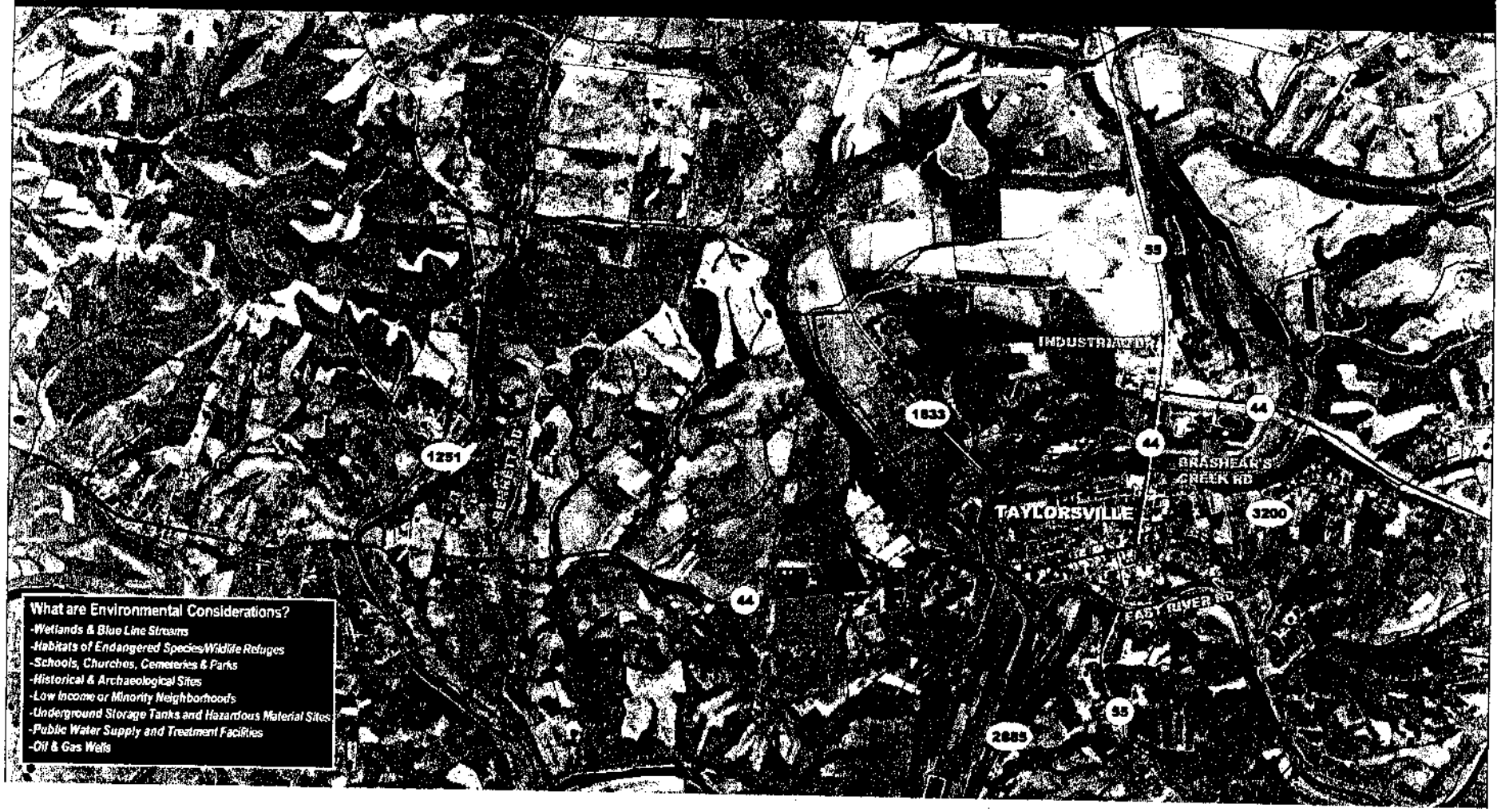
ACCIDENT HISTORY 1996 - June, 2001

Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

PROJECT AREA / ENVIRONMENTAL CONCERNS



Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

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US House of Representative
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The Honorable Mitch McConnell
United States Senator
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Washington, D.C. 20510

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Memphis, Tennessee 38116

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Henderson County Riverport
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FEMA
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State Environmental Review Officer
Natural Resources and Environmental
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Division Administrator
Federal Highway Administration
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Bridge Administrator
United States Coast Guard
Bridge Branch
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St. Louis, Missouri 63103

The Honorable David Jenkins
Spencer County Judge/Executive
P.O. Box 397
Taylorsville, Kentucky 40071

The Honorable Walter Hahn
Mayor
City of Taylorsville
P.O. Box 279
Taylorsville, Kentucky 40071

The Honorable Gary Tapp
Kentucky State Representative
2600 Mt. Eden Road
Shelbyville, Kentucky 40065

The Honorable Jodie Hayden
Kentucky State Representative
106 Hillcrest
Bardstown, Kentucky 40004

The Honorable Dan Kelly
Kentucky State Senator
324 West Main
Springfield, Kentucky 40069

The Honorable Ray Jewell
Magistrate, District 1
101 O'Dell Court
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Taylorsville, Kentucky 40071

The Honorable Anthony Travis
Magistrate, District 2
1489 Delta Road
Taylorsville, Kentucky 40071

The Honorable Bill Shelburne
Magistrate, District 3
1250 Shelbyville Road
Taylorsville, Kentucky 40071

The Honorable Bill Drury
Magistrate, District 4
P.O. Box 908
Taylorsville, Kentucky 40071

The Honorable David Goodlett
Magistrate, District 5
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Economic Development
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Mr. Darrell Stevens
DES Director
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Mr. Mike Linn
Taylorsville State Park
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Taylorsville, Kentucky 40071-9028

Mr. Keith Richardson:
US Army Corps of Engineers
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Taylorsville, Kentucky 40071-9028

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Spencer County Board of Education
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Spencer County Fire District
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Taylorsville, Kentucky 40071

Spencer County Planning and Zoning
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Taylorsville, Kentucky 40071

Mr. Mike Villanova
Police Chief
City of Taylorsville
P.O. Box 279
Taylorsville, Kentucky 40071

Mr. Nathan Nation
Fire Chief
City of Taylorsville
P.O. Box 279
Taylorsville, Kentucky 40071

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

April 22, 2002

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

Re: Scoping Study on construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Spencer County, Kentucky (SERO 2001-114)

Dear Ms. Coffey:

The Natural Resources and Environmental Protection Cabinet (NREPC) serves as the state clearinghouse for review of environmental documents generated pursuant to the National Environmental Policy Act (NEPA). Within the Cabinet, the Commissioner's Office in the Department for Environmental Protection coordinates the review for Kentucky State Agencies.

The Kentucky agencies listed on the attached sheet have been provided an opportunity to review the above referenced report. Responses were received from 10 (also marked on attached sheet) of the agencies that were forwarded a copy of the document. Attached are the comments from the Kentucky Divisions of Water, and Conservation, the Department of Agriculture, the Kentucky Nature Preserves Commission, and the Department of Fish and Wildlife Resources. Comments have been previously submitted directly to you from the Kentucky Heritage Council.

The Division of Waste Management expresses concern that this project has potential for either exposing or generating for disposal different forms of hazardous waste. The Division also notes that the Transportation Cabinet has some outstanding issues with hazardous waste generated at DOT facilities, etc. that need to be remediated. The Division, therefore, would like to be assured that all appropriate measures and activities would be used to observe, detect, and handle any hazardous waste that may be discovered or generated from this project.

If you should have any questions, please contact me at (502) 564-2150, ext. 112.

Sincerely,

Alex Barber

Alex Barber
State Environmental Review officer

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
ENVIRONMENTAL REVIEW

Scoping Study on construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Spencer County, Kentucky

The following agencies were asked to review the above referenced project. Each agency that returned a response will appear below with their comments and the date the project response was returned.

C denotes Comments
NC denotes No Comment
IR denotes Information Request
NR denotes No Response
NS denotes Not Sent for Review

REVIEWING AGENCIES:

Division of Water _____ comments

Division of Waste Management _____ comments

Division for Air Quality _____

Department of Health Services _____

Economic Development Cabinet _____ ns

Division of Forestry _____

Department of Surface Mining Reclamation & Enforcement___ nc

Department of Parks _____ nc

Department of Agriculture _____ comments

Nature Preserves Commission _____ comments

Kentucky Heritage Council _____ comments-dir

Division of Conservation _____ comments

Department for Natural Resources _____ ns

Department of Fish & Wildlife Resources _____ comments

Transportation Cabinet _____ ns

Department for Military Affairs _____ nc

PAUL E. PATTON
GOVERNOR

CABINET FOR WORKFORCE DEVELOPMENT
OFFICE OF THE SECRETARY
CAPITAL PLAZA TOWER, 2nd FLOOR
500 MERO STREET
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-6606 FAX (502) 564-7967

ALLEN D. ROSE
SECRETARY

January 14, 2002

Ms. Annette Coffey, P.E.
Director
Division of Planning
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40601

Dear Ms. Coffey:

The Cabinet for Workforce Development appreciates the opportunity to comment on the possible construction of a northwest connector from KY 44 west to KY 55 north of Taylorsville. At this time, the proposed project does not affect the Cabinet and its agencies.

Again, thank you for the opportunity to comment.

Sincerely,

Allen D Rose

Allen D. Rose
Secretary

ADR/SGS

BILLY RAY SMITH
COMMISSIONER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF AGRICULTURE
500 MERO STREET, 7TH FLOOR
FRANKFORT, KY 40601

OFFICE TELEPHONE
(502) 564-4696
FAX: (502) 564-2133
TTY: (502) 564-2075

January 14, 2002

Mr. Alex Barber
State Environmental Review Officer
Department for Environmental Protection
14 Reilly Road
Frankfort, KY 40601

Reference: Scoping Study SERO - 114
Construction of Northwest Connector
Taylorsville, KY

Dear Mr. Barber:

The Kentucky Department of Agriculture wants to make sure the following issues are addressed in the scoping study for the proposed construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Kentucky:

1. Impact to farmland, particularly the permanent loss of prime farmland that each alternative route may cause; and

2. Economic and other impact to area farms that each alternative route would have.

Thank you for the opportunity to comment on this proposed project.

Sincerely,

Ira Linville

Ira Linville
Executive Director
Office of Environmental Services

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH AND WILDLIFE RESOURCES
C. THOMAS BENNETT, COMMISSIONER

January 8, 2002

Alex Barber
Commissioner's Office
Department for Environmental Protection
14 Reilly Road
Frankfort, KY 40601

RE: Scoping Study on Construction of a Northwest Connector from KY 44 West to KY 55 North of Taylorsville, Spencer County, Kentucky

Dear Mr. Barber:

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 species are known to occur in the Taylorsville and Waterford 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.

KDFWR has determined that potential negative impacts to the aquatic resources can occur in the project area and offers the following recommendations:

1) development in or near streams only during low flow periods to minimize disturbances;
2) proper placement of erosion control structures below disturbed areas to minimize entry of silt to stream, and;
3) replanting of disturbed areas after construction, including stream banks and right-of-ways, with native vegetation for soil stabilization and enhancement of fish and wildlife populations.

Additionally, if the applicant is going to relocate/realign portions of any streams, KDFWR request the stream channel be put back to original stream profile with placement of instream habitat such as riffles, runs, and pools, etc. The recontoured stream banks should have a well defined riparian area, including herbaceous species, shrubs and trees. The plantings should consist of native vegetation indigenous to the area and be a minimum of 100 feet in width on each side of the channel.

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

Sincerely,

Marla T. Barbour
Fisheries Biologist III

cc: Environmental Section File

James E. Bickford
Secretary

Paul E. Patton
Governor

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR NATURAL RESOURCES
DIVISION OF CONSERVATION
663 TETON TRAIL
FRANKFORT, KENTUCKY 40601

MEMORANDUM

TO: Alex Barber
Department of Environmental Protection

FROM: Mark Davis *MD*
Division of Conservation

DATE: January 28,I 2002

SUBJECT: Environmental Review of Project #SERO2001-114

As requested, the Division of Conservation has reviewed the scoping study on construction of a northwest connector from KY 44 west to KY 55 north of Taylorsville, Kentucky.

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

We would, however, like to see the issue of loss of Prime Farmland and Farmland of Statewide Importance addressed in the planning study. There are two publications that could be utilized to identify these farmland designations: *The Soil Survey of Bullit and Spencer Counties* (NRCS 1986), and *Important Farmland Soils of Kentucky* (NRCS 1985). Both publications are available through this office.

One other concern we would like to comment on is that of controlling erosion and sedimentation during and after earth-disturbing activities once this project begins. We strongly recommend best management practices (BMPs) be utilized to prevent nonpoint source water pollution. The manual, *Best Management Practices for Construction Activities,* contains information on BMPs appropriate for this project and is available through the Spencer County Conservation District, the Division of Water, or this office.

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

MJD

EDUCATION PAYS

Phone (502) 564-3080 Fax (502) 564-9195
EQUAL OPPORTUNITY EMPLOYER M/F/D

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

MEMORANDUM

TO: Alex Barber
State Environmental Review Officer
Department for Environmental Protection

FROM: Timothy Kuryla TK
EIS Coordinator
Division of Water

DATE: April 17, 2002

SUBJECT: SN, Connector from KY44 west to KY55 north, Taylorsville (Spencer County), SERO 021227-114

The Division of Water has reviewed the Scoping Notice prepared by the Transportation Cabinet regarding a connector from KY44 west to KY55 north, Taylorsville (Spencer County). The Division notes only a corridor is given. Alternative routes are not given. Consequently, the Division is unable to conduct an environmental review on the proposal.

The Division of Water will comment on the proposed project when a specific location (or specific locations) are submitted to the State Environmental Review Officer.

Education, Arts and Humanities Cabinet

KENTUCKY HERITAGE COUNCIL
The State Historic Preservation Office

Paul E. Patton
Governor
Marlene M. Helm
Cabinet Secretary

David L. Morgan
Executive Director and
SHPO

January 22, 2002

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

Dear Ms. Coffey:

We received a copy of your letter of December 21, 2001 (received January 2, 2002) to Mr. Alex Barber (Kentucky Department of Environmental Protection) concerning the Kentucky Transportation Cabinet's proposed construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville in Spencer County, Kentucky. Based on our knowledge of prehistoric and historic settlement patterns, the project area has high potential for containing unrecorded prehistoric or historic archaeological sites. Consequently, it is my opinion that an archaeological survey should be conducted for the connector right-of-way by a professional archaeologist to determine if there are any sites eligible for listing in the National Register of Historic Places which might be affected. The archaeological report must be submitted for my review, comment, and approval.

The project also has the potential for impacting standing structures that are eligible or potentially eligible for listing in the National Register of Historic Places. A survey of historic structures should be undertaken to determine if there are any structures eligible for listing in the National Register of Historic Places which might be affected. The historic structures report must be submitted for my review, comment, and approval. Should you have any questions, feel free to contact Charles Hockensmith of my staff at (502) 564-7005.

Sincerely,

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

cc: Mr. Alex Barber

300 Washington Street
Frankfort, Kentucky 40601

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

Barber, Alex (NREPC, DEP)

From: Palmer-Ball, Brainard (NREPC, KSNPC)
Sent: Monday, January 28, 2002 2:43 PM
To: Barber, Alex (NREPC, DEP)
Subject: KSNPC responses to KIRPs

TO: Alex Barber, NREPC-DEP, Intergovernmental Review Coordinator

FROM: Brainard Palmer-Ball, Jr., Ky State Nature Preserves Commission

RE: KSNPC responses to KIRPs

DATE: January 28, 2002

RE: Project No. SERO2001-114 (Scoping Study for NW connector at Taylorsville in Spencer Co.)

KSNPC has reviewed the project summary and has NO COMMENT except to recommend that construction associated with any project, especially crossing of Brashears Creek, should be planned so as to minimize impact to water quality in Brashears Creek and the Salt River, both of which have been documented to have harbored populations of rare aquatic organisms.

COMMONWEALTH OF KENTUCKY
KENTUCKY STATE POLICE
919 VERSAILLES ROAD
FRANKFORT 40601

PAUL E. PATTON
GOVERNOR

ISHMON F. BURKS
COMMISSIONER

January 8, 2002

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

Dear Ms. Coffey:

I have been assigned to review and respond reference the potential impacts of a proposed highway project in Spencer County, Kentucky know as Ky44/55 Corridor. Having reviewed this proposed project I would offer the following observations:

- As proposed the project should improve vehicular traffic flow in the Taylorsville area.
- Recreational vehicular traffic (vehicles hauling boats, motor homes, campers, etc.) traveling west on Ky 44 from Bullitt County would no longer need to travel through Taylorsville.
- The construction of the Ky44/55 Corridor would improve roadway surfaces, sight distances, reduce distractions and improve other traffic roadway features resulting in fewer traffic crashes and improved traffic flow.

It should be pointed out, that regardless if the Ky44/55 Corridor construction project is realized or not, Spencer County will continue to experience rapid population growth. As a result, it can be expected that all federal, state and local public service agencies serving this county will experience a need to grow in respect to the needs of the citizens of Spencer County. Therefore, the Kentucky State Police would be in favor of this project due its positive impact on the highway safety needs of Spencer County.

Please contact me should you require any additional assistance reference to this important project.

Captain Lonnie Moert
Commander,
Kentucky State Police
Post 12
1250 Louisville Rd.
Frankfort, KY 40601

LM/jb
Mem064

Memorandum

TO: Ralph Divine, Director
Division of Right of Way and Utilities

FROM: Robert W. Burke, Supervisor Robt. W. Burke
Division of Right of Way
District Five - Louisville

BY: Charles J. Bird, Review Appraiser
Division of Right of Way
District Five – Louisville

DATE: January 17, 2002

SUBJECT: Spencer County
Item No. 5-347.00
Taylorsville NW KY 44/KY 55 Connector

The following comments are an attempt to address right-of-way concerns pertinent to the study of a proposed connector around a portion of the city of Taylorvsille, in Spencer County. The corridor for this connector has been outlined for right-of-way use by John Callihan, Planning Engineer for District 5. This corridor is outlined in red on the map attached to this memo, and is also outlined as follows. The east boundary of the connector corridor is KY Highway 155. That portion of KY 155 affected extends from a point .5 miles south of Yoder Station Road and terminates at the bridge where Brashears Creek passes under KY 155. The west boundary would be KY Highway 44. That portion of KY 44 affected extends from the intersection of KY 44 with Carl Malone Road and then eastward to the intersection of KY 44 with Green Acre Drive. All properties affected would be those west of KY 155, and north of KY 44.

Right-of-way concerns will be broken down into three sections. The first will consider the properties at the eastern end of this corridor and fronting on the west side of KY 155. The second section will consider properties in the middle area. That is, those properties on either side of KY 1653. The third section will consider those properties north of KY 44.

The properties fronting on the west side of KY 155, immediately south of Yoder Station Road are rural in nature and any right-of-way acquisition would include farmland and

farm related buildings. The acquisitions would be from properties serving typical rural uses. However, the properties further south along KY 155 comprise the primary shopping and service area for the city of Taylorsville and the surrounding rural area. Included properties would be the county health department and emergency medical services. They also include a sizeable strip shopping center, a nursing home facility and an apartment complex with approximately 60 units. A supermarket and other smaller business also lie in this area. This commercial cluster is situated generally opposite of the point where reconstructed KY 44 (Little Mount Road, on the attached map) intersects KY 155. If the connector transits this general area a portion of the properties referenced here would likely be acquired.

An exception to this is noted as follows. Precisely opposite the point where reconstructed KY 44 intersects KY 155, and situated amid this commercial cluster there is a relatively clear path which approximates the width of existing reconstructed KY 44. The only significant improvement that lies in this path is a one-story commercial building currently serving use as an office for a used car dealership. Therefore, this would appear to be a likely place for a proposed connector to be placed as the existing commercial integrity of this area as a whole would be retained. The one problem could be that there is a very steep ridge situated to the immediate west of this area. If a proposed road needed to be elevated through this precise area it might require a right-of-way of sufficient width so as to necessitate the acquisition of the apartment complex to the south and the nursing home facility to the north.

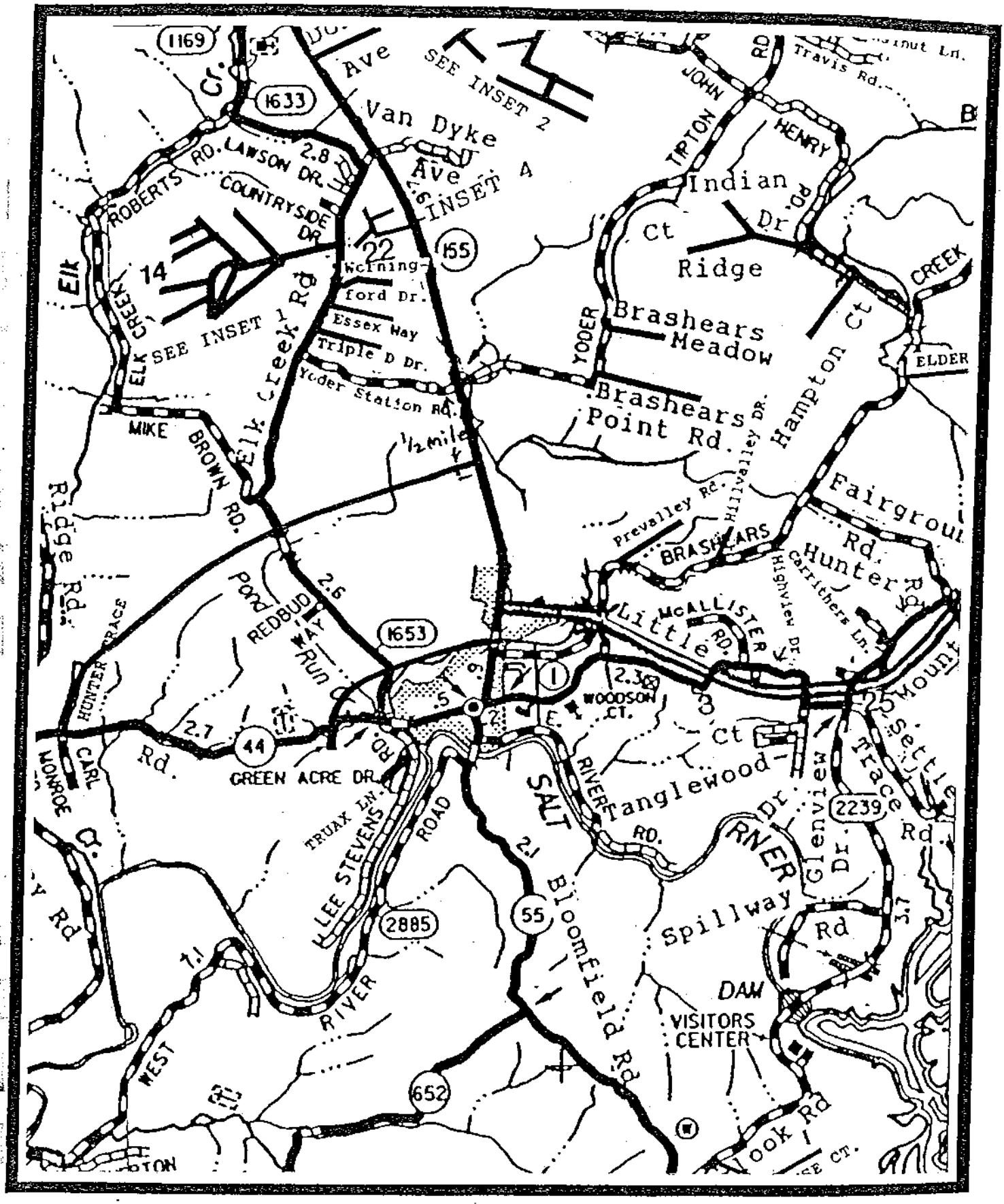
In summary regarding this first section, if a connector is situated sufficiently to the north typical rural land acquisitions will be required. If it is situated to the south, and the corridor referenced in the preceding paragraph cannot be utilized without elevating the road, a sizeable primary-use commercial area will likely be affected with the possibility of substantial commercial acquisition.

Regarding the second section considered, that is the area on either side of KY 1653, the acquisitions in this area would include farmland, farm-related buildings and perhaps some residences fronting along KY 1653. The acquisitions would be from properties serving typical rural residential uses.

Regarding the third area, that is the area north of existing KY 44, as defined above, right-of-way acquisitions would include farms, and possibly single family residences fronting on the north side of KY 44. There is one property improved with a church and a sizable cemetery. A cross on the attached map marks this property. It would be highly desirable that any new corridor avoids this property.

In final summary, the right-of-way issue of greatest magnitude would be the fact that the most likely place for a connector to tie into KY 155 would be opposite existing reconstructed KY 44, and the properties in this area are currently serving rather intensive commercial use.

No right-of-way issues involving environmental justice were noted.



Taylorsville NW KY 44/KY 55 Connector

A-2

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

Clifford C. Linkes, P.E.
Deputy Secretary

Paul E. Patton
Governor

MEMORANDUM

To: Annette Coffey, P.E., Director
Division of Planning

From: Tony Vinegar, Supervisor TV
Projects Coordination Section
Division of Environmental Analysis

Date: January 18, 2002

Re: Intermediate Planning Study - Taylorsville NW KY 44/KY 55 Connector, Spencer County, Ky. Item # 5-347.00

The proposed construction of a new connector from KY 44 to KY 55 in Spencer County, Kentucky has been evaluated by the Division of Environmental Analysis for any potential environmental challenges that would need to be addressed during the design stage. The following brief set of preliminary comments are based upon the intermediate planning study data presented, additional comments could be provided if/when site visits and/or overviews are conducted:

1. The Air Quality status of the project would not be a problem; the project appears to be outside of the area requiring conformity.
2. Noise data would have to be collected and analyzed to determine the impact to residents of the area.
3. Jurisdictional wetlands could be present throughout the area. Stream impacts should be avoided; these areas, including ponds, would either pose mitigation issues or have to be avoided during the design process. Permits issued by both the Ky. Division of Water and the US Army Corps. of Engineers would have to be obtained according to the level of impact to the area.
4. Any federally listed endangered species would have to be addressed through either avoidance or mitigation. A site-specific biological assessment/analysis is necessary prior to committing to an action.
5. Specific details concerning any area hazardous and/or non-hazardous waste facilities and underground storage tanks would need to be obtained through site visits, which was not conducted.

6. If National Register historic or National Register eligible property is purchased or impacted section 106 issues will need to be addressed. More study is needed in this case in order for KYTC to make a decision as to how to address such matters.
7. More Socio-economic related information is needed regarding relocations and potential impacts to low-income and/or minority neighborhoods.

Our staff appreciates the opportunity to provide early comments on projects during the planning stage; however, in general, more specific environmental data is needed in order for the division of environmental analysis to give better feedback. If you should have any questions regarding these comments please contact me at 564-7250.

TV

C: D Waldner R. Thomas Files

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

Clifford C. Linkes, P.E.
Deputy Secretary

Paul E. Patton
Governor

MEMORANDUM

TO: Annette Coffey, Director
Division of Planning

FROM: Michael L. Hill, Director
Division of Multimodal Programs

DATE: January 23, 2002

SUBJECT: Item No. 5-347.00
Taylorsville NW Connector
Spencer County

Thank you for the opportunity to comment on this Spencer County project.

The coordination and connectivity of bicycle and pedestrian facilities is important in the early planning and design stages of projects. Design Guidance from the United States Department of Transportation in February, 2000, states "bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist."

One of the preliminary project goals listed in this Intermediate Planning Study is to "improve access for recreational/tourism traffic to Taylorsville Lake". The Louisville Bicycle Club tours extensively from Louisville to Taylorsville Lake. A 1999 economic study conducted in Maine estimated that direct spending by bicycle tourists totaled $36.3 Million.

The segment of KY 44 between KY 623 and KY 1169 is part of the designated Central Heartlands & Ramblin River Bicycle Routes. It is important, for economic and safety concerns, to provide an **unobstructed** paved shoulder width of at least 4 feet along this segment.

Please contact Paula Nye of this Division, at (502) 564-7686, for information or questions about bicycle and pedestrian concerns.

We look forward to working with your Division to facilitate your study efforts in our SUA and MPO areas, and by increasing awareness of bicycle and pedestrian issues.

MLH/LJS/PEN/AJT

Commonwealth of Kentucky
Transportation Cabinet
Frankfort, Kentucky 40622

James C. Codell, III
Secretary of Transportation

Paul E. Patton
Governor

Clifford C. Linkes, P.E.
Deputy Secretary

MEMORANDUM

TO: Annette Coffey, P.E.
Director
Division of Planning

FROM: Edward Sue Perkins, P.E.
Branch Manager
Permits Branch

DATE: February 5, 2002

RE: Spencer County
KY 44/KY 55 Corridor, Northwest Connector

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

1. We urge the Cabinet to make this all-new facility partial control access.

2. 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.

3. When buying R/W for this ad all reconstruction routes, assuming the access control is partial control, new deeds for all adjoining property owners even if no new R/W is acquired, need to be executed to identify the access control.

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. 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.

7. 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.

Thank you for the opportunity to verbalize our concerns.

ESP/tm

EDUCATION PAYS

Comments by Telephone

On: January 14, 2001
Time: 3:40 p.m.

From: Agency Coordination Letter
Mailed: December 21, 2001
For: KY 44 – Taylorsville Connector

By: Mr. Jimmy Wilson
Transportation Director
Spencer County Board of Education
207 W Main St
Taylorsville KY 40071

Comments:

Mr. Wilson said he had been Transportation Director for six years. His comments were:

- School system is the biggest employer in the county
- Most of the county's roads are crooked and winding
- A bypass in the vicinity of the new elementary school would help
- The growth of areas north of KY 44 is greater than growth south of
- KY 44
- If anyone would like to see the congestion in Taylorsville due to school traffic they would need to observe the traffic between 7:30 - 8:10 am and 2:50 - 3:20 pm and he invited us to do so
- Tying into KY 44 as far west of the new elementary school as possible would be better for school safety and student transportation
- Has demographic data if we need it
- If we need further information please call him at 502 – 477- 3250.

Transcribed By: Ted Noe
Project Manager
Kentucky Department of Highways
Division of Planning
Frankfort, KY

SPENCER COUNTY
TAYLORSVILLE

DAVID JENKINS, SPENCER COUNTY JUDGE EXECUTIVE

Spencer County *"A Great Place to Live, Work and Play"*
P.O. Box 397 ~ Taylorsville, KY 40071 ~ (502) 477-3205

December 27, 2001

Ms. Annette Coffey, P.E.
Director
Division of Planning (A-2)
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, Kentucky 40622

Dear Ms. Coffey:

Spencer County is in need of various roads as it relates to the project study area shown. Whereas it would be advantageous to have a by-pass around Taylorsville, we would be remiss if we did not take other concerns into the equation.

Kentucky Highway 44 needs to be straightened and widened from Mt. Washington to Taylorsville in order for public safety as well as commercial traffic. Currently Hwy 44 is too narrow to accommodate this volume and it needs attention.

Kentucky Highway 55 South has had a preliminary study, and this needs to be followed up on to open up traffic from the Bluegrass Parkway to Taylorsville.

Kentucky Highway 55 North is in dire need of straightening and widening, due to the amount of traffic flow and Interstate 64 access.

If these roads have attention and then proceed with the by-pass being the last piece of the puzzle, we would truly have improved traffic flow and created safer roads. Then our commercial and industrial base can improve by having sufficient access into Taylorsville and Spencer County.

I have marked a location on the map. This is a general location that should be away from environmental and historical preservation concerns. Archaeological concerns may have to be addressed, but should not be of great concern.

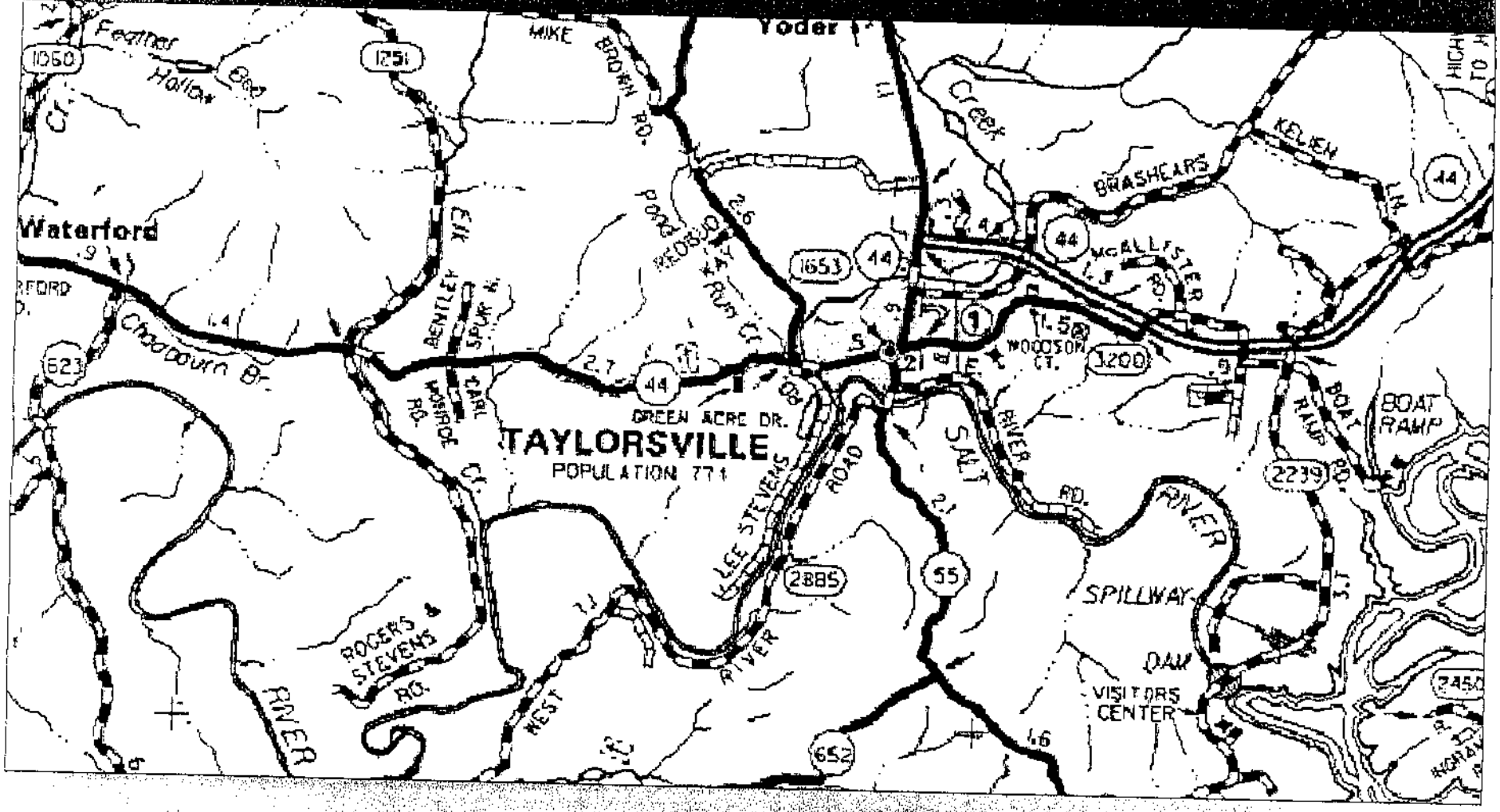
I hope this will help in collecting your data for this project. Once again, I do not feel we can look at this project without looking at all the major thoroughfares in the county in order to establish the overall safety and industrial concerns of Spencer County.

Sincerely,

David Jenkins

David Jenkins
Spencer County Judge Executive

STUDY AREA



Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

PROJECT AREA / ENVIRONMENTAL CONCERNS

Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

① Wet area
② Cemetery
③ School

HNTB

KENTUCKY TRANSPORTATION CABINET

Dept. of Transportation
Division of Planning:

You will find enclosed a planning study map of a possible by-pass of Hwy. 44 West of Taylorsville to new elementary school and going west to Mt. Washington and Shepherdsville.

This path would be good for our County and also for growth and industrial development.

Please feel free to give me a call on any questions.

Spencer Co Magistrate
Anthony Travis

502-477-8669

LEVEL OF SERVICE

Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

TAYLORSVILLE POLICE DEPARTMENT

70 TAYLORSVILLE RD
TAYLORSVILLE,KY 40071

Phone 502-477-3231
Fax 502-477-3235

JANUARY 10, 2002

ANNETTE COFFEY,P.E.
DIRECTOR
DIVISION OF PLANNING
KENTUCKY TRANSPORTATION CABINET
125 HOLMES STREET
FRANKFORT,KY. 40622

DEAR DIRECTOR COFFEY,

I APPRECIATE THE INFORMATION I RECEIVED ON THE STUDY PLAN FOR TAYLORSVILLE IN SPENCER COUNTY.

THE INFORMATION PACKET STATED THAT IF WE HAD ANY IMPUT, TO FEEL FREE TO SEND IT. I ENCLOSE A COUPLE OF PAGES WITH A POORLY DRAWN SKETCH, SHOWING AN APPROXIMATE AREA WHERE THE HWY 44 CONNECTOR COULD SERVE A COUPLE OF PURPOSES.

IT WOULD DIVERT TRAFFIC NORTH ON HIGHWAY 55, AWAY FROM THE GROWTH AREA OF THE CITY ITSELF, AND NOT BACK INTO THE HEART OF THE HEAVIER TRAFFIC.

IT WOULD ALLOW FOR MORE EXPANSION OF OUR CITY UP TO THE CONNECTOR ON THE SOUTH SIDE, AND FOR SOME POSSIBLE INDUSTRIAL GROWTH ON THE NORTH SIDE OF THE CONNECTOR.

IT WOULD NOT PUT ANOTHER TRAFFIC LIGHT TOO CLOSE TO THE ONE AT THE HWY 44 EAST INTERSECTION, (AT THE SPENCER COUNTY HIGH SCHOOL).

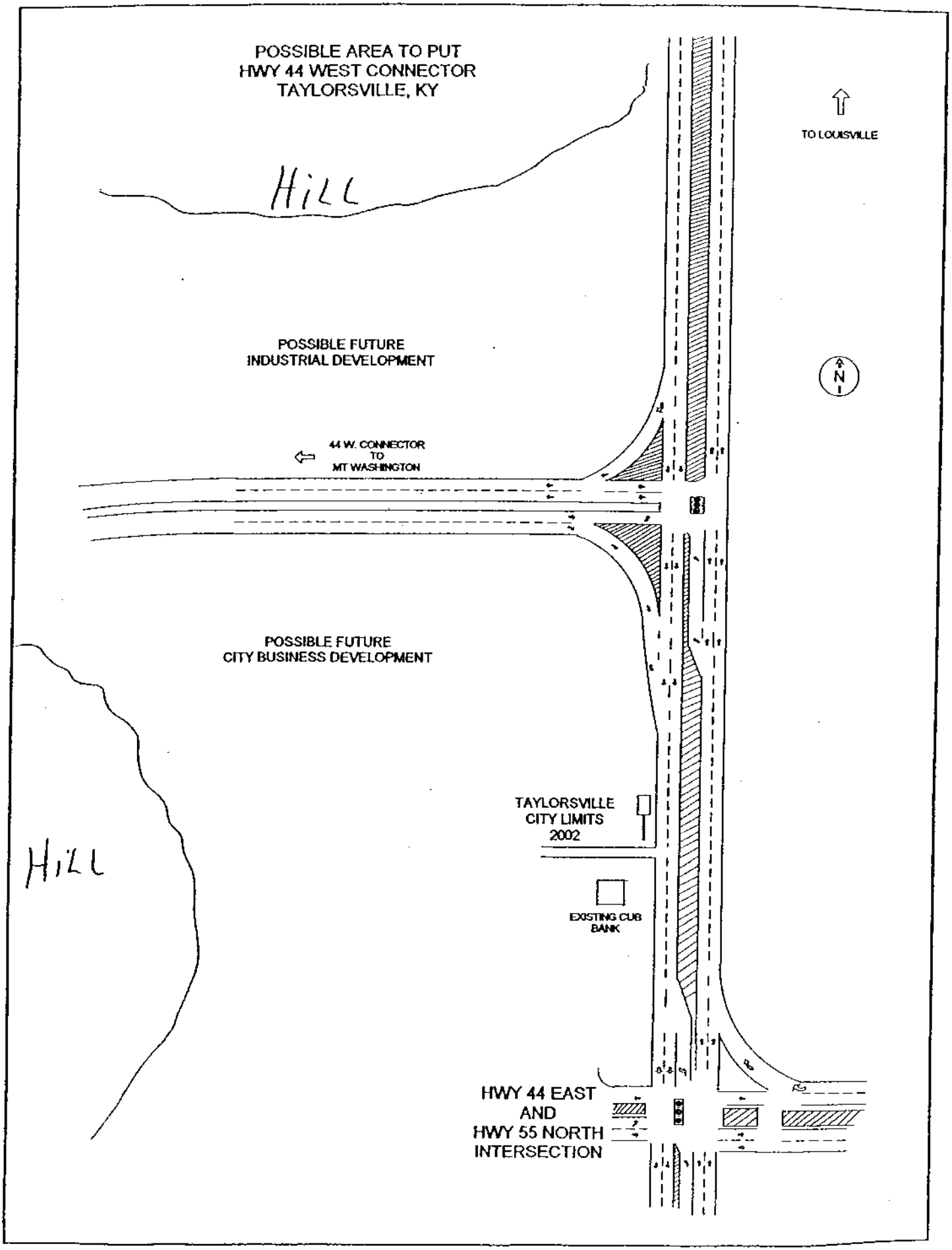
THERE ARE HILLSIDES WHICH PREVENT MORE EXPANSION AT THIS POINT... BUT IF THE CONNECTOR IS BUILT WITH THOSE POINTS IN MIND, IM SURE FROM THIS PERSPECTIVE, THAT WHEN THE PLANS ARE PUT INTO ACTION, THE GROWTH WILL BE ALREADY AT THAT CONNECTOR INTERSECTION.

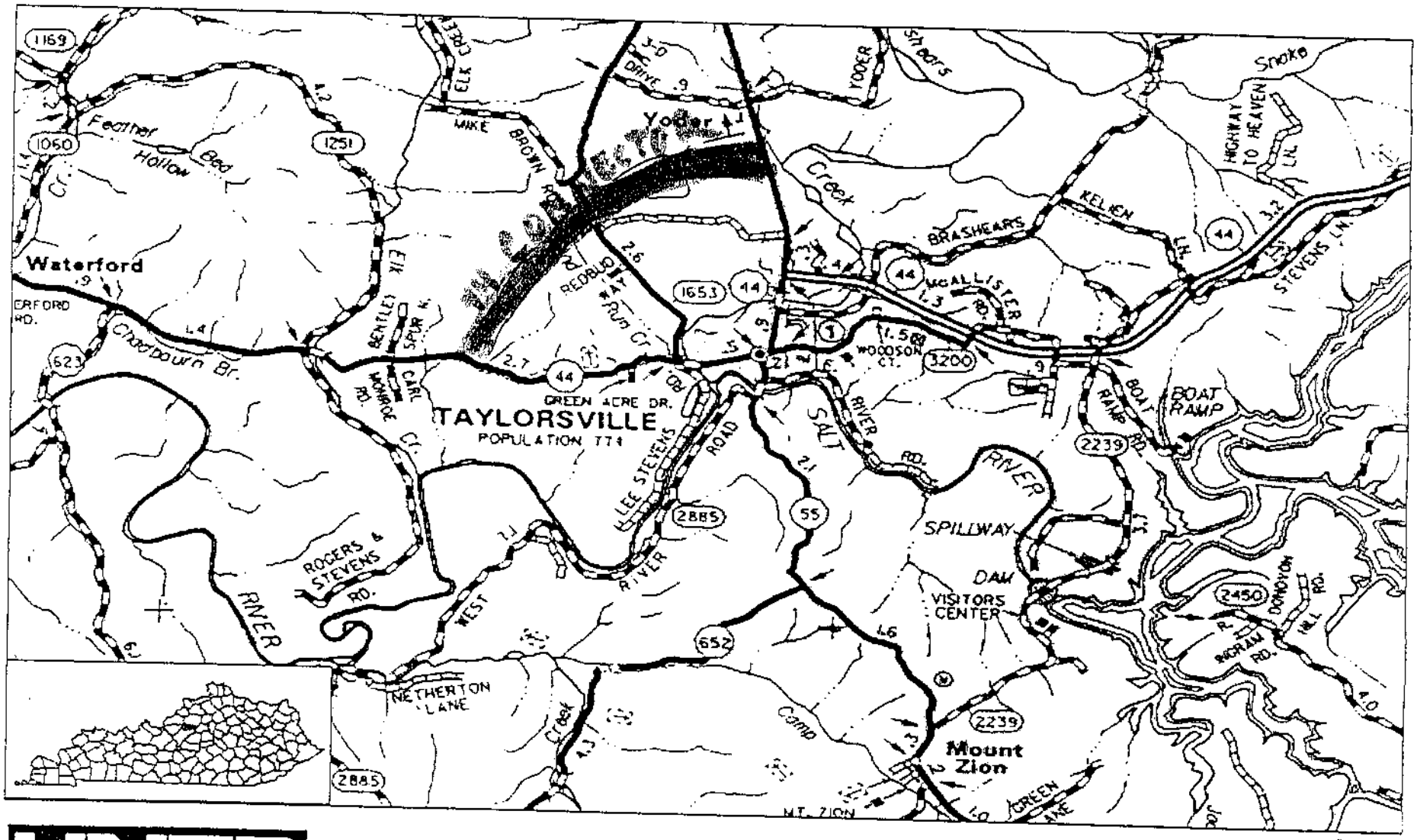
MY ONLY CONCERN IS THAT THIS PROCESS OF PLANNING WILL BE DELAYED IN SUCH A WAY THAT THE PROPERTY IN QUESTION WILL ALREADY BE BOUGHT, AND DEVELOPED, THUS DELAYING THE BUILDING OF A CONNECTOR ANOTHER 5 OR 10 YEARS, WHILE ANOTHER SITE IS FOUND.

THANK YOU FOR THE CHANCE TO HAVE MY IMPUT. I ONLY HOPE WE CAN GROW IN A POSITIVE WAY, INSTEAD OF BECOMING THE DUMPING GROUND FOR ALL THE SURROUNDING COUNTIES.

SINCERELY,

MIKE VILLANOVA, CHIEF
TAYLORSVILLE P.D.


POSSIBLE AREA TO PUT
HWY 44 WEST CONNECTOR
TAYLORSVILLE, KY
HILL
TO LOUISVILLE
POSSIBLE FUTURE
INDUSTRIAL DEVELOPMENT
N
44 W. CONNECTOR
TO
MT WASHINGTON
POSSIBLE FUTURE
CITY BUSINESS DEVELOPMENT
HILL
TAYLORSVILLE
CITY LIMITS
2002
EXISTING CUB
BANK
HWY 44 EAST
AND
HWY 55 NORTH
INTERSECTION



HNTB

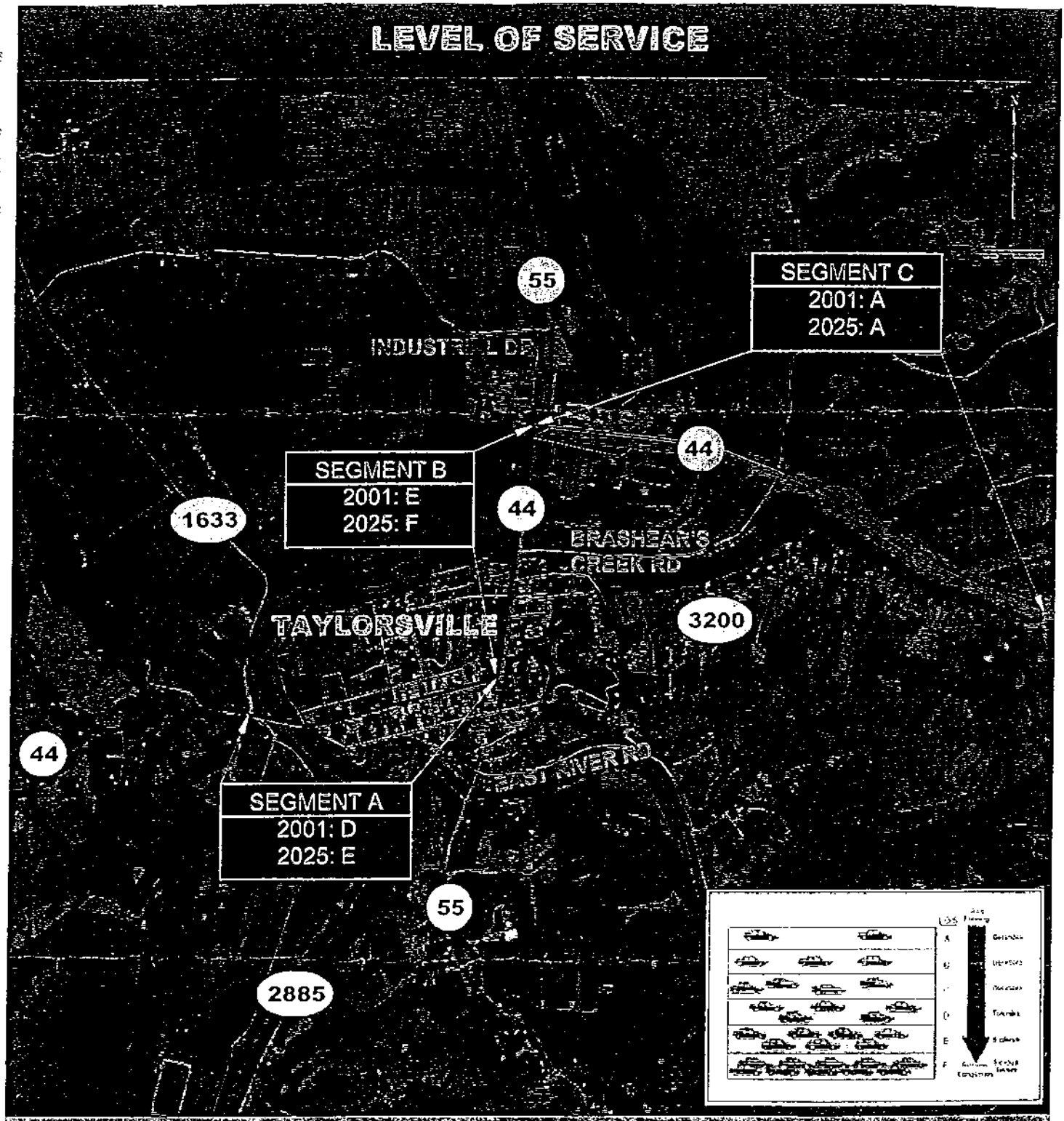
Taylorsville NW Connector
Intermediate Planning Study

Spencer County, Item No. 5-347.00

EDUCATION PAYS

KENTUCKY TRANSPORTATION CABINET

LEVEL OF SERVICE



Taylorsville NW Connector
Intermediate Planning Study
Spencer County, KY
Item No. 5-347.00

HNTB

KENTUCKY TRANSPORTATION CABINET

Taylorsville - Spencer County
Industrial Development Authority, Inc.

88 East Main Street
P. O. Box 397
Taylorsville, KY 40071

Phone: 502-477-3246
Fax: 502-477-3247
cbrock@iglou.com
www.taylorsville.net

February 12, 2002

Ted Noe, *Director of Planning*
Kentucky Transportation Cabinet
125 Holmes Street
Frankfort, KY 40622

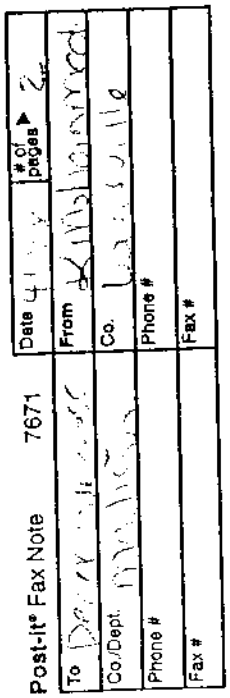
Dear Ted,

Karen Mohammadi has contacted me with the request that I provide both you and her with information regarding the industrial authority's plans for an industrial park development in Taylorsville & Spencer County. As you know, the authority is young, thus plans are not yet made.

However, since Judge Jenkins and I first discussed potential locations of industrial sites with your team, some factors have changed. Following is the best information I can provide at this writing.

- The 447-acre site on Hwy. 155 at the Taylorsville city limits is no longer an option. The industrial authority has declined to do business with that owner due to his unwillingness to work with the authority on a phased basis, combined with a high acreage price.
- A 7-10-acre site is now being privately developed on Hwy. 44 approximately 2 miles east of Taylorsville. That site will be promoted by the authority beginning about May of this year (2002).
- The authority is currently considering a 154-acre site on Hwy. 44, approximately two miles east of Taylorsville, adjacent to the privately owned site named above.
- The authority is currently considering a 104-acre site on Hwy. 44, approximately one mile west of Taylorsville, across from the Spencer County Elementary School.

Ted, it is reasonable to assume at this writing that the Hwy. 44 corridor, both east and west, is a prime target for industrial development in Spencer County. It is unlikely that an industrial site will be located on Hwy. 55/155 in the foreseeable future.



Of course, Hwy. 44 is also of prime interest in our development deliberations since it is the Main Street of downtown Taylorsville, an area that is of high commercial development interest to the authority.

Thanks for the opportunity to provide this information.

Hope this helps with your planning. We're looking forward to working with you and your team in the future and will keep you posted as our activity develops.

Sincerely,

Claude L. Brock
Executive Director

Cc: [redacted], *Judge Jenkins, Mayor Hahn, Industrial Board*

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059
FAX: (502) 315-6677
http://www.lrl.usace.army.mil/

February 11, 2002

Operations Division
Regulatory Branch (South)
ID No. 200200047-pjl

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

Dear Ms. Coffey:

This is in response to your letter requesting early coordination on the proposed Northwest Connector from KY 44 west to KY 55 north of Taylorsville, in Spencer County, Kentucky. The study area encompasses numerous streams subject to our regulatory authority under Section 404 of the Clean Water Act (CWA) (33 USC 1344). Among these are the Salt River, Pond Run Creek, Brashears Creek, Elk Creek, Chadbourn Branch, and numerous unnamed tributaries.

The Corps of Engineers regulates the discharge of dredged and/or fill material into "waters of the United States" including wetlands, under the provisions of Section 404 CWA. The data you furnished indicates an authorization under this section of law may be required before you begin the work. However, the information given is insufficient for us to be certain of the need for a permit on this particular proposal. We will need additional detail on the project's design, scope, construction methods and purpose in order to determine whether a permit is required.

We have found it is usually in the applicant's best interest to submit that data in a formal permit application. Should an individual permit be required, we can then begin processing your request immediately.

Enclosed is a packet that contains the information and forms needed to apply for a Department of the Army (DA) permit. Currently, the processing time for non-controversial applications requiring individual review takes approximately 90 to 120 days. Please allow sufficient time in your preconstruction schedule for the processing of a DA permit application.

Our comments on this project are limited to only those effects which may fall within our area of jurisdiction. Lack of comment on other environmental aspects should not be construed as either concurrence or nonconcurrence with stated environmental effects.

If we can be of any further assistance, please contact us by writing to the above address, ATTN: CELRL-OP-FS, or by calling me at (502) 315-6693.

Sincerely,

Pam Loeffler

Pam Loeffler
Regulatory Specialist
Regulatory Branch

Enclosures

U.S. Department of Transportation
United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: obr
Phone: (314) 539-3900, Ext 382
FAX: (314) 539-3755

16593.22
27 December 2001

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

Subj: IMPROVEMENT TO KY 44 WEST TO KY 55 NORTH OF TAYLORSVILLE, SPENCER COUNTY, KENTUCKY

Dear Ms. Coffey:

Please refer to your letter of December 21, 2001. After reviewing the plans that you submitted we have determined that this project does not cross waterways over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard bridge permit is not required.

I appreciate the opportunity to comment on the proposed improvement project. Should you have any questions, contact Mr. David Orzechowski at (314) 539-3900 Ext. 382.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

United States Department of Agriculture
NRCS Natural Resources Conservation Service

P. O. Box 231
118 Taylorsville Rd.
Taylorsville, KY 40071

Telephone: (502) 477-2667
FAX: (502) 477-2667

January 9, 2002

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

Dear Ms. Coffey:

As requested, I have completed a brief, general environmental study concerning the proposed construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Spencer County, Kentucky.

According to your location map and the soil survey, I have found that the proposed area has approximately 50 acres of hydric soils, 300 acres of hydric inclusion soils, 600 acres of Prime Farmland soils, and numerous sinkholes.

There are a few registered historic places within the location map. There are also a few places with rock fences that could be considered "historic".

Also, there are numerous churches and cemeteries, and a couple of schools and parks within the proposed area.

Concerning the issue of environmental justice, I do not know of any segment of the population that would bear a disproportionate share of the consequences of environmental impacts attributable to this proposed project.

Please do not hesitate to ask for more information that you may need.

Sincerely,

Kelly W. Bennett

Kelly W. Bennett, District Conservationist
United States Department of Agriculture
Natural Resources Conservation Service

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724

January 14, 2002

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

Dear Ms. Coffey:

This is in response to your letter of December 21, 2001 requesting our agency's input and comments on specific issues or concerns that might affect project alternative development for the construction of a Northwest Connector from KY 44 west to KY 55 north of Taylorsville, Spencer County, Kentucky. We are responding on behalf of the Department of Health and Human Services (DHHS), U.S. Public Health Service.

While we have no project specific comments to offer at this time, we do recommend that the topics listed below be considered during the NEPA process along with other necessary topics, and addressed if appropriate. Mitigation plans which are protective of the environment and public health should be described in the DEIS wherever warranted.

AREAS OF POTENTIAL PUBLIC HEALTH CONCERN:

I. Air Quality
- dust control measures during project construction, and potential releases of air toxins potential process air emissions after project completion
- compliance with air quality standards

II. Water Quality/Quantity
- special consideration to private and public potable water supply, including ground and surface water resources
- compliance with water quality and waste water treatment standards
- ground and surface water contamination (e.g. runoff and erosion control)
- body contact recreation

III. Wetlands and Flood Plains
- potential contamination of underlying aquifers
- construction within flood plains which may endanger human health
- contamination of the food chain

IV. Hazardous Materials/Wastes
- identification and characterization of hazardous/contaminated sites
- safety plans/procedures, including use of pesticides/herbicides; worker training
- spill prevention, containment, and countermeasures plan

V. Non-Hazardous Solid Waste/Other Materials
- any unusual effects associated with solid waste disposal should be considered

VI. Noise
- identify projected elevated noise levels and sensitive receptors (i.e. residential, schools, hospitals) and appropriate mitigation plans during and after construction

VII. Occupational Health and Safety
- compliance with appropriate criteria and guidelines to ensure worker safety and health

VIII. Land Use and Housing
- special consideration and appropriate mitigation for necessary relocation and other potential adverse impacts to residential areas, community cohesion, community services
- demographic special considerations (e.g. hospitals, nursing homes, day care centers, schools
- consideration of beneficial and adverse long-term land use impacts, including the potential influx of people into the area as a result of a project and associated impacts
- potential impacts upon vector control should be considered

IX. Environmental Justice
- federal requirements emphasize the issue of environmental justice to ensure equitable environmental protection regardless of race, ethnicity, economic status or community, so that no segment of the population bears a disproportionate share of the consequences of environmental pollution attributable to a proposed project. (Executive Order 12898)

While this is not intended to be an exhaustive list of possible impact topics, it provides a guide for typical areas of potential public health concern which may be applicable to this project. Any health related topic which may be associated with the proposed project should receive consideration when developing the draft and final EISs. Please furnish us with one copy of the draft document when it becomes available for review.

Sincerely yours,

Paul Joe

Paul Joe, DO, MPH
Medical Officer
National Center for Environmental Health (F16)
Centers for Disease Control & Prevention

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

January 22, 2002

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

SUBJECT: Early Coordination - EPA comments on the Northwest Connector - Kentucky (from KY 44 west to KY 55 north of Taylorsville)

Dear Ms Coffey:

The Environmental Protection Agency (EPA), Region 4, received your December 31, 2001 Initial Coordination document concerning the proposed highway improvement project. The document gives a general outline of the project, provides information general and project-specific environmental impacts and analysis procedures, and requests our input with regard to identifying potential issues of concern within the project area.

EPA's review of the NEPA document will consist of looking at environmental affects of the project on the water, air, land, wildlife habitat in the area. For your assistance, enclosed are preliminary scoping comments pertaining to the contents of a National Environmental Policy Act document. In addition, we also enclosed specific information regarding significant and priority ecological areas, environmental justice areas of concern, and general land cover types for the project area.

We appreciate your the opportunity to provide these preliminary comments. We look forward to reviewing the NEPA document that you develop for the proposed project.

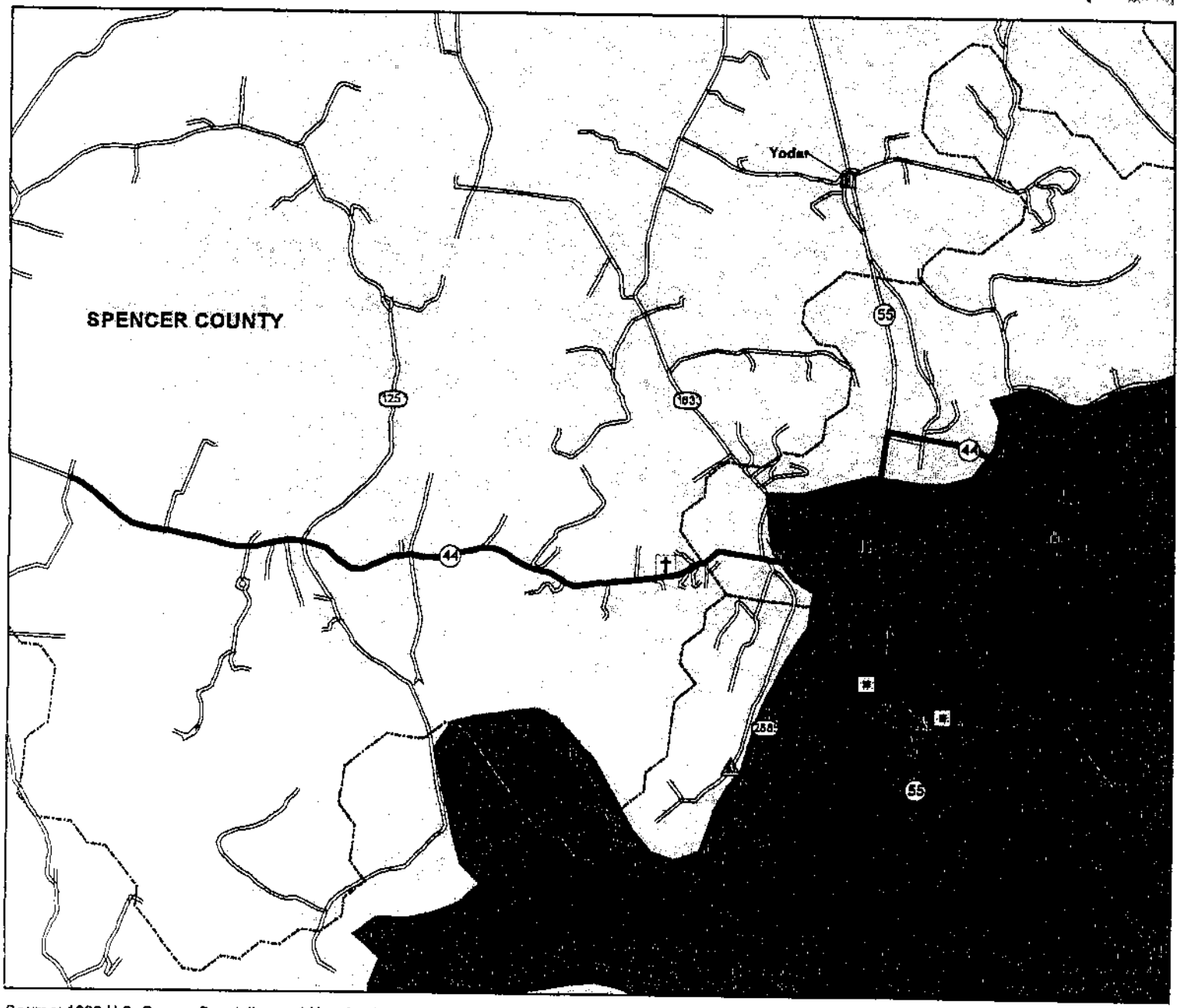
If you have any further questions or concerns, please contact Ntale Kajumba of my staff at (404) 562-9620.

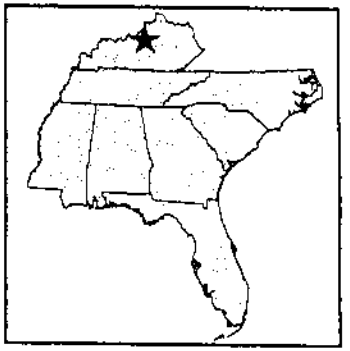
Sincerely,

Heinz Mueller

Heinz Mueller, Chief
Office of Environmental Assessment
Environmental Accountability Division

Enclosure:





POTENTIAL EJ AREAS AROUND PROJECT AREA

- Populated Places
- Cemeteries

EPA Sites

- PCS
- RCRIS
- Proposed Connector
- Railroads
- Roads
- Major Streams
- County Boundaries

Potential EJ Areas

- Low Income
- Minority
- Minority/Low Income
- Non-EJ Areas

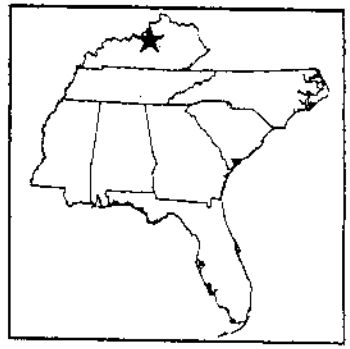
N

0.3 0 0.3 0.6 0.9 Miles

Source: 1990 U.S. Census Population and Housing Summary Tape File 3.
Aggregated to Block Group Level ~800-2000 People.

Relative State Minority Threshold: TN = 20.89% and MS = 44.30%
Relative State Low Income Threshold (15K): TN = 36.59% and MS = 47.09

EPA REGION 4
ENVIRONMENTAL ACCOUNTABILITY DIVISION



GENERAL LAND COVER TYPES AROUND PROJECT AREA

- Proposed Connector Roads
- County Boundaries

General Land Cover Types

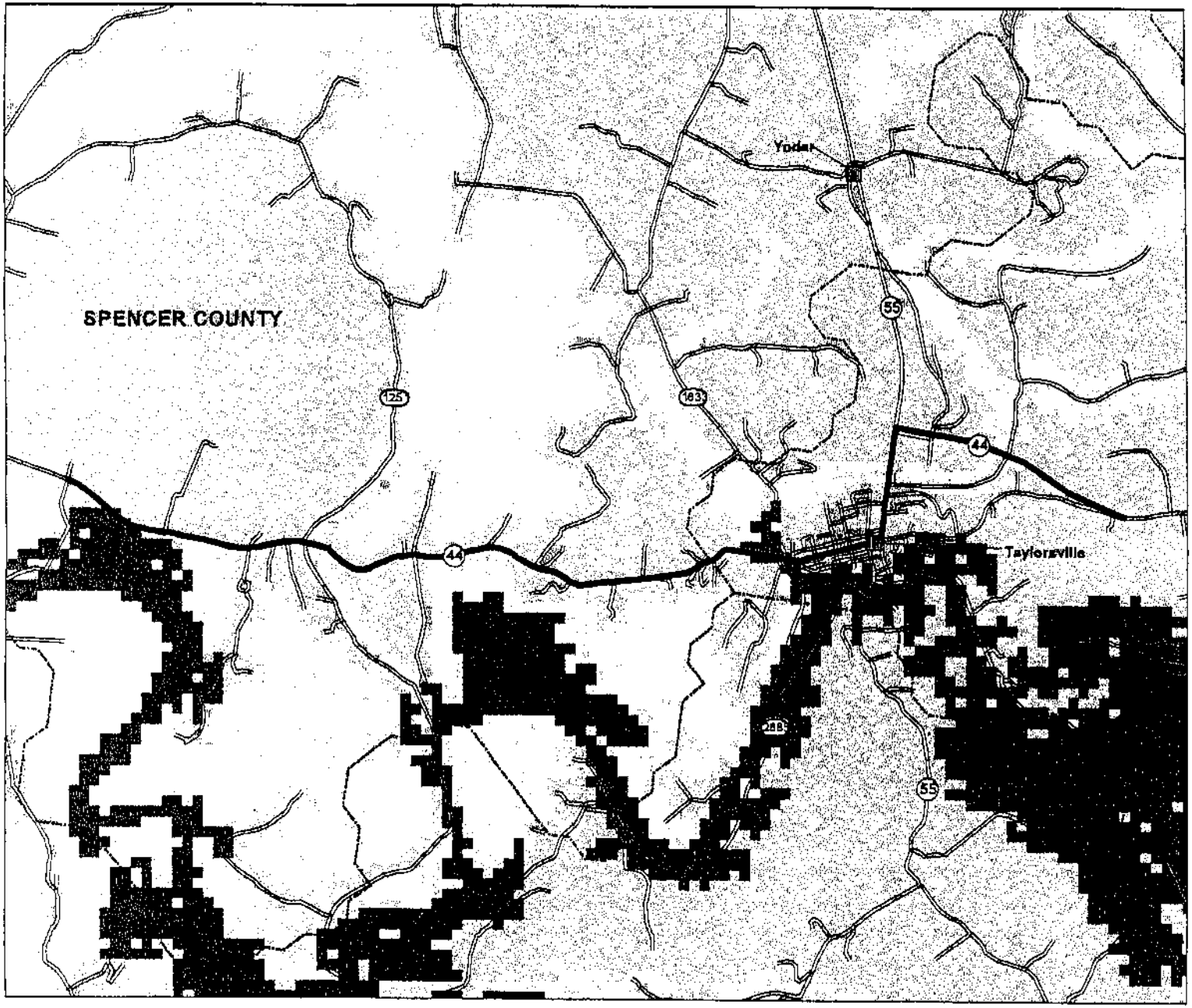
- Bare Rock/Soil
- Forest Land
- Grass Land/Row Crops
- Urban Areas
- Water
- Wetlands

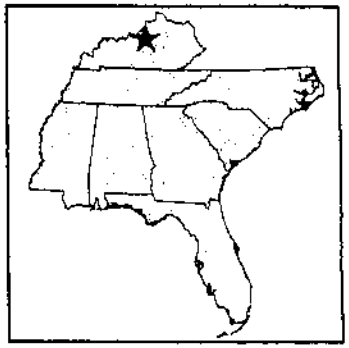
N

0.3 0 0.3 0.6 0.9 Miles

Source: National Land Cover Data 1992 (NLCD 92).
Resolution of the data is 30 meters.
Derived from the early to mid-1990s Landsat Thematic Mapper satellite data.
21 Original land cover classes grouped into 6 general classes.

EPA REGION 4
ENVIRONMENTAL ACCOUNTABILITY DIVISION





SIGNIFICANT AND PRIORITY ECOLOGICAL AREAS AROUND PROJECT AREA

- Populated Places
- Proposed Connector Roads
- Major Streams

Priority Areas

Significant Areas

N

0.3 0 0.3 0.6 0.9 Miles

Source:
1. Southern Ecological Framework (SEF): U.S. Environmental Protection Agency and University of Florida, 2000.
2. 303d Listed Waters (TN and MS, 1998)

EPA REGION 4
ENVIRONMENTAL ACCOUNTABILITY DIVISION

ELEMENTS OF A NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENT FOR TRANSPORTATION PROJECTS

Project Need - The need, potential benefits and adverse effects of the proposed project should be clearly stated. Project impacts and impact mitigation are evaluated in the context of project need.

The document should identify the basic underlying transportation problems (deficiencies) or needs between the two logical termini for the SIU under consideration. Traditional traffic data or analysis should be presented to substantiate each identified need. For example: if the problem is congestion, then Level of Service (LOS) data should be presented to substantiate this issue. In addition, traffic numbers [e.g., LOS, vehicle miles of travel (VMT), vehicle hours of travel (VHT), etc.], if applicable, for existing (current) and future (20 year) forecasts should also be presented. The traffic analysis should include projected traffic volumes that would utilize the facility from the connecting roadways.

Any local need identified and substantiated should have measurable objectives that will be used to assess whether an alternative or combination of alternatives would reasonably meet (i.e., solve) the problems or needs identified in the document. The overall purpose and need statement, including these objectives, should be developed with input and concurrence from cooperating regulatory and resource agencies, as project alternatives, impacts, and impact mitigation are all evaluated in the context of project need.

Alternatives - If an Environmental Assessment (EA) is prepared, a minimum of one feasible action alternative as well as the No-Action Alternative should be considered. A draft Environmental Impact Statement (DEIS) should include a minimum of two feasible action alternatives which should be fully considered, in addition to the No-Action Alternative. Other alternatives that should be considered include Transportation System Management/Travel Demand Management alternatives which maximize the efficiency of existing highways or transportation networks. The analysis of alternatives is the *core* of the NEPA process.

(The NEPA document should also discuss the status of the adjacent roadways and identify and provide an analysis of different alternative termini locations within the Study Area in relation to the termini of the neighboring roadways.) EPA recommends that the Draft EIS should identify a preferred alternative. This minimizes some of the issues associated with rating every action alternative and enables us to provide a thorough review of the environmental issues associated with the selected alternative. The selected alternative should avoid or minimize adverse impacts, so that the need for mitigation of impacts will be lessened or eliminated. A critical factor of the analysis of alternatives is the avoidance or minimization of adverse impacts. When alternatives are rejected, a rationale for rejection should be provided. The rationales should include environmental reasons, along with other considerations.

Wetlands -The NEPA document should discuss the location, amount, type, and quality of waters of the U.S., including wetlands, in the study area, how they were delineated (i.e., U.S. Army

Corps of Engineers (COE), contractor, lead agency, etc.), and impacts to these resources for each action alternative. All discussions of waters of the U.S. should be broken out by rivers/streams and wetlands. Include maps, text, and tables that feature areas occupied by wetlands, aquatic systems, and non-wetland riparian habitat. Specific wetland and other waters of the U.S. requirements are as follows:

NEPA/404 Merger: If waters of the United States may be impacted by activities regulated by Section 404 of the Clean Water Act, EPA strongly recommends that the NEPA document contain a thorough discussion of the proposed project's consistency with Federal Guidelines for specification of disposal sites for dredged or fill materials [the 404(b)(1) Guidelines found at 40 CFR Part 230]. In order to demonstrate compliance with the 404(b)(1) Guidelines, the NEPA document should meet the following criteria to the extent possible:

- The proposed action must be the practicable alternative which would have the least adverse impact on the aquatic ecosystem [40 CFR 230.10(a)]. If wetlands would be filled, then the NEPA document should explain why there are no practicable alternatives to locating the project outside jurisdictional wetlands and demonstrate how the project has been designed to minimize harm to existing wetlands.

- The proposed action must not cause or contribute to significant degradation of waters of the United States including wetlands and other special aquatic sites [40 CFR 230.10(c)]. Significant degradation includes the loss of fish and wildlife habitat and the loss of other wetland habitat values and functions. Significant degradation also includes cumulative impacts.

- The proposed project does not violate state-adopted, EPA-approved water quality standards or jeopardize the continued existence of any species listed as threatened or endangered under the Endangered Species Act [40 CFR 230.10(b)].

- Minimize the number of acres subject to Section 404 jurisdiction that would be permanently lost or degraded due to impacts other than the placement of fill (e.g., the impacts of erosion, sedimentation and runoff of pollutants on wetland habitats; diversion of water from wetland habitats).

- Direct, indirect and cumulative impacts to these resources should be fully described.

Avoidance and Minimization: Impacts to wetlands and stream resources should be avoided and minimized to the maximum extent practicable. As described above, feasible alternatives that avoid wetland impacts should be evaluated consistent with the Section 404(b)(1) Guidelines. In addition, further fragmentation of remaining large contiguous undeveloped wetland or riparian areas should also be avoided. Special attention should also be given to avoidance and minimization of impacts in areas assigned special regional, state, or local designation or recognition (i.e. Scenic Rivers, wildlife management areas, etc.).

Characterization: Wetland types should be characterized using the hydrogeomorphic (HGM)

classification for wetlands (Brinson 1993) and augmented with vegetation and hydroperiod modifiers, such as those utilized nationally by Cowardin et al. (1979)[Citation information is included in Appendix A below]. Where sufficient documentation exists, wetland types and descriptors should follow regional or local protocol, such as those found in the Tennessee Wetlands Conservation Strategy (GIWC 1998). Stream types should be delineated according to the Rosgen classification of natural rivers (Rosgen 1994, 1996) which is based on the fluvial geomorphic condition of rivers and their valleys.

Where rivers and streams are not adequately evaluated by the wetland functional assessment methodology utilized, impacts to river and stream channels should be evaluated utilizing appropriate local or State conservation plans or strategies (i.e., KDOW 2001) or regional guidelines, such as the North Carolina Stream Mitigation Guidelines (NCWRC 1996, NCDENR 2001) or the Compensatory Stream Mitigation Standard Operating Procedure developed by the COE Savannah District (COESD 2000).

The NEPA document should also identify farmed wetlands (FW) and prior converted wetlands (PCW) in the project study area. The Natural Resources Conservation Service (NRCS) has determined which areas are PCW and which areas are considered FW. If the State DOT, NRCS, or private landowners cannot verify a PCW or FW designation (which happens often since these determinations were made many years ago), then a delineation should be completed based on the current conditions at the site. Mitigation will be required for impacts to farmed wetlands.

Quality: The quality of the wetland resources proposed for impact should be evaluated using a wetland functional assessment methodology. Where the appropriate guidebooks have been developed (e.g., Kentucky, Mississippi, and Tennessee), HGM should be utilized (Ainslie et al. 1999, Smith and Klimas 2000, Wilder and Roberts 1999). Where the appropriate HGM guidebooks have not been developed, equivalent functional assessment methodologies should be utilized.

Quantity: Impacts to wetlands and other waters should be appropriately quantified for each alternative considered in the EIS. For example, the amount of impacts to wetlands should be characterized in terms of acreage, while impacts to stream channels should be characterized in terms of linear feet of stream and stream order. Impacts for each alternative should be compiled to facilitate comparison.

Mitigation: A draft mitigation plan should be developed during the NEPA process to compensate for predicted wetland and stream losses that remain following efforts to avoid and minimize such impacts.

Wetlands: Wetland restoration is EPA's preferred mitigation option for impacts to wetlands. Wetland restoration is normally considered an action that successfully restores all three wetland parameters (hydric soils, hydrophytic vegetation, and wetland hydrology) to an area that was formerly a wetland, but where at least one of the aforementioned parameters has been removed. At a minimum, any restored site must meet the criteria outlined in the 1987 COE wetland delineation manual for a jurisdictional wetland (or the Clean Water Act

definition of a water of the U.S.). However, site selection and the specific restoration measures employed should be designed to replace the aquatic ecosystem functions lost or impaired due to the proposed project, and this may entail more than simply the three parameters.

Enhancement is the second preference for mitigation for impacts to wetlands. Enhancement measures must address a suite of functions, as opposed to only a single function, and the enhancement measures themselves must not adversely affect other wetland functions currently performed or capable of being performed by the mitigation site. EPA does not view the conversion of one wetland type to another as enhancement. As with wetland restoration, it is important to establish a baseline condition for a wetland prior to any action, and then establish measurable performance criteria to quantify the level of enhancement. The results of the aforementioned wetland functional assessment will assist in determining the appropriate type, location and amount of mitigation for impacts to wetlands.

Streams: Stream restoration is EPA's preferred mitigation option for impacts to streams. Stream restoration includes actions taken to correct previous alterations that have destroyed, diminished, or impaired the character and function of streams or rivers. Restoration is the process of converting an unstable, altered, or degraded stream channel to its natural or referenced stable condition, with consideration of recent and future watershed conditions. This process may include restoration of the stream's geomorphic dimension, pattern and profile and/or biological and chemical integrity, including transport of water and sediment produced by the streams' watershed in order to achieve dynamic equilibrium. Other components of stream mitigation may include riparian buffer restoration and preservation of appropriately buffered streams. The results of the aforementioned wetland functional assessment will assist in determining the appropriate type, location and amount of mitigation for impacts to stream assessment.

Location: While mitigation for otherwise disparate impacts may be clustered to provide the maximum level of ecological benefit, impacts in "special designation" areas or watersheds may require mitigation in the subject watersheds.

The mitigation proposal should include the proposed mitigation replacement ratio, the habitat value and proposed location of replacement habitats, general grading and revegetation plans and a biological maintenance and monitoring program. Clear mitigation goals and objectives and quantifiable criteria by which to judge the success or failure of mitigation should be provided. The proposal should include commitments to ensure the restoration, creation, and protection of wetland habitats of equal or greater resource value.

Water Quality - EPA is concerned about degradation of water quality in various waterways from erosion, siltation and other pollutants associated with road construction and operations. The NEPA document should discuss potential impacts to water quality, designated uses and biological resources from construction and operations of the proposed project. The discussion in the document should be of sufficient detail to determine which alternatives are environmentally preferable. Site-specific water quality problems need to be assessed in greater detail, if

applicable, including the adoption of site-specific mitigation measures to protect water quality and designated uses.

Protecting water quality ensures the protection of its designated uses. Especially critical is the protection of several sensitive uses. It is important to protect water quality in order to maintain freshwater and wildlife habitats, since many species are sensitive to the introduction of pollutants or the adverse modification of their habitats. It is also important to protect groundwater recharge and freshwater replenishment, particularly if public drinking water supplies could be adversely affected. These sensitive beneficial uses should be carefully considered when evaluating potential impacts caused by the placement of fill, erosion, sedimentation, the runoff of pollutants, and the accidental discharge of hazardous waste or toxic substances.

Characterization: The NEPA document should identify all surface waters that may be affected by the proposed project, as well as current drainage patterns in the project study area. The document should identify the existing and potential designated uses of these surface waters. Protected designated uses for streams, creeks, lagoons, tidal areas and other surface waters may include one or more of the following: cold and warm freshwater habitat; marine habitat; fish spawning and migration; shellfish habitat; wildlife habitat; preservation of rare, threatened or endangered species; groundwater recharge; freshwater replenishment; public drinking water supplies; agricultural supply; and water contact and non-contact recreation. Individual waterbodies in the vicinity of the project not meeting designated uses should be identified in the NEPA document. The causes and sources of the impairments should also be identified.

Critical habitat areas (wildlife feeding and drinking areas; fishery migration, spawning or rearing areas; sensitive aquatic habitats such as wetlands; riparian resources; critical habitat for threatened and endangered species) should be identified in the study area, including a description of the existing designated uses and resource values of these critical areas.

Impacts and Coordination: The document should discuss any proposed crossings of water bodies. In general, crossings should be minimized. Unavoidable crossings should be strategically placed to reduce harm by avoiding fish spawning areas, avoiding fringe wetlands, approaching at right angles to streams, etc. Impacts to critical habitat areas, described previously, that cannot be avoided should be discussed. The document should assess how altering drainage patterns and characteristics will affect drainage hydrology, surface runoff, erosion potential, soils vegetation, and water quality. The document should include an analysis of project effects on floodplains in the study area. This includes using maps prepared by the Federal Emergency Management Agency, National Flood Insurance Program, and other appropriate agencies to determine whether the proposed action is located in or will likely affect a floodplain. The document should discuss these impacts and also describe the alternatives considered. Compliance with Executive Order 11988 on floodplain management should be documented. EPA strongly recommends bridging of floodplains whenever feasible. Any wetland loss or other impacts contributing to loss of floodwater storage or retention functions should be appropriately mitigated with in-kind replacement of those functions.

The NEPA document should discuss how the project will comply with state and local water

quality management plans, state water quality objectives; and state-adopted, EPA-approved water quality standards. We encourage the DOTs to work closely with state water pollution control agencies, state fish and game agencies, the U.S. Fish and Wildlife Service (USFWS), and/or the National Marine Fisheries Service on issues related to water quality standards; the protection of water quality, designated uses and biological resources; mitigation and monitoring for adverse impacts. If the proposed project includes disturbance of five or more acres of land during construction, and point source discharges into waters of the United States (i.e., water bodies such as rivers, lakes, wetlands, etc.), coverage under an EPA stormwater National Pollutant Discharge Elimination System (NPDES) General Permit or state equivalent may be required. The state DOT should contact the appropriate state environmental agency for further information on the NPDES program.

In addition, Section 319 of the CWA requires states to assess nonpoint source water pollution problems, develop nonpoint source pollution management programs, and implement controls to protect and improve water quality and beneficial uses. The state DOT should work closely with appropriate state water pollution control agencies to determine what pollution control measures should be adopted to advance the state's nonpoint source management plans in the project area. Specifically, the status of development of Total Maximum Daily Loads (TMDLs) for any waterways in the study area should be identified and how the proposed project could affect implementation of restoration efforts in these watersheds.

Mitigation: The NEPA document should discuss what mitigation measures (e.g., nonpoint source controls) will be implemented to protect or improve water quality, designated uses, and biological resources. Mitigation measures related to protection of water quality should be tailored depending on the condition of the specific water resource as well as the severity of the potential impacts. Best Management Practices (BMPs) should be used to reduce erosion during construction and operation of the facility. In the vicinity of impaired surface water resources in the project area, all storm water runoff from the proposed roadway should be collected and treated before being discharged to surface waters. In other areas, typical BMPs, including the use of staked hay bales, silt fences, mulching and reseeding, and use of buffer zones along water bodies, are appropriate. The document should include an erosion control plan or reference the State erosion control regulations and a commitment to compliance. Compliance should include both BMP application and long-term maintenance.

Groundwater: For each alternative under consideration, the NEPA document should:

- Describe current groundwater conditions in the project area. Any likely impacts to groundwater quality and quantity from the proposed action should be assessed.

- Identify mitigation measures to prevent or reduce adverse impacts to groundwater quality and discuss their effectiveness. EPA encourages state DOT to work closely with state and local agencies which regulate the protection of groundwater resources (i.e., state health departments and water pollution control agencies.)

Sole Source Aquifers: Pursuant to Section 1424(e) of the Safe Drinking Water Act of 1974, all

Federal financially assisted projects which have the potential to contaminate designated sole source aquifers (SSA) are subject to EPA review. The NEPA document should identify if there is a designated sole source aquifer in the vicinity of the project and the potential for impacts to this sensitive resource. Transportation projects should be designed in a manner that will prevent the introduction of contaminants into the SSAs in quantities or concentrations which may create a significant hazard to public health. The document should determine whether the proposed project may contaminate the aquifer through its recharge zone so as to create a significant hazard to public health, or which may require a public water system to install additional treatment to prevent such adverse effect.

Public Water Supply Systems: A concerted effort should be made to avoid locating capacity adding transportation projects within water supply recharge of defined critical areas associated with water supply impoundments and intakes. If unavoidable, any projects that are located in these areas should be carefully designed to avoid or minimize any adverse effects from accidental spills and runoff. Source water protection areas are areas defined and delineated by each state for the purpose of geographically identifying the surface and ground waters currently used as a source of public drinking water. States are required by the Safe Drinking Water Act, through EPA-approved Source Water Assessment Programs (SWAPs), to conduct a source water assessment at every public water supply in each State. State deadlines for completing source water assessments are dependent upon each state's SWAP approval date.
Best Management Practices (BMPs) should be used to reduce erosion during construction. Typical BMPs include the use of staked hay bales, silt fences, mulching and reseeding, and appropriate buffer zones along water bodies. The document should include an erosion control plan or reference the State erosion control regulations and a commitment to compliance. Compliance should include both BMP application and maintenance.

The document should discuss any proposed crossings of water bodies. In general, crossings should be minimized. Unavoidable crossings should be strategically placed to reduce harm by avoiding fish spawning areas, avoiding fringe wetlands, approaching at right angles to streams, etc. If the proposed project includes disturbance of five or more acres of land during construction, and point source discharges into waters of the United States (i.e., water bodies such as rivers, lakes, wetlands, etc.), coverage under an EPA storm water National Pollutant Discharge Elimination System (NPDES) General Permit may be required. Contact your state environmental agency for further information on the NPDES program.

Noise -*Construction Noise:* The NEPA document should document construction noise attributable to the project. Typical noise levels produced by construction equipment (e.g., trucks, front end loaders, pile drivers, etc.) within 50 feet, which are available in the literature, should be disclosed. The total project construction time (months, years) should also be estimated in order to help assess the magnitude of the construction noise impact. Attempts should also be made to estimate the temporary construction time associated with any one feature along the ROW or section thereof. For example, how long is construction expected to take near any given affected residence or for an average mile of roadway? This information will allow affected residents to approximate their degree of noise disturbance during construction.

Although temporary, construction noise should be reasonably mitigated in the vicinity of residential areas or other noise-sensitive land uses. Preferably, construction should not start before 7:00 AM or continue after 7:00 PM during the work week (5-6 days) and should be discontinued on Sundays and on locally-observed federal and/or state holidays. In addition, the use of "hush houses" should be considered around any stationary equipment to shield noise at its source, and all motorized equipment should be properly tuned to the manufacturer's specifications for additional source reduction. All construction equipment should be equipped with noise attenuation devices, such as mufflers and insulated engine housings. Such mitigative methods should be made a contractual obligation that is periodically reviewed in the field by FHWA/DOT or third-party inspectors.

Highway Noise: The NEPA document should predict what noise levels can be expected from the project, and the distance to the closest residence/receptor. Background (ambient) noise levels should also be included in the document. EPA prefers that noise impacts are measured using the Leq(h) metric since it provides an average level during peak traffic periods as opposed to the L10 metric which provides a less specific level that is not exceeded more than 10 percent of the time. The noise analysis should also estimate the projected incremental increase of noise. EPA considers increases over 10 dBA from existing levels as a significant increase. Comparisons to any noise guidelines (e.g., FHWA, HUD) or city ordinances are also appropriate. EPA has a *target* noise level (not a guideline or standard) of DNL 55 dBA for outdoor areas where people spend a varying amount of time (such as residences). In addition, OSHA regulations apply for all employees affected by job noises.

Noise abatement should be considered by FHWA when project noise impacts meet or exceed the existing noise levels by 10 dBA (especially if the existing noise levels are 50 dBA and above). Forms of noise and/or visual mitigation include, but are not limited to, vegetative screens, vegetated earthen berms (suburban areas), fabricated noise barriers, and alignment shifts. Avoiding noise impacts via alignment shifts is frequently more effective than mitigation.

Environmental Justice (EJ) - *Background:* Executive Order 12898: (*Federal Actions to Address in Minority and Low-Income Populations)* requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of federal programs on minority or low-income populations. The general purpose is to foster non-discrimination in federal programs and to provide minority and low-income communities greater opportunities for public participation in, and access to public information regarding human health and environmental issues.

In an effort to determine whether there are potential environmental justice (EJ) areas of concern (areas that have high levels of minority and/or low-income populations relative to the reference area), the demographic characteristics of the proposed project area are examined. Information regarding potential EJ areas identified in the screening process is used to ensure that these communities have access to both concise and clear information sufficient to effectively participate in the public involvement process and to ensure that these communities/areas are not disproportionately adversely affected by this project area. Consistent with Executive Order 12898, potential EJ impacts should be considered in the NEPA document. The following items

should be incorporated into all EJ analyses related to the proposed project

Demographic Characterization: The NEPA document should identify potential EJ areas of concern. Appropriate geographic boundaries surrounding the communities that may be potentially impacted by the proposed project must be identified. General screening to identify potential EJ areas involves comparing the minority and low-income characteristics of smaller geographic areas (project area) with those of a larger geographic areas (reference area). U.S. Census data for 1990 (or more recent data if possible) should be used for the minority and low-income analysis. Data should be collected at the block group level for the project area and the county, metropolitan statistical area, or state for the reference area. The block group data level should be used because it provides the best combination of demographic accuracy and data accessibility. The appropriate reference area should be selected based on the scope and intent of the project. The NEPA document should indicate what demographic threshold or methodology was used to determine whether low-income and/or minority populations exist in the study area. EPA recommends the use of a relative threshold in EJ analyses for determining significant minority and low-income populations. The relative threshold recommended for use is at least 1.2 times the State Average of minority populations and low-income populations.

The following information includes some data sources or tools that may be used to identify low-income and minority communities:

- Maps provide by state, county and local agencies that delineate political and population boundaries
- U.S. Census Bureau geographic data
- Sources such as Chambers of Commerce, civic groups, trade associations and commercial organizations
- Standard demographic surveys that identify minority and low-income populations
- Local resources such as community and public outreach groups, community leaders, state universities
- Tools such as maps, aerial photographs and geographical information systems
- EPA Enviro mapper

Environmental Characterization and Impact Assessment: If percentages of low-income or minority populations are elevated within the project area, alternatives should be considered that avoid or minimize impacts to potential EJ areas. The issue of disproportionately high and adverse impacts should also be evaluated in the document by comparing environmental impact data to EJ information for highway segments. Adverse effects are defined as "disproportionate" if the risk of adverse environmental impacts are predominately borne in areas with minority or low-income populations or if the impacts are greater in magnitude in areas with minority or low-income populations than in other areas. When analyzing these impacts, it is important to assess both the negative and positive impacts, consider both the short and long-term effects as well as the secondary and cumulative impacts. One of the most detrimental aspects of controlled access can be to divide defined communities regardless of whether they are EJ communities. This potential impact must be assessed.

Public Involvement: If impacts are unavoidable, EPA recommends that coordination with these affected populations be conducted to determine the affected population's concerns and comments regarding the proposed project. This coordination should include a clear discussion of the project, project updates or expansions, environmental impacts, any economic benefits (job opportunities, etc.) of the project to the affected population, and the opportunity for informal and/or formal comments (e.g., EIS scoping meetings, public hearings, or other public meetings). Because public involvement is an important part of the NEPA process, we recommend early coordination and involvement with potential EJ communities that may be impacted by the project. Regardless of the makeup of the affected population, impacts of the project should be controlled so that significant effects on human health are avoided and/or minimized.

Maps: The NEPA document should contain maps of potential EJ areas of concern within the proposed project corridor. Maps for the route should evaluate population density, minority status, and low-income status.

Example (Segment 9) - Based on preliminary EJ screening analysis using 1990 Census data

Air Quality - The NEPA document should contain a discussion of the regulatory transportation air quality requirements, regional air quality concerns in the project area, and a localized carbon monoxide (CO) analysis. The document should assess existing air quality conditions in terms of National Ambient Air Quality Standards (NAAQS), Federal Prevention of Significant Deterioration (PSD) increments, and state air quality standards (particularly if they are more stringent than the federal regulations). Any aspects of the project that could adversely affect air quality, in terms of creating new violations of Federal air quality standards, increasing the frequency and severity of existing violations of the standards, or delaying attainment of the standards should be identified. All emissions resulting from the project must be in compliance with applicable air quality regulations, particularly the NAAQS for criteria air pollutants [e.g., ozone, carbon monoxide (CO), nitrogen oxides, sulfur dioxide, lead and particulate matter (PM)] in designated non-attainment or maintenance areas.

Mesoscale Concerns: Ozone, hydrocarbons, and nitrogen oxides air quality concerns are regional in nature and as such meaningful evaluation on a project-by-project basis is not possible. Therefore, the EIS should include a discussion of regional air quality conditions, depending on the location of the project, as described below:

Non-attainment/Maintenance Areas: If the project is located in a nonattainment or maintenance area, the EIS must document that provisions of 40 CFR Part 93 Subpart A, Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Project Development, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, have been satisfied. For example, the project should be included in a Long Range Transportation Plan (LRTP) and/or Transportation Improvement Program (TIP) that is in conformance with an approved State Implementation Plan (SIP). The relationship of the project to the SIP should be described in the EIS. Specifically, the EIS must show that the project (without significant changes to the scope and/or design) has been included in the LRTP and/or TIP, and that FHWA has issued a conformity determination for the most recent

SIP.

Attainment Areas: If the project is not located in a nonattainment or maintenance area, the EIS should make a negative declaration for Section 176(c) of the Clean Air Act. In this case, the provisions of 40 CFR Part 93 Subpart A, Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Project Development, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, will not apply.

Microscale (Project-level) Concerns: The primary pollutant that is analyzed at the project stage is carbon monoxide. Therefore, CO emissions must be addressed by a localized hot spot analysis. The locations and level of detail for conducting analyses should be collectively determined by the affected agencies. The requirements of 40 CFR Part 93 Subpart A for carbon monoxide emissions must be satisfied. A localized PM-10 quantitative hot spot analysis will not be required until EPA releases modeling guidance in the Federal Register.

The document should indicate whether coordination with state/local/regional air pollution control agencies on air quality planning, air quality modeling, compliance with federal/state air quality standards, the need for air permits, air quality monitoring, and mitigation for adverse impacts has occurred. Parties which will be responsible for implementing air quality mitigation measures should be identified in the document.

Construction: The documentation should indicate that construction equipment will be tuned to manufacturer's specifications to reduce air emissions. In addition, open burning should be avoided or minimized since such emissions are precursors to ozone. If open burning occurs, coordination with the state and/or county regarding permitting needs should documented in the NEPA document. The NEPA document should also discuss the types and effectiveness of any mitigation measures that will be used to protect air quality (e.g., vapor recovery systems, fumes incinerators, and dust control measures) during the construction phase. We recommend water for fugitive dust control during construction, instead of oils and other chemicals.

Archeological and Historic Property - Pursuant to the Historic Preservation Act, federal agencies should identify and determine the effect of the action on any district, site, building, structure, or object listed in or eligible for listing in the National Register of Historic Places. The NEPA document should demonstrate that proper coordination with the State Historic Preservation Office (SHPO) has occurred. EPA encourages use of the NEPA process as a mechanism for compliance with Section 106 of the National Historic Preservation Act. A thorough cultural resource survey should be conducted that identifies existing and potential historic properties in the area of potential effects (APE). The APE should include areas with potential secondary and cumulative impacts associated with the project. The NEPA document should discuss mitigative procedures for events such as unearthing archaeological sites during prospective construction. Such procedures should include work cessation in the area until SHPO approval of continued construction.

Consideration of Tribal Interests: If it appears a project has the potential to affect a site to which a tribe "attaches religious and cultural significance", regardless of the location of the property,

there needs to be consultation with the tribe. The property does not have to be located on the current "tribal land," according to the revised 36 CFR Part 800. It should also be determined whether or not the tribe involved has a designated Tribal Historic Preservation Officer (THPO). If so, the THPO will have assumed the responsibilities of the SHPO for Tribal lands.

Biodiversity/Natural Areas - Biodiversity is defined as the variety of plants and animals (biota) of a site or region, and is typically measured by the number of different species and number of individuals per species. In general, the more diverse an area (number of habitat types and animal inhabitants) and the better represented these components are (population counts), the more rigorous (resistant, undisturbed, natural, "healthy") the area is considered. Consistent with CEQ guidance, the NEPA document should discuss biodiversity aspects of the proposal as appropriate. For example, will the project increase, restore, or decrease biodiversity of the area or region? Coordination with the USFWS and the state fish and wildlife agency is recommended regarding the design of any project mitigation areas to enhance or restore biodiversity.

In addition to important natural areas, other critical environmental resources may exist in the project area, such as national and state parks/refuges, wildlife management areas, and other important habitat and greenspace areas on private lands. However, successful protection of natural resources requires more than "spot" conservation of isolated highly valuable and sensitive ecological areas, but also the links between them. One of the biggest threats to the environment is loss of ecosystem functionality due to fragmentation. Roads, agriculture and other development often lead to cutting natural systems into smaller pieces. Large, contiguous tracts of natural land are required not only for species habitat range, such as migratory birds or black bears, but for ecosystem function. Many ecological processes require large areas of land, often crossing more than one land cover type. Viable landscape linkages are needed to connect these different land types, or the processes are disrupted and their capabilities to function healthily are compromised. For these reasons, conservation must take on the new challenge of not only protecting pristine areas, but ecological connectivity as well.

EPA strongly encourages utilization of existing roads and discourages placement of new interchanges in the vicinity of these areas to minimize potential direct and indirect impacts to these important conservation areas and other important connecting ecological areas. Any proposed routing of new alignment should be sited to minimize fragmentation of forested areas or other important natural resources in the project areas. Appropriate compensatory mitigation for impacts to these resources or loss of critical ecosystem functions should be addressed in the NEPA document. Coordination between the appropriate EPA Regional Office and other natural resource agencies in the project area is encouraged to identify important areas, habitat connections, and potential mitigation opportunities.

Endangered Species - EPA defers to USFWS regarding assessments of federally-protected endangered species because the USFWS is the responsible agency for endangered species compliance. However, the NEPA document should demonstrate adequate coordination with the USFWS as part of the identification of any listed species in the project area, the potential for adverse effects, and any measures taken to avoid and minimize these impacts. "Adequate coordination" includes either a concurrence letter from USFWS or a biological opinion from

USFWS for the species concerned. Mitigation measures (including reasonable and prudent measures) should be incorporated in the appropriate places in the NEPA document. Early coordination with the USFWS is recommended.

Cumulative Impacts - NEPA requires the analysis and disclosure of the direct, secondary and cumulative impacts of major federal actions on the environment. While the direct impacts of transportation projects may or may not be significant, the secondary or indirect effects of the project on land use and the subsequent environmental effects can be both temporally and geographically more extensive. Similarly, there could be cases where the cumulative impacts would be great due to existing environmental conditions or other projects planned in an area. With respect to transportation projects, which both serve and induce land use changes, the analysis of these changes and the subsequent environment impacts is important to understand the total impact of the federal action on the natural, cultural and socioeconomic environment. Consideration of secondary and cumulative impacts requires the assessment of an area's ability to absorb additional development, the loss of businesses or residences, or if the watershed can absorb the loss of additional wetlands.

The NEPA document should examine the relative impacts of the various alternatives on potential land use changes. It should not only identify areas for development potential in the project study area, specifically in the vicinity of proposed interchanges, but also the secondary environmental impacts of the projected land use change associated with improved access and economic development. For example, what will be the secondary impact on service-related businesses along existing roadways through towns that will be bypassed? The specific environmental impacts at these areas should be quantified and compared between alternatives, as much as possible. In particular, if there are important existing natural resources, such as high quality wetlands or wildlife habitat, in the vicinity of proposed access points for any of the alternatives, these areas should be identified for potential acquisition as mitigation sites.

The NEPA document should estimate the cumulative impacts associated with the proposed project. Cumulative impacts include the additive effects of a given parameter for all contributing projects in the area, as well as the cumulative impact of all parameters for all projects in the area. The document should define what cumulative impacts would result from implementation of the proposed project. Existing or future projects (federal and non-federal projects) with attendant pollutants should also be considered. EPA also suggests that the spacial/temporal criteria of the analysis be given and that they be uniform throughout the analyses of the interstate highway project, if appropriate given the varied terrain.

As an organizational approach, EPA recommends discussion of the secondary and cumulative impacts of each of the alternatives within each impact section, as opposed to a separate section at the end of the "Environmental Consequences" section. A specific break-out of the direct, indirect (secondary), and cumulative effects is suggested.

U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office, FAA
3385 Airways Blvd., Suite 302
Memphis, Tennessee 38116-3841
(901) 544-3495 FAX: (901) 544-4243
Email: 9.aso-mem-ado@faa.gov

December 28, 2001

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

Dear Ms. Coffey:

This is in response to your letter to Ms. LaVerne Reid of this office dated December 21, 2001 requesting information on any impacts to Federal Aviation Administration (FAA) facilities or public use airports resulting from the construction of a northwest connector from KY 44 west to KY 55 north of Taylorsville, KY.

There are no public use airports in the vicinity of this proposed project. As long as construction activities do not exceed 200 feet in height above ground level, there will be no impacts on FAA programs and no Notice of Proposed Construction will be required.

Thank you for the opportunity to review the proposal.

Sincerely,

Michael L. Thompson
Program Manager

United States Department of the Interior

FISH AND WILDLIFE SERVICE
446 Neal Street
Cookeville, TN 38501

January 10, 2002

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

Re: FWS# 2002-0744

Dear Ms Coffey:

Thank you for your letter and enclosure of December 21, 2001, concerning the proposed Northwest Connector project in Spencer County, Kentucky. Fish and Wildlife Service (Service) personnel have reviewed the information submitted and the following comments are provided in accordance with the provisions of the Fish and Wildlife Coordination Act (48 State.401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The Service is concerned that highway projects frequently accelerate erosion and sedimentation in streams, resulting in adverse effects to the aquatic environment. The use of heavy equipment to move earth and existing vegetation disrupts natural drainage patterns and exposes large areas of disturbed soil to erosion. Excessive sedimentation can clog stream channels and contribute to increased flooding. It can also increase water temperatures and cause oxygen demands which can damage or destroy fish and invertebrate populations. Deposition of sediment on the channel bottom also degrades aquatic habitat by filling in substrate cavities, burying demersal eggs, and smothering bottom organisms. In addition, turbidity, as induced by accelerated erosion and sedimentation, results in further damage to aquatic systems. Increased particulate matter suspended in the water column may drive fish from the polluted area by irritating the gills, concealing forage, and/or destroying vegetation that may be essential for spawning and cover habitat for particular species. Turbidity also degrades water quality by reducing light penetration, pH and oxygen levels, and the buffering capacity of the water. Degraded water quality may continue far downstream from the point where the erosion occurs.

Prevention of excessive sedimentation can occur only through application of Best Management Practices during daily construction activities. Rigid application of your agency's construction erosion control standards can preclude most sedimentation problems; however, in some cases, additional measures will need to be taken by on-site inspectors and construction representatives.

Information available to Service biologists does not indicate that wetlands exist in the vicinity of the proposed project. Our wetlands determination has been made in the absence of a field inspection and does not constitute a wetlands delineation for the purposes of Section 404 of the Clean Water Act or the wetlands conservation provisions of the Food Security Act. The Corps of Engineers of the Natural Resources Conservation Service should be contacted regarding the presence of regulatory wetlands and the requirements of wetlands protection statutes. We also recommend that any necessary stream channel work be held to a minimum and that Best Management Practices be utilized and enforced, effectively controlling erosion, sedimentation, and other potential hazards. The following conditions are specifically recommended:

1. Erosion and sediment control measures, including but not limited to the following, should be implemented on all vegetatively denuded areas:

   A. Preventive planning: A well-developed erosion control plan which entails a preliminary investigation, detailed contract plans and specifications, and final erosion and sediment control contingency measures should be formulated and made a part of the contract.

   B. Diversion channels: Channels should be constructed around the construction site to keep the work site free of flow-through water.

   C. Silt barriers: Appropriate use should be made of silt fences, hay bale and brush barriers, and silt basins in areas susceptible to erosion.

   D. Temporary seeding and mulching: All cuts and fill slopes, including those in waste sites and borrow pits, should be seeded as soon as possible.

   E. Limitation of instream activities: Instream activities, including temporary fills and equipment crossings, should be limited to those absolutely necessary.

2. Concrete box culverts should be placed in a manners that prevents any impediment to low flows or to movement of indigenous aquatic species.

3. Channel excavations required for pier placement should be restricted to the minimum necessary for that purpose. Overflow channel excavations should be confined to one side of the channel, leaving the opposite bank and its riparian vegetation intact.

4. All fill should be stabilized immediately upon placement.

5. Streambanks should be stabilized with riprap or other accepted bioengineering technique(s).

6. Existing transportation corridors should be used in lieu of temporary crossings where possible.

7. Good water quality should be maintained during construction.

Efficient management practices can minimize adverse impacts associated with construction. It is important that these and other measures be monitored and stringently enforced. This will aid in preserving the quality of the natural environment.

Endangered species collection records available to the Service indicate that the federally listed Indiana bat may occur within the impact area of the project. We note, however, that collection records available to the Service may not be all-inclusive. Our data base is a compilation of collection records made available by various individuals and resource agencies. This information is seldom based on comprehensive surveys of all potential habitat and thus does not necessarily provide conclusive evidence that additional protected species are present or absent at a specific locality.

Thank you the opportunity to comment on this project. If you have any questions, please contact Sherry Williams of my staff at 931/528-6481, ext. 203.

Sincerely

Lee A. Barclay, Ph.D.
Field Supervisor

APPENDIX C

PUBLIC INFORMATION MEETING
QUESTIONNAIRE SUMMARY

RESULTS OF QUESTIONNAIRE
TAYLORSVILLE PUBLIC MEETING - NOVEMBER 8, 2001

PROPOSED CONSTRUCTION OF CONNECTOR FROM KY 44 WEST TO KY 55 NORTH OF TAYLORSVILLE

1) What benefits will occur if a KY 44/KY 55 Connector is built?

- **Serve industrial park/growth (3)**
- **Will not alleviate traffic congestion**
- **More congestion on KY 155 north of Taylorsville than on KY 44 (2)**
- **Save travel time**
- **Safe access between schools (2)**
- **Improve city entrance from west**
- **Aid in development in west**
- **Only to the property owners on the connector/Increase property values along corrdior (2)**
- **None (2)**
- **Eliminate congestion in town (2)**
- **Safety**
- **Better traffic flow (2)**
- **Road will be above floodplain (2)**
- **Eliminate school traffic congestion**
- **Open land for economic development**

2) Please identify and discuss any critical issues/concerns that you have about the proposed project and/or project area?

- **Preserve commercial area near KY 44/KY 55 intersection(s)**
- **Downtown viability (2)**
- **Widen and straighten KY 44**
- **Turf sod farm (owned by Ron Mason) possibly could be taken by bypass**
- **Reason for congestion...school traffic?**
- **Benefit to developers or local residents?**
- **New development will bring more congestion**
- **Improve KY 55/155 first (3)**
- **Won't help school traffic since middle school is downtown**
- **Will take traffic off roads in spring and summer**
- **Resources better spent on converting KY 55 and KY 155 to four-lane highway to Gene Snyder (2)**
- **Traffic congestion is severe on KY 55 during rush hour**
- **Only a problem when school starts/ends**
- **Floodplain being used as an excuse not to build**
- **Build in an area which will generate economic development in the county**

3) Is a KY 44/KY 55 connector needed?
Yes - 7
No - 3
Unsure - 2

4) Where do you think the project should end on KY 55 North? Why?

- **North Boundary of Carl Sweasy property (2)**
- **Industrial Road at City limits (2)**
- **Near High School**
- **Line up with new section of KY 44**

Where do you think the project should end on KY 44 West? Why?

- **Near Elementary school (2)**
- **Out of floodplain**
- **West of Elementary school (3)**
- **Past the cemetery**

5) Are there any sites along the project area that should be avoided?

- **Valley Cemetery (7)**
- **Hill View Apartments**
- **Anderson Hill**
- **Crossing Brashears Creek**
- **Entire project**

6) Where should a connector be located? Why? (Please draw on attached map.) (See maps.)

7) How did you hear about this project?

TV - 0
Radio - 0
Newspaper - 5
Flyer - 1
Direct Mail - 0
Friend/Family - 3
Meeting - 3
Newsletter - 0
Elected Official - 1
Other - 4

Additional Comments:

- **Build KY 55 South first**
- **Change KY 55/KY 155 intersection to signal controlled**
- **Congestion problem near schools is very bad**
- **Rush hour congestion is bad on KY 55/155 (2)**
- **Build bridge over creek that can be expanded as time goes by**
- **Other alternatives look attractive, but eliminating through traffic is the only really good option**
- **Can't wait 10 more years for new roads/need roads now (2)**

COMMENTS FROM FLIP CHARTS
TAYLORSVILLE PUBLIC MEETING - NOVEMBER 8, 2001

PROPOSED CONSTRUCTION OF CONNECTOR FROM KY 44 WEST TO KY 55 NORTH OF TAYLORSVILLE

- **School bus traffic through town is a problem.**
- **Will there be another public meeting to discuss alternatives?**
- **Improvements to KY 55 south and north of town first, then straighten KY 44 out to school.**
- **Will hurt downtown area.**
- **4-lane KY 55/KY 155 instead of this bypass.**
- **Put traffic signal at Elk Creek intersection.**
- **Need to do something with planning and zoning. They are building many subdivisions north of Taylorsville along KY 55/KY 55.**

APPENDIX D

ENVIRONMENTAL JUSTICE

KIPDA
Kentuckiana Regional Planning
and Development Agency

Kentucky
Member
Counties

Bullitt
Henry
Jefferson
Oldham
Shelby
Spencer
Trimble

Indiana
Member
Counties

Clark
Floyd

January 30, 2002

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

Dear Ms. Coffey:

Enclosed is the data on the Intermediate Planning Study for the Taylorsville NW KY 44/KY 55 Connector Item #5-347.00. If you have any questions or need further information, please contact me.

Sincerely,

Randall Embry

Randall Embry
Transportation Planner

Enclosures

11520 Commonwealth Drive
Louisville, KY 40299
502-266-6084
Fax 502-266-5047
KY TDD 1-800-648-6056
www.kipda.org

ENVIRONMENTAL JUSTICE REVIEW

TAYLORSVILLE NW KY 44/KY55 CONNECTOR

Spencer County, Kentucky

Prepared for: Kentucky Transportation Cabinet

January 30, 2002

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

INTERMEDIATE PLANNING STUDY
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR ITEM #5-347.00

INTRODUCTION:

This report is findings of the community and environmental conditions existing in and around the proposed Taylorsville NW KY 44/KY 55 Connector. 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 Spencer County. 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 project Taylorsville NW KY 44/KY 55 Connector. 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 Spencer County.

BUSINESS/INDUSTRY:

KY 55 and KY 44 are two major corridors in Spencer County. While the Taylorsville-Spencer County Industrial Development Authority continues to search for industrial sites, it is certain that the preferred industrial/commercial park of the future will be located directly on either the KY 55 or the KY 44 corridors. Those two highways are the only viable choices for future industrial and commercial development, given the facts that KY 44 is also the Main Street of downtown Taylorsville and KY 55/155 constitutes the main corridor from the north into the community. It is expected that future planned commercial and industrial growth will take place on those corridors within a maximum of a two-mile radius of downtown Taylorsville in Spencer County.

POPULATION/CENSUS DATA:

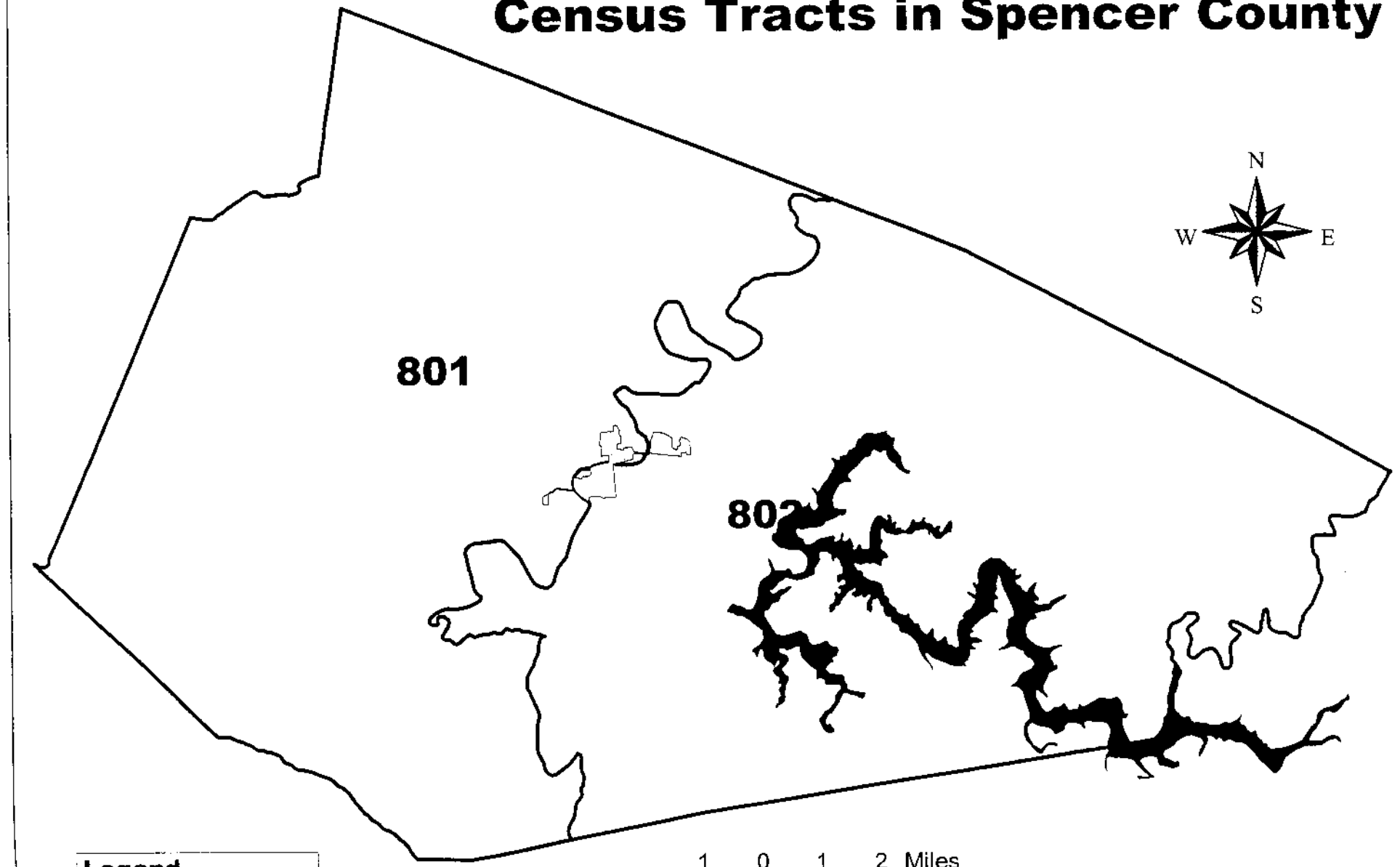
The Taylorsville NW KY 44/KY 55 Connector proposed project is in these three block groups 801 BG 1, 801 BG 2, and 802 BG 1. The area for the proposed project is made up of predominantly farmland. In summary the census data reveals that poverty levels in the 18-64 age range in block groups 801-BG 2 and 802 BG 1 are lower than in the state as whole, yet they are higher in 801-BG 1 in the same age group. Block groups 801 BG 1, 801 BG 2, and 802 BG 1 all shown higher poverty levels than the state as whole in the 65 and older age range. Minority populations in these three block groups are significantly lower than the overall state percentages. There seems to be a higher percentage of black population in 802 BG 1 as compared to the other block groups.

The percentage of 62-older in 801 BG 1 and 801 BG 2 is slightly lower than the state average. There seems to be a higher percentage in 802 BG 1 than the state average.

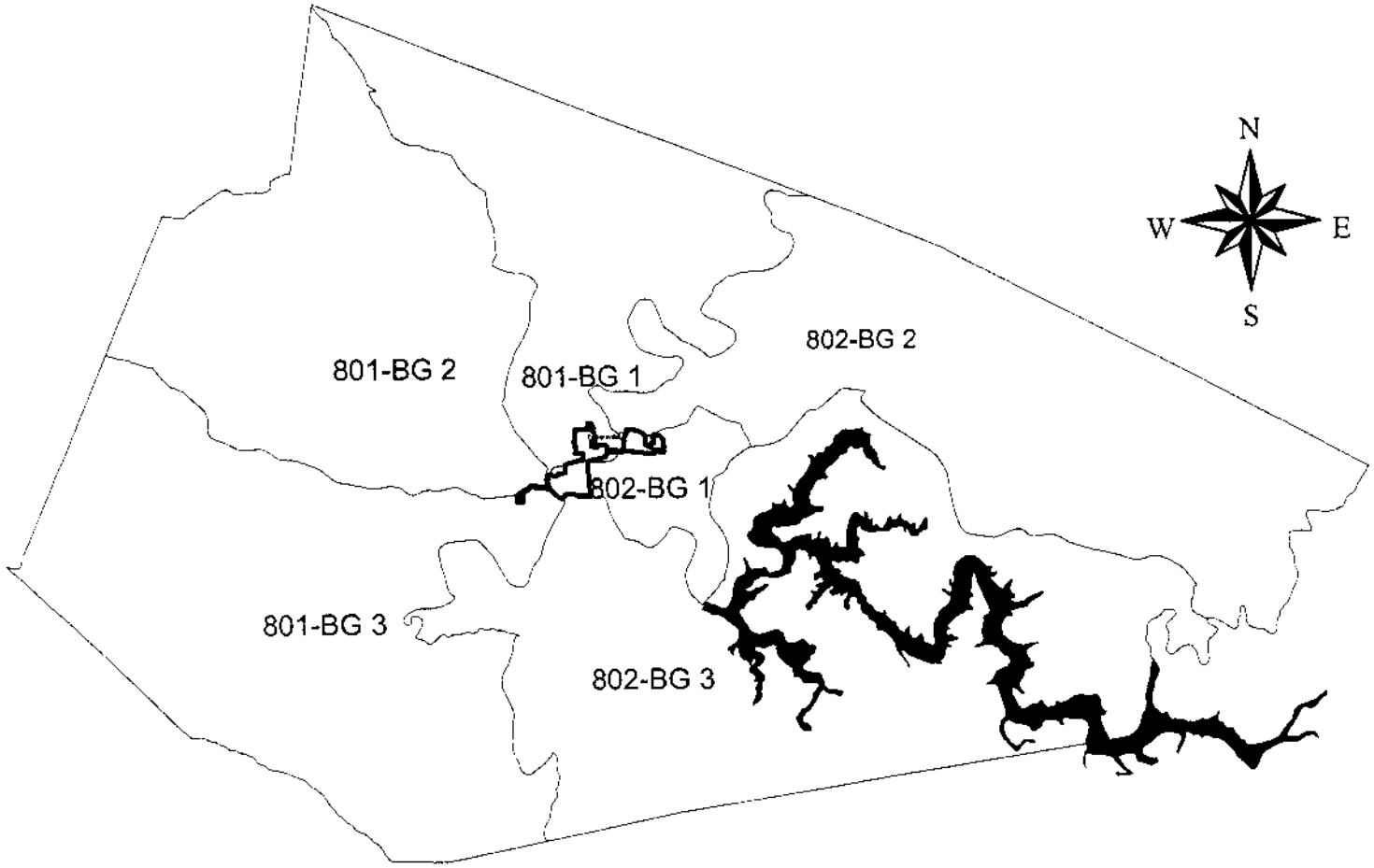
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR
CONTACT LIST

Name	Address	Phone
David Jenkins Spencer County Judge Executive	P.O. Box 397 Taylorsville, KY 40071	(502) 477-3205
Walter Hahn Mayor of Taylorsville	P.O. Box 279 Taylorsville, KY 40071	(502) 477-3235
Claude Brock Economic Development Director	P.O. Box 397 Taylorsville, KY 40071	(502) 477-3246
David Nedros School Superintendent	207 West Main Street Taylorsville, KY 40071	(502) 477-3250
Keith Richardson US Army Corps of Engineers	2825 Overlook Road Taylorsville, KY 40071-9028	(502) 477-8882
Mike Linn Taylorsville State Park	2825 Overlook Road Taylorsville, KY 40071-9028	(502) 477-8882
Julie Sweazy Planning and Zoning	P.O. Box 305 Taylorsville, KY 40071	(502) 477-3218
Steve Coulter Spencer County Sheriff	P.O. Box 475 Taylorsville, KY 40071	(502) 477-3200
Darrell Stevens DES Director	P.O. Box 397 Taylorsville, KY 40071	502-477-3244
Mike Villanova Police Chief City of Taylorsville	P.O. Box 279 Taylorsville, KY 40071	(502) 477-3231
John Nation Fire Chief City of Taylorsville	P.O. Box 279 Taylorsville, KY 40071	(502) 477-2203

Census Tracts in Spencer County



Block Groups in Spencer County



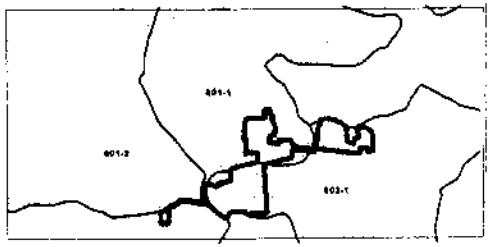
Legend

- Taylorsville Lake
- Taylorsville City Limits

Block Group Boundaries

- 801 Block Group 1
- 801 Block Group 2
- 801 Block Group 3
- 802 Block Group 1
- 802 Block Group 2
- 802 Block Group 3

2 0 2 4 Miles



POPULATION BY RACE
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR ITEM #5-347.00

The below chart reflects the 2000 census data numbers and percentages of persons by race in Kentucky, Spencer 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)

U.S.	211,460,626	75.1	34,658,190	12.3	10,242,998	3.6	2,475,956	.9	398,835	.1	22,185,301	8	281,421,906
Kentucky	3,640,889	90.1	295,994	7.3	29,744	.7	8,616	.2	1,460	0	65,066	1.6	4,041,769
Spencer County	11,472	97.5	133	1.1	10	0	26	.2	0	0	125	1.1	11,766
Tract 801	7,330	98.3	39	.5	9	.1	12	.2	0	0	68	.9	7,458
Tract 802	4,142	96.1	94	2.2	1	0	14	.3	0	0	57	1.3	4,308
Block Groups													
801-BG 1	2,511	97.6	25	1	1	0	7	.3	0	0	28	1.1	2,572
801-BG 2	3,068	98.7	12	.4	7	.2	2	.1	0	0	17	.6	3,106
801-BG 3	1,751	98.4	2	.1	1	.1	3	.2	0	0	23	1.3	1,780
802-BG 1	1,293	92.6	77	5.5	0	0	0	0	0	0	27	1.9	1,397
802-BG 2	1,571	99.1	2	.1	1	.1	2	.1	0	0	10	.6	1,586
802-BG 3	1,278	96.5	15	1.1	0	0	12	.9	0	0	20	1.5	1,325

HISPANIC POPULATION
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR ITEM #5-347.00

The below chart reflects the 2000 census data on Hispanic Population in Kentucky, Spencer 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)

United States	35,305,818	12.5	246,116,088	87.5	281,421,906
Kentucky	59,939	1.5	3,981,830	98.5	4,041,769
Spencer County	132	1.1	11,634	98.9	11,766
Tract 801	86	1.2	7,372	98.8	7,458
Tract 802	46	1.1	4,262	98.9	4,308
Block Groups					
801-BG 1	37	1.4	2,535	98.6	2,572
801-BG 2	23	.7	3,083	99.3	3,106
801-BG 3	26	1.5	1,754	98.5	1,780
802-BG 1	19	1.4	1,378	98.6	1,397
802-BG 2	16	1	1,570	99	1,586
802-BG 3	11	.8	1,314	99.2	1,325

POPULATION BY AGE
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR ITEM #5-347.00

The below chart reflects the 2000 census data on age in Kentucky, Spencer 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)

U.S.	72,293,812	25.7	167,872,065	59.7	41,256,029	14.6	281,421,906
Kentucky	994,818	24.6	2,445,189	60.5	601,762	14.9	4,041,769
Spencer Co.	3,171	27	7,277	62	1,318	11	11,766
TR 801	2,028	27.2	4,657	62.4	773	10.4	7,458
TR 802	1,143	26.5	2,620	60.8	545	12.7	4,308
Block Groups							
801-BG 1	665	25.9	1,594	62	312	12.1	2,572
801-BG 2	839	26.8	2,000	64.4	268	8.8	3,106
801-BG 3	530	29.8	1063	59.7	187	10.5	1,780
802-BG 1	356	25.5	810	58	231	16.5	1,397
802-BG 2	454	28.6	982	61.9	150	9.5	1,586
802-BG 3	333	25.1	828	62.5	164	12.4	1,325

POVERTY STATUS
TAYLORSVILLE NW KY 44/KY 55 CONNECTOR ITEM #5-347.00

The below chart reflects the 1990 census data on the numbers and percentage of persons in poverty in Kentucky, Spencer County and Census Tracts Boundaries, and Block Groups.
The highlighted block groups are the areas directly impacted by the project
Source: U.S. Census Bureau, 1990 Census of Population and Housing

U.S.	11,428,916	36	16,533,363	52.1	3,780,585	11.9	31,742,864
Kentucky	234,012	34.3	356,724	52.3	91,091	13.4	681,827
Spencer County	419	32.4	709	54.9	164	12.7	1,292
Tract 801	144	30.1	269	56.2	66	13.7	479
Tract 802	275	33.8	440	54.1	98	12.1	813
Block Groups							
801-BG 1	24	15.8	100	63.7	33	21	157
801-BG 2	38	28.8	68	51.5	26	19.7	132
801-BG 3	82	43	101	53	7	4	190
802-BG 1	89	29.9	142	47.6	67	22.5	298
802-BG 2	75	38.3	107	54.6	14	7.1	196
802-BG 3	111	34.8	191	59.9	17	5.3	319

APPENDIX E

SUMMARY OF GEOTECHNICAL FINDINGS

C-17 Geotech
Blevins

A-2

MEMORANDUM

P-4-02

TO: Annette Coffey, P.E.
Director
Division of Planning

FROM: William Broyles P. E.
Geotechnical Engineering
Branch Manager
Division of Materials

BY: Michael Blevins P. G.
Geotechnical Branch

DATE: January 15, 2002

SUBJECT: Spencer County
KY. 44/ KY. 55 Connector
Item # 05-347.0
Intermediate Planning Study

At your request, personnel from the Geotechnical Branch have completed a preliminary office review of the subject project.

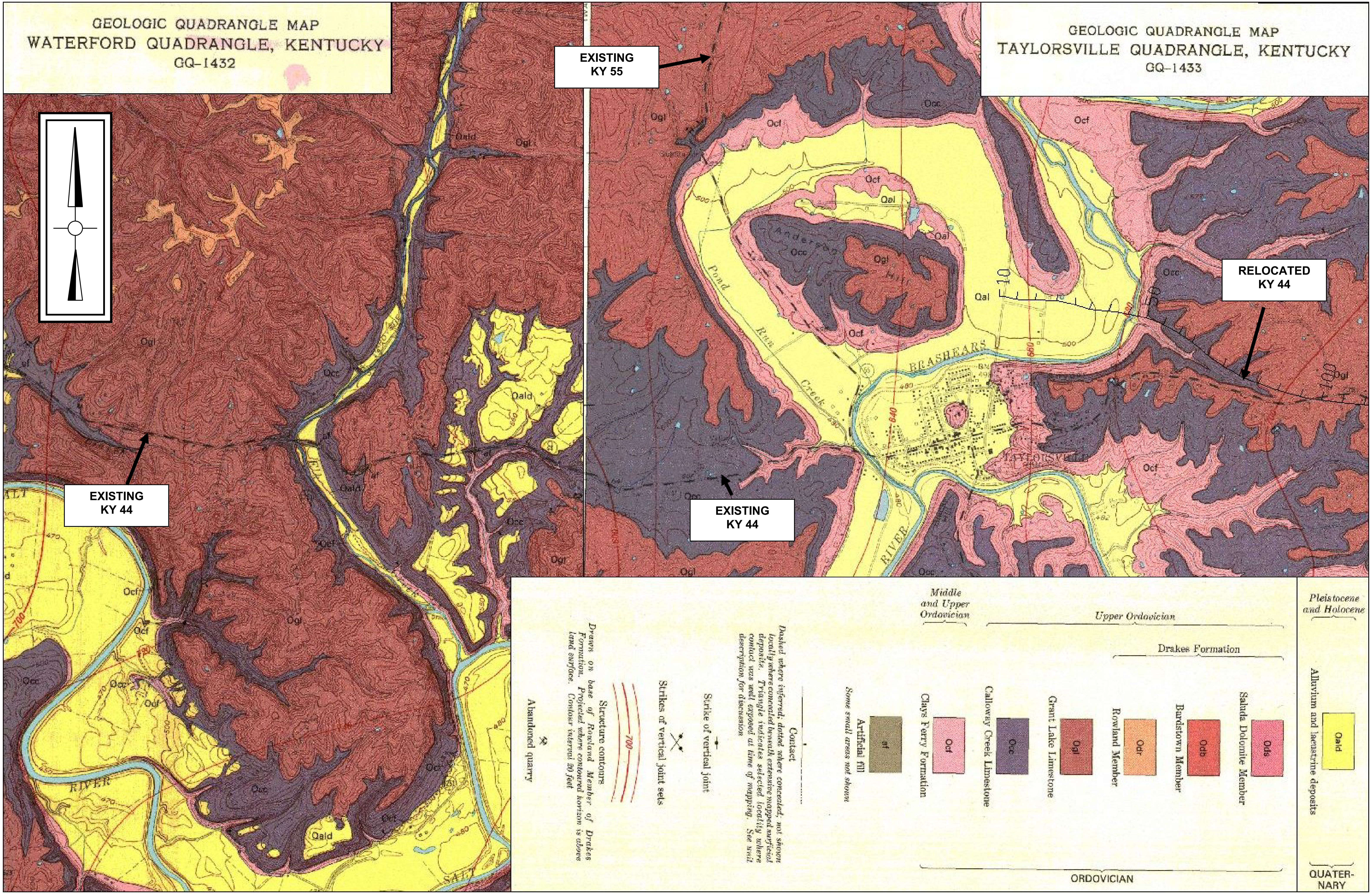
Geological formations along the project area are part of the Quaternary and Ordovician Systems. The Quaternary System consist of alluvium and lacustrine deposits which are composed of clay, silt and gravel up to 90 feet in thickness. The Ordovician System consists of the Grant Lake Limestone, Calloway Creek Limestone and the Clays Ferry Formation. The Grant Lake Limestone consist of 75 percent limestone and 25 percent shale. The limestone is argillaceous and fossiliferous and sometimes interbedded with shale. The Calloway Creek Limestone is 80 – 90 percent limestone with 10 – 20 percent shale that occurs as discontinuous partings. The Clays Ferry Formation contains around 60 percent shale and 40 percent limestone. The shale is not resistant to weathering and slopes are usually covered by limestone rubble. Soil depths overlying limestone formations may range from 6 feet on ridge tops to 3 feet on slopes. These formations can be located on the attached geologic map of the Waterford and Taylorsville Quadrangle.

Problems may be encountered in the alluvium and lacustrine deposits that occur above the flood plain North of KY. 44, East of Elk Creek and North of the Salt River on the Waterford Quadrangle (See attached map). Cut slopes in these materials are considered highly erodible and may require slope protection using rock and fabric on 2:1 slopes or 3:1 slopes may be required with slope protection if a water table is present. The branch prefers to avoid these deposits if possible.

Wet Embankment foundations, foundation settlement and unstable subgrades may be encountered in alluvium deposits. These deposits are shown in yellow on the attached Geologic Quadrangle Map. Embankment foundations may require Type III filter fabric with 2 – 3 feet of aggregate for stabilization. Chemically modified subgrades may also be required to stabilize soil subgrades.

The regional dip is from the east to west and wet side-hill conditions and embankment foundations may be encountered on the west side of the ridges. The area is located in the Seismic Risk Zone 2 which means minor amounts of earthquake damage could occur.

If there are any questions, please advise.



GEOLOGIC QUADRANGLE MAP
WATERFORD QUADRANGLE, KENTUCKY
GQ–1432
GEOLOGIC QUADRANGLE MAP
TAYLORSVILLE QUADRANGLE, KENTUCKY
GQ–1433
EXISTING KY 55
EXISTING KY 44
EXISTING KY 44
RELOCATED KY 44
Anderson Hill
Pond Run Creek
BRASHEARS
TAYLORSVILLE
RIVER
Pleistocene and Holocene
Alluvium and lacustrine deposits
Qald
QUATERNARY
Middle and Upper Ordovician
Upper Ordovician
Drakes Formation
Saluda Dolomite Member
Ods
Bardstown Member
Odb
Rowland Member
Odr
Grant Lake Limestone
Ogl
Calloway Creek Limestone
Occ
Clays Ferry Formation
Ocf
Artificial fill
af
Some small areas not shown
Contact
Dashed where inferred; dotted where concealed, not shown locally where concealed beneath extensive mapped surficial deposits. Triangle indicates selected locality where contact was well exposed at time of mapping. See text description for discussion
Strike of vertical joint
Strikes of vertical joint sets
Structure contours
Drawn on base of Rowland Member of Drakes Formation. Projected where contoured horizon is above land surface. Contour interval 20 feet
Abandoned quarry
ORDOVICIAN

APPENDIX F

ENGINEERING COST ESTIMATES

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: 10/9/2003
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 1			
Design	10%	$	1,991,719
Utilities		$	75,825
Right of Way		$	175,781
Construction Costs		$	19,917,187
Contingency	30%	$	6,648,154
Total		**$**	**28,808,665**
Alternate 2			
Design	10%	$	783,820
Utilities		$	82,200
Right of Way		$	233,407
Construction Costs		$	7,838,205
Contingency	30%	$	2,681,290
Total		**$**	**11,618,922**
Alternate 3			
Design	10%	$	1,163,187
Utilities		$	88,763
Right of Way		$	8,854,774
Construction Costs		$	11,631,872
Contingency	30%	$	6,521,579
Total		**$**	**28,260,174**
Alternate 4			
Design	10%	$	2,127,051
Utilities		$	88,725
Right of Way		$	2,713,935
Construction Costs		$	21,270,506
Contingency	30%	$	7,860,065
Total		**$**	**34,060,283**
Alternate 5			
Design	10%	$	1,240,943
Utilities		$	95,325
Right of Way		$	2,888,790
Construction Costs		$	12,409,426
Contingency	30%	$	4,990,345
Total		**$**	**21,624,829**
Alternate 6			
Design	10%	$	475,977
Utilities		$	82,125
Right of Way		$	787,420
Construction Costs		$	4,759,767
Contingency	30%	$	1,831,587
Total		**$**	**7,936,875**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 1

Length = 14926.2 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	5,207	$ 37.21	$ 193,771	11971.2	48	1.5	145
Base Asphalt	18,226	$ 45.87	$ 836,036	11971.2	24	10.5	145
DGA	11,014	$ 15.64	$ 172,252	11971.2	48	4	115
Subtotal			$ 1,202,058				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	131,455		$ -
Excavation (Solid Rock)	682,681		$ -
Embankment	1,041,639	$ 4.35	$ 4,531,130
Subtotal			$ 4,531,130

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	141,840	$ 100.00	$ 14,184,000	2955	48
Subtotal			$ 14,184,000		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 19,917,187**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 2

Length = 14663.2 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	6,378	$ 37.21	$ 237,344	14663.2	48	1.5	145
Base Asphalt	22,325	$ 45.87	$ 1,024,034	14663.2	24	10.5	145
DGA	13,490	$ 15.64	$ 210,986	14663.2	48	4	115
Subtotal			$ 1,472,364				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	54,051	$ 3.00	$ 162,153
Excavation (Solid Rock)	775,461	$ 8.00	$ 6,203,688
Embankment	365,002		$ -
Subtotal			$ 6,365,841

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	-	$ 100.00	$ -		48
Subtotal			$ -		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 7,838,205**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 3

Length = 13205 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	5,261	$ 37.21	$ 195,773	12095	48	1.5	145
Base Asphalt	18,415	$ 45.87	$ 844,676	12095	24	10.5	145
DGA	11,127	$ 15.64	$ 174,032	12095	48	4	115
Subtotal			$ 1,214,481				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	203,941	$ 3.00	$ 611,823
Excavation (Solid Rock)	559,696	$ 8.00	$ 4,477,568
Embankment	179,437		$ -
Subtotal			$ 5,089,391

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	53,280	$ 100.00	$ 5,328,000	1110	48
Subtotal			$ 5,328,000		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 11,631,872**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 4 Length = 8929 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	3,262	$ 37.21	$ 121,381	7499	48	1.5	145
Base Asphalt	11,417	$ 45.87	$ 523,705	7499	24	10.5	145
DGA	6,899	$ 15.64	$ 107,901	7499	48	4	115
Subtotal			$ 752,986				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	24,192	$ 3.00	$ 72,576
Excavation (Solid Rock)	1,697,618	$ 8.00	$ 13,580,944
Embankment	142,730		$ -
Subtotal			$ 13,653,520

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	68,640	$ 100.00	$ 6,864,000	1430	48
Subtotal			$ 6,864,000		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 21,270,506**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 5

Length = 8671.8 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	3,150	$ 37.21	$ 117,218	7241.8	48	1.5	145
Base Asphalt	11,026	$ 45.87	$ 505,747	7241.8	24	10.5	145
DGA	6,662	$ 15.64	$ 104,201	7241.8	48	4	115
Subtotal			$ 727,166				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	38,868	$ 3.00	$ 116,604
Excavation (Solid Rock)	587,707	$ 8.00	$ 4,701,656
Embankment	381,881		$ -
Subtotal			$ 4,818,260

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	68,640	$ 100.00	$ 6,864,000	1430	48
Subtotal			$ 6,864,000		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 12,409,426**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 6

Length = 15458.2 ft

Roadway	Quantity (ton)	Unit Cost ($/ton)	Cost	Length (ft)	Width (ft)	Thickness (in)	Unit Weight (pcf)
Surface Asphalt	6,644	$ 37.21	$ 247,217	15273.2	48	1.5	145
Base Asphalt	23,253	$ 45.87	$ 1,066,636	15273.2	24	10.5	145
DGA	14,051	$ 15.64	$ 219,763	15273.2	48	4	115
Subtotal			$ 1,533,616				

Earthwork	Quantity (cy)	Unit Cost ($/cy)	Cost
Excavation (Common)	109,938		$ -
Excavation (Solid Rock)	279,881		$ -
Embankment	537,506	$ 4.35	$ 2,338,151
Subtotal			$ 2,338,151

Structures	Quantity (sf)	Unit Cost ($/sf)	Cost	Length (ft)	Width (ft)
Bridge	8,880	$ 100.00	$ 888,000	185	48
Subtotal			$ 888,000		

Drainage	Quantity (lp sum)	Unit Cost ($/lp sum)	Cost
			$ -
Subtotal			$ -
Total Cost			**$ 4,759,767**

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate
Alternate 1

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Land Value*

Number of Parcels: 6

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost
4	643707	14.78	$ 1,968	$ 29,082
3	281037	6.45	$ 2,996	$ 19,329
	74136	1.70	$ 2,167	$ 3,688
49	79524	1.83	$ 2,405	$ 4,391
8	1114153	25.58	$ 1,101	$ 28,161
9	72921	1.67	$ 1,395	$ 2,335
		SUBTOTAL		$ 86,986
		+ Court Cost (40%)		$ 34,794
		+ $4000 / Parcel		$ 24,000
		TOTAL		$ 145,781

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)		$ 145,000	$ -
Number of Homes (Proximity Damage)			$ -
Number of Church / Business		$ 215,000	$ -
Number of Barns	1	$ 30,000	$ 30,000
	TOTAL		$ 30,000

TOTAL LAND + ADDITIONAL COSTS **$ 175,781**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate
Alternate 2

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Land Value*

Number of Parcels: 5

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost
4	806719	18.52	$ 1,968	$ 36,447
3	389007	8.93	$ 2,996	$ 26,755
	340053	7.81	$ 2,167	$ 16,917
49	5859	0.13	$ 2,405	$ 323
8	1152658	26.46	$ 1,101	$ 29,134
		SUBTOTAL		$ 109,576
		+ Court Cost (40%)		$ 43,831
		+ $4000 / Parcel		$ 20,000
		TOTAL		$ 173,407

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)		$ 145,000	$ -
Number of Homes (Proximity Damage)			
Number of Church / Business		$ 215,000	$ -
Number of Barns	2	$ 30,000	$ 60,000
	TOTAL		$ 60,000

TOTAL LAND + ADDITIONAL COSTS **$ 233,407**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 3

Land Value*

Number of Parcels: 15

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost	
	35534	0.82		$ 100,000	*
	95047	2.18		$ 5,500,000	*
	6228	0.14	$ 30,000	4,289.26	
4	776908	17.84	$ 1,968	$ 35,100	
15	103130	2.37	$ 8,000	$ 18,940	
		0.00		$ 100,000	*
		0.00		$ 100,000	*
		0.00		$ 100,000	*
	2608	0.06	$ 8,000	$ 479	
	8501	0.20	$ 8,000	$ 1,561	
	6708	0.15	$ 8,000	$ 1,232	
	3147	0.07	$ 8,000	$ 578	
49	179969	4.13	$ 2,405	$ 9,936	
18	409976	9.41	$ 4,166	$ 39,209	
8	499303	11.46	$ 1,101	$ 12,620	
		SUBTOTAL		$ 6,023,945	
		+ Court Cost (40%)		$ 2,409,578	
		+ $4000 / Parcel		$ 60,000	
		TOTAL		$ 8,493,524	

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)	2	$ 145,000	$ 290,000
Number of Homes (Proximity Damage)			$ 71,250
Number of Church / Business		$ 215,000	$ -
Number of Barns		$ 30,000	$ -
	TOTAL		$ 361,250

TOTAL LAND + ADDITIONAL COSTS **$ 8,854,774**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 4

Land Value*

Number of Parcels: 10

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost	
	48655	1.12		$ 100,000	*
	92160	2.12	$ 30,000	$ 63,471	
	17199	0.39	$ 30,000	$ 11,845	
4	71867	1.65	$ 1,968	$ 3,247	
13	302625	6.95	$ 2,508	$ 17,424	
	288553	6.62	$ 2,238	$ 14,825	
	18383	0.42		$ 100,000	*
49	261194	6.00	$ 2,405	$ 14,421	
22	315756	7.25	$ 3,550	$ 25,733	
	55508	1.27	$ 3,550	$ 4,524	
		SUBTOTAL		$ 355,490	
		+ Court Cost (40%)		$ 142,196	
		+ $4000 / Parcel		$ 40,000	
		TOTAL		$ 537,685	

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)	2	$ 145,000	$ 290,000
Number of Homes (Proximity Damage)			$ 1,856,250
Number of Church / Business		$ 215,000	$ -
Number of Barns	1	$ 30,000	$ 30,000
	TOTAL		$ 2,176,250

TOTAL LAND + ADDITIONAL COSTS **$ 2,713,935**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Alternate 5

Land Value*

Number of Parcels: 11

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost	
	36767	0.84		$ 100,000	*
	12591	0.29	$ 30,000	$ 8,671	
	2159	0.05	$ 30,000	$ 1,487	
	54882	1.26		$ 1,500,000	*
	4568	0.10	$ 30,000	$ 3,146	
13	768940	17.65	$ 2,508	$ 44,272	
	4775	0.11	$ 2,508	$ 275	
	230309	5.29	$ 2,238	$ 11,833	
49	270037	6.20	$ 2,405	$ 14,909	
22	315756	7.25	$ 3,550	$ 25,733	
	55508	1.27	$ 3,550	$ 4,524	
		SUBTOTAL		$ 1,714,850	
		+ Court Cost (40%)		$ 685,940	
		+ $4000 / Parcel		$ 44,000	
		TOTAL		$ 2,444,790	

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)	2	$ 145,000	$ 290,000
Number of Homes (Proximity Damage)			$ 154,000
Number of Church / Business		$ 215,000	$ -
Number of Barns		$ 30,000	$ -
	TOTAL		$ 444,000

TOTAL LAND + ADDITIONAL COSTS **$ 2,888,790**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate
Alternate 6

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Land Value*

Number of Parcels: 4

Parcel No.	Proposed Take SF	Proposed Take AC	Unit Cost $/AC	Cost
4	723399	16.61	$ 1,968	$ 32,682
3	522033	11.98	$ 2,996	$ 35,905
	455668	10.46	$ 2,167	$ 22,668
8	1233885	28.33	$ 1,101	$ 31,187
		SUBTOTAL		$ 122,443
		+ Court Cost (40%)		$ 48,977
		+ $4000 / Parcel		$ 16,000
		TOTAL		$ 187,420

Additional Costs

Homes	=	$ 100,000	/ Structure
Church / Business	=	$ 200,000	/ Structure
Barns	=	$ 30,000	/ Structure
Court Cost & Asbestos Remediation	=	$ 15,000	/ Structure
Relocation Cost	=	$ 30,000	/ Relocation
Proximity Damage	=	25%	Parcel Cost

		Unit Cost	Cost
Number of Homes (Relocations)	2	$ 145,000	$ 290,000
Number of Homes (Proximity Damage)			$ 220,000
Number of Church / Business		$ 215,000	$ -
Number of Barns	3	$ 30,000	$ 90,000
	TOTAL		$ 600,000

TOTAL LAND + ADDITIONAL COSTS **$ 787,420**

*Also includes home/businesses for parcels where full fair market value used as cost.

HNTB CORPORATION
Taylorsville Bypass
Corridor Study
Cost Estimate

Made By: ____ Date: _____
Chk'd By: ____ Date : _____
Sheet: _____

Utility Costs

@ KY 44 & KY55 (Each Alternate)

	Length (lf)	Unit Cost ($/lf)	Tie-In Cost ($)	Total Cost ($)
Relocate 6" Water Main				
@KY 44	800	$ 40.00	$ 2,500	$ 34,500
@KY 55	800	$ 40.00	$ 2,500	$ 34,500
			Total	$ 69,000

Alternate 1

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	110	$ 7.50	$ 825
	Number	Unit Cost / Pole	
Relocate Power Pole	1	$ 6,000.00	$ 6,000
		Total	$ 75,825

Alternate 2

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	160	$ 7.50	$ 1,200
	Number	Unit Cost / Pole	
Relocate Power Pole	2	$ 6,000.00	$ 12,000
		Total	$ 82,200

Alternate 3

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	235	$ 7.50	$ 1,763
	Number	Unit Cost / Pole	
Relocate Power Pole	3	$ 6,000.00	$ 18,000
		Total	$ 88,763

Alternate 4

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	230	$ 7.50	$ 1,725
	Number	Unit Cost / Pole	
Relocate Power Pole	3	$ 6,000.00	$ 18,000
		Total	$ 88,725

Alternate 5

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	310	$ 7.50	$ 2,325
	Number	Unit Cost / Pole	
Relocate Power Pole	4	$ 6,000.00	$ 24,000
		Total	$ 95,325

Alternate 6

	Length (lf)	Unit Cost ($/lf)	Total Cost ($)
Relocate 6" Water Main			$ 69,000
Relocate Aerial Telephone	150	$ 7.50	$ 1,125
	Number	Unit Cost / Pole	
Relocate Power Pole	2	$ 6,000.00	$ 12,000
		Total	$ 82,125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