

# Alternatives Planning Study for KY 1006 (5<sup>th</sup> Street)

from KY 192 to US 25 (Main Street), City of London  
Laurel County

Item Number 11-8304.00



Final Report

# ALTERNATIVES PLANNING STUDY Executive Summary

Prepared for:

KENTUCKY TRANSPORTATION CABINET  
DIVISION of PLANNING

Prepared by:

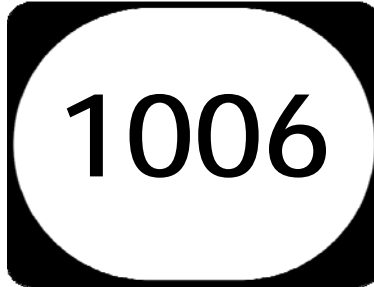


Qk4  
815 West Market Street  
Suite 300  
Louisville, Kentucky 40202



October 2008

**EXECUTIVE SUMMARY**  
**ALTERNATIVES PLANNING STUDY**  
*Final Report*



**Kentucky 1006 (5<sup>th</sup> Street)**

From KY 192 to US 25 (Main Street) in the City of London

Laurel County, Kentucky

Item No. 11-8304

*Prepared for:*

**KENTUCKY TRANSPORTATION CABINET**

**DIVISION of PLANNING**

*Prepared by:*



October 2008







## ***Conditions Analysis***

Fifth Street, which is in the study area, is an undivided 2-lane highway functionally classified on the Kentucky highway system as an Urban Minor Arterial Street. Average daily traffic volumes (ADT) peak south of Mill Street at nearly 8,200 vehicles per day (vpd), but decline to approximately 5,500 vpd north of that point. Truck percentages are negligible (less than 2%). After significant increases in the late 1980s, traffic growth on 5<sup>th</sup> Street has been modest. Traffic volumes south of Mill Street have grown 30% since 1991, while those north of Mill Street have grown 6% in this same period—which represent an annual growth rates of less than 2% for the entire corridor. Future growth was projected at 1.5%, resulting in an estimate for the Year 2030 of 13,700 vpd south of Mill Street and an estimate of 8,800 vpd north of Mill Street. The intersections of 5<sup>th</sup> Street at KY 192 and US 25 are signalized. The only other traffic signal between these highways is at the 5<sup>th</sup> Street/Mill Street intersection.

Several geometric and other deficiencies were identified along 5th Street. While the road's average 11-foot lane width is adequate, there are several significant horizontal and vertical curvature deficiencies. Intersection geometrics at the junctions with Falls Street and with Mill Street are deficient. There is a sidewalk along either the north or south (or, at times, each) side of 5<sup>th</sup> Street throughout the entire length of the project corridor; however, some stretches of sidewalk are in disrepair.



## ***Project Issues and Goals***

The goals for this project include:

- ❖ Improve safety on 5<sup>th</sup> Street
- ❖ Improve traffic flow on 5<sup>th</sup> Street
- ❖ Accommodate historic preservation
- ❖ Implement context sensitive design solutions
- ❖ Provide “Americans with Disabilities” (ADA) design accommodations
- ❖ Enhance economic development

## ***Alternatives Development and Evaluation***

There are discrete transportation issues that vary by location along the 5<sup>th</sup> Street corridor. Thus, the corridor was segmented into six analysis sections plus two locations of emphasis within one of those segments. Analysis sections and alternative improvements considered for each follow:

1. KY 192 to Meyers-Baker Road (0.35 mile):
  - a. Three Lanes with Center Two-Way Left Turn Lane
  - b. Five Lanes with Center Two-Way Left Turn Lane
2. Meyers-Baker Road to Bennett Hill (0.70 mile):
  - a. Three Lanes with Center Two-Way Left Turn Lane
  - b. Five Lanes with Center Two-Way Left Turn Lane
- 2.1. Forest Lane/Stivers Lane (milepost [MP] 5.99): Spot Improvements
- 2.2. Entrances to First Baptist Church (MP 6.15 to 6.30): Spot Improvements
3. Bennett Hill (0.15 mile):
  - a. Relocate Falls Street to south side of Community Christian Church
  - b. Lower Hill / Improve Vertical Alignment
  - c. Relocate 5th Street to the west in the vicinity of Falls Street
4. Bennett Hill to Mill Street (0.10 mile):
  - a. 3 Lanes with Center Two-Way Left Turn Lane
  - b. 5 Lanes with Center Two-Way Left Turn Lane
5. Mill Street Intersection:
  - a. Add Left-Turn Lane on Northbound 5<sup>th</sup> Street, plus construct a slight realignment of Mill Street on the west side of 5<sup>th</sup> Street to line up with the east side
  - b. Add Left-Turn Lanes on Northbound 5<sup>th</sup> Street and on Westbound Mill Street by widening Mill toward the north
  - c. Add Left-Turn Lanes on Northbound 5<sup>th</sup> Street and Westbound Mill by shifting both legs of Mill Street to the south
  - d. Construct Roundabout
6. Mill Street to US 25 (Main Street) (0.25 mile):
  - a. Streetscape Improvements
  - b. Do Nothing

## Recommendations

The following project improvements are recommended in each of three time periods:

### 1. AS SOON AS POSSIBLE—

- ❖ **Section 2: Spot Improvement 2.1, first phase**—Cut back hill at Forest Lane/Stivers Lane. Cost estimate: \$1.50 million.
- ❖ **Section 5: Alternative Concept C**—Reconstruct northbound 5<sup>th</sup> Street at Mill Street to realign Mill Street and to add left-turn lanes on northbound 5<sup>th</sup> and westbound Mill Streets. Cost estimate: \$800,000.
- ❖ **Section 3: Alternative Concept B**—Reconstruct 5<sup>th</sup>/ Falls Streets intersection by lowering the grade of the existing alignment; or **Section 3: Alternative Concept C**—Reconstruct 5<sup>th</sup> Street by shifting its alignment slightly to the west. Cost estimate: \$1.03 million or \$1.41 million, respectively.

If both of the above options become problematical, consider **Section 3: Alternative Concept A**—Relocating Falls Street to the south side of the Community Christian Church. Cost estimate: \$1.50 million.

### 2. PRIOR TO CONSTRUCTION OF “CORRIDOR BORDER”<sup>1</sup>—

- ❖ **Section 1: Alternative Concept B**—From KY 192 to Meyers-Baker Road, widen 5<sup>th</sup> Street to 5 lanes with center two-way left-turn lane and construct sidewalks as shown on the typical section (Figure 6). Cost estimate: \$4.24 million.

### 3. AFTER CONSTRUCTION OF “CORRIDOR BORDER”—

- ❖ **Section 2: Alternative Concept A**—From Meyers-Baker Road to YMCA Entrance, widen 5<sup>th</sup> Street to 3 lanes with center two-way left-turn lane and construct sidewalks as shown on the typical section (Figure 5). Cost estimate: \$4.99 million.

The total estimated cost of the recommended improvements ranges from approximately **\$13.44 million to 13.91 million**. Exhibit 1 in Appendix A shows the locations of the improvement options. Appendix B contains photographs of existing conditions and features along 5<sup>th</sup> Street through the study area.

---

<sup>1</sup> The Corridor Border (KYTC Item No. 11-139.01) is a proposed new route paralleling the east side of I-75. It will begin with a new intersection on 5<sup>th</sup> Street across from Myers-Baker Road and continue north to US 25. It is currently in the design phase. The project is programmed for partial funding in the KYTC 2008 Highway Plan.

**Address Comments to:**

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

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

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

Mr. David Martin, P.E.  
SPAC Team Leader  
Division of Planning  
Kentucky Transportation Cabinet  
(502) 564-7183 ext 3274  
[charles.martin@ky.gov](mailto:charles.martin@ky.gov)