

Somerset Small Urban Area Study

Executive Summary of **Findings and Recommendations**

Prepared for:

Kentucky Transportation Cabinet

Prepared by:



May 2010

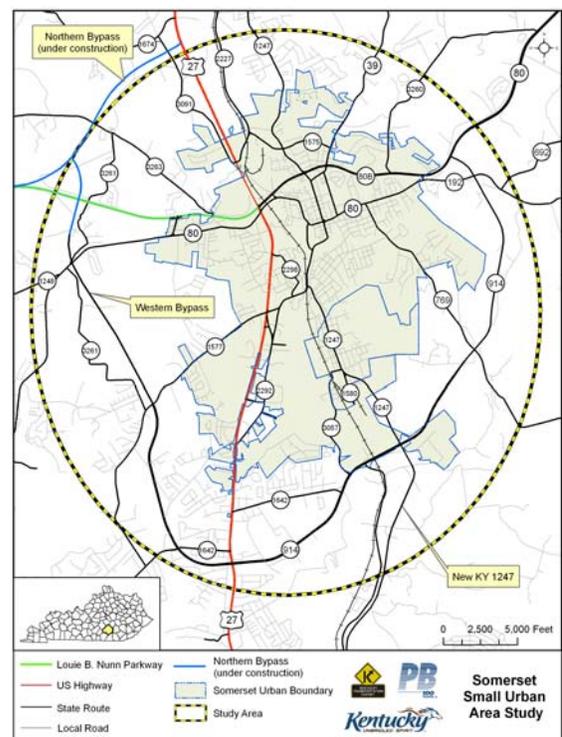
Executive Summary – Somerset SUA Study**Introduction and Study Area**

The Kentucky Transportation Cabinet (KYTC) identified the need to perform a small urban area (SUA) study for the City of Somerset, Kentucky and a portion of the surrounding unincorporated area of Pulaski County. The purpose of an SUA is to identify and examine transportation issues related to traffic safety, congestion, and operations in an urban area or city and its surrounding area, and to develop a list of projects to improve those conditions in the study area. The study area for the Somerset SUA is shown on **Figure ES 1** below and includes the City of Somerset and some of Pulaski County.

Existing Conditions

Existing highway characteristics and geometrics, traffic volumes, truck traffic, speed, levels of service (LOS), and crash numbers, rates and types were all evaluated as part of the existing conditions analysis. The key transportation issues identified from this analysis are summarized below:

- Major roadways in the study area, such as US 27 and KY 80B currently have high traffic volumes.
- Roads such as US 27, Louie B. Nunn Parkway, and KY 914 have high truck percentages.
- Sections of KY 80, KY 1247, and KY 39 currently operate at a LOS E or F.
- The majority of roadways in the study area have segments with a critical crash rate factor greater than one.
- Rear end crashes are the most common type of crash in the study area, especially on US 27.

Figure ES 1: Study Area Map

Both human and natural environment overviews were performed respectively as part of the existing conditions analysis. Aquatic resources such as rivers, creeks and floodplains, as well as natural wetlands exist in the study area. There is also the potential for karst topography. There are also several species of bats and mussels that are threatened, rare and/or endangered that occur in the study area. There are 25 locations listed on the National Register of Historic Places in Somerset. Because the majority of project types under evaluation are improvements to existing transportation facilities, it is unlikely that there will be many additional impacts to either the natural or human environments that would prevent one or more of the identified projects from proceeding in further project development phases.

The Environmental Justice (EJ) review showed that there are several areas within the study area with significant minority, low-income and / or elderly populations. At this time, the EJ populations are not expected to bear disproportionate adverse affects due to the implementation of one or more of the identified projects. However, more in-depth study during the next phases of project implementation is necessary to confirm this.

The geotechnical review noted that karst features and sinkholes may be encountered in the study area, as well as faulted areas. These features could impact some of the identified projects, but are not so adverse as to preclude further project development stages.

Public Involvement

The Public Involvement Program for the Somerset SUA Study was comprised of several elements. These included the development and participation of a Project Advisory Committee (PAC) during two (2) meetings as well as the use of a Project Development Team (PDT) and its meetings.

The PAC was made up of community officials and stakeholders in Somerset and Pulaski County. This group was created to provide feedback regarding the study. Two (2) meetings were held with the PAC. The first meeting solicited feedback regarding potential transportation issues in the study area. The second meeting was held to present the list of projects designed to address the transportation needs of the area and to gain feedback regarding prioritization of these projects.

Several meetings were also held with the PDT which consisted of staff from the KYTC, the City of Somerset, the Lake Cumberland Area Development District (LCADD), and the Consultant (PB). The purpose of the PDT was to discuss project issues, make project decisions, discuss the development, evaluation and prioritizations of projects, and to generally keep the project on schedule.

Alternatives Development and Evaluation

Based on (1) the input of the PAC and the PDT, (2) field reviews, and (3) the existing conditions, area transportation issues were identified such as poor sight distance, drivers unfamiliar with the area, lack of or unclear signage, poor aesthetics, congestion, high crash rate spots an segments, lack of turn lanes, poor lane utilization and signal timings. Locations where these issues occurred were also identified and a list of appropriate projects addressing them was developed. Projects were classified as either L - local (to be funded using local funds), ST - short-term (could be completed quickly with safety, maintenance, or other funds / combinations) or LT - long-term (could be considered for inclusion in the KYTC's Six-Year Plan). These projects recommended geometric realignment / reconfiguration, aesthetic treatments, sidewalks, traffic signal adjustment, signage, signal timing, additional study, safety improvements, major widening, new road construction, turn lanes, access management and/or community education / communication. **Table ES 1** lists the projects that were developed as part of this study. Project sheets were developed for each project. **Figure ES 2** shows an example project sheet.

Table ES-1: List of Projects

Project ID	Description
L-A	Geometric realignment of airport entrance access
L-B	Geometric realignment of S. Central Ave., Marydale Ave. and Bourne Ave.
L-C	Addition of aesthetic gateway treatments to US 27 corridor
L-D	Addition of sidewalk along KY 3261
L-E	Installation of grass median along US 27
ST-A	Evaluate US 27 / KY 80 / KY 80B signal timings and coordination after bypass completion
ST-B	Safety improvement of vertical curve near Gover Mill Rd.
ST-C	Safety improvements at KY 80 / Ohio St. / Limestone St. intersection
LT-A	Widen KY 914 from KY 80 to just south of KY 769 to four lanes
LT-B	Extension of KY 3263
LT-C	Addition of left turn lanes along KY 39 near schools
LT-D	Addition of right turn lanes along US 27
LT-E	Install separate left turn lanes along KY 1247 at intersection with KY 1575
LT-F	Add turn lanes along KY 1247 for SB left and NB right turns onto Bourne Ave.
LT-G	Extend EB left turn lane and acceleration lane along KY 80B in the WB direction at KY 39
LT-H	Further study of signal timings along US 27
LT-I	Add SB right turn lane from US 27 onto Washington Dr.
LT-J	Add SB right turn lane from US 27 onto KY 1577 and limit access to adjacent business
LT-K	Planning study to determine best solutions for KY 1577 / KY 3261 intersection
LT-L	Coordinate with local agencies to communicate to public transportation network master plan
LT-M	Identify destination sites and preferred paths and conduct a wayfinding study
LT-N	Regional traffic flow study in conjunction with I-66 project

Each of the projects were evaluated with respect to traffic, safety, natural and human environment impacts, community impacts, and costs. An evaluation matrix that lists each of the local, short-term and long-term projects in rows and each of the evaluation criteria in columns was developed to visually display how each project performed relative to the others as well as display the information gathered for each project. Not all categories were applicable to all projects as some projects for instance had few, if any, negative impacts relative to the environment or community.

Following the project evaluation phase, recommendations were made as to which projects would be advanced for future project development. Several projects were removed from the list as KYTC was able to either address the issue or is in the process of evaluating the issue. These projects include: ST-A and ST-B. In addition, LT-N was removed from further consideration following a meeting with the PAC since given the uncertainty of the I-66 project it was determined that this project may need to be revised once other, overall I-66 project decisions are made.

Figure ES-2: Example Project Sheet

SOMERSET SUA	Airport Entrance Access	Project #L-A
PROBLEM		
<p>Project Background: Somerset airport currently expanding flight operations, including scheduled services.</p> <p>Project Issues:</p> <ul style="list-style-type: none"> • SAFETY • Airport entrance is in a curve off of Kit Cowan Rd. • Poor sight distance at airport entrance • Heavy truck traffic on Kit Cowan Rd. (Garner, CoreTrans, and Coca Cola all have facilities off of this road) 		 <p style="text-align: center;"><i>Kit Cowan Rd. Looking WB</i></p>  <p style="text-align: center;"><i>Kit Cowan Rd. Looking NB</i></p>
SOLUTION		
<p>Project Type: Geometric Realignment</p> <p>Project Solution: Realign curve and entrance</p> <p>Project Estimate: \$160,000 (construction only – ROW mapping not available)</p> <p>Project Priority: _____</p>		
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Prioritization

Based on the evaluation matrix and meetings with the PAC and the PDT, the local, short-term and long-term projects were prioritized as outlined in the following table (Table ES-2).

Table ES-2: Project Recommendation and Prioritization

Project Type	Project ID	Project Description	Priority Rank
Local	L-B	Geometric realignment of S. Central Ave., Marydale Ave. and Bourne Ave.	1
	L-A	Geometric realignment of airport entrance access	2
	L-E	Installation of grass median along US 27	2
	L-C	Addition of aesthetic gateway treatments to US 27 corridor	4
	L-D	Addition of sidewalk along KY 3261	5
Short-Term	ST-B	Safety improvement of vertical curve near Gover Mill Rd.	1
	ST-C	Safety improvements at KY 80 / Ohio St. / Limestone St. intersection	2
	ST-A	Evaluate US 27 / KY 80 / KY 80B signal timings and coordination after bypass completion	see below
Long-Term	LT-A	Widen KY 914 from KY 80 to just south of KY 769 to four lanes	1
	LT-B	Extension of KY 3263	2
	LT-C	Addition of left turn lanes along KY 39 near schools	3
	LT-E	Install separate left turn lanes along KY 1247 at intersection with KY 1575	4
	LT-G	Extend EB left turn lane and acceleration lane along KY 80B in the WB direction at KY 39	5
	LT-I	Add SB right turn lane from US 27 onto Washington Dr.	6
	LT-F	Add turn lanes along KY 1247 for SB left and NB right turns onto Bourne Ave.	7
	LT-L	Coordinate with local agencies to communicate to public transportation network master plan	8
	LT-D	Addition of right turn lanes along US 27	9
	LT-J	Add SB right turn lane from US 27 onto KY 1577 and limit access to adjacent business	10
	LT-K	Planning study to determine best solutions for KY 1577 / KY 3261 intersection	11
	LT-H	Further study of signal timings along US 27	see below
	LT-M	Identify destination sites and preferred paths and conduct a wayfinding study	see below

Note: ST-A, LT-H, and LT-M already in works to be done, and therefore, not ranked.