

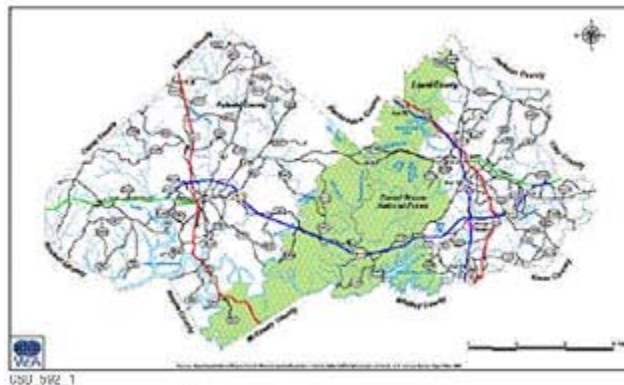
Kentucky Proposed I-66

Setting

In 1997, the Kentucky Transportation Cabinet (KYTC) completed a study that concluded that the Southern Kentucky Corridor (I-66), previously identified as part of a priority corridor in the Intermodal Surface Transportation Efficiency Act (ISTEA) was feasible. The longer corridor was subdivided into segments with independent utility. The segment from Somerset to London was identified as a high priority corridor in the Transportation Equity Act for the 21st Century (TEA-21).

The Somerset to London segment of I-66 would provide an interstate-level connection between the Daniel Boone Parkway to the east and the Louis B. Nunn (Cumberland) Parkway to the west. There are two existing linkages, KY 80 and KY 192. KY 80, to the northern side of the study area, consists of two- and four-lane sections and has only partial access control. KY 192, to the southern side of the study area, is an older two-lane highway with two nine-foot-wide lanes and two-foot shoulders.

Both existing linkages experience both safety and emerging traffic operational problems typical for their age and design characteristics. Twenty eight percent of the mileage along KY 80 is considered to be "high accident" mileage, and fully 59 percent of KY 192 similarly high accident mileage. Existing traffic volumes are highly variable along both routes but are forecast to increase from 100 to 200 percent over the next 30 years. Current traffic operates at level of service (LOS) B to C, but will decline to LOS D/E/F conditions by 2030 if no action is taken in the Somerset to London segment.



The study area is home to many natural, scenic, and sensitive areas such as the Daniel Boone National Forest, the state designated wild river portion of Rockcastle River, Cane Creek Wildlife Management Area, Laurel River Lake, Lake Cumberland, Cumberland Falls State Park, General Burnside State Park, Levi Jackson State Park, and the Sheltoewe Trace National Recreation Trail. These are areas of scenic beauty and biodiversity with numerous blue-line streams, natural wetlands, and, throughout the western portion of the study area, an extensive cave system.

In June 1999, KYTC presented an initially preferred corridor at public meetings in the two communities. An alternative that largely followed existing KY 192 was presented as the preferred alternative. Generalized corridors north and to the middle of the study area had been considered by KYTC staff but not carried forward. The southerly location of KY 192 offers the advantage of not crossing the wild river portion of Rockcastle River, of having less adjacent development that would require either acquisition or access roads, and of providing more accessibility to the tourism and recreation areas important to the region's economy.

While many citizens who attended the public meetings favored improving KY 192 or at least supported the concept of constructing I-66, there was considerable opposition to the KYTC identified preferred corridor based on concerns with the environmental impacts along the corridor. Approximately two-thirds of those responding favored I-66 but about half of those responding identified an alternative other than KYTC's initially preferred alternative.

Problem to be Solved

The problem faced by KYTC was how to:

- Address a priority corridor identified in TEA-21 and receiving considerable Congressional attention;
- Prevent extensive LOS "F" as traffic volumes increased in a popular recreation area;
- Reduce already high accident rates likely to increase as traffic volume increased;
- Improve economic conditions in a traditionally higher unemployment/lower income area through improved transportation facilities;
- Provide a revised process for corridor(s) evaluation that would involve stakeholders while yielding recommendations consistent with the project goals.

Stakeholders

A wide range of stakeholders representing environmental, economic development, statewide, and local interests were involved in the project. Due to the sensitive nature of the study area, many resource and regulatory agencies were also directly involved.

- Cumberland Valley Area Development District
- Federal Highway Administration
- Kentuckians for the Commonwealth
- Kentucky Department of Fish and Wildlife
- Kentucky Heartwood
- Kentucky Heritage Council
- Kentucky Tourism Development Cabinet
- Kentucky Transportation Cabinet
- KICK 66
- Lake Cumberland Area Development District
- National Speleological Society
- Sierra Club Cumberland Chapter
- U.S. Fish and Wildlife Service
- U.S. Forest Service, Daniel Boone National Forest

CSD Approach

The planning phase of I-66 Somerset to London segment occurred about the same time that Kentucky was moving into the national forefront of the context sensitive design movement. While not yet in the final design stage where design flexibility is most appropriate, KYTC has been implementing the spirit of CSD/CSS on I-66 through their approach to public involvement, environmental considerations, and open decision making.

This approach was evident in the KYTC's reaction to public input from the 1999 meetings. Following the June 1999 meetings, KYTC acknowledged the need to reexamine the criteria and process that led them to identify the initially preferred alternative.

The northern corridors, including the KY 80 corridor, that were previously not given detailed consideration in part because of the crossing of a wild river, were reexamined with a realization that use of the existing right-of-way would not constitute the same level of impact as the need for new right-of-way.

An alternative corridor was identified that would cross more National Forest land, but would cross through areas that have been extensively modified through logging and mining.

The level of information available to the public was expanded substantially. The data and decision making processes are well documented on the Internet as well as through more traditional media. The Evaluation Matrix explicitly shows the tradeoffs involved in this complex multi-disciplinary decision.

Through the new alternatives development process and active stakeholder engagement, KYTC staff determined that an overall better alignment solution was available. The selection of what is known as the

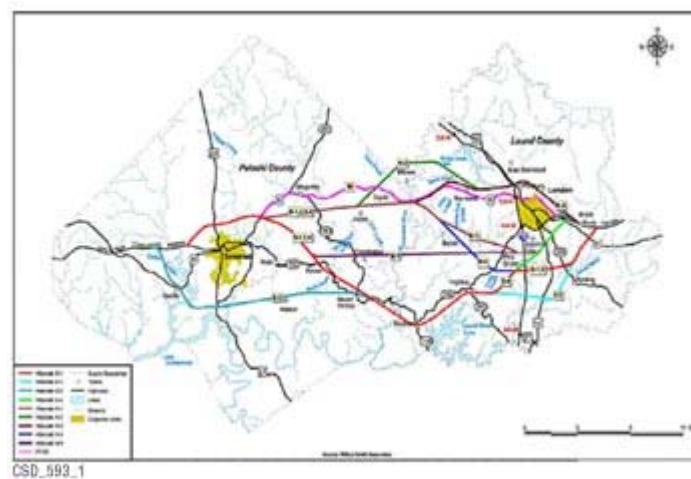
N-4 Alternative as the preferred alternative kept open the door for ongoing refinements, particularly still greater use of the KY 80 corridor near Somerset.

In the planning stage, KYTC decided to use fairly typical AASHTO design criteria. However, even in a planning report KYTC acknowledges the role flexibility plays in highway design.

"Future phases of the I-66 corridor project may involve further geometric criteria and issues, at which point it would be appropriate to begin consideration of potential flexible design components. The purpose of flexible design methods is to aid designers in the design and construction of a roadway while preserving or enhancing scenic, historic, environmental and community resources in the vicinity of the project."

Current preliminary design efforts in the vicinity of Somerset include a stakeholder group that has developed criteria to evaluate alternatives. These evaluations will be part of the data reviewed by the project team as they make project decisions.

Public involvement near Somerset has resulted in refinement of preliminary alternatives so that they do not divide areas that are already developed.



Lessons Learned

In one form or another, the I-66 project has been under consideration in Kentucky since the mid-1980s and is actively moving forward today. In some respects the project is one of the reasons Kentucky has not only embraced Thinking Beyond the Pavement and Context Sensitive Design, they have become a leader.

Public involvement needs to be a more significant part of the planning process than it has been in the past. Although Kentuckians are historically more receptive of new highway projects than citizens elsewhere, the level of dissatisfaction on this project threatened to stop what had the hallmarks of a popular and needed project.

Initial impressions of desirable features are not necessarily correct. In part, a southerly alternative was initially preferred in order to bring more traffic to tourist recreation areas. However, these areas are heavily used now and may not be able to accommodate significant increased traffic.

Although all of the corridor alternates pass through the Daniel Boone National Forest, more detailed review determined that there were major differences among the corridors with regard to the levels of impacts. Examining alternatives and highlighting the differences led to a different decision than was earlier made, but one that has appeared to garner more widespread support.

From: NCHRP Report 480, Transportation Research Board

