

IX. RECOMMENDATIONS AND NEXT STEPS

This chapter provides recommendations and next steps for future phases of the I-69 Corridor along the Ford and Breathitt Parkways in Kentucky. The recommendations made in this chapter are the result of the Strategic Corridor Planning Study process for the I-69 Corridor. The identified next steps for future phases of this project include additional analysis items that would provide further direction for design decisions related to the corridor. The final section of this chapter provides a brief discussion of other improvement initiatives in the region, including highway corridor connections to the I-69 route, which might enhance regional highway service and accessibility.

A. Recommendations

It is recommended that Alternative 2, the Minor Upgrades and Spot Safety Improvements Alternative, discussed in **Chapter VIII**, proceed into future phases of project development, as needed, based on the following:

- Major construction of an Interstate 69 route on a new alignment is recommended for dismissal from further consideration because it would not ultimately meet the purpose and need for the project, as discussed in **Chapter VIII**. Further, routing I-69 along the Ford and Breathitt Parkways is perhaps the most context-sensitive solution possible. In particular, using the two existing Parkways as I-69 would minimize any negative impacts resulting from the construction of a new facility on new alignment, thus, providing the ultimate “minimal impact” alternative.
- It is also recommended that Alternates 3 and 4, the other major reconstruction alternates, be dismissed from further consideration in future phases of project development. Given that I-69 would be routed along the existing Parkways, avoiding or minimizing major reconstruction activities along the Parkways would further support context-sensitive design principles. Any major reconstruction would require additional right-of-way and would result in potential negative impacts. Maximizing the use of the existing right-of-way and existing infrastructure will also result in the least potential impact on the environment, the community, and local owners of homes and businesses.
- The Ford Parkway and Breathitt Parkway adequately meet AASHTO guidelines for most of the design elements along each of these routes. There are only a few elements and/or locations where deficiencies may exist. In some cases, these are only minor and could be accepted as design exceptions. However, there are a few deficiencies that should be addressed in the near future, particularly those that deal with public safety. In the long term, the two Parkways could be upgraded over time to better meet design guidelines.
- A review of operational and safety issues support the premise that the two Parkways present no major problems along most of their lengths at present, with only a few locations exhibiting potential safety problems, based on crash history, and only one location with a potential level of service deficiency.
- Many of the deficiencies identified on the existing Parkways could be considered acceptable under the principle of design flexibility. Flexibility is allowed in

AASHTO guidelines if flexible design options are supported by engineering studies. In recent years, flexibility and context-sensitive solutions have actually been encouraged due to growing public concern about the community and environmental impacts of major highway projects.

- Precedents already exist at locations along many interstate highways throughout the United States where expressways currently operate safely and effectively with design conditions that do not meet current AASHTO guidelines for interstate facilities.
- Using the existing Parkways as I-69 addresses another current “context-sensitive” issue, i.e., financial feasibility, since Alternate 2 along the existing Parkways offers the lowest cost solution at a time when all levels of government must consider that taxpayers’ funds are being used more effectively. While this may not be a traditional context-sensitive issue, the fiscal context should be considered a major factor in making a decision about this project.
- Economic considerations cannot justify investing over a billion dollars for a new interstate highway or from a half-billion to a billion dollars to upgrade the Parkways without a significant improvement in operational or safety benefits for motorists. This is especially true when minor improvements can be made to the existing Parkways under Alternate 2 to address operational and safety problems for a fraction of the cost of the other alternates.
- If a decision is made to implement I-69 Alternate 2 along the Ford and Breathitt Parkways, a program of improvements to upgrade the Parkways could be developed. This program could be phased-in over time in a fiscally-responsible manner as funds are available and as operational conditions warrant, rather than implementing improvements that do not appear to be needed now or in the immediate future.
- Early public involvement for the I-69 project seems to indicate that the strongest local and regional support is for routing I-69 along the existing Parkways, rather than constructing a new facility elsewhere. There also appears to be strong public support for making this designation at the earliest possible date.

B. Next Steps

Regardless of the ultimate direction of future I-69 corridor initiatives and the recommended level of reconstruction along the Parkways, a short and long range set of improvement strategies is recommended prior to future project development phases to insure the efficient and coordinated implementation of future improvements.

To develop a program of improvement projects, additional information and further study will be needed to draw more specific conclusions about design conditions along the Parkways and to formulate final recommendations for future improvements. Much of the analysis in this report is based on the as-built design plans, which may or may not still be an accurate reflection of actual conditions along the Parkways. Therefore, field reconnaissance efforts to collect additional data will likely be needed to analyze and make critical design decisions and set priorities for improvements along the Parkways.

Following is a preliminary listing of recommended future I-69 data collection efforts and analysis:

- Operational Considerations – Further analysis of operational considerations may include field review of high crash segments to determine if roadway design or environmental conditions are contributing to crash history. Since existing signing inventories are not available, a review of the existing signing installations may be needed to define any specific needs for new or corrective action.
- Mainline Geometry and Typical Section – Field reviews and analysis would provide the necessary information to determine if the roadway cross-section features (especially shoulders, medians and clear zones) remain consistent with the original construction specifications. Further study would be needed to determine the most appropriate treatment (barrier design or widening) for the existing median to address safety and drainage issues. Since this is not a newly constructed facility with detailed topographic maps of all lateral hazards, field reconnaissance may be needed to consider clear zone allowances. Field review would also provide the opportunity to review appropriate guardrail placement and to assess the need for corrections.
- Bridges – Field review and analysis would allow for further consideration of vertical bridge clearances at overpass locations along the Parkways. AASHTO guidelines recommend that the clearance be recorded over the useable shoulder which, in the case of the Ford and Breathitt Parkways, would be the outside shoulders. Additional data collection would be required to obtain the clearance at the edge of the outside shoulder. The condition and application of bridge safety appurtenances (i.e., approach guardrail, type of bridge rail, pier protection, etc.) could also be reviewed for corrections.
- Interchanges and Ramps – Additional study of design speeds would determine contributing factors to safety or operational problems on the interchange ramps. Additional study would provide the opportunity to determine if any of the horizontal ramp designs are contributing to mainline capacity constraints, safety concerns, or operational problems. Interchanges originally designed for toll operations may need additional study to evaluate weaving section lengths. Other ramp considerations for further analysis include existing shoulder widths, super-elevation rates, vertical alignment, taper lengths, and operational analysis.

Ultimately, the specific improvements should be prioritized to address areas where design improvements are currently needed to allow adequate service to the future I-69 corridor, provide acceptable levels of service, and maintain motorist safety. It is necessary to develop these improvement strategies while taking into consideration the existing maintenance and improvement program and the likelihood of future funding limitations on the state and federal transportation programs.

C. I-69 Connectors

Should the two Parkways be designated or developed as I-69, it is recommended that consideration be given to improving other highway corridor connections to the route in order to enhance regional highway service and accessibility.

Currently, the US 60 and US 641 corridor north of Eddyville is designated as a strategic priority corridor and a future connector to I-69. The KYTC is currently undertaking design efforts for the portion of the route between Marion and Fredonia, along a corridor that lies to the east of the existing US 641 route. In addition, the KYTC has initiated planning efforts for the portion of the route that would extend from Fredonia south to Eddyville.

Local officials from Hopkinsville have also expressed a strong interest in designating the portion of the Breathitt Parkway south of the Ford Parkway (not included in the current I-69 study area) as a strategic corridor connection to I-69. South of Hopkinsville, an extension of the Breathitt Parkway to I-24 would provide an additional north-south connection serving the I-69 corridor. The 8-mile extension of the Breathitt Parkway is shown as a proposed roadway on the KYTC's Official Highway Map.

The KYTC may want to pursue efforts to encourage the formal recognition of these segments as part of the National I-69 corridor, as other I-69 connectors have been similarly designated in other parts of the U.S.

References:

1. *A Policy on Geometric Design of Highways and Streets*, 2001, Fourth Edition, American Association of State Highway and Transportation Officials (AASHTO), Washington, D.C.
2. *Roadside Design Guide*, AASHTO, 1996
3. *A Policy on Design Standards – Interstate System*, AASHTO, 2003 (Draft)
4. *Highway Design Manual*, Kentucky Transportation Cabinet
5. *Kentucky Transportation Cabinet Highway Information System, 2002*
6. *Analysis of Traffic Accidents in Kentucky (1995-1999)*, Kentucky Transportation Center