

EXECUTIVE SUMMARY
SCOPING STUDY
Jackson and Owsley Counties
Reconstruction of KY 30 from US 421 at Tyner to KY 11 at Booneville
ITEM #10-279.50

This project involves planning for the reconstruction of KY 30 in Jackson and Owsley Counties. The project is identified in the Kentucky Transportation Cabinet's *Approved 2000-2002 Biennial Highway Construction Program and Identified Preconstruction Program Plan for FY 2003 through FY 2006* (generally referred to as the Six Year Highway Plan) as Item No. 10-279.50.

Draft Project Goals

The preliminary goals established for this project include: 1) provide an improved route between Tyner and Booneville; 2) improve highway system accessibility; 3) improve emergency response times; and 4) improve opportunities for economic development.

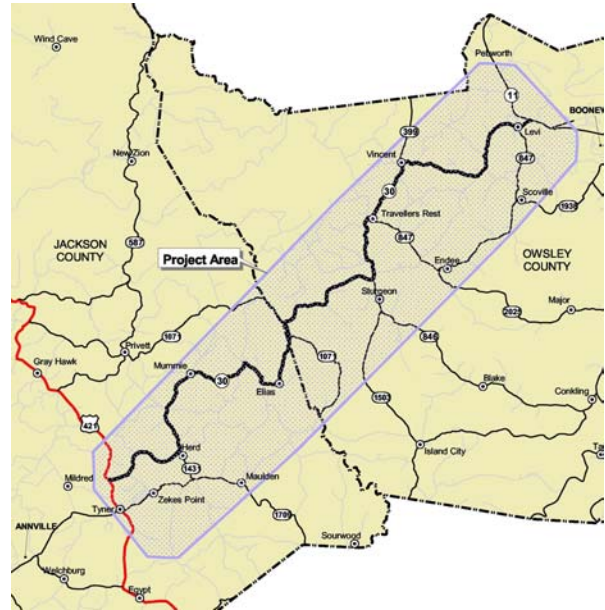
Existing Roadway Conditions

The existing geometric characteristics of KY 30 do not meet the current design criteria for a 60-mph design speed. The existing KY 30 route has two nine-foot lanes, one to two-foot shoulders and no passing sight distances. Local residents have expressed concerns about safety and travel times along KY 30 between Tyner and Booneville.

An improved route between Tyner and Booneville would address the concerns of its users. Because of the existing KY 30 geometry, full reconstruction of the route may be preferred as an alternative to improvements to spot sections or segments along the existing route.

Economic Concerns

Jackson and Owsley Counties have historically been considered low-income areas. The proposed project area is located in a portion of Kentucky with some of the highest poverty rates. The median family



income for the project area was far below the statewide and nationwide average for fiscal year 2000.

Access to and from major highway facilities continues to be an issue for many areas in the Appalachian region. The average travel distance to an Interstate or Parkway facility from the project area is about 40 miles. Limited truck access to the local industrial parks in the project area is an issue for site development and the potential accompanying increase in local jobs.

The potential for improvements to the economic viability of Jackson, Owsley and surrounding counties will likely be greater with improved truck access to and from local industries.

Traffic Considerations

The long term goals for highway improvements in the region include a new corridor from I-75 in London to the Bert T. Combs Mountain Parkway. The portions of this corridor between London and Tyner and between Booneville and Beattyville are in various phases of design, right-of-way and construction. Reconstruction of KY 30 between Tyner and Booneville would provide the remaining link in a regional corridor from I-75 to the Bert T. Combs Mountain Parkway.

Improvements to KY 30 between London and Tyner are estimated to only moderately increase traffic between Tyner and Booneville. This would suggest that the roadway geometry along the study section of KY 30 continues to discourage travel along this route.

With an improved route between London and Booneville, Year 2025 traffic volumes are anticipated to substantially increase as additional traffic from Booneville is diverted onto the corridor along with traffic from the Mountain Parkway that accesses the corridor via an upgraded KY 11.

Environmental Overview

A number of issues related to environmental factors and sensitive land uses were identified through the course of this study that should be considered as this project moves into future phases.

- The Kentucky ladies slipper (*Cypripedium kentuckiense*) and the Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) are both special concern species that have been identified by the Kentucky State Nature Preserves Commission (KSNPC). In addition, the Indiana bat (*Myotis sodalis*) is known to occur in Jackson County.
- Minor reconstruction activities have the potential to threaten the water quality of Sturgeon Creek, which harbors rare aquatic species. Extensive realignment of the road could impact rare plant populations along the creek area and

roosting and foraging habitat for rare bats, including the Indiana bat. All reasonable efforts should be given to avoidance of such issues.

- Because of the proportionately high number of low-income residents within the study area, Environmental Justice concerns related to this specific group are likely within the project area. All census tracts and block groups in the project area have higher low-income rates than the average in Kentucky.
- Preliminary analysis of Property Valuation Assessor (PVA) data for Jackson and Owsley Counties shows the potential presence of family clusters in the project area. Further consideration of this data would be necessary to determine which properties are identified as family clusters.
- The project area is typical of mountainous regions, with residences and businesses typically located close to existing roadways. Highway improvements in the project area are likely to require some relocations.
- There are a number of cemeteries documented or observed within the project area. Other cemeteries may be unmarked and are likely to be encountered during construction in this area.
- Agriculture is not the main land use in Jackson or Owsley County, but prime farmlands are identified within the project area. Conversion of farmland to other uses as the result of improvements to KY 30 could result in a net loss of farmland along the project corridor. Design of the project should minimize impacts to farmsteads in the project area.
- The project area may contain unrecorded historic structures or archaeological sites that are eligible or potentially eligible for listing on the National Register of Historic Places (NRHP).

Public Involvement Efforts

Throughout the course of this project, local officials, interest groups, community members and resource agencies provided input on the potential KY 30 improvements. Comments were solicited through local meetings, survey questionnaires, and written requests for input. A number of local concerns were identified through this process:

- Motorists tend to avoid the existing KY 30 route due to the poor roadway geometry. Narrow lanes and bridges often make sharing the road with truck traffic difficult.
- Emergency service access for the local EMS, fire and police departments would be improved with the proposed project.
- Introduction of new industry to the area has typically been difficult due to poor highway access. Industrial parks in the project counties should be considered in travel needs for this project.
- The KY 30 improvement project would also be a benefit for the region surrounding Jackson and Owsley Counties. Citizens in Lee County have expressed support for the improvements.
- Stores and businesses along the existing route may be adversely affected should the new alignment be located too far from the existing route.
- The loss of tobacco crops and farmland in the project area should be minimized as part of this project.

Corridor Development

The identified project corridors were updated through the project team meetings and public involvement efforts undertaken as part of this project. Corridor needs as well as input from local officials, interest groups, community members and resource agencies were considered in the corridor development process.

Three sets of potential project corridors were considered through various phases of this project. The final corridors for consideration

include the no-build alternate and build Corridors A, B, C, D, E, F, G, H, I and J. These 10 corridor segments combine to make 12 potential options for improvement of KY 30 from Tyner to Booneville.

Recommendations

Based upon an analysis of project goals, corridor issues, access needs, potential environmental impacts and public/agency input, the project team selected Corridor D-H as the preferred alternative. The total cost of Corridor D-H is anticipated to be approximately \$119.2 million.

Six (6) priority sections were identified for further project development, with priority section costs ranging from about \$11 million to \$26 million. Priority 1 begins east of Vincent near Brushy Creek Road and ends at a new intersection with KY 11 near Levi. The remaining segments are prioritized from east to west, ending with the section between US 421 and the community of Herd.

The new route would provide for a standard two-lane section, with adequate lane widths, shoulder widths and curvature. An additional lane, either a truck lane or passing lane, could be provided to improve safety and travel times. Bicycle facilities should also be considered, as portions of KY 30 are part of the nationally designated TransAmerica Trail.

Construction Considerations

A number of issues were identified through the course of this study that should be considered as part of future construction phases.

- Measures to control erosion and sedimentation during and after earth-disturbing activities should be utilized. The construction of this project will initially increase the amount of erosion ground and surface water sources receive.
- The construction of this project may impact floodplains in the project area. Care must be taken to maintain current flood stages without increasing them by more than one foot in uninhabited areas. The construction of this project must not

increase the flood hazard for any property within the project's corridor.

- Construction period air quality impacts will need to be evaluated to expose 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.
- The project area contains three geologic formations: Quaternary Alluvium, Breathitt and Lee. The Breathitt Formation is known for instability of thick layers of shale and siltstone, a factor often affecting construction projects since steepening of slopes by cuts may cause landslides.
- The local geology suggests that there may be durable sandstone available within certain portions of the project area. Rock coring and additional geologic evaluation will be required before specific cut slope recommendations can be defined.
- Due to the likelihood of highly variable subsurface conditions in mine spoil fill areas, special construction considerations may be required dependent upon the specific conditions encountered. Rock toe buttresses may be necessary at the toe of fill slopes in deep alluvium soil areas.

Project Funding

The project addressed in this study was scheduled in the FY 2001 (2000-06) Six Year Highway Plan, with committed funds of \$500,000. The FY 2003 (2003-08) Six Year Highway Plan does not include funds for additional phases for KY 30.

Contacts

Comments and/or requests for information regarding this project should be sent to the address listed below:

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