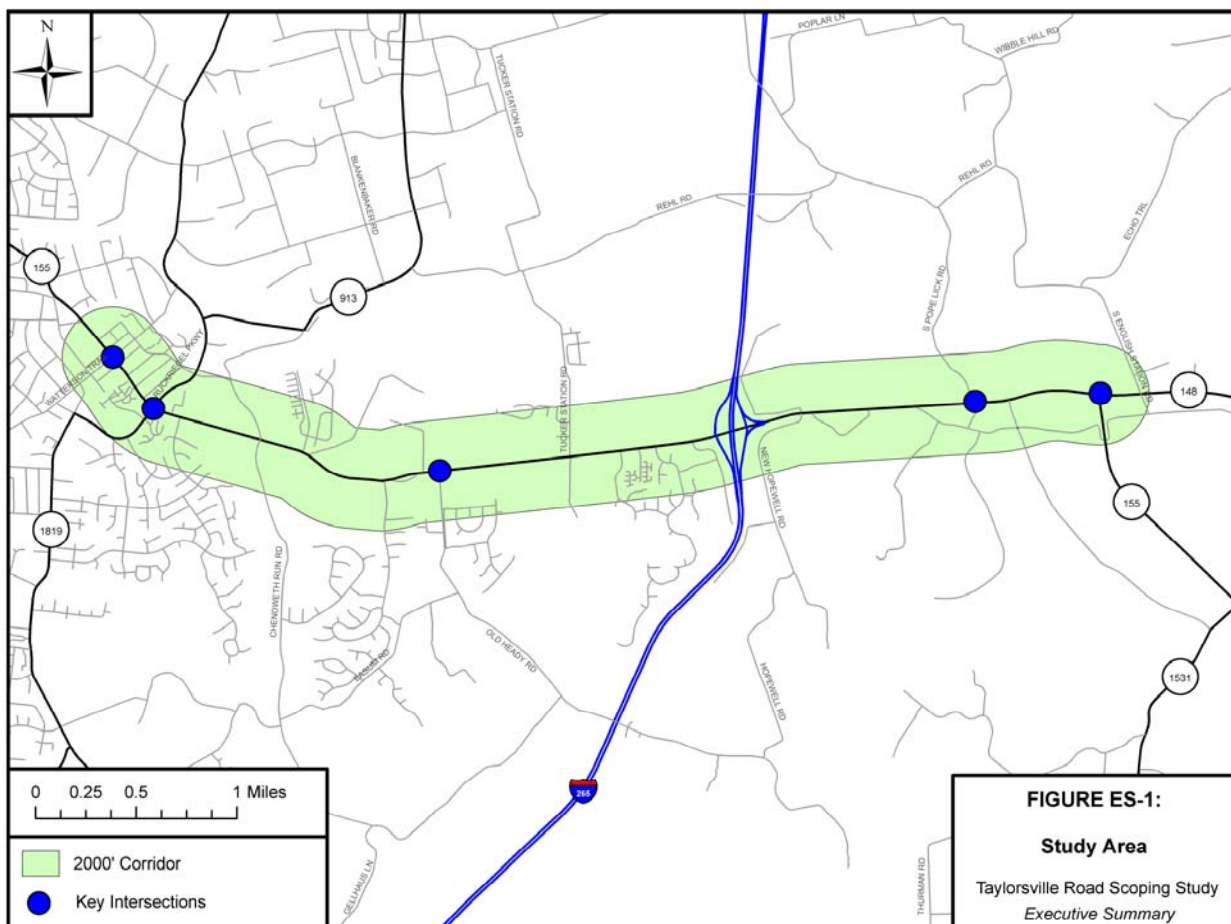


Executive Summary – Taylorsville Road Scoping Study

Introduction and Study Area

The Kentucky Transportation Cabinet (KYTC) has identified the corridor of Taylorsville Road (KY 155) from KY 148 to Watterson Trail as a road of interest for a scoping study that will evaluate transportation issues along the corridor. The goals and objectives of this study are to consider low-cost short and long term solutions that address specific deficiencies as well broader, more all-encompassing alternatives to improve corridor wide capacity and operations.



The study area is shown on **Figure ES 1** above. Key intersections that were studied along the corridor are shown on the figure and are listed below.

- Taylorsville Road / Watterson Trail
- Taylorsville Road / Ruckriegel Parkway
- Taylorsville Road / Old Headly Road
- Taylorsville Road / South Pope Lick Road
- Taylorsville Road / KY 148

Existing and Projected Conditions

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

- High truck percentages along Taylorsville Road, ranging from 6 – 13%.
- All study intersections have poor levels of service, with several operating at LOS F during one or more peak periods.
- At the intersection of Taylorsville Road and Ruckriegel Parkway, the queue lengths during peak periods exceed the available storage for all turn movements with separate turn lanes.
- At the intersection of Taylorsville Road and Watterson Trail, queue lengths during peak periods exceed the available storage for the southbound left and right turns.
- The queue length during the PM peak period only exceeds the available storage for the northbound right turn at the Taylorsville Road / KY 148 intersection.
- There is a high crash area between Ruckriegel Parkway and Watterson Trail on Taylorsville Road.
- The intersections of Watterson Trail and Ruckriegel Parkway with Taylorsville Road are high crash spots.
- The most frequent type of crash was rear end crashes on Taylorsville Road.
- There are no bicycle or transit facilities along the corridor.

Both human and natural environmental overviews, primarily based on agency correspondence, were also performed as part of the existing conditions analysis. Based on these reviews, no major issues were identified that could prevent the effective implementation of any needed improvement options. The Environmental Justice (EJ) review did not show any significant concentrations of Environmental Justice populations within the study area. One site currently listed on the National Register of Historic Places was identified (Tyler Rural Settlement Historic District). There are also inventoried sites; however they have not been evaluated by a professional architectural historian for potential eligibility on the NRHP. There are additional previously recorded archeological sites; however most of this area has never been surveyed by professional archaeologists. As no formal evaluation has been completed, any improvement projects with significant impacts would need to be evaluated for impacts to cultural historic and archeological sites. There are several federally protected species known to exist within Jefferson County, and as a result a Habitat Assessment may need to be performed prior to construction of any recommended improvement.

A brief geotechnical assessment also showed that there are no major geologic concerns in the Taylorsville Road improvement corridor.

Public Involvement

Public involvement activities were performed to gain an understanding of the issues involved with this study as well as to inform the public of problems, possible improvement alternatives, and to gain feedback. Several types of public involvement activities were performed throughout the study. A local officials meeting was held to provide information on the study as well as obtain feedback regarding issues in the corridor. Several stakeholder meetings were held to inform stakeholders of the project and receive feedback regarding issues and concerns about the study. Two meetings with the public were held, the first at a booth as part of the Jeffersontown Gaslight Festival to provide information and receive input about the project issues and goals and possible alternatives, and a second traditional open house meeting to present preliminary alternates and obtain specific feedback on them. Agency correspondence was another tool utilized to gain input on the project. Multiple state and federal agencies were contacted, requesting input on potential impacts along the corridor. Finally project team meetings were held with the KYTC throughout the study to guide the project as well as aid in the decision-making.

Alternates Development and Evaluation

The development and evaluation of improvements to Taylorsville Road have been subdivided into two categories – short-term projects and long-term projects. Short-term refers to projects that could be completed in the near future (by the year 2010) while long-term projects refer to projects that are broader in scope to meet future projected increased traffic and transportation demands. The long-term design year for this project is 2030.

Short-Term Project Development and Evaluation

Short-Term projects focused on improvements at individual intersections. For each intersection, multiple alternates were developed ranging from new and/or additional traffic signals, signal system optimization, turn pockets or lanes, storage lanes and / or extended turn lanes. The alternates were based on project purpose and need, existing / future conditions at each location, recommendations and alternates from any past and / or concurrent studies, Project Development Team suggestions, and feedback from the public involvement process.

Level of service, delay, signal warrants, safety, environmental impacts, public input, property impacts and costs were all considered during the development and evaluation of the alternates.

Long-Term Project Development and Evaluation

For the Long-Term time frame, a corridor approach was taken as opposed to evaluating specific intersections. The range of alternates considered included three, four, five, and six lane ultimate sections. Based on the traffic forecasts, level of service results, and property impacts, it was determined that the four and five lane sections were the most feasible and appropriate corridors to carry forward for additional study. Both were

presented to the public at the second public meeting. Input from the public along with more detailed property, cost, and operations analysis was used to assist in the decision-making process.

Multimodal Considerations

Consideration was also given to incorporating multimodal (transit, bicycle / pedestrian and Intelligent Transportation Solutions (ITS)) elements into the alternate development and evaluation process. Taylorsville Road currently does not have any bus service or designated bicycle lanes. Sidewalks are present, but intermittent and are not continuous through the corridor.

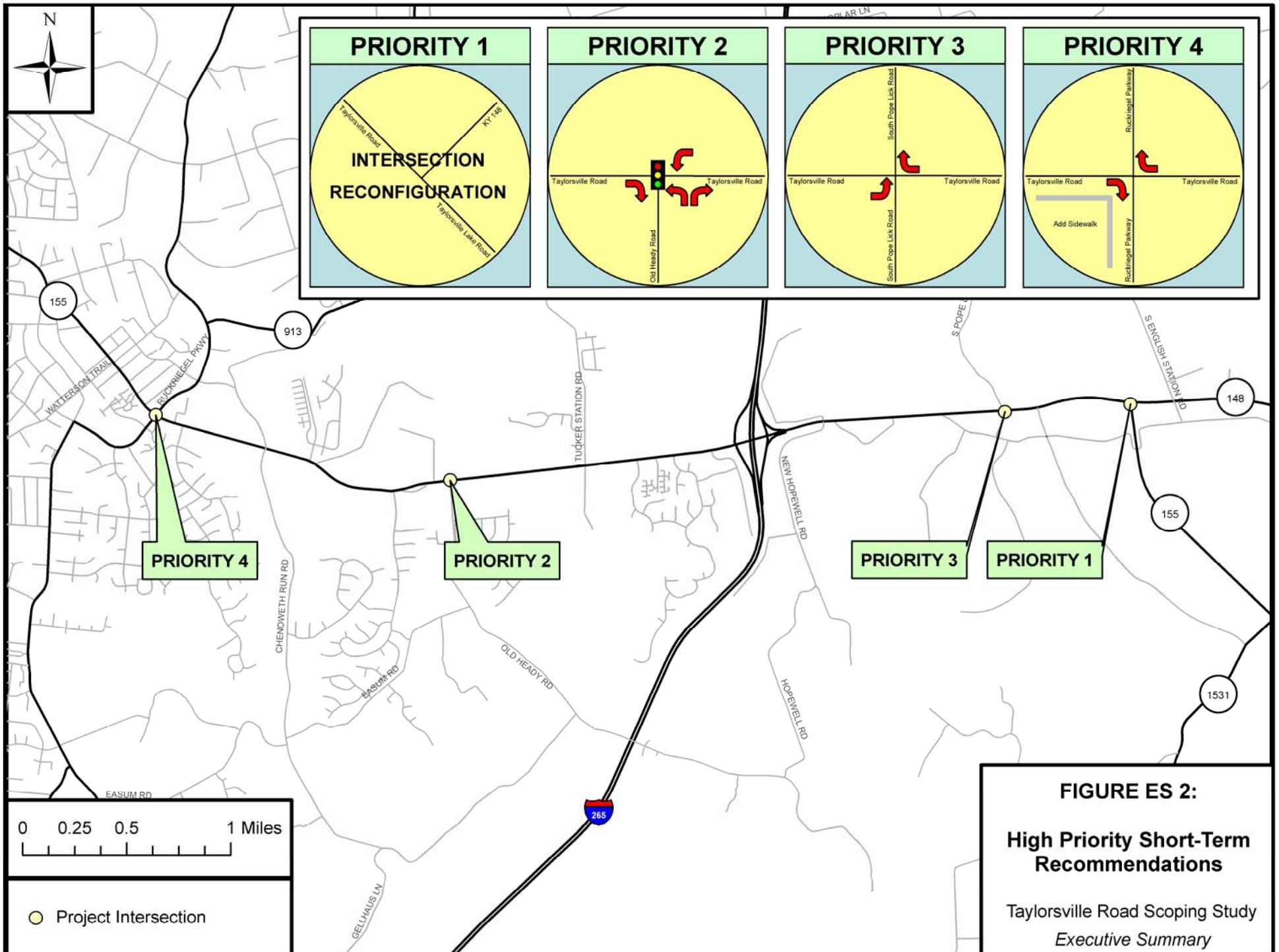
Recommendations

Recommendations are provided for both the short (2010) and long (2030) term time frames. Recommendations are based on the evaluation criteria discussed previously and a project team meeting held on July 6, 2007. The following figure (**Figure ES 2**) illustrates the short-term intersection recommendations. They are listed by project priority to provide guidance on future implementation.

Final 2007 planning level cost estimates and right-of-way impacts were assessed for use in future project development phases. These are listed below in **Table ES 1** for each of the short-term recommendations. It should be noted that the cost estimates do not include design, utilities or right-of-way costs.

Table ES 1: Recommended Short-Term Projects Cost Estimates

Project	Cost	ROW Impact (acreage)
Watterson Trail – Add Pedestrian Countdown Signal, Advanced Warning Signs for Pedestrian Crossings, and Replace Retro-Reflectivity	\$25,000	0
Ruckriegel Parkway – Add Eastbound and Westbound Right Turn Lanes on Taylorsville Road to Ruckriegel Parkway as well as Add Sidewalk to the South Side of Taylorsville Road	\$260,000	0.31
Old Heady Road – Signalization and Exclusive Turn Lanes for All Movements	\$460,000	1.72
South Pope Lick Road – Add Westbound Right and Eastbound Left Turn Lanes from Taylorsville Road to South Pope Lick Road, Do Not Signalize; Re-evaluate Signalization at a Later Time	\$720,000	1.40
KY 148 – Reconfigure Intersection to Make Taylorsville Road / Taylorsville Lake Road the Major Movement	\$2,290,000	5.96



The preferred long-term recommendation is a four-lane section (two lanes in each direction) with a median along Taylorsville Road and curb and gutter the entire corridor. To accommodate bicyclists and pedestrians, a 10-foot multiuse path with a 4-foot buffer was agreed upon along one side of Taylorsville Road. A 5-foot sidewalk is specified for construction on the other side of the roadway. The estimated planning level cost for this project in 2007 dollars is \$15,800,000.

Next Steps / Implementation

Following approval of this report by KYTC, the short-term project recommendations should be included based on priority in the KYTC Six-Year Highway plan to acquire funding for right-of-way, utility work, design, and construction. The corridor recommendation should be reflected on the Unscheduled Project List (UPL) and on KIPDA's long range plan.