Month: May 2008

MPO: Evansville MPO

Location: Evansville, IN

Topic: The Road Diet

Can roads gain efficiency, mode share, and safety by getting leaner? That question was posed by Dan Burden and Peter Lagerway in their 1999 report entitled *Road Diets: Fixing the Big Roads*. Burden and Lagerway answer the question in the affirmative by making the case for the reduction of lanes and width as a way to improve safety, increase pedestrian and bicyclist accessibility and mobility, and help neighborhoods and communities become more livable. The City of Evansville is considering the conversion of about two miles of Lincoln Avenue, an undivided, four-lane roadway with a significant crash history, to a three-lane cross-section (two through lanes and a center left-turn lane). Our staff has extensively researched the feasibility of converting Lincoln Avenue to a three-lane roadway, and the broader concept and current status of the road diet.

The Evansville MPO has endorsed the conversion of Lincoln Avenue based on a corridor study, much research on road diets and their record for improving roadway safety, and considerable community support for the project. The approximately two-mile long segment of Lincoln Avenue that is proposed for conversion to three lanes serves as the main entrance to the University of Evansville, and is a mainly residential corridor, although there are concentrated areas of commercial development in the study area.

One of the interesting issues raised by this proposal is what the main function of this road should be. Should it be a cross-town commuter route (is mobility the most important function)? Or should residential access and neighborhood livability be the most important concerns in the design of this road? These questions may exist with many major collectors and minor arterials, which typically attempt to balance mobility and access functions, but the proposed changes to Lincoln Avenue have forced local decision makers to confront these questions.

As you may imagine, we have found that there are many people who favor the mobility functions of the road and are not in favor of the proposal, and there are many who favor a more neighborhood-friendly access function for the road and support the proposal. It seems that the improvement to driver safety isn't a major consideration for many of those who have commented on the proposal. The first position is unfortunate because the road diet is unlikely to change Lincoln Avenue so much that it would no longer be used as a cross-town commuter route. Fear that travel times and congestion on Lincoln Avenue would greatly increase under the three-lane layout have been expressed by many people, and two circumstances that have contributed to that fear are that Lincoln Avenue is a bus corridor (with half-hour headways) and that a bicycle route has been proposed for the wider outside lanes that are possible with the re-striping of the road.

Ample evidence from around the US and Canada shows that a reduction from four undivided lanes to three lanes normally results in an insignificant drop in level-of-service and travel time. Our staff has gathered data on several recent road diet projects that show a significant decrease in crashes and injuries, low-percentage decreases in travel time and capacity, improved pedestrian environments and a substantial increase in community support for the projects after their completion. Probably the best data we've seen has come from Iowa, where 15 cities have implemented road diets and the state department of transportation has had funded multiple studies of the impacts of lane reduction projects. The Center for Transportation Research and Education at Iowa State University has also published an excellent report that anyone considering a road diet should review: *Guidelines for the Conversion of Urban Four-Lane Undivided Roadways to Three-Lane Tw0-Way Left-Turn Lane Facilities* (2001).

We have spoken with planners and engineers working on road diet projects in Tucson, San Francisco, Orlando, Cambridge, and Colorado Springs. One of our staff members got to see a road diet project in Charlotte, North Carolina that was partially implemented, and had a chance to discuss the project with the city's transportation planning manager and some local residents. All of these conversations have led us to believe that road diets are a reasonable, cost-effective way to reduce accidents and injuries, improve pedestrian and bicycle environments and mode share, and enhance the livability of road corridors. Burden and Lagerway described high crash rates, excessive speeds, lane weaving, and poor pedestrian environments as the symptoms of a sick road, one that could benefit from losing girth by means of a diet. While it may not be intuitive, there seems to be a pretty good case that the road diet can help to create healthier roads.