

## **CONTEXT-SENSITIVE DESIGN CASE STUDY NO. 15**

### **Euclid Avenue - Lexington**

#### **LOCATION:**

Euclid Avenue (Lexington, Kentucky)

#### **PROJECT DESCRIPTION:**

Euclid Avenue is a minor urban arterial and is considered the north boundary of the University of Kentucky campus. The project involved resurfacing and re-stripping of an existing four-lane road into a three-lane roadway with bike lanes over a distance of approximately 0.80 miles. The route serves local traffic and regional commuters, it has a mixed land use of retail and housing, it carries a significant traffic volume (20,000 ADT), it carries significant pedestrian and bicycle volumes, and it is used as the connector between the University and residential areas to the south. There was one construction phase for the project as shown below:

Phase 1	Length: 0.80 miles
	Letting: April 28, 2000
	Work Start: July 7, 2000
	Work Complete: August 10, 2000
	Contractor: L-M Asphalt Partners Ltd. And D/B/A Central Asphalt
	Amount: \$165,335

#### **PURPOSE AND NEED**

The purpose of this project was improvement of “mobility” needs of the area due to congestion at some intersections along the corridor. Efforts to improve mobility and safety of pedestrians were also incorporated later as a result of public involvement.

#### **CONTEXT-SENSITIVE FACTORS**

A number of issues dealing with public involvement and promotion of multi-modalism were central to this process. Context-sensitive design issues implemented as part of the Euclid Avenue project included the following:

- A public involvement meeting was set up to present the proposed alternative and solicit input on how the plan was viewed by the public. Neighborhood and special interests groups attended the meeting.
- The use of simulation techniques to evaluate possible alternative designs was employed. This approach documented the relative gains from each alternative over the existing conditions.
- Bike lanes along the entire corridor.
- Use of a single corridor for all modes of transportation, i.e. passenger cars, public transportation, bicyclists, and pedestrians. ?

#### **HISTORY OF PROJECT**

Euclid Avenue is a minor arterial that serves as a connector between the University of Kentucky and several residential areas to the east and south. The roadway is used both by local residents and commuters residing in various residential developments bordering the University. There is a heavy pedestrian and bicyclist traffic as well as several shopping areas along the

corridor. The road is a state-maintained roadway and funds were allocated for resurfacing. The Kentucky Transportation Cabinet initially envisioned as a solution to the congestion issues the conversion of the roadway to a five-lane road without acquiring any additional right of way. The plan was presented at a public meeting and it faced significant opposition by the neighborhood representatives and special interest groups. Pedestrian and bicyclist needs were not considered and safety concerns were raised due to the narrow width of the lanes proposed. An alternative plan of a three-lane roadway with bike lanes was proposed and the Department of Civil Engineering at the University of Kentucky was asked to perform an evaluation study of the alternatives. The results were presented at a City Council meeting and it was decided to adopt the alternative plan and provide bike lanes along the entire corridor.

## **HIGHWAY AGENCY INVOLVEMENT**

The Kentucky Transportation Cabinet was the funding agency for this project and had a significant involvement beginning with the initiation of the project. Their involvement continued throughout the project and was critical to the evolution of events. Their support to the plan proposed by the public was central to successfully completing the project.

## **RESOURCE AGENCIES INVOLVEMENT**

The Lexington-Fayette Urban County Government (LFUCG) was a stakeholder involved in the decision process. The City Council pioneered the idea of the bike lanes and strongly supported the conversion of the roadway after the presentation explaining the relative gains from each alternative.

## **COMMUNITY INVOLVEMENT**

There was direct community involvement from the beginning of the project. There have been several approaches taken to solicit input from the community, including:

- A public involvement meeting was held with 30 participants where alternative ideas were presented. Solutions provided included a three-lane roadway with landscaped median, pedestrian crossings, and wide sidewalks and a three-lane roadway with bike lanes and landscaped median.
- The presentation to the LFUCG was well attended by the public and comments were collected regarding the importance of the redesign of Euclid Avenue as a more pedestrian- and bicycle-friendly roadway

## **SIGNIFICANT ISSUES**

### **Urban County Government's Involvement**

The Urban County Government's support of the concept was essential in the successful completion of the project. The improvement of the area and development of bike lanes was strongly supported by the neighborhood representatives. Most of the council members endorsed the idea of creating a safe pedestrian and bicyclist environment that would enhance the quality of life of the area surrounding the corridor. The solicitation of ideas and comments from the public was considered essential in the development of a design that would be accepted by the community.

## **Public Education**

An educational campaign was undertaken to promote proper use of bike lanes and increase their use. Newspaper articles were prepared and a pamphlet was developed.

## **Public Involvement**

The public involvement meeting was essential in developing alternative ideas. During the meeting plans were solicited and discussed that changed the focus of the project to addressing mobility needs for all users of the corridor and not only for the automobile drivers. The meeting also demonstrated the flexibility of the Highway Department to accept alternative designs and consider other approaches to improve the corridor.

## **PROJECT OUTCOME AND LESSONS LEARNED**

Key attributes of the Euclid Avenue project were summarized to provide insight into the performance results and how these results differ from other highway projects where the concepts of context-sensitive design were not implemented. Following is a listing of the most prominent attributes of the project and an assessment of the success achieved.

- The flexibility and open mindedness of the Kentucky Transportation Cabinet to consider alternative designs and implement concepts suggested by the public indicated to the public that their opinion is valued and is seriously considered. This level of trust between the highway agency and the public has contributed to more efficient completion and acceptance of other transportation related designs.
- A major emphasis of the project was public involvement and solicitation of comments from various groups of interest.
- The strong commitment by the Urban County Government to develop a bicycle and pedestrian corridor played an important role in completing this project.
- The “road diet” concept (where a roadway with more lanes is converted to one with fewer lanes) has worked very well by reducing speeds without increasing congestion.



Figure 1. Existing conditions (4-lane with narrow median)



Figure 2. Existing conditions



Figure 3. Existing conditions (unsafe pedestrian crossings)



Figure 4. Current conditions (east-bound view)



Figure 5. Current conditions (west-bound view)



Figure 6. Current conditions