

Accessibility and Environmental Quality

V. SETTY PENDAKUR and G. R. BROWN, University of British Columbia, Canada

ABRIDGMENT

•THE adverse effects of motor vehicles on the quality of community life have become a matter of serious concern. The efficiency of the automobile, combined with its flexibility for personal travel, has produced a conflict in which the high level of accessibility desired by the motorist tends to contradict the social objectives of a safe, attractive, urban environment. Traffic planning objectives can be diametrically opposed to those of maintaining a high standard of environmental quality. The planning process must transcend these diverging objectives and rationalize the trade-offs between them.

In this study a system framework is developed that portrays the components of the conflict, and in which environmental quality is represented by factors relating to pedestrian movements, and accessibility by those relating to automobile movement. Elements that serve to measure pedestrian safety, comfort, convenience, and visual sensation are compared with those measuring motor vehicle driver safety, convenience, penetration, and visual harmony. Of those elements that interact, some are conflicting, while others are mutually supporting. The former group requires an evaluative procedure to select the optimum mix of intensity of interaction, whereas the latter group requires only that sufficient funds are available for improvement.

To test the framework, a pilot study was made of a ribbon-type commercial district. Pedestrians were interviewed to determine their perception of the shopping environment in the role of pedestrian. The respondent scored each accessibility and quality item on two scales. The results of 88 interviews showed that almost 50 percent of those interviewed thought environmental quality was "satisfactory," while the rating for accessibility was almost equally divided between those who thought it was "good" (28 percent), and those who thought it was "poor" (30 percent).

Two conclusions emerged from this study: (a) that it is possible to measure the environmental quality-accessibility conflict by attitude survey, and (b) that people are more consciously aware of problems of accessibility than those of environmental quality. Further research is needed to substantiate these hypotheses.