A STUDY OF THE POTENTIAL EFFECTS PRODUCED BY A PROPOSED INTERSTATE OVERPASS ON SOUTHWEST SIOUX FALLS

A Project Report

Presented to the

Department of Geography

Western Illinois University

In Partial Fulfillment

For the Degree

Master of Arts

by

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May 1993

ABSTRACT

Transportation system improvements can have significant impacts on a community. A new interchange may affect several aspects of the area. Surrounding land uses, the physical environment, social character of an area, and travel patterns of motorists may be altered.

To ensure that the construction of a new facility or structure will not negatively impact the community, certain issues should be addressed. An analysis of both the present and projected future conditions is necessary. Socio-economic factors, land use, and environmental limitations all affect the feasibility of proposed transportation system improvements. Projected traffic volumes and travel patterns are highly significant factors in determining the necessity of a new overpass or interchange. Traffic forecasting software packages based on federal policies and guidelines can assist planners in the review process.

This study focuses on a particular location in Sioux Falls, South Dakota which has been identified as a potential location for an interstate overpass. A review of existing and future conditions was completed. A traffic model of the city was developed. Model output provided the basis for future traffic flows and travel patterns. A benefit-cost analysis was done to determine financial feasibility of the overpass. The study concludes with a summary and recommendations for further study.