

## 1979, SPECIAL GENERATORS ANALYSIS

### Executive Summary:

1.

The Special Generators Study analyzed available data and the literature pertaining to the land use classes listed in exhibit 1. This working paper summarizes the analysis which has been carried out by the consultant and presents his conclusions and recommendations.

2.

The study team is concerned with the forecasting requirements associated with three levels of planning; site planning/development approval; area planning; and regional planning. As indicated in Exhibit 5, each level of planning activity has different output priorities associated with it. For example, site/development approval planning is primarily concerned with vehicle trips, whereas regional planning requires estimates of person trips by mode. Special generators analysis for site/development approval planning can therefore be carried out by using trip generation rates and relationships based on vehicle trips rather than person trips.

3.

Potentially useful local data were found to be available for seven classes of special generators: retail—shopping centers; educational institutions; hospitals; high-rise apartments; activity centers (Lansdowne Park and Nepean Sportsplex); transportation terminals; and hotels. Exhibit 7 describes the available data.

4.

The relationship between planning priorities and available information is indicated in Exhibit 8. While the forecasting requirements specified by the available data for any of the 14 classes of generators considered in this study, useful data were found to exist for shopping centers, educational institutions, and hospitals.

5.

Available data do not satisfy the requirements of regional planning as they do not identify trips by purpose. As discussed in the text, these available data can be used to indirectly assess the forecasting relationships currently employed in transportation modeling for the region.

6.

As indicated in Exhibit 9, current occupancy/classification counts are available for 11 shopping centers in the regional municipality. This data base provides a means for updating the trip generation rates specified in the October 1977 Trip Generation Manual. However, caution must be exercised in the making use of these data because the available counts were taken in various months, and there are no local control figures on traffic or shopping activity at the various classes of shopping center over the year. This introduces an unknown error into the trip generation forecasting process as is discussed in the text. It is recommended that the monthly ATR counts be taken for a small number of representative shopping

centers in order to develop appropriate adjustment factors to apply to the available occupancy/classification count data.

7.

The available data for educational institutions and hospitals provides a partial check on the forecasting assumptions and relationships currently employed by the Region. In relation to school trips it was found that existing trip generation relationships and assumptions did not consider the influence of part-time students. Therefore, these should be updated as part of the TRANS model development program.

In relation to hospitals it was found that trip generation rates per bed observed at Ottawa-Carleton hospitals are consistent with experience elsewhere and provide an acceptable basis for area planning.