1.2 Manual Development Process

Step-2 Calculation of Trip Generation and Parking Rates for Individual Sites

Following the data checking exercise, trip generation and parking rates were calculated individually for each of the surveyed sites.

Travel information collected during the site interviews was expanded at each access point using the person count survey data in order to obtain the total trip numbers at each access point. The trip numbers at each access point were then combined to provide an overall trip generation rate for the site. Other collected information such as the ATCs and vehicle occupancy rates were used to validate the trip generation rates derived from the person counts and site interviews.

A similar process was undertaken to determine the individual parking demand rates for each site. In this case, the parking surveys, ATCs and vehicle occupancy results were used to validate the parking rates for sites which have dedicated parking lots.

Step-3 Statistical Testing and Compilation of Trip Generation and Parking Rates for Land use Classes

The final trip generation and parking rates were produced for each Land use Class by compiling the trip information from the individual sites. This involved statistical testing to validate the inclusion of individual sites and to justify the need for a spatial sub-classification within a Land use Class.

A statistical analysis method was used to assess the significance of the range of data for the various Land use Classes. If the trip generation rates for all the sites fell within the statistically confident zone, they were then recommended for final compilation for the Land use Classes. In cases where an individual site, or a collection of sites, fell outside of the confidence zone (referred to as 'Outliers'), then these were further tested to see if the results were reliable or whether these sites had separate travel characteristics.

For the Land use Classes where a spatial sub-classification was necessary (e.g. Abu Dhabi CBD, Al Ain Non CBD etc.), further statistical tests were undertaken to evaluate the level of variance between the spatially sub-classified groups. A confidence value was derived (as a percentage) for each spatial sub-classification group. This was then examined to help determine whether the trip generation rate for a given Land use Class would be spatially sub-classified or whether a single value would be adopted for the Emirate.