K and D Factors

K is the proportion of AADT on a roadway segment or link during the Design Hour, i.e. the hour in which the 30th highest hourly traffic flow of the year takes place.

The Design Hourly Volume of a roadway segment or link is its 30th highest hourly traffic volume of the year in vehicles per hour, and is denoted by DHV.

Thus the **K** factor is given by,

DHV = **K** * AADT

D is the proportion of DHV occurring in the heavier direction, and is called the Directional Split. Thus **D** $\geq$ 0.5

The Directional Design Hourly Volume, denoted by DDHV, is given by,

DDHV = **D** * DHV

From the database of ATR stations, the average values for the 30th Highest Hourly Volume as well as the corresponding Directional Split each Traffic Pattern Group for 2003.

To determine the K and D values of a roadway segment or link, the first course of action is to obtain its TPG. Having known the TPG of the roadway segment or link, its K and D values can be determined for 2003.