

## **WEIGHTING PROCEDURE FOR TRAFFIC STATISTICS**

The Weighted Annual Average Daily Traffic (WAADT) volume is a synthesis of several point AADT volumes into a single volume number called a WAADT for a Traffic Control Section.

A Traffic Control Section (TCS) is a portion of a Control Section (CS) that has similar traffic characteristics. Each control section has one or more traffic control sections.

Within the TCS there can be several AADT points which are representative of volumes on subsections of the TCS. By summing the product of, each AADT by the length of its respective sub-section, and dividing this summation by the total length of the TCS, the TCS's WAADT can be determined.

The Weighted Average Summer Daily Traffic (WASDT) volume is a synthesis of several point ASDT volumes into a single volume number called a WASDT for a Traffic Control Section. The WASDT calculation then follows the same methodology as that of the WAADT.

The vehicle classification percentages for a traffic control section are estimated in a similar manner. The WAADT volume for each vehicle classification is a synthesis of point AADT volumes for each respective vehicle classification into a single volume number for a Traffic Control Section. This single volume number is then divided by the TCS's WAADT to determine the vehicle percentages provided in the report

The same weighting principles are used in obtaining the WAADT volume, WASDT volume and Classification Percentages for control sections and highways.

The Annual Million Vehicle Kilometres driven is calculated for each TCS, CS and Highway by multiplying the WAADT by the appropriate TCS, CS or Highway length times 365 or 366 days and divided by one million. The Summer Million Vehicle Kilometres driven is calculated for each TCS, CS and Highway by multiplying the WASADT by the appropriate TCS, CS or Highway length times 153 days (May 1 to September 30) and divided by one million.

The Single Unit Truck (SU) Equivalent Single Axle Load per Day per Direction is calculated for each TCS, CS and Highway by multiplying the WAADT by the Single Unit Truck Percentage times **0.881 ESAL divided by 2**.

The Tractor Trailer Combination (TT) Equivalent Single Axle Load per Day per Direction is calculated for each TCS, CS and Highway by multiplying the WAADT by the Tractor Trailer Combination Percentage times **2.073 ESAL divided by 2**.

The Total (Total) Equivalent Single Axle Load per Day per Direction is simply the sum of the the Single Unit Truck (SU) Equivalent Single Axle Load per Day per Direction plus the Tractor Trailer Combination (TT) Equivalent Single Axle Load per Day per Direction.