

DERIVATION OF TRAFFIC VOLUMES

The primary statistic calculated is the **Average Annual Daily Traffic (AADT)** at points on the highway network. This is determined by counting the total number of vehicles to cross a point in both directions on a highway during a year and dividing this value by the number of days in that year.

This is done annually for the 381 **Automated Traffic Recorder (ATR)** sites that **Alberta Transportation** owns.

All other points are calculated based on knowing the following information:

1. Which ATR is representative of the traffic volume at the point on the highway in question
2. The AADT at the above ATR for the year that the AADT estimate is required.
3. The volume at the above ATR during the time of the short term count
4. The volume at the point during the time of the short term count

The formula is as follows:

$$\frac{\text{Volume at Highway Point During Manual Turning Movement Study}}{\text{Volume at ATR During Manual Turning Movement Study}} \times \text{AADT at ATR} = \text{AADT at Highway Point}$$

Considerations:

1. Assigning counters is an art not science
2. Sometimes an AADT estimate is required before data for the count date is available from the ATR. In such cases data from a similar day during the previous year is used along with an estimate of the current AADT at the ATR using the last 12 months of available ATR data
3. Technically a 2016 AADT cannot be determined until after December 31, 2016. This is when the full calendar year of data is known. Practically however because data has to be brought in from remote sites, checked, and edited for errors, AADT estimation from counts done in 2016 cannot commence until mid February of 2017.