

## Growth Factors

The Annual Average Daily Traffic or AADT of each station not counted during the calendar year of 2024 was created by applying the growth factors relating to each Traffic Pattern Group or TPG. These growth factors are created by using permanent traffic counting stations that collect a minimum of eight months of data during the year being reported in each traffic pattern group. The 2024 growth factors are shown below.

TPG:	1	2	4	5	7	8
Growth Factor:	<u>1.036</u>	<u>1.015</u>	<u>1.025</u>	<u>1.030</u>	<u>1.025</u>	<u>1.018</u>

## K and D Factors

**K** is the proportion of AADT on a roadway segment or link during the Design Hour, which is 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,  $DDHV = D$

$$* DHV$$

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 2023.

**NOTE:** Both short term counts and ATR data was used to produce the K and D factors.

Traffic Pattern Group	K-Factor	D-Factor	Truck % Average	
			SINGLE UNIT	COMBO UNIT
1	9.3	55.4	7.9	4.8
2	11.1	56.9	4.2	2.3
4	14.3	60.7	N/A	N/A
5	11.8	57.2	N/A	N/A
7	13.5	59.1	N/A	N/A
8	11.7	55.9	4.4	0.8