

## **Wise Drive Mission Statement and App Characteristics**

Wise drive is an application, that helps automobile users to pre-plan their trip based on the design and condition of the roads in their route. Our user-friendly app will show important features in their route that could potentially affect their daily commute. The calculator that we have coded help the users understanding the energy and fuel usage of their vehicle. By linking the calculator and the visual map the user will become more aware of the consequences of driving. Driving wisely will serve to create a sustainable future in the long run. Our map is based in Halifax but can be used in any city with the required datasets of the selected city.

Burning 1 L of gasoline produces about 2.3 kg of CO<sub>2</sub> (carbon dioxide). This means that the average Canadian vehicle, which burns 2000 L of gasoline every year, releases about 4600 kg of CO<sub>2</sub>. CO<sub>2</sub> amounts to about 80% of the total greenhouse gas in our world today. Over 10% of this is coming from our private cars in the city. So, it could be said that the drastic emission of CO<sub>2</sub> is one of the main causes of climate change and the enormous amount of that is coming from the vehicles we drive. It is unrealistic to expect people to stop driving in the cities instantly, so the process of cutting down emission can come gradually with our app. With small steps taken, together we can create a big step of change.

Wisely planning our route will save our time, money and save the environment. A person does not have to use it all the time. We can select our routes in our daily commute, and we will be selecting it once. One can trial and error a few paths and see what suits them best. Commute to work, grocery and etc are regular routes, so one-time planning benefits us over the years. Our app has the layers that the user might want to visualize. If the user wants to avoid routes with trucks, they can make our app show the truck routes. If the user feels that stopping behind the same bus five times in one route is very inconvenient, they can make our app show the bus routes with stops and plan their route. If the user wants to know about the differences and comparisons in numbers, they can scroll down and use our calculator. Our very basic calculation gives a correct approximate idea of the fuel and energy usage based on a number of stops and other features.

