

## Background

I am resident in Willingdon Heights. Due to the location of my resident, I was able to observe at first hand the traffic pattern at the intersection of Parker Street and Macdonald Avenue. Parker street is identified as minor collectors in the [latest Burnaby Transportation plan](#). While working in my yard and in my front room, I previously heard honking noises and commotion from people yelling at each other related to a vehicle incident. As such, I am intrigued and set out to get more information and data about my neighborhood.

## Site location

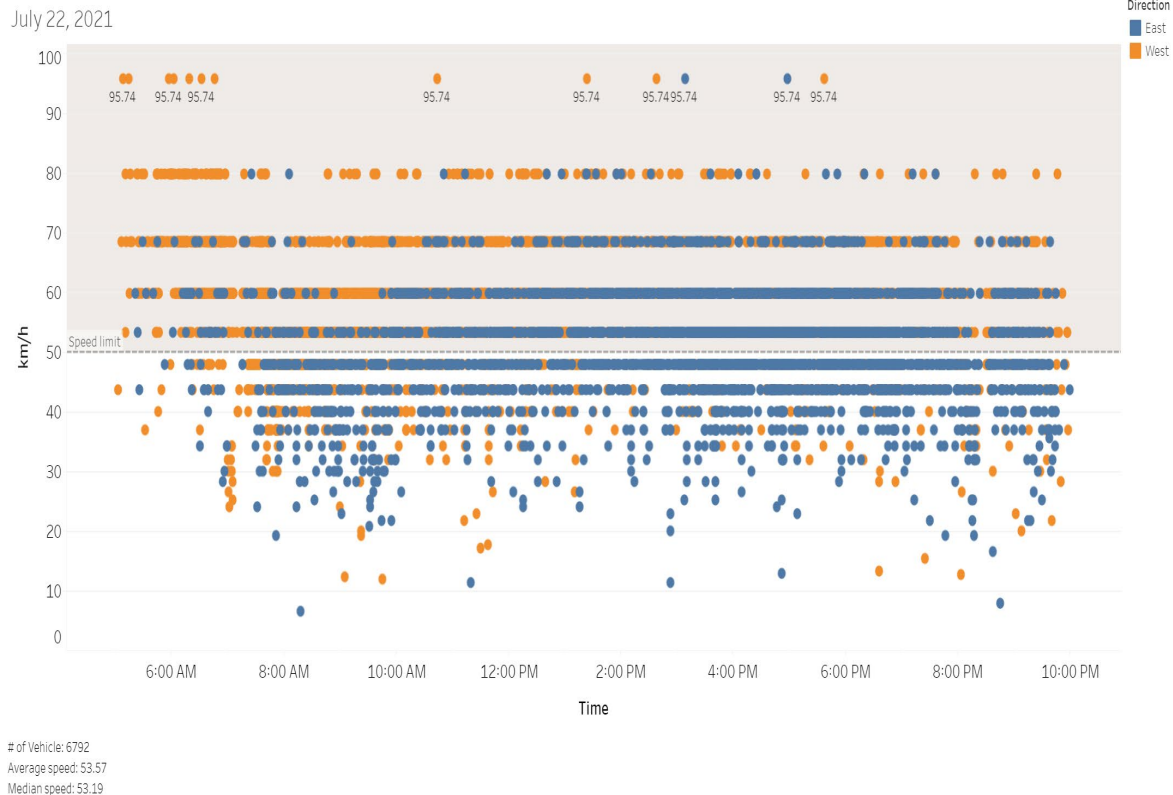
The location of the existing intersection of Parker St/ Macdonald Ave has unsignalized crosswalk. The surrounding area predominantly consists of residential developments. Approximately 200 meters to the south on Macdonald Ave is Kitchener Elementary.

## The data & facts

One of my security cameras has the west side of the Parker St and MacDonald Ave intersection within its field-of-view. With a computer program, I was able to get some rudimentary information about each vehicle that passed through, such as direction and speed. Please See Appendix for more information.



After processing two days' worth of video (one on weekday and one on weekend). I obtained the following graph.



Feel free to explore it here:

<https://public.tableau.com/app/profile/lawrence2597/viz/July222021Speed/Sheet1>

<https://public.tableau.com/app/profile/lawrence2597/viz/July242021Speed/Sheet1>

Some observations we can derive from those graphs:

1. West bound traffic is overall faster than east bound due to the slope of the street.
2. There are vehicles that are going almost twice the speed limit and those incidents usually happened during less busy traffic time.

According to ICBC, [speed plays a big factor in accident, injury, and fatality](#). According to WHO's world report on road traffic report [drivers' speed can be influenced by traffic and environment-related to traffic density and composition](#). I personally do not think enforcement can achieve true speed reduction that I would like. Based on the data, we know that the highest speed is measured at fringe hours where physical enforcement is often lacking.

## Proposal

According to the WHO's road traffic report, the adverse effect of speed can be managed through number of interventions such as installation of physical speed reducing measures. I propose to setup a new 4-way stop at this intersection. A 4-way stop should slow down the speed of vehicles going through Parker St without affecting the overall number of vehicles passing through, since there is already a 4-way stop 2 blocks west of Parker St and MacDonald Ave intersection (Parker St/ Douglas St) and a traffic signal at Parker St/ Gilmore Ave.

## Appendix

- An example of an hour worth of processed security camera footage on July 24<sup>th</sup>, 2021, from 6am to 7am

[https://drive.google.com/file/d/1efuzctngUM70Tmo\\_fMzQ7MAIUHHXs-uv/view?usp=sharing](https://drive.google.com/file/d/1efuzctngUM70Tmo_fMzQ7MAIUHHXs-uv/view?usp=sharing)

- An example of an hour worth of processed security camera footage output data in excel spreadsheet from the same timeframe as above

<https://drive.google.com/file/d/1-0z6WUMJIXydg4wuNPxY-uwBQQuz6K3y/view?usp=sharing>