1. What data does the city of Regina currently collect?

As far a traffic data goes, City collects traffic volume, turning moment counts at intersections, vehicle classifications, vehicle speeds and pedestrian &/cyclist counts depending upon the location and requests from resident.

1. How is this data collected?

The City use Miovison Scout camera counters, MetroCount tube counters and black Cat radar speed counters dependent on the need & type of data required.

1. Do you know any privacy regulations that are used in Regina/Canada that apply in this scenario?

In our case, not applicable as we only collect the vehicle counts nothing related to the color, manufacture, license plate of the vehicle or its occupancy. We also do not store the video footage.

1. What determines the timings on the traffic lights?

The timings are determined by many different factors and are typically vary by time of day, some examples are traffic demand, turning moments, pre-emption(emergency, transit, rail etc), corridor traffic flow, nearby signalized intersections, level of service, modal split, pedestrian volume, etc. A good free source document for your reference to review<https://nacto.org/docs/usdg/signal_timing_manual_fhwa.pdf>

1. Is there any technology used currently for real - time traffic control?

The City uses an advanced Traffic management system software called “Centracs” though which we input our signal timing plans. Our detection cameras at intersections aid in making Signal cycle efficient. City also has a few PTZ cameras with live feed to allow our technicians make manual adjustments as needed.

1. Can emergency vehicles trigger traffic lights? If so, how?

Yes, the technology is called preemption and City currently uses “Applied Information Emergency Pre-emption system”. These advanced systems are currently installed at about 60% of our signals that are located on arterials, expressway, and major collector roads. Currently only City’s Fire trucks have ability to trigger this pre-emption. Basically, when the emergency vehicle approaches an intersection will trigger preemption when reaching within certain distance of the traffic signal, the receiver in the signal will activate the designed preemption plan which will provide clearance to the emergency vehicle and help reduce travel delays