



Lakeshore Corridor Transportation Update

August 24th 2020



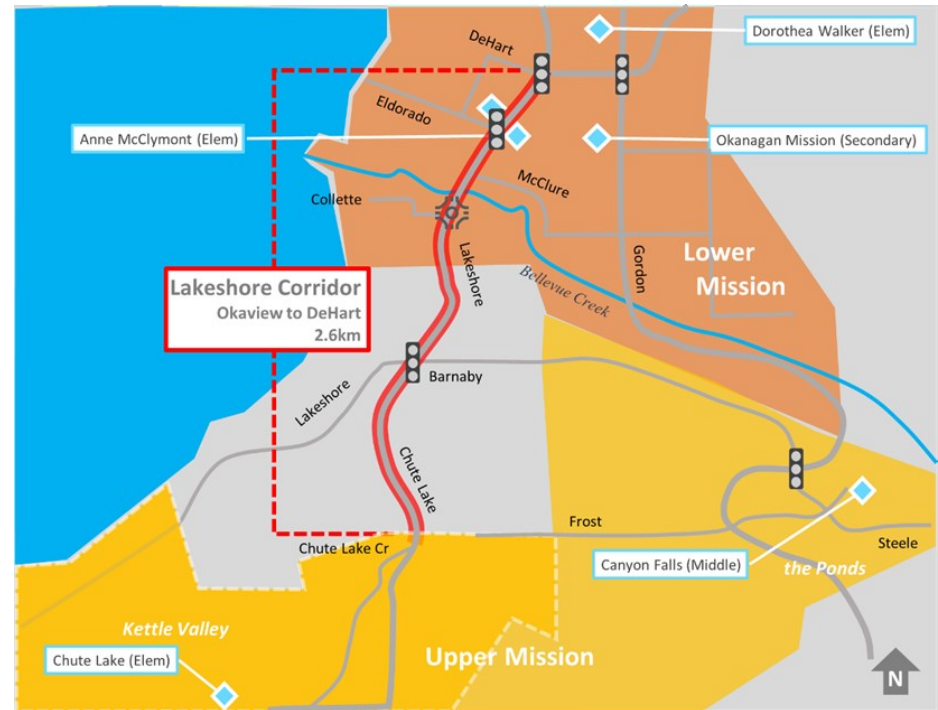
Lakeshore Corridor Transportation Update

- ▶ Update to the May 2017 Southwest Mission Transportation Update.
- ▶ Report how conditions have changed on the Lakeshore Corridor between 2017 and 2020.



Lakeshore Corridor

- ▶ Provides access to the western half of the Upper Mission.
- ▶ Typical of residential areas, sees strong outbound traffic flows to work / school in the morning.
- ▶ Congestion experienced on school day mornings at Eldorado / Anne McClymont Elementary School.



Conditions – Spring 2017 Travel Time Survey

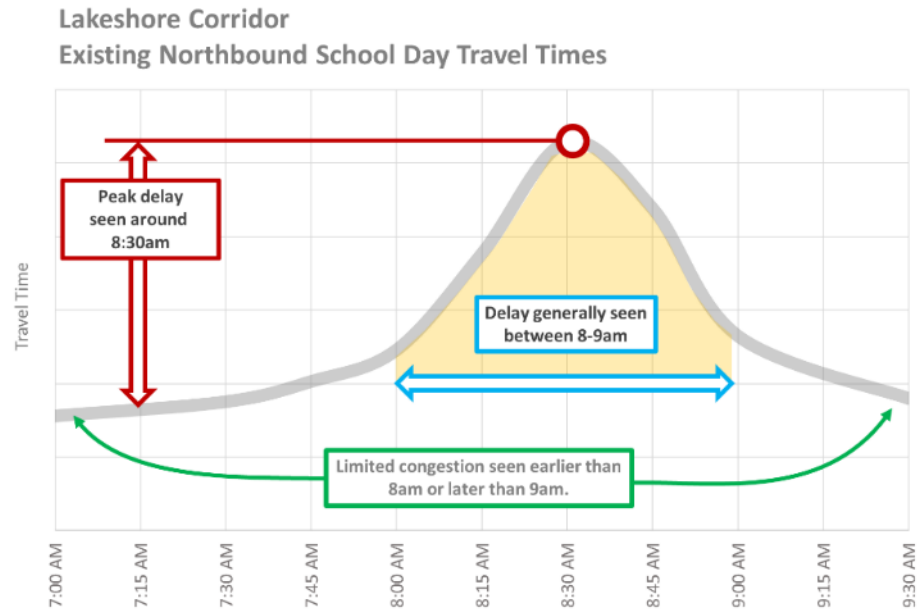
- ▶ One day manual travel time survey on Feb 28 2017.
- ▶ Queues on Lakeshore extended from Eldorado / Anne McClymont Elementary to beyond Barnaby (1.3+ km).



Conditions – Spring 2017

Delay Profile

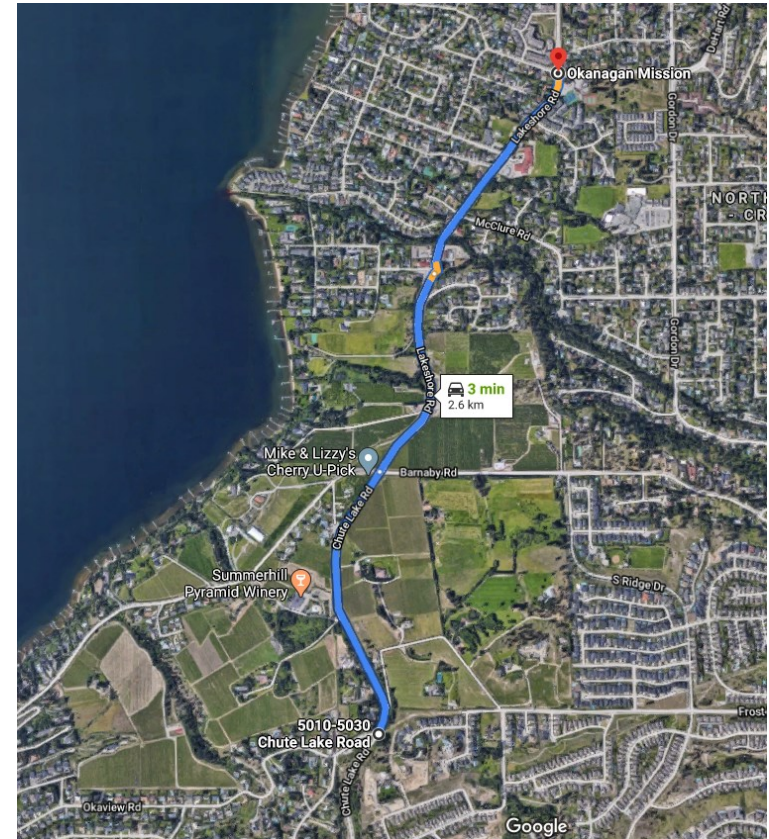
- ▶ Congestion limited to 45-60 minutes during school drop-off.
- ▶ Delay varied within peak hour.
- ▶ Delay peaked just before 8:30am bell.
- ▶ Little delay seen over the rest of the day.



Conditions – Spring 2017

Survey Limitations

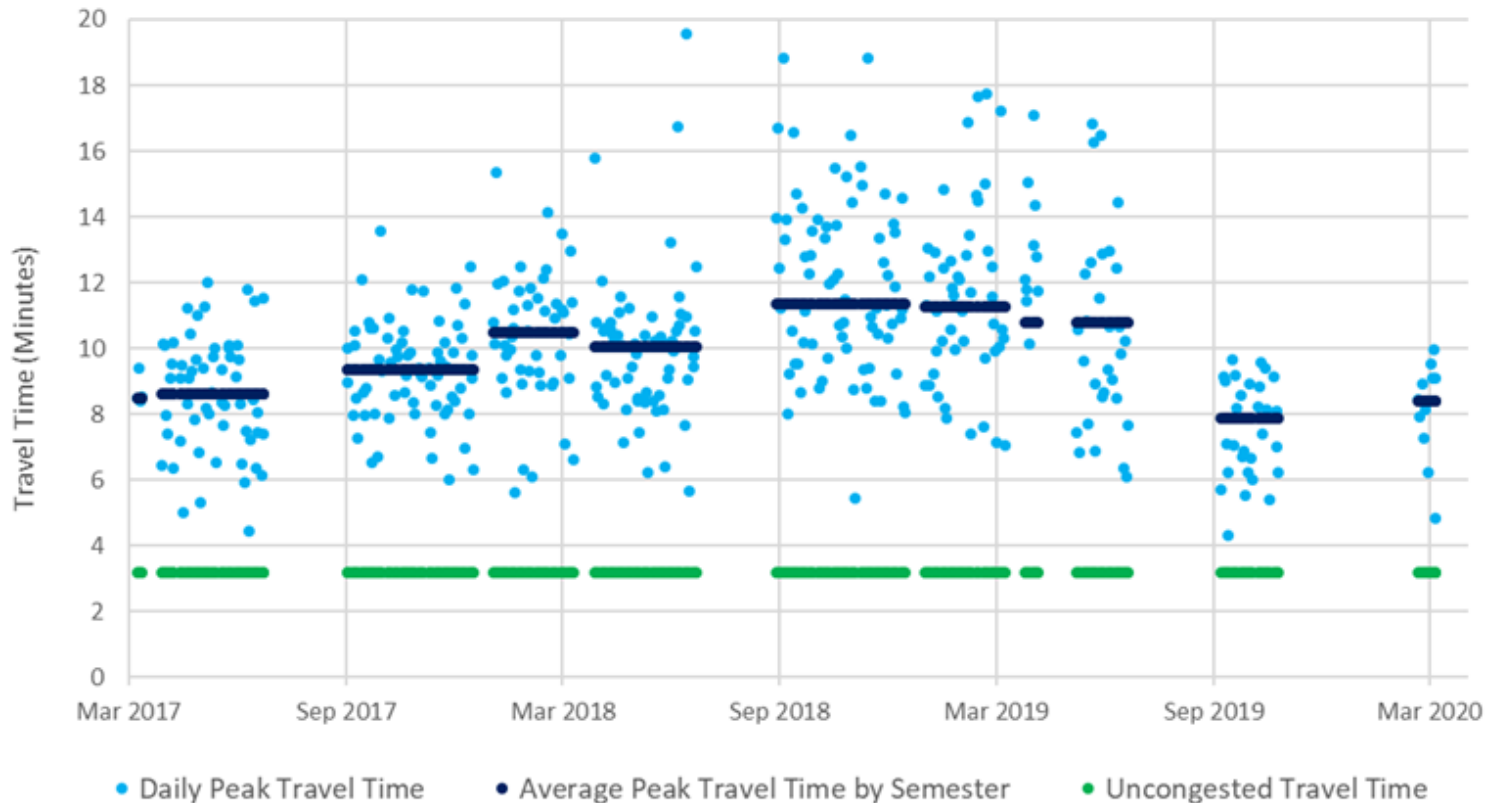
- ▶ 2017 travel time survey precisely measured conditions, but only for a single day.
- ▶ Online mapping tools have been used to monitor travel times moving forward.



Conditions – Spring 2017-2019

Ongoing Survey Results

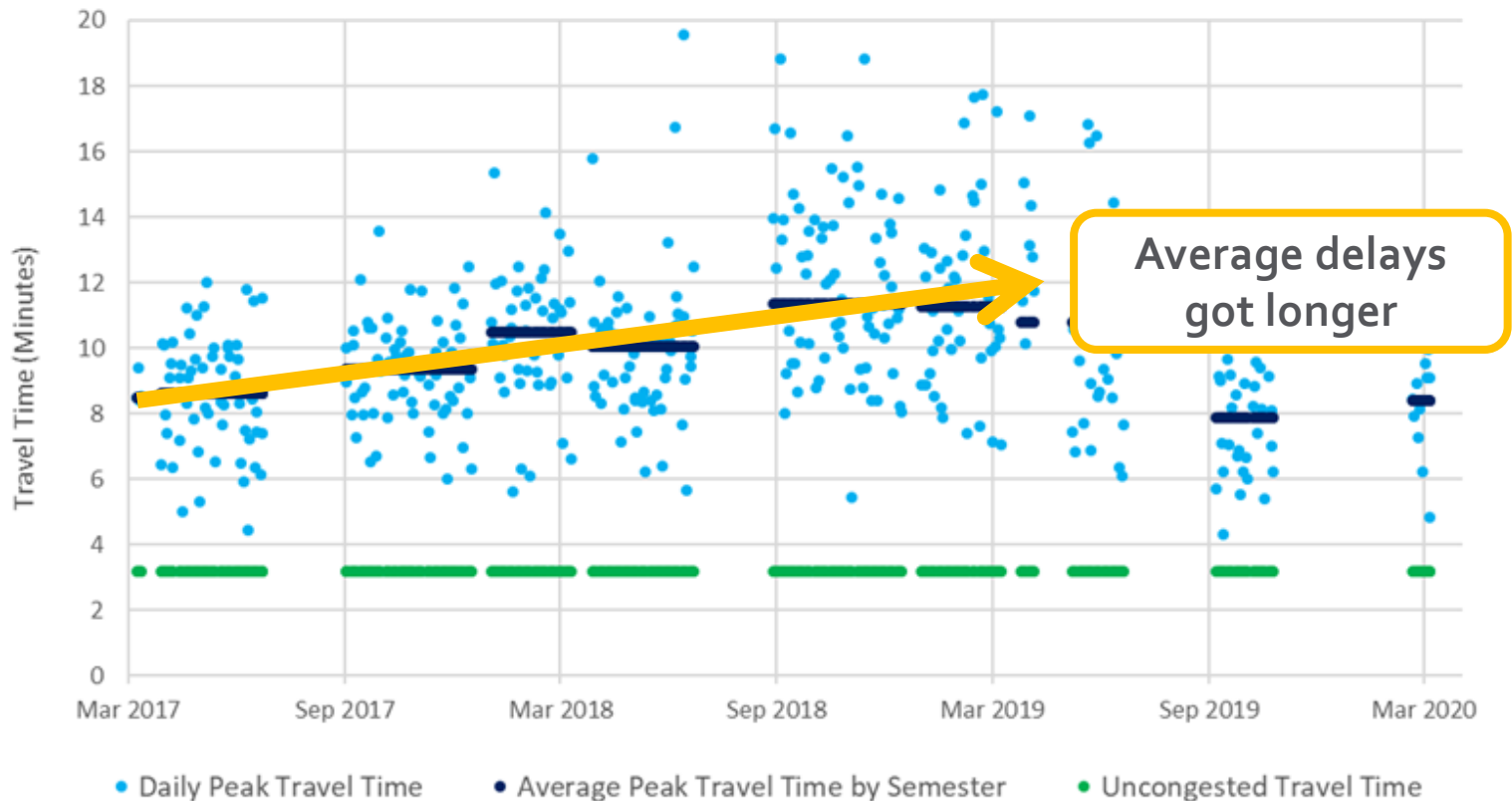
Lakeshore (Okaview to DeHart)
Daily Peak Travel Time at 8:30am
2017-19



Conditions – Spring 2017-2019

Growth of Delay

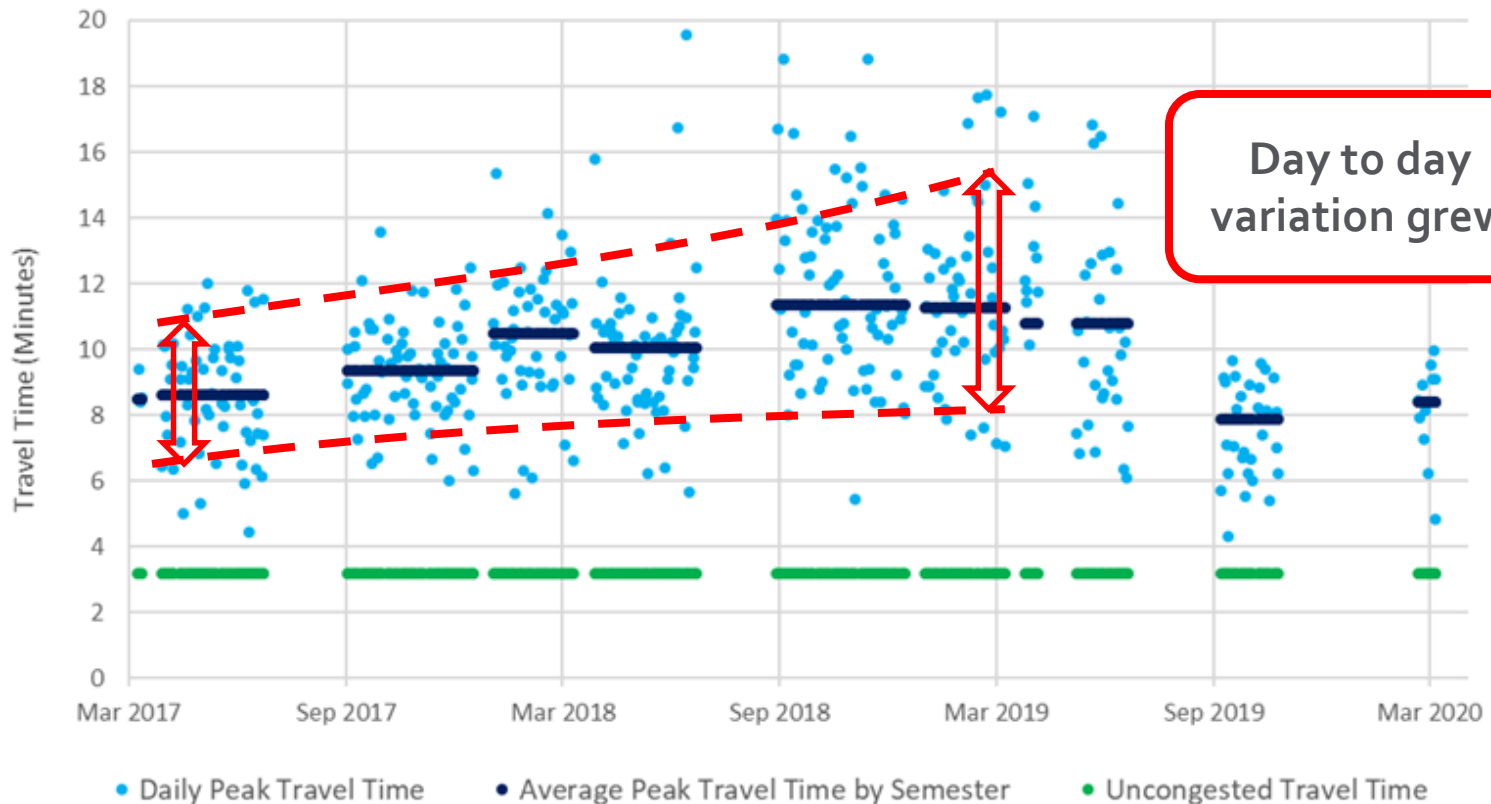
Lakeshore (Okaview to DeHart)
Daily Peak Travel Time at 8:30am
2017-19




Conditions – Spring 2017-2019

Greater Variability

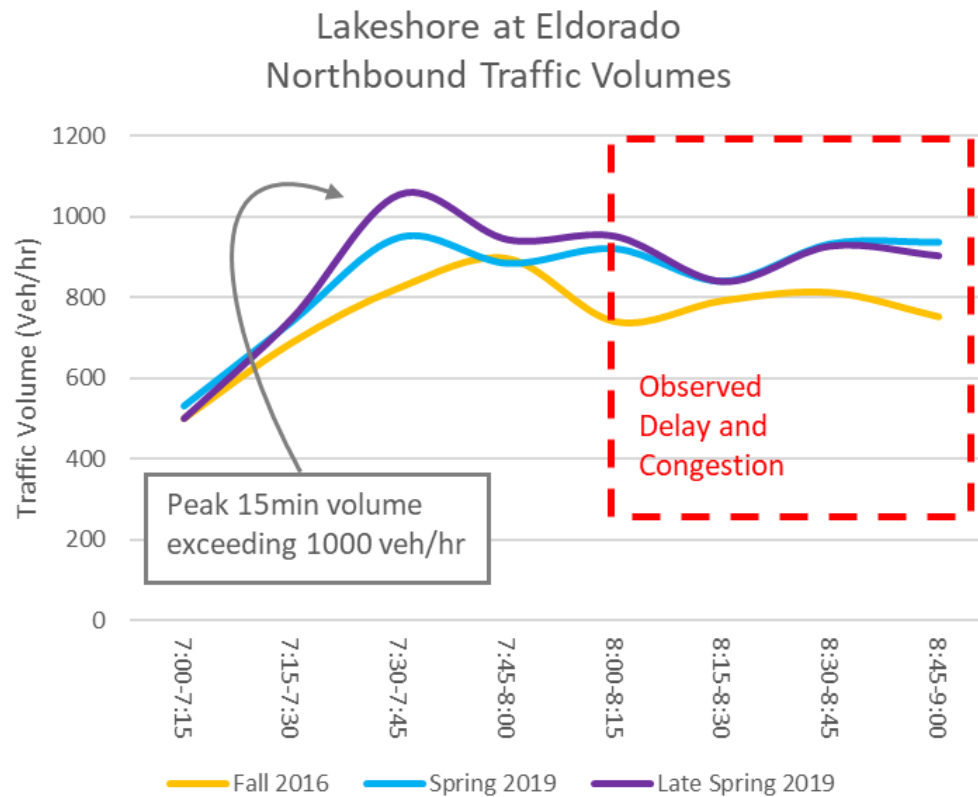
Lakeshore (Okaview to DeHart)
Daily Peak Travel Time at 8:30am
2017-19



Change Spring 2017 - Spring 2019

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- ▶ Between spring 2017 and 2019
 - ▶ Increasing traffic volumes (+15%) drive increasing congestion.
 - ▶ Average Delay grew faster (+30%), day to day variation increased by 60%.
 - ▶ Multiple traffic signal timing updates to increase Lakeshore capacity during school arrival.

Conditions – Late Spring 2019 Signal Timings Updated



Conditions – Fall 2019

Canyon Falls Middle School Opens

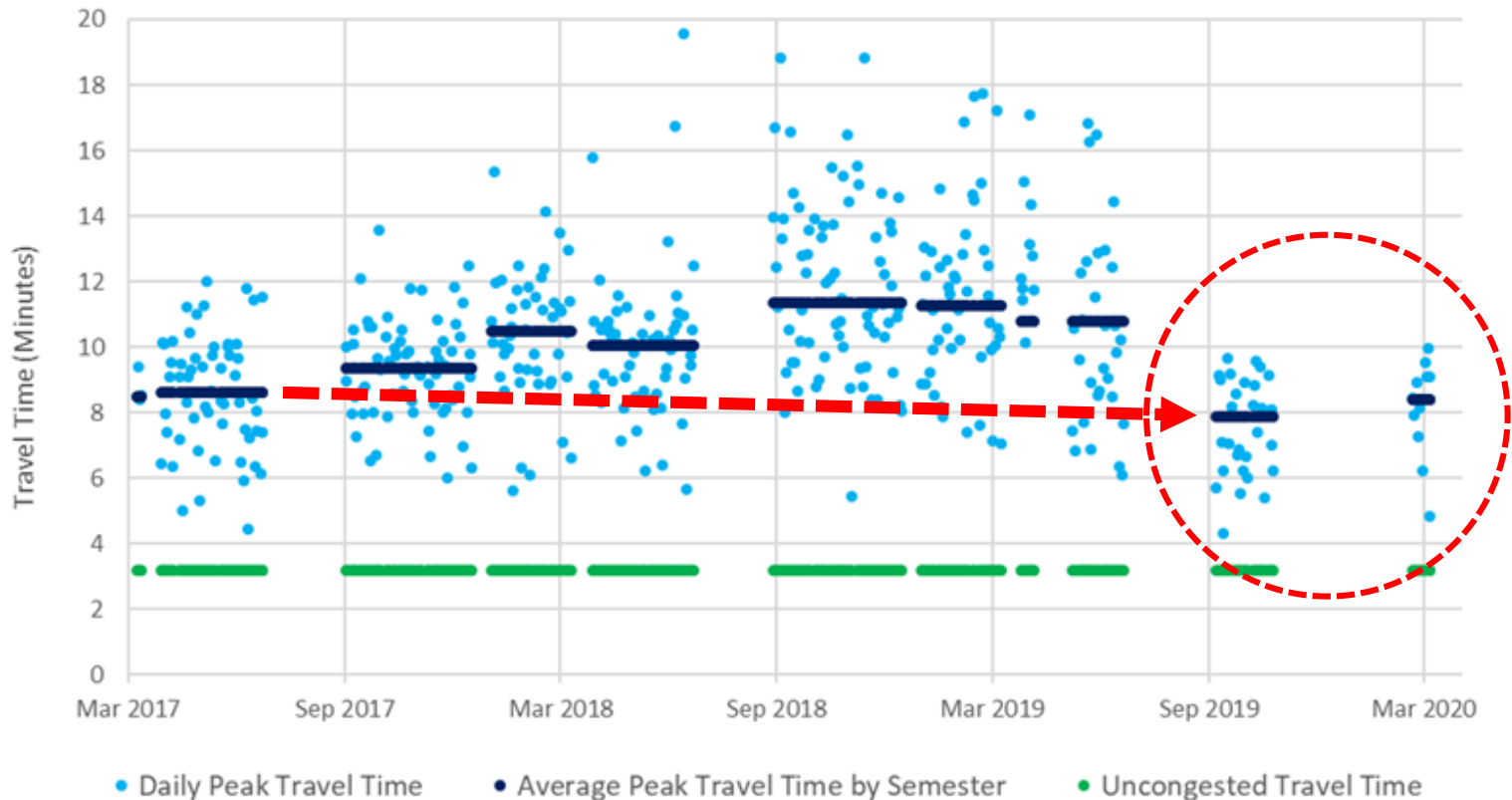
- ▶ Anne McClymont enrollment dropped with the opening of Canyon Falls Middle School.




Conditions – Fall 2019 / Spring 2020

Reduced Delay

Lakeshore (Okaview to DeHart)
Daily Peak Travel Time at 8:30am
2017-19

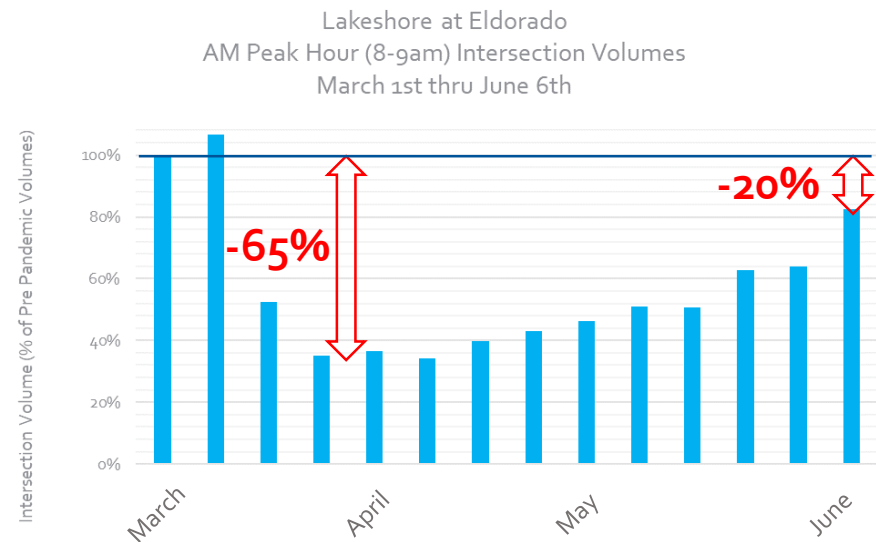


Change Spring / Fall 2019

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- ▶ Between spring and fall 2019
 - ▶ Signal timings increase Lakeshore's capacity, but limited ability for further increases.
 - ▶ The opening of Canyon Falls Middle School reduces enrollment at Anne McClymont.
 - ▶ Delays on Lakeshore improve. Pre-COVID, conditions were similar to the spring of 2017.

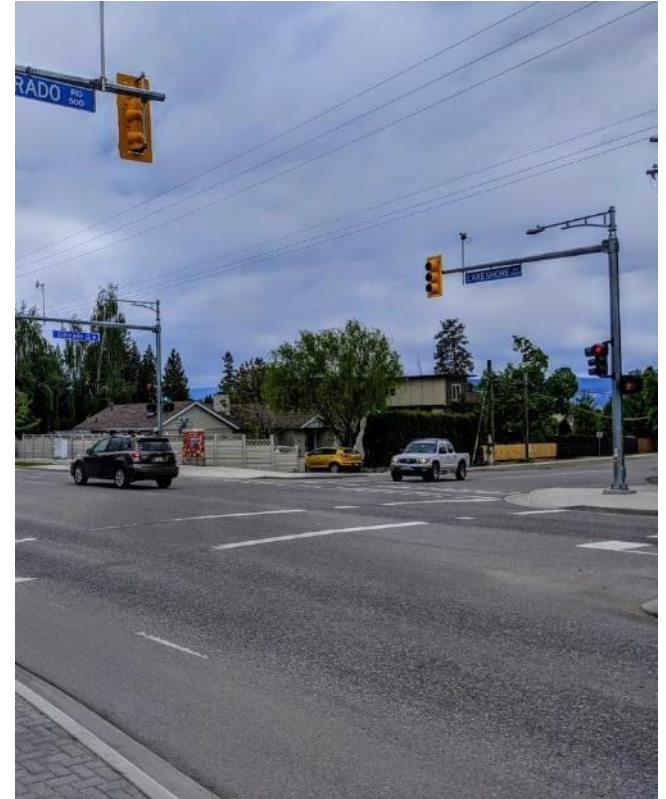
Conditions – Spring 2020 COVID19 Pandemic

- ▶ Traffic volumes fall 65% in the morning.
- ▶ Mid March - schools close.
- ▶ Short and long-term impacts unclear.



Congestion Mitigation Strategies

- ▶ A range of strategies were investigated to reduce congestion on Lakeshore by;
 - ▶ increasing Lakeshore's capacity or,
 - ▶ reduce the scale and impact of school drop-off activities.



Congestion Mitigation

Expanded School Bus Use

- ▶ Goal - Reduce traffic volumes and drop-off activity by increasing the number of students bussed.
- ▶ Anne McClymont already sees high levels of school bus (~50%) use while many remaining students live within walking distance.
- ▶ Likely limited ability to increase school bus utilization.



Congestion Mitigation

Expanded Transit Bus Use

- ▶ Goal - Reduce traffic volumes and drop-off activity by reducing the number of students driven to school.
- ▶ Public transit is not viable for most elementary students.
- ▶ Unlikely that many students can be shifted to transit.



Congestion Mitigation Traffic Signal Changes

- ▶ Goal - Increase the northbound traffic capacity of Lakeshore at Eldorado.
- ▶ Current signal timings heavily prioritize Lakeshore (~80%).
- ▶ Current traffic flows are approaching the capacity of adjacent intersections.
- ▶ Unlikely that more capacity can be achieved.



Congestion Mitigation Pedestrian Overpass

- ▶ Goal – Eliminate interruptions of Lakeshore traffic at Eldorado.
- ▶ Traffic signal would still be required for vehicles turning from Eldorado/Anne McClymont.
- ▶ Existing traffic flow is approaching the capacity of adjacent intersections.
- ▶ Costly and capacity increase would be limited.



Congestion Mitigation

Shifting School Start Time

- ▶ Goal – Shift school start time away from the commute peak.
- ▶ Traffic volumes are relatively stable with a small peak
- ▶ Shifting start time would have limited impact.

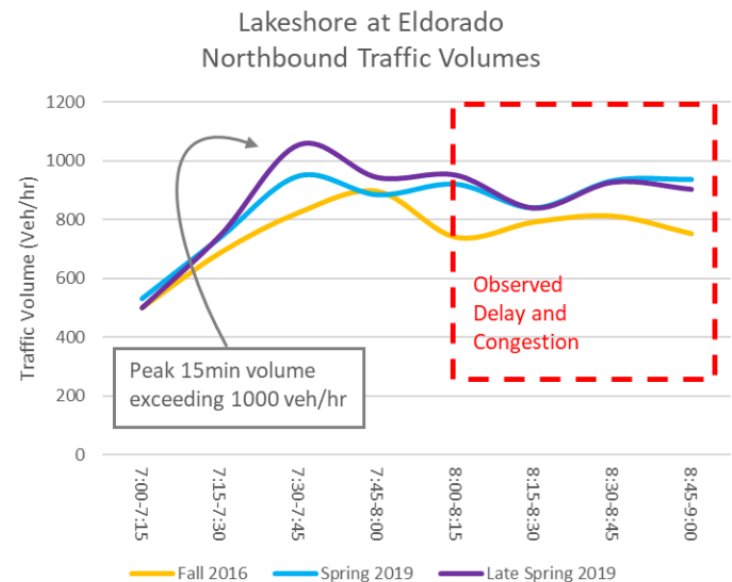



Figure 4 - Traffic Volumes - Northbound - Lakeshore @ Eldorado

Congestion Mitigation Strategies

- ▶ Over time, the signal at Lakeshore / Eldorado has been optimized.
- ▶ Limited ability remains to further increase Lakeshore's capacity, or reduce the scale/impact of school drop-off activities.

Future Trends

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- ▶ Traffic volumes will be primarily driven by future development.
 - ▶ Anne McClymont's enrollment and the long-term impacts of the COVID19 pandemic will also have impacts.
 - ▶ Delay observed will likely return if traffic volumes during the morning peak grow by more than 10%.
 - ▶ Future conditions are uncertain.
 - ▶ Staff will continue to monitor conditions.



Questions?

For more information, visit kelowna.ca.