



ROADS, PARKS AND FLEET MEMORANDUM

TO: MAYOR J. LEHMAN, AND MEMBERS OF COUNCIL

FROM: D. FRIARY, DIRECTOR OF ROADS, PARKS AND FLEET

WARD: 6

RE: 2018 ARTERIAL CORRIDOR REVIEW – ST. VINCENT STREET FROM GROVE STREET TO CUNDLES ROAD

NOTED: B. PARKIN, P. ENG., GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

DATE: JANUARY 28, 2019

The purpose of this Memorandum is to provide an update to members of Council concerning the 2018 Arterial Corridor Review for St. Vincent Street from Grove Street to Cundles Road. Traffic Services undertakes annual Arterial Corridor Reviews to ensure we meet the goals of the 2014-2018 Strategic Plan - Well Planned Transportation as defined by Mayor and Council.

Staff review the arterial signal timings on an ongoing basis to ensure the signal timings reflect the current traffic patterns and are effectively progressing traffic along the corridor. The strategy for optimizing the traffic corridor is to improve the key parameters such as the level of service, travel time, average speed and the stop delay. This is achieved through evaluating the existing conditions along the traffic corridor by utilizing a combination of the most recent 2018 traffic volumes, staff observations, collision history, speed and delay traffic studies and geometric reviews of the intersections.

The initial speed and delay 'before' traffic study was performed on October 16, 2018 and traffic signal timing changes were implemented on December 12, 2018 followed by the final speed and delay 'after' traffic study on December 13, 2018.

The final speed and delay 'after' traffic study performed on December 13, 2018 reflects the recent changes to the signal timing along this corridor and the following charts below indicate the before and after parameters and results for each peak hour period during the day.

AM PEAK (7:30AM - 8:30AM)	NORTHBOUND		SOUTHBOUND	
	Oct 16, 2018	Dec 13, 2018	Oct 16, 2018	Dec 13, 2018
Travel Time (m:s)	02:16	01:42	02:03	01:50
Avg. Speed	29 km/h	37 km/h	33 km/h	34 km/h
Stop Delay (m:s)	00:37	00:13	00:37	00:20
No. of Stops	2	1	1	2



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NOON PEAK (11:30AM - 12:30AM)	NORTHBOUND		SOUTHBOUND	
	Oct 16, 2018	Dec 13, 2018	Oct 16, 2018	Dec 13, 2018
Travel Time (m:s)	01:55	02:01	02:00	01:45
Avg. Speed	33 km/h	31 km/h	32 km/h	35 km/h
Stop Delay (m:s)	00:31	00:35	00:35	00:22
No. of Stops	1	1	2	2

PM PEAK (4:30PM - 5:30PM)	NORTHBOUND		SOUTHBOUND	
	Oct 16, 2018	Dec 13, 2018	Oct 16, 2018	Dec 13, 2018
Travel Time (m:s)	01:59	02:12	02:07	01:40
Avg. Speed	32 km/h	29 km/h	30 km/h	37 km/h
Stop Delay (m:s)	00:31	00:38	00:36	00:17
No. of Stops	2	2	2	1

PM PEAK (4:30PM - 5:30PM)	NORTHBOUND		SOUTHBOUND	
	Oct 16, 2018	Dec 13, 2018	Oct 16, 2018	Dec 13, 2018
Travel Time (m:s)	01:59	02:12	02:07	01:40
Avg. Speed	32 km/h	29 km/h	30 km/h	37 km/h
Stop Delay (m:s)	00:31	00:38	00:36	00:17
No. of Stops	2	2	2	1

As part of the Arterial Corridor Review process staff have observed, analysed and improved the traffic corridor in the following areas:

- Set priorities for roads with higher numbers of vehicles to reduce and balance delay to those vehicles.
- Reviewed pedestrian clearance times and updated these timings to City of Barrie Standards.
- Staff observed northbound vehicles queueing at Bell Farm Road during the PM Peak due to roadway transitioning from a 4 lane roadway into a 2 lane roadway for the Highway 400 overpass and adjusted signal timings accordingly to improve the delay.
- Adjusted overall signal timings to accommodate for the most recent 2018 vehicle volumes and improved level of service for all movements with focus on the Northbound travelling vehicles along this corridor during the PM Peak.

After reviewing and comparing the results of the speed & delay traffic study the stop delay has been reduced significantly to keep vehicles freely flowing throughout the corridor and the average speed of vehicles has safely increased resulting in shorter travel times during peak hour periods. Staff will continue to monitor this network and identify any concerns.

If you have any questions, please contact Steve Rose, Manager of Traffic and Parking Services at Ext. 4382 or steve.rose@barrie.ca.