



COUNCIL – AGENDA REPORT

Meeting Date: 7 May 2024

Subject: Traffic Volume Changes Associated with
40th Avenue Interchange

Directorate: Community Infrastructure

Issue:

Council is being provided with information regarding traffic volume changes and redistribution due to the completion of the 40th Avenue Interchange and 40th Avenue widening projects. In addition, Council is being provided with information on how these impacts have affected traffic signalization projects for 2024 and is being asked to endorse a scope change to re-allocate funds from the 2024 Capital Budget towards alternate traffic signal locations.

Policy / Council Direction:

Council supported the construction of the 40th Avenue Interchange and widening 40th Avenue from Southpoint Landing to 8th Street to help alleviate some of the traffic pressure on QEII and City roadways. With the completion of the interchange, Administration has monitored the changes in traffic volume on our arterial roads since the opening.

Background:

With the opening of the 40th Avenue Interchange and widening of 40th Avenue from Point Landing to 8th Street traffic patterns in south Airdrie were expected to significantly change from pre-interchange conditions. The level of impact was somewhat unknown as traffic modelling cannot perfectly predict human behaviour. Following the opening of the 40th Avenue interchange, Administration completed traffic counts on arterials in south Airdrie and as expected the counts have shown some substantial changes. Some of the more notable changes are summarized in the tables below:

Yankee Valley Blvd - Weekday Traffic Volumes				
	East of QE II		West of Main Street	
	Eastbound	Westbound	Eastbound	Westbound
June 2023	16902	18113	16543	16557
October 2023	13900	16100	15200	14500
April 2024	13568	15231	14797	14382
Drop	3334	2882	1746	2175
% Decrease	19.7%	15.9%	10.6%	13.1%

Kingsview Boulevard – Weekday Traffic Volumes				
	North of 40th Avenue		South of Yankee Valley Boulevard	
	Northbound	Southbound	Northbound	Southbound
June 2023	2300	22504	9395	10100
October 2023	5200	4800	8100	7700
April 2024	5624	5777	7155	7235
Drop/Increase	3324	3273	2240	2866
% Decrease			23.8%	28.4%
% Increase	144.5%	130.7%		

8th Street North of TWP 264 – Weekday Traffic Volumes				
	North of TWP 264		North of Coopers Boulevard	
	Northbound	Southbound	Northbound	Southbound
June 2023	7500	7900	7750	7464
October 2023	5000	5200	9250	6750
April 2024			9531	8882
Drop/Increase	2500	2700	1781	1418
% Decrease	33.3%	34.2%		
% Increase			23.0%	19.0%

Main Street South of 40th Avenue – Weekday Traffic Volumes		
	South of 40th Avenue	
	Northbound	Southbound
June 2023	3285	3787
October 2023	3450	3650
April 2024	4290	4372
Drop/Increase	1005	585
% Decrease		
% Increase	30.6%	15.4%

The traffic volume counts show traffic has reduced on Yankee Valley Boulevard and, as such, Administration completed traffic signal warrants on unsignalized intersections that were impacted by the change in volumes. As background, the traffic signal warrant system includes key elements such as vehicle/vehicle conflict, vehicle/pedestrian conflict, intersection geometry and various site-specific factors.

The 2024 budget had requested funding, that was approved, in anticipation that changes as a result of the 40th Avenue Interchange. The originally proposed locations were at the intersections of Yankee Valley Boulevard and Kings Heights Gate, as well as Kingsview Boulevard at the intersections of either Kingsview Way SE or Kingsview Road SE. However, under the new 2024 analysis these intersections have dropped below the level where traffic signalization is warranted. If the City were to install signals currently at these intersections the result would actually decrease traffic flow and increase traffic delay.

Since the originally proposed intersections do not meet the warrant for signalization at this time, Administration then reviewed the next highest ranked intersections. Based on this review the next intersections proposed for signalization were determined to be Main Street at the South Towerlane entrance and Main Street at Elk Hill/Ridgeway Way, in order to support the opening of the Airdrie Multi-Use Facility and Library (AMUFL) in 2025. Traffic signal installation at these intersections

were originally proposed to be in the 2025 Capital Budget though earlier funding approval will allow for expedited design and ordering of long-lead time traffic signal components.

To summarize, as a result of traffic changes associated with the 40th Avenue interchange opening, Administration recommends a scope change for the 2024 traffic signalization budget by way of re-allocating funding towards traffic signal installation at the intersections of:

1. Main Street at the South Towerlane entrance; and
2. Main Street at Elk Hill/Ridgegate Way.

Administration will continue to assess the need for signalization at intersections throughout the City and will recommend installation of signals as warranted. This would be completed through the annual capital budget process. Additionally, Administration continues to monitor traffic volumes in relation to the opening of 40th Avenue Interchange and will continue to advise Council on potential capital budget changes during 2025 budget deliberations.

Council Committee Routed Through:

N/A

Administration Recommendation:

Administration is recommending that Council accepts the presentation on traffic volume changes for information; and endorses a scope change for the 2024 Traffic Signals – New Installations approved budget by re-allocating funding toward the intersections of Main Street/South Towerlane entrance and Main Street/(Elk Hill/Ridgegate Way).

Alternatives/Implications:

1. Council could choose to not support re-allocating the 2024 signal light budget to the Main Street intersections.

Installation of signals at Yankee Valley Boulevard/Kings Heights Gate and Kingsview Boulevard/Kingsview Way SE or Kingsview Rd SE would proceed however, the installation of unwarranted signals will actually decrease traffic flow and increase traffic delay.

2. Council could choose to not support re-allocating the 2024 signal light budget to the Main Street intersections and approve a budget amendment to advance funding for the traffic signalization of the two Main Street intersections.

The additional funding for the Main Street intersections will allow for expedited design and ordering of long-lead time traffic signal components to ensure traffic signal activation prior to opening of the Airdrie Multi-Use Facility and Library.

Budget Implications:

None - Only the location are proposed to change. No budget impact on previously approved funds.

Communications and Engagement:

None

Recommendation:

That Council accepts the presentation on traffic volume changes for information; and endorses a scope change for the 2024 Traffic Signals – New Installations approved budget by re-allocating funding toward the intersections of Main Street/South Towerlane entrance and Main Street/(Elk Hill/Ridgegate Way).

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Staff Presenter:	Rick Wiljamaa
External Presenter:	None
Department:	Community Infrastructure
Reviewed by:	Lorne Stevens
Attachments:	#1: 40-QEII- Before- After #2 Traffic count locations #3 2024 Traffic Signal Locations - Current #4: 2024 Traffic Signal Locations – Proposed