



**2016 TRAFFIC VOLUME,
INCIDENT DATA AND
SOUND LEVEL STUDY FOR
SHAGANAPPI TRAIL NW**
Between I44 Avenue NW and Stoney Trail

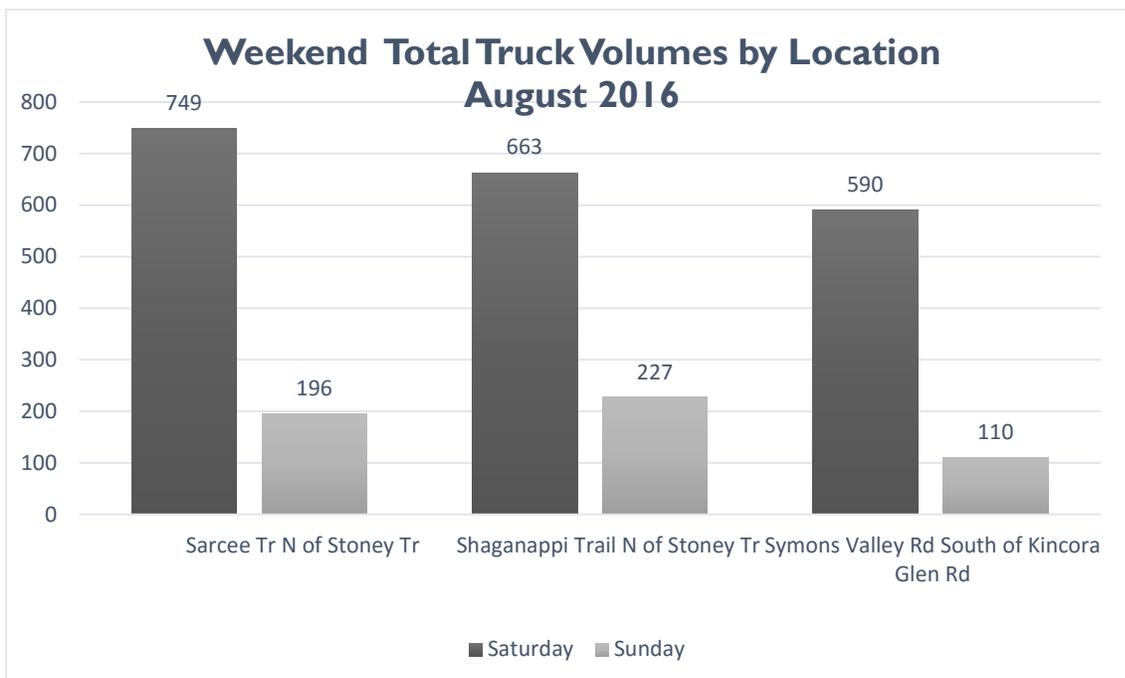
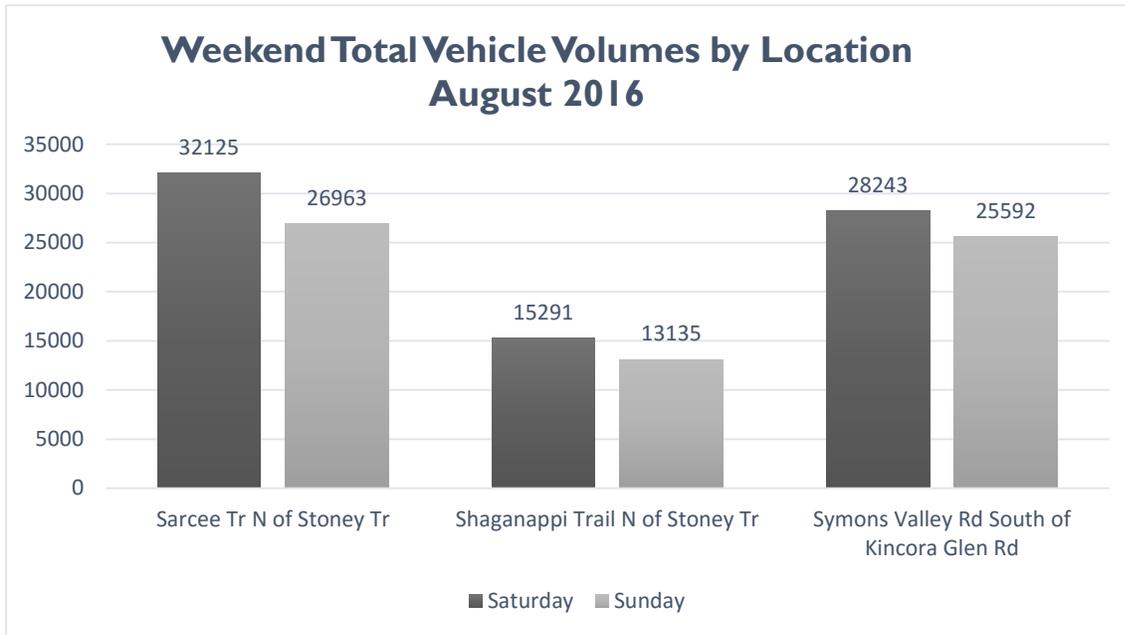
ABSTRACT

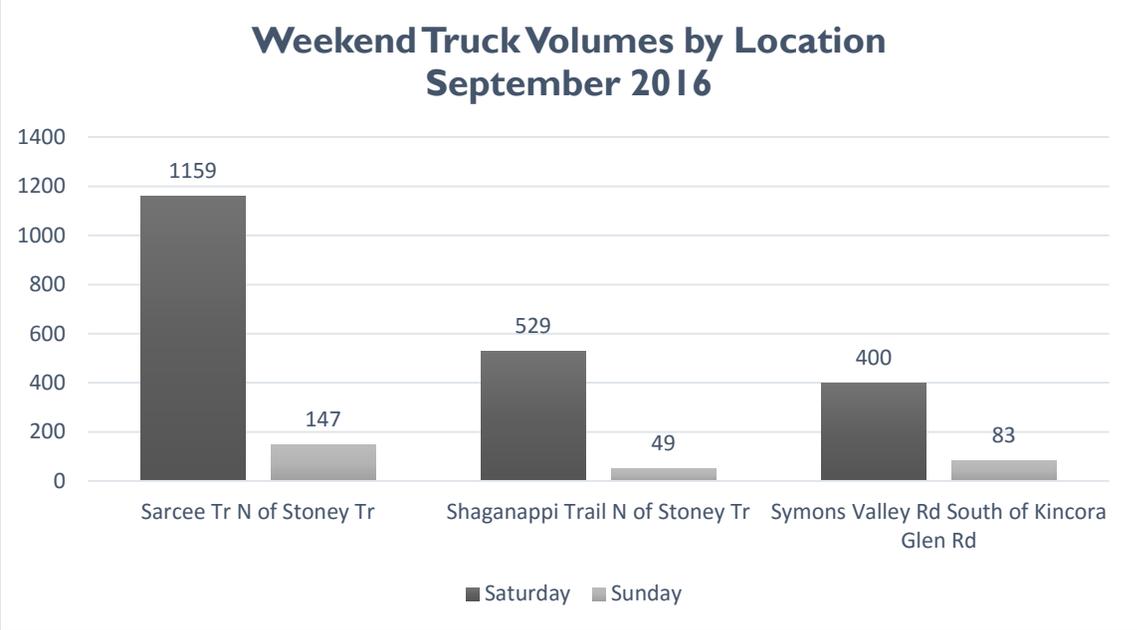
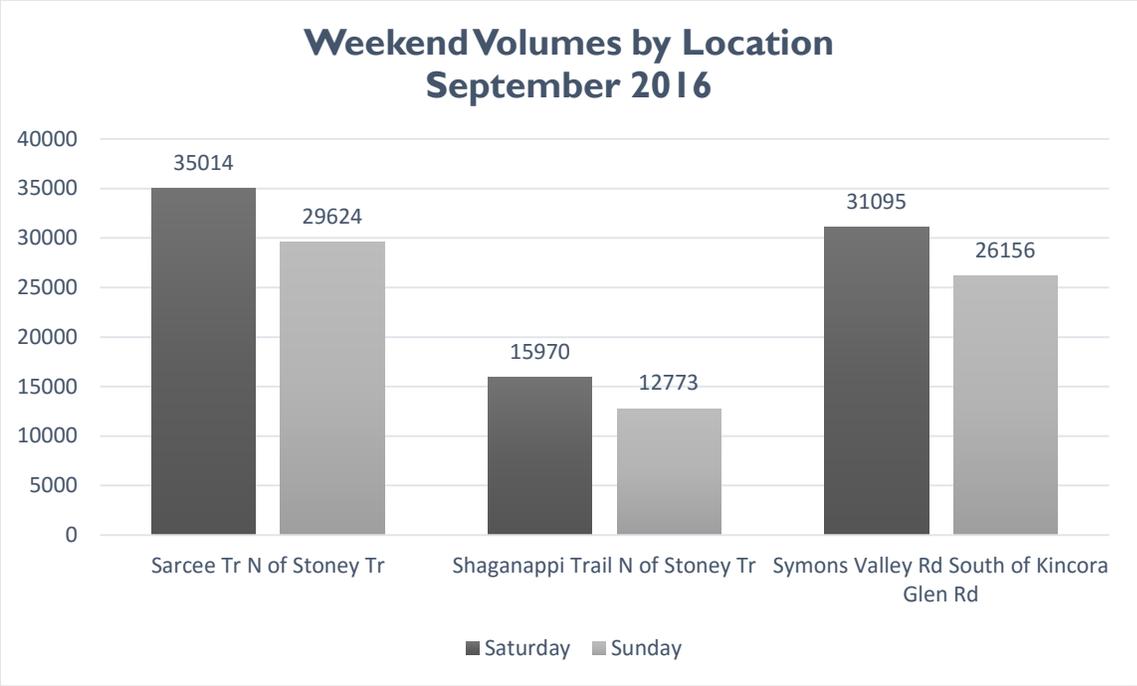
This document contains the investigative data used to inform Administration's response to a Council notice of motion to establish restrictions on Shaganappi Trail that would prohibit truck traffic on weekends, from Friday at 6:00PM until Monday at 6:00 AM.

TRANSPORTATION DEPARTMENT
THE CITY OF CALGARY

TRAFFIC VOLUME DATA FOR SARCEE TRAIL, SHAGANAPPI TRAIL AND SYMONS VALLEY ROAD

Weekend traffic counts and analysis were conducted on these three northwest corridors in August and September 2016. The following 4 charts represent the total vehicle counts (volume) and the truck-only counts on these roads for each weekend:





Data Summary of Traffic Volume

The total weekend vehicle volume recorded for Shaganappi Trail was only half of the volume seen on Sarcee Trail and Symons Valley Road over the testing period. Shaganappi Trail had an average of 14,292 trips per day, where the other two roads averaged 29,351.

The total weekend truck traffic recorded over all four days for Shaganappi Trail was 1468. This is 53% lower than the number of trucks travelling on Sarcee Trail (2251), and 24% greater than truck traffic seen over the same period on Symons Valley Road (1183).

SOUND MEASUREMENT DATA

The City of Calgary’s Surface Transportation Noise Policy (TP003) contains established sound levels for residential areas that are next to roads that have been designated as truck routes. This sound level is 65 decibels or less, and is based on guidelines established by the Federal Government.

The measurement is taken from private property in the outdoor leisure areas, including patios and decks. The sound recording is completed over a 24 hour period. The L10 column represents the highest 10% of the sound levels recorded during that one hour period. The highest L10 sound level taken during the 24 hour period becomes the final value to be compared to the established levels for road design.

Kincora Community

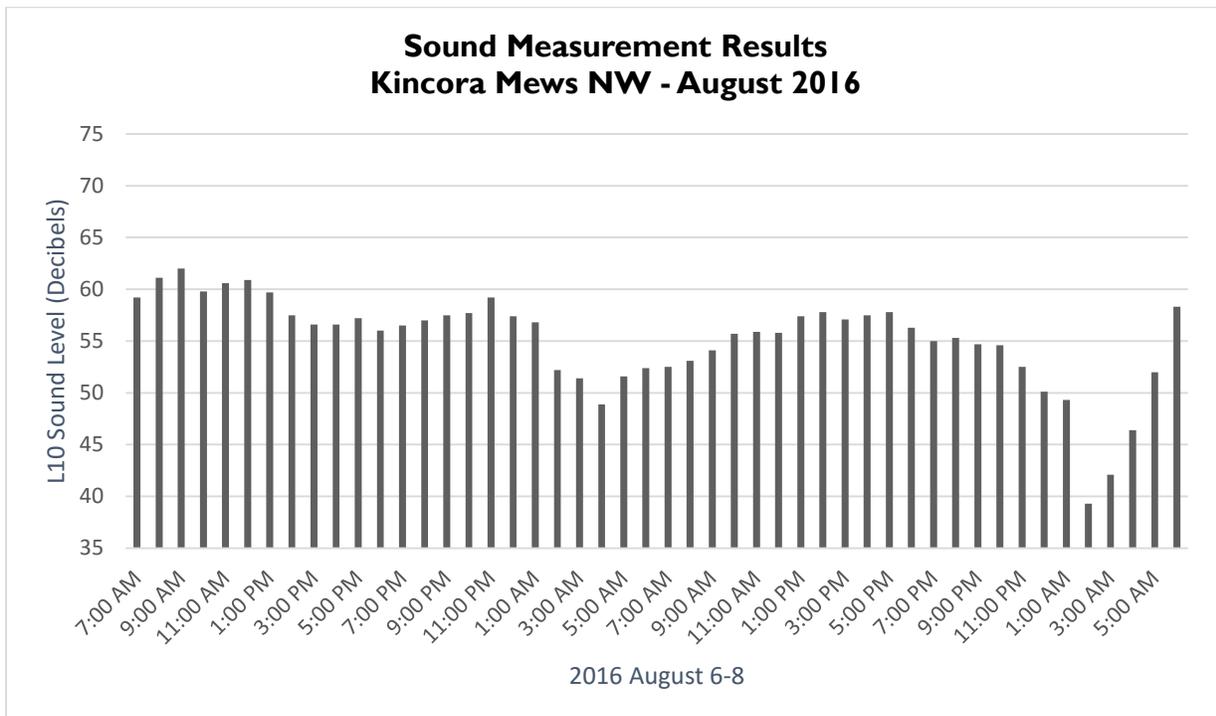
Sound measuring equipment was set up in the rear yard of a home in the community of Kincora that backs onto the section of Shaganappi Trail NW that is north of Stoney Trail. The measurements recorded below were taken on a weekend in August and September. The column L10 is the sound level in decibels.

Sound Measurement Results

Location: 69 Kincora Mews NW

Measurement Start Date: Aug 6 2016

Peak L10: 62.0

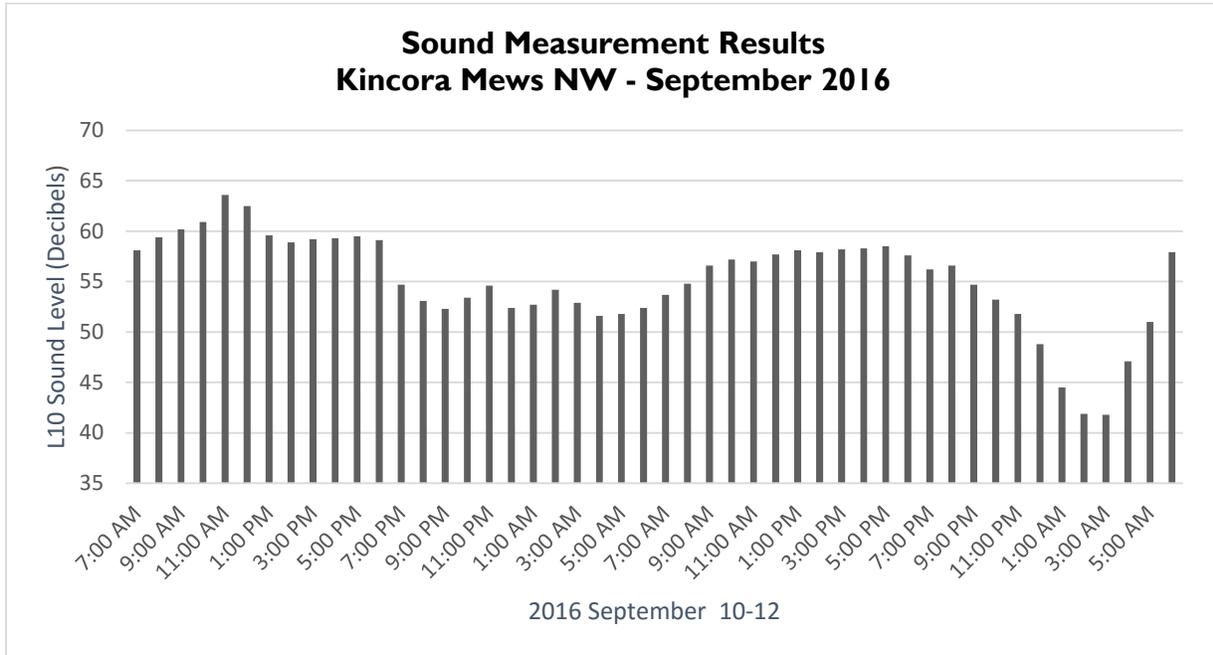


Sound Measurement Results

Location: 69 Kincora Mews NW

Measurement Start Date: Aug 6 2016

Peak L10: 63.6



The peak sound levels recorded at this Kincora property were within the recommended standards for road design in Calgary.

Sherwood Community

Sound measurement equipment was also set up on August 31, 2016 in the rear yard of a home in the community of Sherwood that backs onto Shaganappi Trail. This home has a main level deck that is higher than the fence that was installed at the time of the area development, and other homes in this block have a similar design. The measurements are presented below.

Sound Measurement Results

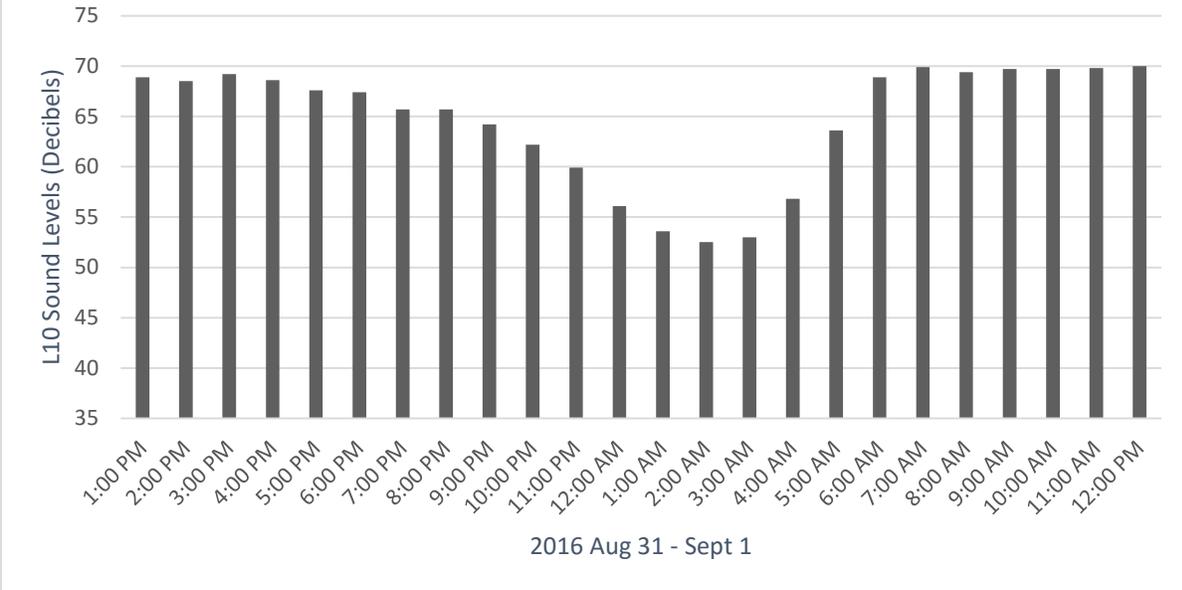
Location: 124 Sherwood Square NW

Measurement Start Date: Aug 31, 2016

Measurement Start Time: 13:00

Peak L10: 70.0

Sound Measurement Results Sherwood Square NW - September 2016



The peak sound levels recorded at this Sherwood property exceeded the recommended standard for road design. As a result, this location will be submitted as a candidate project for The City’s Noise Barrier Retrofit Program.

Established in 1985, this program constructs concrete walls between the roadway and the impacted properties that will bring the sound levels back to acceptable standards. These noise barriers will only be constructed if two-thirds of the directly impacted property owners support the project. Council typically allocates \$900,000 per year for construction under this program. This is normally enough to construct noise barriers at one or two locations each year.

COLLISION AND ENFORCEMENT DATA FOR SHAGANAPPI TRAIL (JANUARY 1 – JULY 31, 2016)

Collision Data

The Calgary Police Service (CPS) were requested to provide vehicle collision data for 2016 on Shaganappi Trail NW, between Stoney Trail and 144 Avenue NW. CPS was also requested to review the data specifically for commercial vehicle involvement.

Between January 1, 2016 and July 31, 2016 there were 18 collisions reported on this segment of Shaganappi TR NW. Each collision report was reviewed and none of these involved commercial vehicles. There were no pedestrians involved in these collisions.

Start Month	Start Day	Primary Event	Severity	Vehicle Count	Address
201601	7	Off Road Right	Property Damage	1	SHAGANAPPI TR NW & SHERWOOD GT NW
201601	2	Rear End	Property Damage	2	SHAGANAPPI TR NW & STONEY TR NW
201601	7	Struck Object	Property Damage	1	SHAGANAPPI TR NW & STONEY TR NW
201601	13	Rear End	Property Damage	2	SHAGANAPPI TR NW & STONEY TR NW
201602	16	Sideswipe Same Dir	Property Damage	2	SAGE VALLEY BV NW & SHAGANAPPI TR NW
201602	29	Struck Object	Property Damage	1	SHAGANAPPI TR NW & SIMMONS VALLEY BV NW
201602	29	Struck Object	Property Damage	1	SHAGANAPPI TR NW & 128 AV NW
201603	16	Right Angle	Property Damage	2	NOLAN HILL BV NW & SHAGANAPPI TR NW
201603	13	Right Angle	Property Damage	2	SHAGANAPPI TR NW & 128 AV NW
201603	1	Right Angle	Injury	3	SHAGANAPPI TR NW & STONEY TR NW
201604	2	Sideswipe Same Dir	Property Damage	2	SAGE VALLEY BV NW & SHAGANAPPI TR NW
201606	3	Sideswipe Same Dir	Property Damage	2	NOLAN HILL GT NW & SHAGANAPPI TR NW
201606	7	Rear End	Injury	2	SHAGANAPPI TR NW & STONEY TR NW
201606	4	Struck Object	Property Damage	1	SHAGANAPPI TR NW & STONEY TR NW
201606	11	Off Road Left	Property Damage	1	SHAGANAPPI TR NW & STONEY TR NW
201606	28	Rear End	Property Damage	2	SHAGANAPPI TR NW & STONEY TR NW
201606	30	Off Road Right	Property Damage	1	SHAGANAPPI TR NW & STONEY TR NW

201607	10	Struck Object	Property Damage	1	SHAGANAPPI TR NW & STONEY TR NW
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Enforcement Numbers

Between January 1 and July 31, 2016 there were 495 summonses issued to vehicle operators on Shaganappi TR NW between Stoney TR and 144 Avenue. In the data that was retrieved, there were no summonses issued to commercial vehicles under the Commercial Vehicle Safety Regulations of the Traffic Safety Act.

The majority of the summonses (361) were issued for speeding. In the data there is nothing to identify the type of vehicle the driver was operating, so it is possible that some of the speeding tickets were issued to operators of trucks or other commercial vehicles.

CPS also reported no summonses issued in 2016 for the use of engine retarder brakes on this segment of Shaganappi Trail. The use of engine retarder brakes, or “Jake Brakes” as they are commonly known, generate a loud grinding or popping noise, and may disturb people in nearby residential areas. The use of this brake system is prohibited within the Calgary city limits.

CONCLUSION

Shaganappi Trail NW Truck Route, between 144 Avenue NW and Stoney Trail, appears to be operating as expected. The review of the traffic volume data, collision study and enforcement numbers did not identify any truck-related concerns that would warrant further study or action at this time. The proposed weekend restriction to trucks along Shaganappi Trail would divert truck traffic to roads that already have higher vehicle volumes.

The sound measurement study confirmed an issue in the Sherwood Square NW area. This location will be submitted as a potential project for the Noise Barrier Retrofit Program. Noise barriers reduce the amount of sound coming from an adjacent roadway at all times of the day and evening.