



Notice of Motion 2014 – 19
Addition of Shaganappi Trail to the Truck Route Network – Transportation Planning Truck Route Warrant Study

1. Introduction

On April 10, 2014, in NM2014-19, Council directed Administration to investigate and report back to SPC on Transportation and Transit, on benefits of adding Shaganappi Trail north of Stoney Trail, to the network of truck routes listed in the Truck Route Bylaw (60M90). This report summarizes the analysis and recommendation made by Transportation Planning (TP) in regards to the truck route warrant study.

2. Background

2.1 Calgary Truck Route Study Truck Route Framework Report

The Calgary Truck Route Study Truck Route Framework report was initiated by the City of Calgary in 2005 to develop a frame work and policy for selection of truck routes. It identified the criteria to evaluate and mitigate routes for use as a truck route, rationalized the use of truck restrictions to control truck travel, and developed a policy that help the steering committee to review and manage truck routes in the City of Calgary.

Included in this report, the evaluation of truck routes is divided into two parts, Route Criticality and Route Priority. Route Criticality analysis includes route purpose, network connectivity, community impact/input, route length and coverage.

Route Priority is comprised of criteria that are divided into five categories: Economic Measures, Urban Structure, Traffic Management, Social Measures, and Environmental Measures. The analyzed items include Support of Land Uses, Network Connectivity, Road Classification, Road Geometry, Congestion, Road Surface Condition, At-grade Rail Crossing, Traffic Safety, Land Use Impact, and Noise Attenuation.

This report is attached in Appendix A.

2.2 Shaganappi Trail - North of Stoney Trail

Shaganappi Trail north of Stoney Trail is classified as an arterial road in the City's Municipal Development Plan. The original area development plan also identified this road section as a future truck route. However, the current Truck Route Bylaw (60M90) does not identify it as a component of the truck route network.

Currently, Shaganappi Trail south of Stoney Trail is designated as a truck route. On the north side of Stoney Trail in the northwest area in the city, the truck traffic volumes are high due to the aggregate industry and local commercial trucks in this area.

From the truck route network point view, this piece of Shaganappi Trail is surrounded by existing truck routes. 144th Avenue NW is classified as a truck route at the north, Symons Valley Road is an existing truck route at the east, and Stoney Trail is a truck route at the south.

The Shaganappi Trail and Stoney Trail interchange was constructed to accommodate heavy trucks; therefore, there is no constraint for heavy trucks entering/exiting Shaganappi Trail via Stoney Trail.

3. Analysis

3.1 Route Criticality

A candidate truck route should provide direct connections from the road network to delivery points for trucks, reducing travel time and delays to shipping. If the total score is higher than 0, then the candidate route warrants further evaluation. Table 1 outlines the evaluation details for the Route Criticality for Shaganappi Trail north of Stoney Trail.

Table 1 – Shaganappi Trail North of Stoney Trail Route Criticality Analysis

| Criteria | No Go (0) | Evaluate (1) | Go (2) |
|------------------------|-----------|--------------|--|
| Route Purpose | - | - | Serves local aggregate points and commercial business (2) |
| Network Connectivity | - | - | Provides direct connectivity to truck route system (2) |
| Community Impact/Input | - | - | Prior City Council approved document indicates route should be evaluated (2) |
| Route Length | - | - | Significant shortens travel distance on truck route (2) |
| Coverage | - | - | Significantly reduce trips off the existing truck route (2) |
| Total Score | - | - | 10 |

Since the total score is above 0, this road section is warranted for Route Priority analysis.

3.2 Route Priority

A warrant calculation is used to determine the rating of this road section. A total of 10 items are analyzed and scored. The assumed threshold acceptable value has been set at 55. If the total score is higher than 55, the candidate route should be considered a truck route. The rationales for scoring are included in Appendix A. Table 2 provides the evaluation details for Shaganappi Trail north of Stoney Trail.

Table 2 – Shaganappi Trail North of Stoney Trail Route Priority Warrant Analysis

| Criteria | Points (0-10) | Weight |
|-----------------------------|---------------|--------|
| 1. Support for Land Uses | 5 | 1.00 |
| 2. Network Connectivity | 10 | 1.00 |
| 3. Road Classification | 5 | 1.00 |
| 4. Road Geometry | 10 | 1.00 |
| 5. Congestion | 10 | 1.00 |
| 6. Road Surface Condition | 7 | 1.00 |
| 7. At-grade Rail Crossing | 10 | 1.00 |
| 8. Traffic Safety | 10 | 1.00 |
| 9. Land Use Impact | 3 | 1.00 |
| 10. Noise Attenuation | 10 | 1.00 |
| Total Warrant Points | 80 | |

The total score is 80 and it meets the truck route warrant criteria.

4. Recommendation

According to the truck route analysis, it is recommended that Shaganappi Trail north of Stoney Trail should be added into the truck route network.