



## **Additions of Metis Trail, 52 Street SE and Seton Boulevard to the Truck Route Network – Transportation Planning Truck Route Warrant Study**

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### **1. Introduction**

In June, 2014, City's Road Department and Transportation Planning Department had a meeting to discuss the potential of adding Metis Trail – from north of Stoney Trail to the north city limit, 52 Street SE - from south of Stoney Trail to Seton Boulevard, and Seton Boulevard SE – from Deerfoot Trail to 52 Street SE into the truck route network. This report summarizes the analysis and recommendations made by Transportation Planning (TP) in regards to the truck route planning and warrant study for the previous mentioned road sections.

### **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 Metis Trail - North of Stoney Trail to the North City Limit***

Metis Trail - north of Stoney Trail to the north city limit is classified as an arterial road in the City's road network. Currently, Metis Trail - south of Stoney Trail in this area is designated as a truck route and Stoney Trail is an existing truck route.

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

#### ***2.3 52 Street SE - South of Stoney Trail to Seton Boulevard SE***

52 Street SE – south of Stoney Trail to Seton Boulevard SE is classified as an arterial road in

the City’s road network. Currently, 52 Street SE - north of Stoney Trail in this area is designated as a truck route and Stoney Trail is an existing truck route. Deerfoot Trail is an existing truck route at the west. If Seton Boulevard SE in this area can be designated as a truck route, then the local road network in the city’s southeast area will provide unobstructed road system for heavy trucks.

The 52 Street SE and Stoney Trail interchange was constructed to accommodate heavy trucks; therefore, there is no constraint for heavy trucks entering/exiting 52 Street SE Trail via Stoney Trail.

**2.4 Seton Boulevard SE – Deerfoot Trail to 52 Street SE**

Seton Boulevard – Deerfoot Trail to 52 Street SE is classified as an arterial road in the City’s road network. Currently, Deerfoot Trail is an existing truck at the west. Once the City designates 52 Street south of Stoney Trail as a truck route at the east, it is critical to add this Seton Boulevard section into truck route network to make the local road system unobstructed to heavy trucks in this area.

The Seton Boulevard SE and Deerfoot Trail interchange was constructed to accommodate heavy trucks; therefore, there is no constraint for heavy trucks entering/exiting Seton Boulevard SE via Deerfoot 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. The following tables summarize the analysis for the three candidate routes.

**Table 1 – Metis Trail North of Stoney Trail to North City Limit Route Criticality Analysis**

Criteria	No Go (0)	Evaluate (1)	Go (2)
Route Purpose	-	Serve some local business (1)	-
Network Connectivity	-	-	Provides direct connectivity to truck route system (2)
Community Impact/Input	-	-	-
Route Length	-	-	Significant shortens travel distance on truck route (2)
Coverage	-	-	Significantly reduce trips off the existing truck route (2)
<b>Total Score</b>			7

**Table 2 – 52 St. SE South of Stoney Trail to Seton Blvd SE Route Criticality Analysis**

Criteria	No Go (0)	Evaluate (1)	Go (2)
Route Purpose	-	Serve some local business (1)	-
Network Connectivity	-	-	Provides direct connectivity to truck route system (2)
Community Impact/Input	-	-	-
Route Length	-	-	Significant shortens travel distance on truck route (2)
Coverage	-	-	Significantly reduce trips off the existing truck route (2)
<b>Total Score</b>			7

**Table 3 – Seton Boulevard SE Deerfoot Trail to 52 St. SE Route Criticality Analysis**

Criteria	No Go (0)	Evaluate (1)	Go (2)
Route Purpose	-	Serve some local business (1)	-
Network Connectivity	-	-	Provides direct connectivity to truck route system (2)
Community Impact/Input	-	-	-
Route Length	-	-	Significant shortens travel distance on truck route (2)
Coverage	-	-	Significantly reduce trips off the existing truck route (2)
<b>Total Score</b>			7

Since the total score in each table is above 0, the three candidate road sections are 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. The following tables provide the evaluation details for the three candidate road sections.

**Table 4 – Metis Trail North of Stoney Trail to North City Limit Route Priority 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	6	1.00
7. At-grade Rail Crossing	10	1.00
8. Traffic Safety	7	1.00
9. Land Use Impact	10	1.00
10. Noise Attenuation	10	1.00
<b>Total Warrant Points</b>	<b>83</b>	

The total score is 83 and it meets the truck route warrant criteria.

**Table 5 – 52 St. SE South of Stoney Trail to Seton Blvd SE Route Priority 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	7	1.00
6. Road Surface Condition	5	1.00
7. At-grade Rail Crossing	10	1.00
8. Traffic Safety	7	1.00
9. Land Use Impact	3	1.00
10. Noise Attenuation	10	1.00
<b>Total Warrant Points</b>	<b>72</b>	

The total score is 72 and it meets the truck route warrant criteria.

**Table 6 – Seton Boulevard SE Deerfoot Trail to 52 St. SE Route Priority 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	7	1.00
6. Road Surface Condition	7	1.00
7. At-grade Rail Crossing	10	1.00
8. Traffic Safety	7	1.00
9. Land Use Impact	3	1.00
10. Noise Attenuation	10	1.00
<b>Total Warrant Points</b>	<b>74</b>	

The total score is 74 and it meets the truck route warrant criteria.

#### **4. Recommendation**

According to the truck route analysis results in the previous sections, it is recommended that Metis Trail – from north of Stoney Trail to the north city limit, 52 Street SE - from south of Stoney Trail to Seton Boulevard, and Seton Boulevard SE – from Deerfoot Trail to 52 Street SE should be added into the truck route network.