Memo

2019 February 15

ISC: Protected

To: Councillor Keating

From: Troy McLeod, Director, Roads

Re: Administrative Inquiry - New Generation Wide Based Single Tires

This memo is in response to your Administrative Inquiry regarding New Generation Wide Based Single Tires within the City of Calgary.

The New Generation Wide Based Single Tire (NGWBST) technology is an important innovation for the transportation logistics industry. Within the City of Calgary, this technology is permitted on specifically identified trucking routes. The permit granted by the City of Calgary has been renewed several times and has been extended on an ongoing basis. Presently, two companies are operating within the City of Calgary under the permit and the current permit will continue to be renewed as required.

The City of Calgary has been collaborating with industry partners to fund a study to assess the full impacts of this technology as provincial highway pavements and municipal pavements are designed differently. A recent report submitted to the Transportation Association of Canada (TAC) identified some potential damages to highway pavements. Funding for a joint study has recently been approved and undertaking further study will demonstrate reasonable due diligence to understand the impacts on roads built to a municipal standard and the long-term infrastructure impacts.

Transit buses operate on dedicated routes to provide public transportation from one location to another within City limits. The City is aware of the associated impacts of transit buses and therefore, the City has made greater investments on transit routes for lifecycle maintenance including upgrading the pavement infrastructure at various transit locations.

Most of the structural load related impacts to urban pavements are caused by heavy trucks and buses. While bus and truck routes are designed to accommodate the intended heavy vehicle traffic, the designs were based on specifications for single and dual axle loading at the time of design. Any changes to vehicle loading parameters may negatively impact the performance and lifecycle of pavement infrastructure. This may take the form of increased maintenance as well as having to modify the type of pavement rehabilitation treatments.

Should you have any further questions regarding this topic, please do not hesitate to contact me.

Sincerely,

Troy McLeod

Troy McLeod, P.Eng.
Director, Roads