

Metro Line (North LRT to NAIT)

Issues and Traffic Impacts

Recommendation:

That the October 7, 2015, Transportation Services report CR_2906, be received for information.

Report Summary

This report outlines observed Metro Line use and traffic impacts and summarizes traffic optimization efforts undertaken by Transportation Services.

Previous Council/Committee Action

At the September 2, 2015, Transportation Committee meeting, the following motion was passed:

That Administration provide a report on other possible measures to mitigate issues identified with the Metro Line, specifically traffic impacts.

Report

On September 2, 2015, Administration informed Transportation Committee and citizens of the potential traffic impacts that could occur from the opening of the Metro Line LRT (projected by traffic modelling). In an effort to reduce the likelihood of possible negative traffic scenarios, Administration implemented comprehensive public communication strategies.

Prior to opening the Metro Line, educational campaigns were launched, stakeholder engagement was increased, operational and reliability risks were identified, resolutions were put into effect, contingency strategies were prepared, and digital message signs were placed at key locations along major roadways advising motorists to expect delays.

Since opening, Transportation Services staff have been monitoring and reviewing traffic impacts and delays during peak travel times. Traffic delays were observed by Transportation staff driving these routes during peak traffic periods and from monitoring traffic cameras present at select locations. Detailed traffic delay data from staff observations are outlined in Attachment 1.

Traffic Observations Summary

| | Traffic Impact (Delay) | | Traffic Cycles to Clear Intersection | |
|---------------------------------|------------------------|-----------|--------------------------------------|-----------|
| | Typical* | Maximum** | Typical* | Maximum** |
| Princess Elizabeth Ave./106 St. | 5 min | 10 min | 1-2 cycles | 3 cycles |
| Princess Elizabeth Ave./109 St. | | | | |
| 111 Ave./106 St. | | | | |
| Kingsway Ave./104 St. | 2-3 min | 5 min | 1 cycle | 2 cycles |
| Kingsway Ave./105 St. | | | | |
| 107 Ave./105 St. | | | | |

* Typical traffic delay times are what motorists are experiencing the majority of the time during Metro Line operating hours.

** Maximum traffic delays are the longest traffic delay times observed at any time by staff during the first two weeks of Metro Line operation.

Measures For Mitigating Issues

Pedestrian impact

Pedestrians experience similar delays to the typical traffic delays noted, as the traffic signals currently hold both pedestrians and traffic to enable the traffic signal to return to normal operation as quickly as possible after LRT trains have cleared the intersections.

Peak travel time traffic monitoring will continue as traffic patterns adjust to alternate routes. It should be noted that the above travel times are based on good roadway conditions. Further disruptions to normal traffic flow, such as snowfall and variable winter roadway conditions, typically cause delays and queuing at all City intersections.

Peak Hours Observation Summary

Edmonton Transit buses are also experiencing delays in the vicinity of the Metro Line, most significantly when exiting the Kingsway Transit Centre. A maximum delay of up to eight minutes during peak hour service has been observed at this location. The delays on these bus routes in the Kingsway area are in addition to the delays currently being experienced due to road construction downtown, on Connors Road, and on the 97 Street corridor. The compound effect of these delays has resulted in some buses running 15-30 minutes behind schedule. To mitigate these delays, six additional buses, each in operation for twelve hours per day, have been added to service in this area. Edmonton Transit will continue to optimize area service as new bus schedule adherence data is received and analysed.

Transportation Operations and LRT Control continue to coordinate efforts to optimize Metro Line train operations to reduce the amount of time traffic signals are held in red. Coordination efforts include synchronizing train arrivals at intersections from both directions and reducing the amount of time trains can hold traffic signals in red in advance of crossing the roadway. Both of these efforts will reduce the amount of time traffic signals are held in red, and have a direct benefit to both pedestrians and motorists in this area.

Currently, the Metro Line impacts on traffic flow are most pronounced at the 111 Avenue and Princess Elizabeth Avenue crossings. These crossing timings are significantly influenced by the reduced speed of the trains travelling Southbound into Kingsway Station and Northbound into NAIT. As the Metro Line speed restrictions are removed, the impacts on vehicle traffic will be lessened.

Summary

Edmonton City Council, past and present, have chosen to invest in Light Rail Transit to successfully meet the long-term needs of our growing city. LRT is an innovative and integrated approach to planning and developing the transportation system that is positively transforming Edmonton's modal landscape. Since opening on September 6, 2015, strong ridership levels have been observed on the Metro Line. During the week of September 14 -18, approximately 1,700 passengers were observed each day during both the morning peak period to NAIT and the afternoon peak period from NAIT. Feedback from key Metro Line stakeholders has been largely positive, as most people are generally pleased with the new transportation option available to them. The public has indicated support of efforts to keep everyone moving as smoothly as possible as the City adjusts to having a new LRT line.

Transportation Services has coordinated multiple efforts since before the opening of the Metro Line to mitigate potential traffic impacts. These efforts have achieved success, as educational campaigns and public engagement have largely mitigated the realization of potential negative traffic scenarios. Traffic optimization is a top priority, and efforts will continue to further refine the LRT system to support the vision of making Edmonton a world-class city that is efficient, sustainable, compact, and vibrant.

Attachment

1. Traffic Delays for Train Crossings at Metro Line Intersections