

ARTERIAL ROAD ASSESSMENT

Recommendation

That the October 31, 2023, Urban Planning and Economy report UPE01825, be received for information.

Requested Action	Information only		
ConnectEdmonton's Guiding Principle	ConnectEdmonton Strategic Goals		
CONNECTED This unifies our work to achieve our strategic goals.	Regional Prosperity		
City Plan Values	ACCESS		
City Plan Big City Move(s)	A Community of Communities	Relationship to Council's Strategic Priorities	Mobility Network
Corporate Business Plan	Serving Edmontonians		
Council Policy, Program or Project Relationships	<ul style="list-style-type: none"> • Policy C569 - Optimization of the Transportation System Network • Bylaw 14380 - Arterial Roads for Development • Policy C507 - Arterial Roads for Development • Policy C577 - Goods Movement 		
Related Council Discussions	<ul style="list-style-type: none"> • August 29, 2023, UPE01154 Growth Management Framework Update - Substantial Completion Standard - Additional Information • April 13, 2022, UPE00903, Arterial Roadway Assessments Potential Funding Options and Implications - Design, Acquire Land and Build • February 15, 2022, UPE00491 - Mobility Network Assessment • August 24, 2021, UPE00402, Emergency Response Delays and Options for the Maple Road and 23 Avenue Extension • March 23, 2021, CR_7477 Transportation Network Performance Indicators - Mobility Network Assessment Project Update • June 11, 2019, CR_6764, Arterial Road Planning and Delivery Process 		

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Previous Council/Committee Action

At the March 14 and 15, 2023, City Council meeting, the following motion was passed:

That Administration:

1. Provide a report with an assessment of arterial roadway/intersection improvements in developing areas that are City responsibility to identify top locations based on operational and strategic considerations.
2. Provide a memo identifying any work planned in 2023 for the completion of vehicular infrastructure that is the responsibility of the City and include actions planned from a safety and/or capacity perspective.

Executive Summary

- The Mobility Network Assessment, a citywide review of City-led transportation improvements in alignment with The City Plan, identified a need to prioritize infrastructure funding for safety, active transportation and transit focused projects.
- City-led interventions to improve arterial road conditions may be considered to address unique local challenges such as safety and traffic management arising from continued growth in developing areas.
- The top areas were identified based on operational and strategic considerations that included a need for long-term interventions, consideration of the Mobility Network Assessment, safety and traffic demand, impact to the network and alignment with City Plan policies.
- The top areas for improvement are 167 Avenue and 66 Street area, Parsons Road area and 215 Street area.

REPORT

Arterial roads are major transportation corridors that play a crucial role in helping Edmontonians meet their daily needs. They are essential for transporting the goods and services that support Edmonton's economy.

Arterial roadway and intersection improvements in new areas within The City Plan's defined "Developing Area" are delivered through a combination of developer-led projects guided by Bylaw 14380 - Arterial Roads for Development, and City-led projects and programs advanced through the capital budget. As new areas develop, the City collects traffic data, notes safety issues, reviews public feedback to understand how arterial roads are functioning and identifies areas with operational issues.

Administration evaluated the overall transportation improvement needs across the city through a Mobility Network Assessment and identified priorities that align with the direction of The City Plan. The results of the assessment were presented in the February 15, 2022 Urban Planning and Economy report UPE00491, Mobility Network Assessment. The Mobility Network Assessment identified that the highest priority improvements, based on criteria reflective of The City Plan, did not include locations affected primarily by vehicular congestion or perceived operational issues.

However, continued rapid growth in developing areas can create unique challenges that may benefit from City-led interventions, especially in relation to safety and traffic management. This,

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along with a consideration of localized conditions and overall improvement in the arterial road network, has led to the identification of top areas for improvements of arterial roads in developing areas. These areas were not identified as top priorities when assessed through the Mobility Network Assessment.

Evaluation Process and Criteria

Candidates for arterial roadways and intersection improvement in developing areas were assumed to be locations with known operational issues, including those specific to safety. Attachment 1 is a list of improvements planned within the 2023-2026 budget cycle provided to City Council in a memo on June 30, 2023. This information was used to focus the evaluation of locations on those that do not already have planned improvements in the short or medium term. Additionally, developer-led improvements were not considered as they are guided by Bylaw 14380 and are the responsibility of the developer.

Potential locations of improvement were grouped together into “areas of improvement” to capture network dependencies between closely located intersections and roadways. The evaluation criteria shown below were developed to identify top areas that could be considered for improvement while being mindful of the City’s financial limitations and the need to focus transportation improvements on previously identified strategic priorities in the Mobility Network Assessment.

The evaluation process is summarized in Attachment 2. The top areas meet all these criteria to varying extents.

Long-term Improvements

The top areas are locations where long-term improvements are needed, because short- and/or medium-term improvements that can be funded through existing City programs, would not address the underlying issues. These include optimizing signal timing and localized safety improvements.

Mobility Network Assessment Criteria

The top areas have strong alignment with criteria used for the Mobility Network Assessment such as:

- responding to anticipated population growth
- improving access to jobs
- facilitating the movement of goods and services
- prioritizing safety in consideration of the high injury network
- supporting regional priorities
- ensuring good transit access
- considering alternative access points to neighborhoods and commercial areas.

City Plan Policies

The City Plan policy direction supports transportation projects that make the best use of land, encourage various mobility options and consider safety. Therefore, the evaluation did not include

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areas that would require road widening beyond four-lanes or that did not show an opportunity to improve safety.

Traffic Demand

The top areas are places where the traffic on two-lane roads is high, surpassing 16,000 vehicles per day. This is within the range of traffic volumes where upgrades are recommended by Administration for two-lane roads when new developments are approved.

Network Improvements

Improvements in the top areas can fill significant gaps in the road network, help traffic flow better from nearby roadways and intersections while benefiting the network in that part of the city.

Top Areas for Improvements

The top areas for improvements based on the evaluation process described above are:

- 167 Avenue & 66 Street Area
- Parsons Road Area
- 215 Street Area

The top areas with their approximate boundaries are illustrated in Attachment 3. Details about specific locations that may be considered for improvement within these areas are summarized in Attachment 4.

The specific improvements in these areas were not determined as part of this evaluation. Further analysis is recommended to identify the specific improvements that would benefit each area, projected cost estimates for such improvements. Potential solutions could range from localized intersection improvements to widening roads that are exceeding their capacity. Improvements might be implemented at a single location or in multiple spots within an area. Furthermore, these improvements could be completed in stages to allow the road network to adapt to each change. An analysis of each area, should City Council provide direction for funding of further planning and design for these areas, will help determine the best approach for addressing the network deficiencies in each top area.

Next Steps

The results of this evaluation will guide the following actions:

- *Mobility Network Improvements:* Should Council wish to consider mobility network improvements for City-led arterial roadway improvements in developing areas, these areas would be recommended by Administration as top priorities. Improvements to the mobility network, in particular those that add to the City's asset inventory, should be carefully reviewed to consider the City's renewal deficit for arterial roadways and related assets.
- *Updating Concept Plans:* Locations outside of the top areas are not expected to be considered for City-led improvements. Any existing roadway concept plans for these areas will be reviewed and/or revised to ensure alignment with the policies outlined in The City Plan.

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- *Managing Congestion:* The City Plan emphasizes a focus on providing options for mobility rather than eliminating congestion for vehicles. Accepting congestion in different contexts may allow for a more efficient and equitable approach to transportation investments. In turn, this intends to help achieve the Big City Moves and targets outlined in The City Plan, such as 50 percent of trips made by transit and active transportation. Administration will use the opportunity to build on this evaluation to define acceptable levels of congestion in various contexts to better allocate limited, public investment across the city.

Community Insight

Information regarding challenges on the arterial road network in developing areas was gathered from various sources, including data from 311 and City Council inquiries where residents share concerns related to traffic congestion, safety or other related subjects.

The evaluation of the locations for arterial roadway improvements considers policies and directions from The City Plan, which was developed through extensive discussions and input from Edmontonians. The policies provide a roadmap for making decisions about the city's mobility system as Edmonton grows to two million people.

Additional discussions and conversations with Edmontonians and other stakeholders would be held during the future planning and design work as part of the Project Development and Delivery Model (PDDM) process for mobility projects per City Policy C591 - Capital Project Governance.

GBA+

The analysis completed to date does not provide specific solutions for changes to the arterial road network. Instead, it offers a list of key areas that need further study including understanding the impact on marginalized communities through considerations of advancing the needs of vulnerable groups and considering the multi-modal impacts of City-led improvements that focus exclusively on traffic relief. Expansion of roadway will increase pedestrian crossing distances and delay, and potentially leave limited space for future pedestrian, active mode or transit improvements. Further analysis to assess these GBA+ impacts would be completed during future planning and design phases.

Attachments

1. June 30, 2023, Memo to City Council
2. Arterial Road Evaluation Process
3. Map of Top Areas for Improvement
4. Improvement Locations within Top Areas