COUNCIL REPORT

Edmonton

TRANSPORTATION PROJECTS TRAFFIC MANAGEMENT (Q1 2025)

Recommendation

That the February 25, 2025, Integrated Infrastructure Services report IIS02750, 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.		**Healthy City**	
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	Managing the Corporation		
Council Policy, Program or Project Relationships	• C569 Optimization of the Transportation System Network • C544 Active Transportation • Accessibility for People with Disabilities		
Related Council Discussions	• IIS02745 Valley Line West 2025 Roadway Construction Options and Impacts (February 11, 2025, UPC)		

Previous Council/Committee Action

At the October 22, 2024, City Council meeting, the following motion was passed:

> That Administration provide quarterly updates to City Council on the status of ongoing or imminent major capital construction projects (roads, bridges, and LRT), including traffic management plans and disruptions, project progress, and mitigation strategies.

Executive Summary

- Prior to the start of major capital project construction, traffic management and accommodation reviews are completed to assess potential impacts to those using Edmonton's transportation network (drivers, transit, pedestrians, cyclists).
- Reviews are iterative and can require a number of adjustments and approvals related to traffic restrictions before advancing to construction. Reviews specifically look at both individual and collective traffic impacts on the overall main road network.
- Reviews inform traffic management plans and focus on minimizing access impacts to homes, businesses and recreation access.
- Proactive and thorough communications to Edmontonians are also considered as part of traffic management planning to ensure awareness and to reduce unexpected implications of road construction.
- Administration incorporates a number of mitigation strategies for traffic disruption during major capital project construction, such as adjusting construction timelines, staging construction in phases and implementing detours.
- This report provides an update on the status of ongoing or imminent major capital construction projects (roads, bridges and LRT), including related traffic management plans for disruptions, project progress and mitigation strategies.

REPORT

Major capital construction projects are progressing at various stages in preparation for the 2025 construction season. There are a number of reviews, iterations and approvals related to traffic restrictions that occur as part of all projects before advancing to construction. These reviews specifically look at both individual and collective traffic impacts on the overall main road network.

Traffic Management and Accommodation - Background

Administration has a traffic model that includes all main roadways and the number of lanes normally in use for the entire city. This model is used to analyse current traffic conditions based on the latest traffic volumes measured for the peak morning and afternoon traffic periods. This establishes a baseline of current traffic delays on main roads throughout the city on a road-by-road and intersection-by-intersection basis.

Each year (including 2025) the proposed lane and intersection restrictions for all major capital construction projects are reviewed in the traffic model to assess the level of impact (additional traffic delay) to the road network. This analysis specifically combines the most restrictive lane/intersection reductions planned for all projects, enabling review of the worst case scenario/impact to the entire main roadway network. Based on the analysis results, projects in the areas that have the most impact on the network are then adjusted for timing and the level of roadway restriction allowed.

Beyond this modelling, other aspects of traffic accommodation planning are also considered to identify and mitigate traffic disruptions for all modes of travel. This includes analysis of planned

work for utilities, private development and festival events and their potential associated traffic impacts.

An On-Street Construction and Maintenance (OSCAM) permit approval process, which requires the submission and approval of plans for traffic accommodation, is also mandatory before a major capital construction project proceeds. Each traffic accommodation plan is developed based on established guidelines, taking into consideration traffic at the construction worksite, the impact on each mode of travel and the duration of disruption. Detours for vehicles, pedestrians, and cyclists in construction zones are set up in accordance with the City of Edmonton's Manual of Temporary Traffic Control. During construction, while the detour is set up on-site, Administration reviews site conditions and flow of all modes of transportation (vehicles, pedestrians and cyclists). Modifications and adjustments are made on site on a case-by-case basis.

This cumulative diligence is done in recognition of the impact construction and events have both on commuting traffic as well as to businesses and activity in commercial and industrial areas of the city. Maintaining access to homes, businesses and recreation activities is a priority.

Proactive and thorough communications to Edmontonians are also considered as part of traffic management planning to ensure awareness and reduce unexpected implications in advance of construction. Administration provides available information to help Edmontonians understand traffic disruptions and navigate the city before and during construction. Some of the means of communicating this information include:

- Updating the City's Traffic Disruptions Map (edmonton.ca/traffic) to provide current information on traffic disruptions throughout the city.
- Distributing construction bulletins locally to provide advance notice of traffic disruptions or changes to access.
- Sharing information about upcoming traffic and access changes in advance of or during construction via business wayfinding signs and static and dynamic road signs.
- Sharing a "Construction in your ward" memo with Council annually prior to construction season.
- Sharing information through media notices and events including traffic disruption notices, social media, in-person pre-construction events and open houses, direct mail, email subscription lists, Transforming Edmonton blogs, advertisements, road signs, site signage and more.
- Making live-streaming cameras publicly available at various existing sites throughout the city (https://edmontontrafficcam.com/).
- Sharing project specific information with the public via Building Edmonton (https://building.edmonton.ca/projects), dedicated project websites, construction bulletins and newsletters.
- Sending quarterly Capital Infrastructure Projects memorandums to City Council with updates on the status and performance of the infrastructure capital program, including all planning, design and construction projects, including facilities, transportation, LRT and open space.

- Communicating transit detour information through various channels, including physical notices posted at transit stops, notifications through various trip planning tools (including the ETS Trip Planner and third-party trip planners), ETS Service Alerts through social media and the ETS detours webpage (https://www.edmonton.ca/ets/detours-bus-stop-closures).

Administration also works with utility partners during their utility construction and relocations to amplify and support communications about anticipated impacts.

2025 Major Capital Construction Projects - Traffic Impacts and Mitigations

The major capital construction projects with traffic impacts for 2025 are identified in Attachment 1, including details related to traffic impacts and mitigations. A table summarizing impacts is provided in Attachment 2. A map illustrating the general locations of the 2025 construction projects is included in Attachment 3.

First Quarter 2025

For the first quarter of 2025, between the west end of Edmonton and the downtown core, traffic impacts will be largely centred around the Valley Line West LRT construction and accommodation of the proposed accelerated road works in 2025. Beyond the downtown core, other localized traffic impacts will continue as part of other multi-year projects, including along Yellowhead Trail as part of the freeway conversion project, in the area surrounding Terwillegar Drive and Whitemud Drive as part of the expressway construction and surrounding the Capital Line South LRT Extension.

Second Quarter 2025

Beginning in the second quarter of 2025 as the weather adjusts with the seasons to allow for road work, additional construction projects will commence, contributing to additional traffic impact to the network. Notable projects with traffic impacts include Imagine Jasper Avenue (114 Street to 117 Street), 95 Avenue (163 Street to 182 Street), 50 Street over Whitemud Drive Bridge Rehabilitation and 132 Avenue Reconstruction (66 Street to 82 Street and 113A Street to 121 Street).

While all projects require attention to traffic accommodation planning, special attention is being focused toward those in the areas surrounding construction projects known to have more significant impacts, such as those projects in the vicinity of the Valley Line West LRT construction.

Traffic accommodation planning to mitigate impacts is a dynamic and ongoing process. As contractors have not been selected for all 2025 projects, the exact timelines for construction and specific accommodation plans are not yet fully in place. As a result, project schedules and impacts are expected to evolve.

Impacts for future quarters will be shared as part of future updates.

Bridge renewal projects generally have a long design period and elaborate traffic accommodation planning. Understanding that their impact may be significant, Attachment 4 provides an update on the anticipated construction timeline for the bridge renewal project for 2025 and 2026.

Community Insight

Construction on the existing transportation network is inherently disruptive, requiring users to alter their travel habits during construction. Communication and advance notice of construction impacts help the travelling public to make informed choices about their daily travel.

Edmonton's road construction season is mainly seasonal, and Edmontonians feel the impact, particularly during the summer months. Edmontonians commonly raise traffic and the associated effects of construction through public inquiries directly to Administration or via their elected Council representatives. Administration responds by providing information, answering questions and following up on issues raised by residents.

Community feedback influences the design and construction of transportation projects. This may include identifying enhancements to the transportation network or feedback that helps Administration understand and mitigate construction-related issues such as access restrictions, pedestrian safety, and displacement and safety of vulnerable populations.

In recent months, Administration has received and responded to letters from institutional and business stakeholders concerned about traffic impacts associated with major capital construction projects in and around downtown. To enhance communications related to these projects, a Downtown Projects Integration Manager position has been created and is being recruited to ensure projects are broadly communicated to increase awareness and information with the public. Information has been shared in response to the letters received outlining the actions the City is taking to address traffic disruption in consideration of the suite of projects underway and upcoming.

In addition, during construction projects, various construction communications tools, such as business wayfinding signs and road signs, are used to share information with the public and encourage access to affected areas.

GBA+

Major arterial roadways and river crossings are critical to the movement of all forms of transportation, including goods movement, commuting traffic, transit and active modes.

Planning for traffic impacts and the implementation of accommodation strategies is particularly important for major capital projects that significantly impact transit or active modes, as these forms of traffic disruption may disproportionately impact those who rely on such travel modes to meet their daily needs. Edmonton Transit Service rider research shows marginalized communities, such as those experiencing low income, youth and those who identify as Indigenous, are more likely to rely on transit as their primary transportation mode. In addition to transit, many demographic groups rely more on active transportation as a primary mode. Longer travel times may be a barrier for individuals who rely on transit or active modes for their daily travel needs. Impacts and mitigations for these modes of travel are considered in developing traffic accommodation plans for construction activities and network planning studies.

Construction impacts, such as increased vehicle idling due to congestion, can impact air quality. Air quality is an essential climate equity indicator, as the negative effects of air pollution disproportionately affect marginalized and vulnerable segments of the population.

GBA+ is utilized throughout the development process of individual capital construction projects. All roadway projects that have potential accessibility impacts are considered. Some of the considerations at a project level include:

- Accessibility: Ensure accessibility requirements for people with disabilities in the surrounding areas are in place; accessibility is considered at each stage of the project design.
- Safety: Incorporate the needs of diverse demographics to improve safety within existing and new facilities.
- Usability: Consider how asset renewal and new assets improve the useability of municipal assets for those working in them and for others who use them for business or other purposes.

Environment and Climate Review

Mitigation strategies are implemented to manage traffic impacts and reduce vehicle idling and greenhouse gas emissions (GHG) during transportation project construction. However, GHG emissions are not quantified during the construction phase; rather, GHG benefits are quantified once these projects become operational.

The transportation sector is responsible for one quarter of Canada's greenhouse gas emissions. By managing the effects of construction and investing in public transit and active transportation infrastructure, the total vehicle kilometres travelled and GHG emissions can be reduced. Further, designing infrastructure that encourages walking and cycling contributes to healthier and more sustainable cities.

Climate decisions related to how major capital infrastructure (both new and renewed) is designed and built will significantly influence Edmonton's climate resilience in the future. Aging infrastructure was generally not constructed with climate mitigation in mind. As climate risks increase, opportunities to retrofit aging infrastructure and advance heat-mitigating urban designs should be considered. Generally speaking, investing in green infrastructure for new infrastructure projects improves the overall efficiency of the transportation network and reduces greenhouse gas emissions over the lifecycle of the infrastructure.

Attachments

1. Q1 2025 Major Capital Projects - Traffic Update
2. Q1 2025 Major Capital Projects - Traffic Impacts Summary
3. 2025 Major Construction Projects Map
4. ADDENDUM Bridge Renewal Program Update