COUNCIL REPORT

THE BIKE PLAN IMPLEMENTATION GUIDE

RECOMMENDATION

That the February 15, 2022, Urban Planning and Economy report CR_7889, be received for information.

Report Purpose

Information only.

To inform Urban Planning Committee of the Bike Plan Implementation Guide 2021-2026 and next steps planned by Administration.

Previous Council/Committee Action

At the December 3, 2019, Urban Planning Committee meeting, the following motion was passed:

That as part of the Edmonton Bike Plan: Phase 3 Update, Administration includes a high level analysis from other cities' learnings of the potential economic impact of bike facilities.

Executive Summary

- The Bike Plan Implementation Guide represents one of the elements to advance The City Plan's Systems and Networks.
- The Bike Plan (September 2020) builds on the policy direction outlined in ConnectEdmonton: Edmonton's Strategic Plan and The City Plan. It guides the continued planning and design of a bike network that is accessible and intuitive for both experienced and inexperienced riders, supporting active transportation as an integral part of Edmonton's mobility system.
- A connected network focused on major nodes and corridors is essential to encourage people to use bikes, to make it safe for those who do bike and to attract and retain people and employers who are looking for an urban lifestyle. In addition, from a climate perspective, a connected network is key to achieve the City's goals by supporting a viable low carbon alternative to the personal vehicle.
- The Bike Plan Implementation Guide 2021-2026 focuses on five areas of implementation:
    - Implementation Resources and Timelines
    - Project and Program Prioritization
    - Bike Route Planning Process
    - All-Seasons Network

    - Monitoring and Evaluation
- Other considerations outlined include economic benefits of bike facilities (to address the motion made at Urban Planning Committee on December 3, 2019).

REPORT

The City Plan envisions a vibrant and prosperous city with an integrated mobility system that provides all users convenient, safe and inclusive options. As part of this vision, The City Plan provides direction to evolve three integrated mobility networks: active transportation, transit and roadway and goods movement.

The active transportation network, as described in The City Plan, will create opportunities for active mobility through the provision of high-quality infrastructure with an aim to reduce traffic congestion, create better environmental outcomes and improve public health. The Bike Plan (2020) provides a strategic planning framework to support the evolution of the active transportation network. This is achieved by outlining actions that invite Edmontonians to cycle for all reasons, in all seasons.

The Bike Plan Implementation Guide 2021-2026 continues to build on the strategic direction provided in the Bike Plan, outlining actions that pull on the policy, pricing/subsidy, investment, and partnership levers of change identified in The City Plan. The Implementation Guide provides direction regarding Implementation resources and timelines, project and program prioritization, the process to plan and build expansions to the bike network, considerations for an all-seasons network, and monitoring and evaluation.

Importance of a Connected Network

Building a connected bike network is an important part of developing vibrant urban places. These places have a range of accessible and comfortable transportation options that not only help meet the needs of Edmontonians, but can also contribute to the attraction and retention of employers and residents that seek an urban lifestyle. A well integrated city-wide bike network also provides residents with opportunities for recreation, physical activity and a low cost way to get around. Additionally, providing more travel options can reduce the reliance on the personal vehicle, helping the City meet its goals of reducing transportation sector greenhouse gas emissions. The Safe Mobility Strategy found that 87 per cent of bike-related serious injury or fatality crashes happen in locations without bike facilities; providing a network of safe infrastructure for people biking can help the City on the path towards vision zero.

Implementation Resources and Timelines

Table 1 summarizes the length of bike routes to be improved or added to the bike network as outlined in the Bike Plan. The areas noted reflect the different approaches to implementation in the development pattern areas (as outlined in The City Plan, generally describes the area bounded by Anthony Henday Drive). New and improved bike routes within the redeveloping area are anticipated to be completed by the City through capital projects while bike routes in developing and future growth areas (i.e. newly developed or undeveloped areas) will be completed by developers with new construction.

Table 1: Length of Bike Routes to be Improved or Added by Area

Area	Bike Routes to be Added or Improved by Length
Redeveloping Area	408 kilometres
Developing and Future Growth Areas	270 kilometres
TOTAL	678 kilometres

The pace of implementation in the redeveloping area will depend on the amount of funding allocated through the capital budgeting process and funding support from other orders of government. Initial analysis indicates a cost estimate of $12.7 million to $19.1 million (-50 per cent to +100 per cent) per year in order to complete the city funded portion of implementation in the redeveloping area in 10-15 years. This represents a significant increase when compared to previous budget funding allocations for active modes. The timelines and targets associated with Edmonton's Community Energy Transition Strategy would require accelerated implementation of the bike network to be completed by 2030.

The estimated cost does not incorporate changes in operations and maintenance costs and assumes that the bike network will be implemented without coordination with other capital projects. However, Administration will continue to look for opportunities to coordinate with other capital projects such as neighbourhood renewal and roadway renewal. These opportunities allow for greater efficiencies within the delivery of capital programs and a reduced implementation cost compared to the delivery of all bicycle projects individually.

The pace of implementing the bike network in developing and future growth areas will be driven by neighbourhood development. Planning the active transportation network as part of the mobility system in new areas will continue to be part of the neighbourhood planning process in alignment with The Bike Plan and the Complete Streets Design and Construction Standards. The cost associated with implementing the bike network in developing and future growth areas will continue to be required as part of the developer's cost of designing and constructing the roadway and pathway network in a new neighbourhood.

Project and Program Prioritization

The Bike Plan Implementation Guide identifies near term priorities as a starting point for implementation. The near term priorities include 36 kilometres of new and improved bike routes located in areas that generally align with The City Plan's 1.25 million population horizon priority growth areas. The near term priorities can be characterized by the following:

- Increasing the network density near Downtown and south-central areas;

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- Continuing to extend the high-quality bike network out from the central areas with a focus on the south-central, west-central and east-central areas; and
- Providing stronger connections to North Edmonton by way of 127 Street, 97 Street, and Fort Road.

Bike Route Planning Process

The bike route planning process in the implementation guide is generally informed by three key inputs:

- **Policy Direction | Why is this project important?**

  Developed on a foundation of extensive engagement with the public, our policies and strategies guide and support the work we do by answering the question: why is this project important?

- **Design | What should we do and what can we do?**

  Translating policy into a project is not always straightforward. Often, there is a tension between policy direction and practical limitations. To appreciate what's possible, the project limitations and constraints must be understood and communicated.

- **Localized Public Engagement | What's important to the community?**

  Localized public engagement is an input to decision making regarding both route location and facility type. However, this input must be considered within a broader understanding of the bicycle network, the principles of the Bike Plan and other City policies.

Processes and case studies are provided in the Implementation Guide to support Administration and the public through various project delivery options.

All-Seasons Network

The Bike Plan Implementation Guide provides some additional discussion regarding the maintenance of Edmonton's all-seasons network, which is a significant part of realizing the Bike Plan's aspiration of inviting people to bike for all reasons, in all seasons. Envisioning Edmonton's all-season network in the Implementation Guide includes reviewing maintenance levels, identifying opportunities to expand the all-seasons network, and identifying financial implications.

Winter maintenance of the bike network is guided by The City's Snow and Ice Control Policy and accompanying operating guidelines. Currently, 38 kilometres of the bike network is prioritized for winter maintenance. The all-seasons network identifies an additional 57 kilometres of prioritized routes as candidates for all-seasons accessibility. Additional operational funding would be required to achieve the proposed levels of service for an expanded all-seasons network. Proposed changes to the all-season network will be a consideration in the management of the Snow and Ice Control Policy and procedure which guides snow clearing of the bike network.

Monitoring and Evaluation

Data collection on cycling in Edmonton provides valuable insight into the state of the network, including an understanding of people's diverse experiences using the network and identifying

considerations for future planning and design of bike facilities. Data collection can also help understand overall trends in the mobility system. For example, household travel survey data shows that daily bike trips more than doubled from 25,300 to 54,800 between 2005 and 2015.

Permanent bicycle counters installed in various locations throughout the bike network provide real-time data on the number of users. This data is publicly available through the City's Open Data Portal. Data collection throughout the network can be used to understand the effects of localized improvements and identify trends. For example, local counts showed that the number of bike trips made downtown increased from 2,796 trips daily in June 2017 to 6,501 trips daily in June 2018 after the downtown bike network was installed.

Some of the busiest routes for bicycles include the High Level Bridge, which recorded around 280,000 bike crossings in 2021, and 83 Avenue west of 99 Street which recorded around 205,000 bike trips in 2021. The areas with highest usage have a well connected bike network and higher densities of population and employment. Monitoring usage can help understand how Edmontonians move in different seasons, with counts at the High Level Bridge suggesting that approximately one in six people that cycle during the summer months continue to cycle throughout the winter.

The bike network monitoring program highlighted in the implementation guide provides an opportunity to improve and build upon existing data collection. Metrics related to the bike network should be reported and shared annually to ensure consistency and to inform the Enterprise Performance Management process and help track progress towards the goals identified in The City Plan.

Next Steps

The advancement of bike plan implementation will continue in the following ways:

- Funding allocated for the planning and design of near term priority bike routes during the 2021 Fall Supplemental Capital Budget Adjustment will allow Administration to begin planning and design work on these priorities in 2022.
- Bike network expansion will be evaluated as part of the Mobility Network Assessment, the Community Energy Transition Strategy, the development of the 10 year Capital Plan and recommendations for the 2023-2026 Capital Budget cycle.
- Administration will continue to explore opportunities to expand the bike network through coordination with asset renewal plans and through funding from other sources such as grants.
- Other implementation actions outside of the network itself will be reviewed for alignment with other projects and initiatives to identify opportunities for partnerships and collaboration with internal and external stakeholders.

Economic Benefits of Bike Lanes

Bicycle lanes can bring economic benefits to cities and promote physical activity, serving as one of the more cost-effective approaches to preventative healthcare. To address the motion made at Urban Planning Committee on December 3, 2019, research and case studies from other

municipalities across Canada, North America and the world is included in Attachment 2. The findings indicate that bike infrastructure may provide economic benefits including:

- **Physical Activity and Health -** Considering savings in health care alone, the research suggests the economic benefits of bike lanes outweigh the costs; obesity rates are lower in countries that have better bicycle infrastructure.
- **A Shift to Car Lite -** Nationally, spending on transportation is the second highest household expense after housing. Biking provides a low-cost transportation option with an estimated annual operating cost of approximately $350, 20 to 30 times less expensive than the typical cost to operate a vehicle.
- **Boosting Retail Sales -** People who bike and walk to stores tend to spend less per visit than those who arrive by car, but people biking and walking tend to visit more often, resulting in more spending over time.
- **Job Creation -** A larger portion of the costs associated with the construction of pedestrian and bicycle infrastructure tends to be dedicated to labour and salary expenditures when compared to vehicle only infrastructure where a larger portion of the costs are typically allocated towards capital costs like asphalt and heavy equipment. Besides construction jobs, indirect job creation can result from bike manufacturing, retail and hospitality sectors.
- **Increasing Property Values -** Bike paths tend to increase or have no effect on the value of adjacent or nearby properties. However, increases in property values are not seen as a benefit by everybody as bike lanes may, unintentionally, be a tool of gentrification that contribute to housing affordability issues.

COMMUNITY INSIGHT

The Bike Plan is the culmination of two years of engagement with Edmontonians. Through 62 public events, including workshops, pop up events, drop in sessions, surveys and community conversations, more than 11,500 Edmontonians provided feedback about biking in Edmonton. People with many different experiences, perspectives and attitudes participated. Participants included those who are avid cyclists, those who don't support bike lanes, those who would love to bike more but are too nervous and those who indicated they will probably never ride a bike. All of their comments were considered in the development of the Bike Plan and were summarized in three What We Heard reports completed throughout the Bike Plan project and posted on the City's website. These insights were also carried forward through to the development of the Bike Plan Implementation Guide 2021-2026.

GBA+

The development of the The Bike Plan included strategies intended to reach and engage with a diverse range of Edmontonians such as targeted workshops and focused community conversations. Learnings from the Bike Plan highlighted the importance of considering all users as part of planning, design, and engagement activities including children, seniors, women, racialized populations, people with low income, people with disabilities, people riding with bike share or scooter share and people moving goods or cargo. Diverse populations may have

economic, physical, or social barriers to driving and can experience mobility challenges when they do not have access to perceived safe and comfortable transportation alternatives.

The processes included in the Implementation Guide provide opportunities to incorporate and build upon the learnings of the Bike Plan.

Administration will continue to use equity measures as criteria for prioritizing active mobility projects and the distribution of the all-seasons network.

Administration will also work to identify and address social inequities in the active transportation network and mobility system through the bike route planning process, which includes localized engagement. Considerations for this work include:

- Create awareness of the unique circumstances and needs of the broad, and evolving, range of potential active transportation network users and help project teams to identify and acknowledge their own biases.
- Review project-specific engagement tactics and communications to determine who is typically excluded from participating in engagement activities, what contributes to this exclusion, and identify measures to make engagement more inclusive.
- Understand how specific groups of people move around their neighbourhood and city, what they view as barriers or challenges in the City's mobility network, and what amenities and design features they value.

ATTACHMENTS

1. Bike Plan Implementation Guide 2021-2026
2. The Economic Benefits of Bike Lanes