



THE CORPORATION OF THE CITY OF COURTENAY

## STAFF REPORT

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**To:** Council  
**From:** City Manager (CAO)  
**Subject:** 2023 Cycling Network Plan Update

**File No.:** 5400-01  
**Date:** June 14, 2023

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### PURPOSE:

The purpose of this report is to propose updated interim and ultimate cycling network maps, a comprehensive 5-year capital implementation program, including budget implications with defined levels of service and supporting amendments to the Subdivision and Development Servicing Bylaw No. 2919, 2018 to advance Council's Active Transportation priorities.

### EXECUTIVE SUMMARY:

Since the completion of the Connecting Courtenay: Cycling Network Plan (CNP) in 2019, the City of Courtenay has significantly invested in advancing active transportation (AT) and road safety priorities. The AT program is supported with grant opportunities and partnerships to offset funding requirements for various infrastructure projects. Total grant funding for the City's AT program received or pending through grant funding programs amounts to over \$5.20 million.

The implementation of the CNP continues to progress as recommended. This report proposes plans for the next five years to advance projects with more than 54 lane-km of all ages and abilities active transportation infrastructure. Highlights include:

- 23.4 lane-km construction projects of neighbourhood bikeways with speed reductions to 40 km/h
- 16.3 lane-km construction projects of buffered painted bike lanes
- 1.3 lane-km construction projects of painted parking protected bike lanes
- 13.8 lane-km of design projects including more than 11 lane-km of protected bike lanes
- 2 protected intersection design projects
- 1 pedestrian bridge design project

### BACKGROUND:

In February 2019, Council adopted the first Connecting Courtenay: Cycling Network Plan (CNP). Revisions to the CNP were adopted in September 2019, based on public feedback received during the Connecting Courtenay: Transportation Master Plan public comment period, to ensure alignment between the two documents.

In June 2019, Council resolved to direct staff to provide a report outlining cycling facility level of service options, related costs and necessary amendments to the Subdivision and Development Servicing Bylaw No. 2919, 2018, and to direct staff to design an implementation plan that would see the build-out of a core bicycle network over the next 5 years. To support this resolution, Council's 2023 Strategic Priorities include a CNP update and implementation plan.

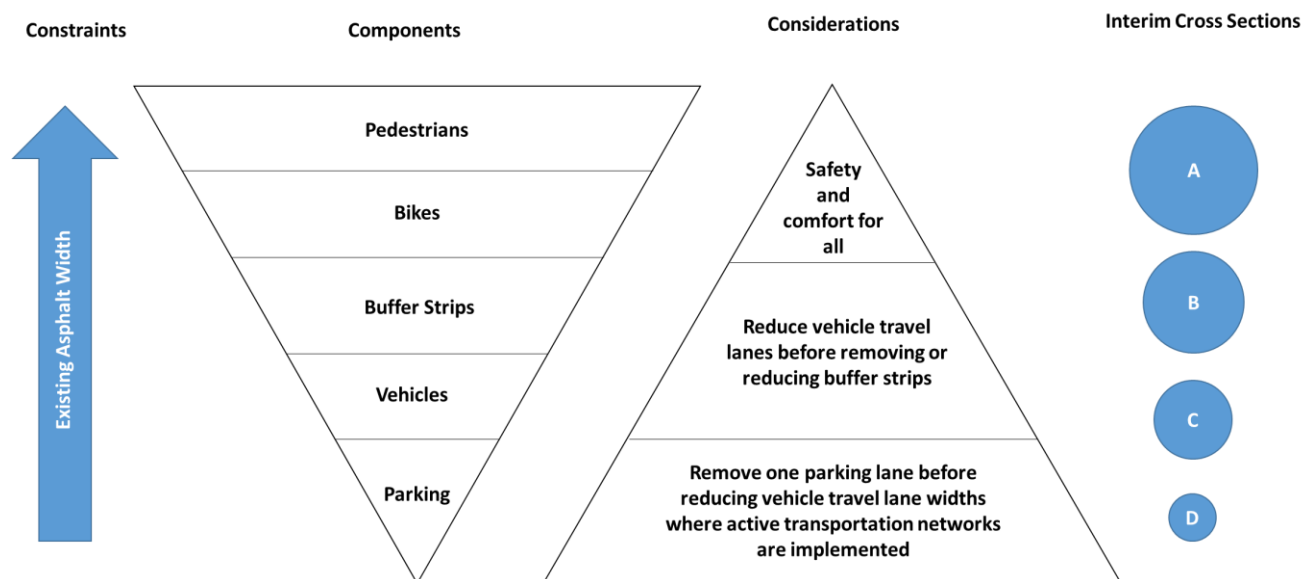
## DISCUSSION:

The City of Courtenay has built a strong foundation upon which to further develop active transportation (AT) options for residents and visitors. This includes policies in support of AT, such as the new OCP, network planning, an expanding network of bicycle facilities for people of all ages and abilities, and increased funding to implement the CNP through capital projects that deliver AT infrastructure.

To minimize costs and risks while delivering desired levels of service, the type of AT project was developed for each infrastructure project with the framework below to design in accordance with context.

This framework considers constraints from the existing asphalt width, the prioritization of components for inclusion, and considerations of various trade-off for the order in which modifications will be made where there are space constraints on existing roadways. Outputs from design activities generated four interim cross-sections for implementing the CNP within the available right-of-way.

**Figure 1: Active Transportation Design Framework**



With this framework in mind, each infrastructure project is listed with its designated interim section(s) in Attachment 3, whereas ultimate cross-sections are provided in Attachment 4.

Creating a balance between responsible asset management, capital construction costs and effective infrastructure implementation, interim designs can be installed for the short and medium term to implement necessary cycling connections while designing and budgeting for long term facilities. Interim cycling facilities are intended to encourage more people to consider cycling while making use of the existing width of asphalt in a cost-effective manner.

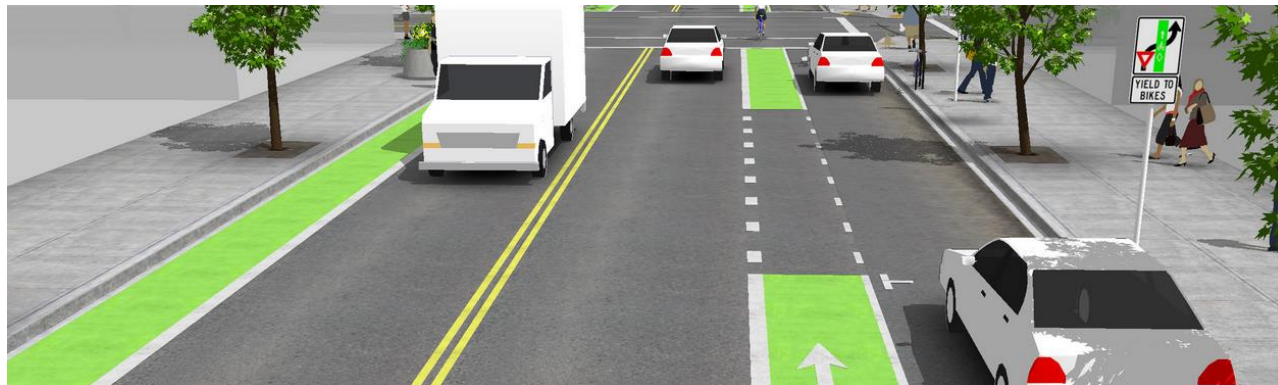
While neighbourhood bikeways do not require an interim cross-section as their implementation is the ultimate preferred design, all other infrastructure projects have an interim cross-section assigned in the implementation plan. Some projects require two or more interim cross-sections to accommodate constraints, as indicated in Attachment 1, by project.

Levels of service for the majority of roads in the proposed implementation plan focus on cycling facilities that are cost effective to implement such as neighbourhood bikeways and painted bike lanes, illustrated in the figures below.

**Figure 2: Neighbourhood Bikeway Example (National Association of City Transportation Officials)**



**Figure 3: Painted Buffered Bike Lanes Example (National Association of City Transportation Officials)**



The maps of the CNP network are provided in Attachment 2, which illustrates how the spine of the network will connect existing infrastructure and generate quick wins in several neighbourhoods, developed in collaboration with the Comox Valley Cycling Coalition (CVCC). These maps illustrate the network implementation by year, the cycling route types for the interim plan, and the long term or ultimate plan. A letter of support from the CVCC is provided in Attachment 5.

In order to support the CNP and to update the cycling facility designs within the Subdivision and Development Servicing Bylaw No. 2919, 2018, (SDS Bylaw), that are no longer consistent with the BC Active Transportation Design Guide (BCAT), revised cross-sections have been developed for protected bike lanes, painted bike lanes, neighbourhood bikeways, and multi-use pathways. Those cross-sections are shown in Attachment 4.

The CNP also identifies routes in the cycling network that need further consideration due to the complexity of the road or intersections, the grade of the road, or space constraints. For example, Lerwick Road was recognized by the CVCC as important connections across Courtenay, but changes to the existing cross-section will be required in order to create a safe cycling facility. Several streets have been identified as needing further investigation and have been included in the proposed five-year CNP capital plan for a more detailed design process. These streets are shown in the table below with the length of the project (rather than lane-km for each AT facility).

**Table 1 - CNP Projects Requiring Detailed Investigation and Design**

Street	From	To	Length (m)	Facility Type	Year
6 <sup>th</sup> Street	Proposed bridge	Fitzgerald Ave	490	(To be determined)	2023
Fitzgerald Ave	8th Street	26th Street	1814	Protected Bike Lane	2024
Lerwick Road	McDonald Road	Waters Place	3200	Protected Bike Lane	2025
17th Street	Fitzgerald Ave	Fitzgerald Ave	-	Protected Intersection	2026
Arden Road	Lake Trail Road	1st Street	820	Neighbourhood Bikeway	2027
Old Island Highway	Veterans Memorial Parkway	Veterans Memorial Parkway	-	Protected Intersection	2027
1st Street	Cliffe St	Anderton Ave	115	Protected Bike Lane	2028
Anderton Ave	1st Street	Condensory Bridge	245	Protected Bike Lane	2028

**POLICY ANALYSIS:**

The City’s Connecting Courtenay Cycling Network Plan (CNP) is guided by the Official Community Plan (OCP), the Regional Growth Strategy (RGS) and Council’s strategic priorities. Active transportation projects are implemented through internal capital projects, new development and external third parties including the Ministry of Transportation and Infrastructure (MoTI) and BC Transit.

The proposed 5-year CNP capital program focuses on creating network spines that connect key destinations and focus on safety and comfort for all ages and abilities towards achieving the OCP’s objective for 30% of trips in the City to be made by walking, cycling and transit by 2030.

**FINANCIAL IMPLICATIONS:**

The proposed 5-year CNP capital plan is estimated to require \$1,163,000 in capital construction expenditures with the corresponding increase to operations and maintenance expenditures estimated to be \$106,000 (from \$12,000 to \$35,000 per year, based on project types and timing). These expenditures are summarized for each of the five years in the CNP capital plan.

Capital funding for the 2023 projects as listed in Attachment 1 are included in the approved 2023 financial plan. The continuation of the capital investment relative years 2024-2027 of 5 year capital plan will be subject to council’s review during the regular budget approval process.

**Table 2 – Proposed Five Year CNP Capital Plan Construction and Maintenance Costs**

Year	Construction Cost (Annual)	Operations and Maintenance Costs (Annual Increase)
2023	\$212,000	\$15,000
2024	\$338,000	\$35,000

Year	Construction Cost (Annual)	Operations and Maintenance Costs (Annual Increase)
2025	\$201,000	\$24,000
2026	\$196,000	\$19,000
2027	\$211,000	\$12,000
<b>Total</b>	<b>\$1,163,000</b>	<b>\$106,000</b>

In addition to the above CNP projects with designs, expenditures for the larger projects in Table 1 that still require detailed investigation and design will also have capital construction expenditures, with the corresponding increase to operations and maintenance expenditures. These costs are provided below.

**Table 3 – Estimated Construction and Maintenance Costs for CNP Projects Requiring Detailed Investigation and Design**

Year	Construction Cost (Annual)	Operations and Maintenance Costs (Annual Increase)
2023	(To be determined)	(To be determined)
2024	\$5,369,000	\$7,250
2025	\$9,471,000	\$12,800
2026	(To be determined)	(To be determined)
2027	(To be determined)	(To be determined)
2028	\$1,065,000	\$1,500
<b>Total</b>	<b>\$15,930,500</b>	<b>\$22,550</b>

**ADMINISTRATIVE IMPLICATIONS:**

If the proposed CNP capital plan is approved, staff will request AT infrastructure projects be added to the Development Cost Charges list, based on project eligibility.

Levels of service for winter maintenance including snow and ice control and snow removal are proposed to be applied to protected bike lanes and included as such in the development of a snow and ice control policy, in alignment to current levels of service already being delivered. Additional resources would be required if these levels of service are directed to be implemented to other AT types.

Grants from external parties for CNP projects will be continually pursued as they are available, which will require staff time for administration and reporting. Additional staff capacity will also be required to advocate for linkages beyond the City’s boundaries with other levels of government, by project.

Further technical engineering is planned for certain projects including those illustrated as such on the interim plan map in Attachment 3, for the intersection improvements illustrated on the long-term plan in Attachment 4, and for the specific infrastructure projects listed in this report as projects requiring detailed investigation and design.

Additional capacity will be required to ensure AT infrastructure projects are effectively integrated with safe active school programs and speed reduction initiatives.

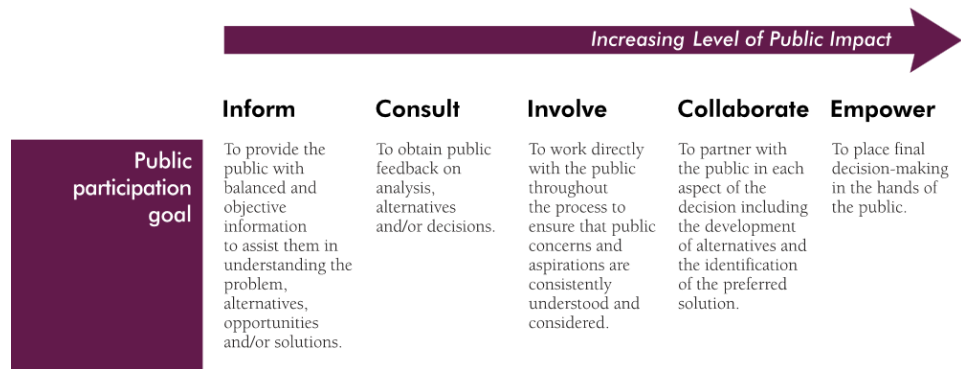
**STRATEGIC PRIORITIES REFERENCE:**

This initiative addresses the following strategic priorities:

- Streets and Transportation - Update cycling network plan and implementation strategy

**PUBLIC ENGAGEMENT:**

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



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**OPTIONS:**

1. THAT Council adopt the 2023 Cycling Network Plan Update; and,  
  
THAT Council adopt the Updated Cycling Network Plan Maps; and,  
  
THAT staff be directed to to amend the **2019 Connecting Courtenay Cycling Network Plan** to include the Updated Cycling Network Plan Maps; and,  
  
FURTHER THAT Council direct staff to prepare a bylaw amendment to the **Subdivision and Development Servicing Bylaw No. 2919, 2018** to update the engineering standards and cross-sections. (Recommended)
2. THAT Council adopt the 2023 Cycling Network Plan Update; and,  
  
THAT Council adopt the Updated Cycling Network Plan Maps; and,  
  
THAT staff be directed to to amend the **2019 Connecting Courtenay Cycling Network Plan** to include the Updated Cycling Network Plan Maps; and,  
  
THAT Council approves only the 2023 portion of the capital work plan; and,  
  
THAT Council direct staff to modify and resubmit the 2024-2027 capital work plans; and,

FURTHER THAT Council direct staff to prepare a bylaw amendment to the **Subdivision and Development Servicing Bylaw No. 2919, 2018** to update the engineering standards and cross-sections.

3. THAT Council provide alternate direction.
4. THAT Council receives this report for information only.

**ATTACHMENTS:**

1. 2023 Proposed Five Year CNP Capital Plan Projects
2. Updated Cycling Network Plan Maps
3. Interim Cross-Sections
4. Ultimate Cross-Sections
5. CVCC Letter of Support

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