

TO: MAYOR & COUNCILLORS
FROM: DEPUTY GENERAL MANAGER PARKS, RECREATION AND CULTURE
SUBJECT: **DEER LAKE TRAIL LOOP – CONNECTED PATHWAYS**
PURPOSE: To obtain Council approval to proceed with the proposed concept design for a new pedestrian bridge and connecting pathways around Deer Lake Trail Loop as outlined in this report.

RECOMMENDATION

THAT approval be given to the concept design for the Deer Lake Park pedestrian bridge, as outlined in the report titled “Deer Lake Trail Loop – Connected Pathways” dated March 11, 2024 with a Class C design and construction cost estimate of \$3,700,000 (excluding GST).

1.0 POLICY SECTION

The advancement of this project aligns with the following Council adopted policies: Corporate Strategic Plan (2017), Regional Context Statement (2013), Official Community Plan (1998), the Environmental Sustainability Strategy (2016) and the Deer Lake Park Management Plan (1999).

2.0 BACKGROUND

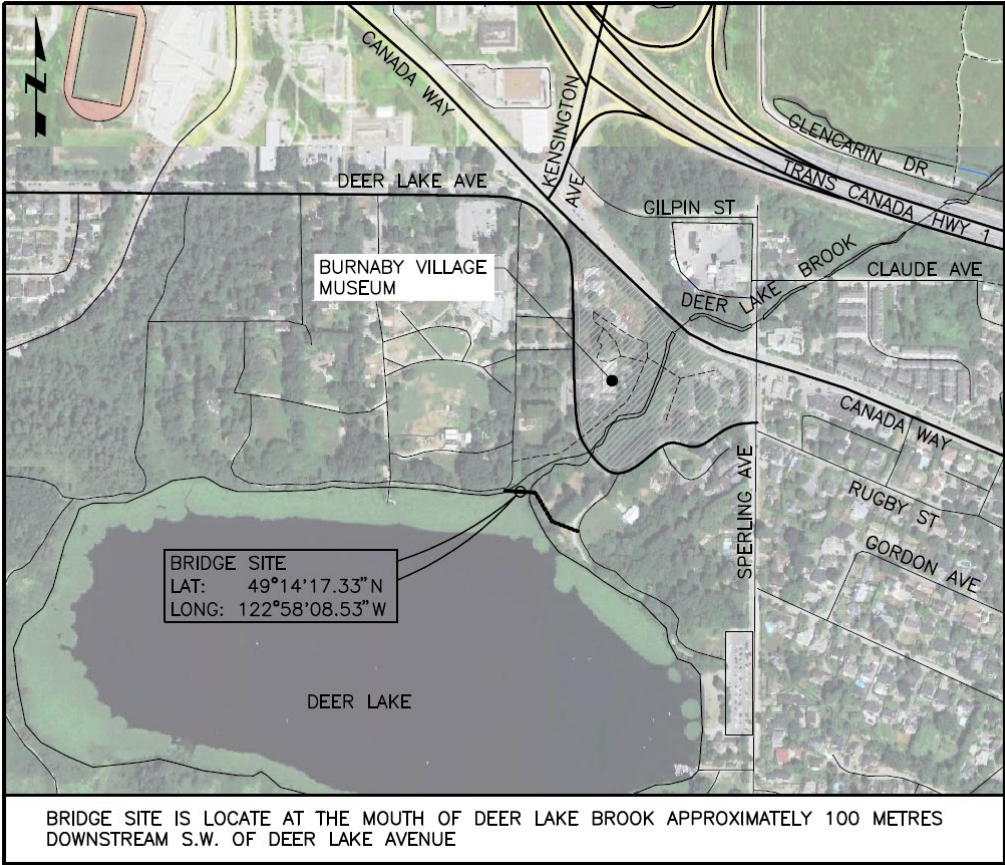
Deer Lake Park is one of Burnaby’s premier destinations. It attracts over 600,000 visitors each year and is prized for its recreational, cultural and environmental value. Over many years, the City has developed the boardwalk and Deer Lake Trail Loop to make the lake more accessible for users. However, the trail does not have a continuous water’s edge route around the lake and pedestrians must exit the trail and walk along Deer Lake Avenue to cross the Deer Lake Brook.

In 2023, staff initiated planning for a new pedestrian bridge to be built on the northeast side of Deer Lake, connecting the existing lake side trail on each side of brook. As part of the 2024-2028 Financial Plan, staff included a capital funding request to support the construction of this new bridge and are now seeking Council approval of the preliminary design concept.

3.0 GENERAL INFORMATION

The preliminary concept design for the bridge consists of a 36.4-meter long, single-span feature bridge that will provide connectivity across the mouth of the lake, connecting to

the existing boardwalk and trail and enhancing the safety and experience of park visitors.



While the improvements are relatively minor, this is a complex project largely due to the fact that the project area has been identified as both environmentally and archeologically sensitive. Given this, careful consideration has been made during the preliminary design process and it is anticipated that the project timeline will be extended as various provincial and federal permits and an Archeological Impact Assessment (AIA) will be required prior to construction.

The main considerations in defining the recommended design option(s) include safety, accessibility, minimizing any disturbance to ecologically sensitive areas and local wildlife during and after construction, enhancing the natural environment and park beautification, capital and operating cost impacts, minimizing maintenance requirements and improving the overall user experience.

3.1 Concept Design

The concept design (Attachment 1) includes a truss bridge with a 3-meter wide deck, which is consistent with current dimensions of the trail and boardwalk and meets the growing circulation capacity needs of the users. The project consists of a 36-meter clear

span deck over Deer Lake Brook, complemented by a 100-meter boardwalk to the east and a 35-meter boardwalk to the west, facilitating connection to the current trail. This design will ensure a seamless transition and appropriate integration with the existing trail. The proposed alignment minimizes disturbance to existing trees and sensitive ecological areas. Composite materials would be prioritized to reduce the impact of weather and environmental conditions, with a 75-year lifespan and minimal annual maintenance costs.

Staff also examined a second bridge option with a 4-meter wide deck; however, this increased the costs by nearly 30% to \$5.1 million and has the potential to cause increased disruption to the ecologically sensitive area and wildlife. Given this, staff are recommending the concept design as discussed in this report.

3.2 Project Timeline

Given the complexities associated with this project as noted above, staff anticipate this project could take at least 12-24 months to complete, subject to obtaining permits related to environmental and archeological aspects of this site.

Staff recognize the need and community value of connecting the trail network through this pedestrian bridge project and are working to advance it as quickly as possible. Staff are utilizing a design-build delivery method for this project, which will allow the requirements and performance specifications to be developed, enabling early involvement of the contractor to expedite construction following the receipt of all necessary permits.

4.0 COMMUNICATION AND COMMUNITY ENGAGEMENT

As required by provincial legislation, staff will also be engaging with First Nation Communities regarding this project through the AIA process as noted above. Regular project updates will also be shared with the broader community through the project webpage.

5.0 FINANCIAL CONSIDERATIONS

The Class C construction estimate of the bridge is \$3.7 million (Attachment 2) is broken down as follows:

| | |
|---------------------------------|----------------|
| Mob, bridge structure & prep. | \$1.4 M |
| Boardwalk/pathways | \$1.1 M |
| Contingency, project oversight, | \$1.2 M |
| Owners Eng services. | |
| Estimated Total = | <u>\$3.7 M</u> |

This capital project is included in the 2024-2028 Financial Plan under Parks, Recreation & Culture, Parks Facilities – Deer Lake Pedestrian Foot Bridge with a budget of \$1,750,000. As the project is planned to be completed in 2025/2026, the remaining

\$1,950,000 required to complete this project will be requested as part of the 2025-2029 budget cycle.

In addition, operating costs tied to this capital project would also be included in the 2025-2029 budget cycle, however, they are expected to be minimal given the composite materials being considered, which require less maintenance over time.

Respectfully submitted,

Carmen Gonzalez, Deputy General Manager Parks, Recreation and Culture

ATTACHMENTS

Attachment 1 – Plan and Profile of Proposed Concept Design

Attachment 2 – Class C Cost Estimate for Proposed Concept Design

REPORT CONTRIBUTORS

This report was prepared by Isabel Londono, Project Manager PRC PMO, and reviewed by Sarah Kosari, Senior Manager PRC PMO; Bob Farahani, Director PRC PMO & Enterprise Services; Heather Edwards, Manager Parks Plan., Design & Dev. ; Andre Isakov, Director PRC Planning; Steve Bruneau, Director Parks.