

CAPITAL PROFILE REPORT

PROFILE NAME: **HIGH LEVEL BRIDGE REHABILITATION**
 PROFILE NUMBER: **23-24-0300**
 DEPARTMENT: **Integrated Infrastructure Services**
 LEAD BRANCH: **Infrastructure Planning and Design**
 PROGRAM NAME:
 PARTNER: **Infrastructure Delivery**
 BUDGET CYCLE: **2023-2026**

FUNDED

PROFILE STAGE:	Approved
PROFILE TYPE:	Standalone
LEAD MANAGER:	Pascale Ladouceur
PARTNER MANAGER:	Jason Meliefste
ESTIMATED START:	January, 2023
ESTIMATED COMPLETION:	December, 2028

Service Category:**Major Initiative:**

GROWTH	RENEWAL
10	90

PREVIOUSLY APPROVED:	200,000
BUDGET REQUEST:	-
TOTAL PROFILE BUDGET:	200,000

PROFILE DESCRIPTION

The High Level Bridge (B007) is scheduled for renewal beginning in the 2023-2026 budget cycle. The City has also identified the need for an enhanced active mode connection between Downtown and south-central Edmonton. To optimize the City's investment in the upcoming rehabilitation of the High Level Bridge, while also seeking to advance key policy objectives as articulated in The City Plan, the rehabilitation project will include widening of the east sidewalk on the bridge.

The work will include planning, design, and delivery of the rehabilitation and sidewalk widening for the High Level Bridge.

The rehabilitation work, combined with widening of the east sidewalk, will allow continued use of this important north-south connection across the river and enhance the experience for pedestrians and cyclists.

PROFILE BACKGROUND

The High Level Bridge was built by CP Rail between 1910 and 1913. The ownership of the bridge was transferred to the City in 1994. The bridge has historical significance from a transportation and city-building perspective, as a landmark and an icon for Edmonton. The Bridge was designated as a Municipal Historic Resource and legally protected under the provisions of the Historical Resources Act in 1995.

The structure is large and complex. There have been various repairs and structural modifications to the High Level Bridge. The last major rehabilitation took place in 1995. The rehabilitation included repairs to the concrete road deck (lower deck), steel structure, widening of west sidewalk and other components, protective coating of some members, and a limited number of aesthetic enhancements (e.g., lighting, handrail painting).

The High Level Bridge requires rehabilitation to further extend its service life. The strategy was shared with Executive Committee on April 13, 2022 in report IIS00488 High Level Bridge Lifecycle Strategy. The approach was adjusted with the 2023-26 capital budget deliberations to focus the on rehabilitation in combination with widening of the east sidewalk.

PROFILE JUSTIFICATION

Visual inspections of the High Level Bridge are routinely completed as part of regular maintenance. When the visual inspection ratings and condition information show deterioration has reached a certain threshold, an extensive condition assessment is carried out to inform when and what type of renewal interventions may be required. These in-depth inspections of the structure were started in 2018 to understand the bridge's current condition. A further review on load evaluation and assessment was completed in 2020 to gain insight into the bridge's capacity to carry existing loads and potential future transportation loads, such as shared use path upgrades and potential for future mass transit across the North Saskatchewan River. In general, every 25 to 30 years, bridges typically require major rehabilitation to extend service life. The High Level Bridge requires major rehabilitation beginning in the next capital budget cycle (2023-2026) to maintain its structural integrity and safe operation.

STRATEGIC ALIGNMENT

The High Level bridge provides a valuable mobility connection between the Centre City, the University/Garneau major node and Whyte Avenue primary corridor. The Bike plan identifies the High Level Bridge as a substandard route. The existing shared pathway does not meet current city standards and the bike plan recommends considering opportunities to improve the facility to meet current standards. Incorporating the widening of the east sidewalk on the bridge will enhance the connection for active modes.

ALTERNATIVES CONSIDERED

Several alternatives/scenarios were evaluated. These are outlined in detail in the April 13, 2022, Integrated Infrastructure Services report IIS00488 High Level Bridge Lifecycle Strategy. The alternatives explored include:

- Scenarios A1, A2, A3 - Critical Rehabilitation (the minimum);
- Scenarios B1, B2, and B3 - Rehabilitation (to varying degrees); and
- Scenarios C1 and C2 - Replacement / New Bridge.

The scenario approved by Council as part of the 2023-26 capital budget is a variation of Strategy B and will address the rehabilitation requirements and enhance the east sidewalk for active modes.

COST BENEFITS

The scope of work for High Level Bridge rehabilitation is defined only at a strategic level at this time. The next stage of design will further define the renewal requirements and the sidewalk expansion costs and impacts. This work will aid in meeting the City's goals of maintaining current vehicular services and enhancing the active mode connections for the next 25 years.

KEY RISKS & MITIGATING STRATEGY

Key risks currently identified include the high profile nature of this project, including the historical, public, and urban design significance of this bridge. Mitigations include clear and timely communication with Council and the public, with close attention to historical and other elements of the bridge during planning and design.

Another key risk is the magnitude of the work expected. Thorough planning and design work will provide increased understanding of the scope of the project and the requirements (including permitting, utility impacts, etc).

All risks will be monitored throughout the life of the project and the Risk Register updated and reviewed on a regular basis. The project team will work together to mitigate the risks in a timely manner.

RESOURCES

This project will require internal and external resources. External consultants are required to support planning and design work, with a contractor for construction. External resources will be retained in alignment with City procurement processes and will be selected via competitive procurement.

CONCLUSIONS AND RECOMMENDATIONS

The High Level Bridge is a critical bridge structure in Edmonton with historical and public significance. The bridge requires rehabilitation to maintain it in serviceable and safe condition. The major rehabilitation required presents an opportunity to align the widening of the east sidewalk to improve accommodation of active users and also supports the key policy objectives as articulated in The City Plan.

It is recommended that this profile be approved to enable planning and design to commence to better inform the project scope, schedule and overall budget. The timeliness of this approval is critical to ensure the bridge planning and design is completed in a timely fashion, allowing for construction in alignment with the renewal schedule.

CAPITAL PROFILE REPORT

PROFILE NAME: **High Level Bridge Rehabilitation**

FUNDED

PROFILE NUMBER: **23-24-0300**

PROFILE TYPE: **Standalone**

BRANCH: **Infrastructure Planning and Design**

CAPITAL BUDGET AND FUNDING SOURCES (000's)

APPROVED BUDGET		Prior Years	2022	2023	2024	2025	2026	2027	2028	2029	2030	Beyond 2030	Total
	Approved Budget	Original Budget Approved	-	-	-	-	-	-	-	-	-	-	-
	2022 Cap Budget Request for Next Cycle	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000
	Current Approved Budget	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000
Approved Funding Sources	Tax-Supported Debt	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000
	Current Approved Funding Sources	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000

BUDGET REQUEST		Prior Years	2022	2023	2024	2025	2026	2027	2028	2029	2030	Beyond 2030	Total
Budget Request		-	-	-	-	-	-	-	-	-	-	-	-

REVISED BUDGET (IF APPROVED)		Prior Years	2022	2023	2024	2025	2026	2027	2028	2029	2030	Beyond 2030	Total
Revised Budget (if Approved)		-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000
Requested Funding Source	Tax-Supported Debt	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000
	Requested Funding Source	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000

CAPITAL BUDGET BY ACTIVITY TYPE (000's)

REVISED BUDGET (IF APPROVED)	Activity Type	Prior Years	2022	2023	2024	2025	2026	2027	2028	2029	2030	Beyond 2030	Total
	Construction	-	-	-	-	11,500	67,500	70,000	33,000	-	-	-	182,000
	Design	-	-	3,000	5,000	7,500	2,500	-	-	-	-	-	18,000
	Total	-	-	3,000	5,000	19,000	70,000	70,000	33,000	-	-	-	200,000

OPERATING IMPACT OF CAPITAL

Type of Impact:

Branch:																
	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE	Rev	Exp	Net	FTE
Total Operating Impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-