

City of Edmonton

VALLEY LINE LRT STAGE 1

Executive Summary:

Project Scope and Value for Money Assessment

April 2016

The Edmonton logo, featuring the word "Edmonton" in white text on a blue rectangular background. The background of the entire page is a photograph of a modern light rail transit station at dusk. The station has a prominent concrete structure with large pillars supporting an elevated platform. A blue and white light rail train is visible on the platform. In the foreground, there are trees and a bus stop with people waiting. The sky is a warm, golden color from the setting sun.



KPMG Report

Please reference the attached KPMG report accompanying this summary.

EXECUTIVE SUMMARY

In August 2012, City Council approved a public-private partnership (P3) project delivery model to design, build, finance, supply vehicles, operate and maintain the Valley Line LRT – Stage 1 from Mill Woods to 102 Street in Edmonton. The City committed to providing a value for money assessment to ensure the P3 structure offered value for money to the governments and citizens of Edmonton, Alberta and Canada compared to other forms of procurement.

This report sets the context for the project, outlines the project scope, and details the value for money assessment of the approved P3 structure compared to the traditional design-build method the City has used in previous major infrastructure projects.

A NEW VISION FOR EDMONTON

Edmonton is one of Canada's fastest growing cities. Expanding light rail transit (LRT) is part of Edmonton City Council's strategic vision to help shape that growth. This vision – The Way Ahead – sets a strategic direction for the future of the City, guides decisions and aligns City priorities.

The vision is translated into six strategic plans, including a Transportation Master Plan, ***The Way We Move***.

THIS PLAN PRIORITIZES:

- Increasing public transit options, destinations and transit ridership through LRT expansion
- Developing sustainable transit solutions
- Creating an efficient, effective, and integrated bus and LRT network that connects with other transit modes
- Using LRT as a tool to promote the development of compact, urban communities

The Valley Line LRT is integral to this strategic vision.

THE VISION COMES TO LIFE

Edmonton's LRT journey began in 1978 with the opening of the Capital LRT Line. Today, the City is served by a 24-kilometre LRT system which features tunnels, at-grade tracks, a bridge over the North Saskatchewan river, and 15 stations. The Capital Line operates between Clareview in northeast Edmonton and Century Park in the south, and, in 2015, the Metro Line introduced 3 new stations connecting MacEwan College, the Royal Alexandra Hospital, and the Northern Alberta Institute of Technology to Edmonton's downtown core. Across the system, 94 light rail vehicles carry approximately 100,000 passengers every weekday.

City Council's next LRT priority is Stage 1 of the Valley Line LRT, running from Mill Woods to downtown and integrating directly into the communities it serves. City Council approved the 13-kilometre line, including the route, stops and station locations, and other details following extensive public engagement and feedback running from 2009 through present day.

The Valley Line LRT – Stage 1 project represents the biggest single infrastructure investment in Edmonton's history.



THE PROJECT: VALLEY LINE LRT – STAGE 1

Construction of Stage 1 of the Valley Line LRT is set to begin in Spring 2016 with service scheduled to begin in December 2020.

Stage 1 is largely an at-grade project with several notable infrastructure components including: elevated guideways, bridges, a tunnel, eleven stops and an elevated station, an operations and maintenance facility, and other infrastructure necessary to support the Valley Line's operations including passenger connections between the Valley Line and the existing LRT and bus network.

Guideways

The Valley Line LRT – Stage 1 guideway will travel over 75 Street through to an elevated station at Davies Street. The alignment then transitions back to at-grade at 69A Avenue, where the line operates along the centre of 83 Street.

A short section of the alignment on the south side of the North Saskatchewan River is also elevated to facilitate the transition from the Tawatinâ Bridge into Muttart Stop.

Bridges

Four bridges will be designed and constructed as part of the project. This includes the Tawatinâ Bridge across the North Saskatchewan River, a new signature LRT bridge that includes a segregated pedestrian and bicycle facility within the same structure. A new pedestrian bridge, the Kahâsinîskâk Bridge, will be designed and constructed in the vicinity of the Muttart stop. Bridges will also be designed and constructed to accommodate LRT over Whitemud Drive and on 83 Street over Argyll Road.

SUSTAINABLE URBAN INTEGRATION

The tunnel is located on the north side of the River Valley. The tunnel commences in the Quarters/Chinatown area at 102 Avenue in the vicinity of 95th Street and terminates where the alignment transitions over the North Saskatchewan River via the Tawatinâ Bridge.

Stops and station

Stage 1 includes 11 at-grade stops and one elevated station. The 11 stops, from south to north are Mill Woods (south terminus), Grey Nuns, Millbourne/Woodvale, Avonmore, Bonnie Doon, Holyrood, Strathearn, Muttart, Quarters, Churchill, and 102 Street (north terminus).

The elevated station is at Davies Street, and will include a transit centre and park 'n' ride as part of the project. The project also includes the design and construction of a passenger drop-off and pick-up area (kiss 'n' ride) adjacent to Davies Station.



Operations and maintenance facility

A new facility, the Gerry Wright Operations and Maintenance Facility, will be designed and constructed to store and maintain light rail vehicles. This facility will be located on the east side of 75 Street, north of Whitemud Drive, and will also house the operations centre for the Valley Line.

A significant priority of the Valley Line project was to design a transit system that both meets the overall goal of LRT expansion while fully integrating into the communities it serves. Through direction from the City and two years of public consultation, an extensive list of design guidelines called Sustainable Urban Integration (SUI) was established.

The SUI guidelines look beyond building tracks and trains towards creating neighbourhoods that are safe, attractive and connected. This involves designing livable, pedestrian-friendly environments, and adding enhancements that reflect the feel and character of each of the communities along the LRT corridor.

Some examples of SUI enhancements include:

- Building shared-use pathways, sidewalks and trails along the LRT corridor.
- Eliminating warning bells and crossing gates that create traffic and community barriers.
- Designing pedestrian-friendly zones around stops and stations.
- Using enhanced landscaping and streetscaping along the length of the corridor to create a more natural environment.
- Coordinating furnishings, fixtures and finishes with community area themes.
- Incorporating organic materials such as stone and wood wherever possible.

P3 DELIVERY

A public-private partnership (P3) is a long-term, performance-based approach to procuring public infrastructure where the private sector assumes a major share of the risks of financing, constructing, and ensuring effective performance of the infrastructure, from design and planning through to long-term operations and maintenance.

In January 2010, the Conference Board of Canada released a report that assessed the cost and time performance of P3 projects in Canada. The report found that P3 projects initiated since 2004 had delivered important efficiency gains for the public sector. These efficiency gains were found to result from the high degree of cost and time certainty over the construction period of these projects.

Yet, compared to provincial and federal governments, P3s are a relatively new model for delivering large-scale municipal infrastructure projects. Using the Alberta P3 delivery model as a template, the City of Edmonton carefully examined the viability of the P3 approach through a comprehensive feasibility assessment.

This feasibility assessment consisted of several prerequisites, notably:

- Project has sufficient size and complexity (greater than \$100 million)
- There are significant associated ongoing operation, maintenance, and/or service requirements
- The long-term operation or service needs can be clearly defined in a performance or output specification
- Payment can be tied to performance
- It can be demonstrated that the P3 approach is likely to offer greater value for money to the City compared to other forms of procurement
- Risk allocation can be clearly determined
- Competitive private sector financing can be obtained, and the cost of private sector financing will be offset by delivery and/or user savings

Considering these prerequisites and the benefits for Edmonton, in 2012, City Council approved the P3 procurement model to deliver the Valley Line LRT – Stage 1.

SELECTING A PRIVATE PARTNER

Following City Council's decision, a competitive procurement process was conducted over two phases. First, a Request for Qualifications (RFQ) phase in 2014 that resulted in a shortlist of three, technically-qualified potential partners:

- River City Transit
- Moving YEG
- TransEd Partners

Then, a Request for Proposals (RFP) phase that ultimately selected a preferred private partner based on the lowest net present value of their proposal. An independent, external Fairness Monitor oversaw the process and concluded it was fair and impartial (see Fairness Monitor Report at www.edmonton.ca/valleyline).

Following the 18-month procurement process, the City of Edmonton selected TransEd Partners; a consortium made up of Bechtel, EllisDon, Bombardier and Fengate Capital Management. TransEd's proposal presented the lowest net present value financial offer for a project that:

- met the City's transportation needs
- committed to its vision for sustainability
- was technically compliant.

VALUE FOR MONEY

A value for money assessment is the comparison between the total project costs (capital base costs, financing costs, retained risks and ancillary costs) of a traditionally delivered project compared to delivery of the same project using the P3 model. The incremental difference between these two costs is referred to as the "value for money". If the P3 costs are lower than the traditional method, the P3 project is found to deliver positive value for money for governments and citizens.

In line with best P3 procurement practice, the value for money assessment was updated throughout the project procurement process to test whether the project continued to demonstrate value for money as a P3 project.

Independent financial advisor KPMG completed the Valley Line LRT – Stage 1 value for money assessment. This assessment shows that using a P3 procurement, the net present value of the total project cost was **\$2.172 BILLION**, representing a **\$574 MILLION** (or 21%) savings compared to the considered alternative traditional procurement approach (Design-Build) over the contract term.

These cost savings under the P3 approach are anticipated to be achieved through design innovations, life-cycle cost optimization, risk transfer from the public to the private sector, and a fixed price contract.

THE WAY FORWARD

On February 11, 2016, the City and TransEd Partners signed the P3 Agreement for the Valley Line LRT – Stage 1. The agreement outlines the performance requirements of the contract over the five-year construction period and 30-year operations and maintenance period.

During construction, the Stage 1 project is forecast to create approximately **17,000** direct and indirect jobs in Alberta, directly contributing **\$1.1 BILLION** in salaries and wages to the Alberta economy. An additional **1,600** jobs will be created across Canada, contributing **\$95 MILLION** more in salary and wages to the national economy.

Once built, the new line will be fully owned by the City of Edmonton and will operate seamlessly under the Edmonton Transit System banner, offering a seamless transit experience with Edmonton's extant system. The Valley Line LRT – Stage 1 will open to the public in December 2020.

Edmonton

