



# Kelowna Regional Transit Facility Strategy

## Preliminary Report

*January 3, 2023*



## 1.0 Objective

The purpose of the Kelowna Regional Transit System Facility Strategy Report is to:

- Provide the Local Government Partners of the Kelowna Regional Transit System with updated information on the Kelowna Regional Transit Operations and Maintenance Facility Strategy
- Obtain the support of Local Government Partners to pursue federal and provincial funding for the refurbishment of the existing Hardy Transit Operations & Maintenance Facility and a planning and design project to advance plans for a new transit operations & maintenance facility at Hollywood Road.

## 2.0 Background

Transit infrastructure is a critical component of transit systems as infrastructure supports transit service levels and can enhance the customer experience. When investments are made in expanded or improved transit services, corresponding investments in new transit infrastructure is often required, such as customer facilities, expanded operation and maintenance facilities, and transit priority measures.

Transit is identified as a priority transportation mode in the community plans of the Central Okanagan, for which investments in the transit system are a key component. The Transit Future Plan provides a long-term vision for the Kelowna Regional Transit System (KRTS) and a strategy that includes significant transit service level increases, which will require an expanded transit operations and maintenance (O&M) facility. To support both short and long-term investment plans in service levels identified in the Transit Future Plan, it is forecasted that the KRTS fleet could grow from 109 to 230 buses over the next 25 years.

In addition to growing transit service levels, back in 2018 BC Transit announced its Low Carbon Fleet Program that will seek to introduce battery electric buses into the KRTS fleet to align with the Province's Clean BC Plan and support local government's greenhouse gas reduction plans. BC Transit has committed to only acquire heavy-duty electric buses as of 2023 and achieve a 100% zero-emission fleet by 2040.

A key challenge to continue delivering transit service during expected increases in ridership and a transition to a zero-emission fleet is the requirement for expanded infrastructure. The 2012 Central Okanagan Transit Future Plan and the 2018 Transit Future Action Plan identified that the existing O&M facility in the KRTS as insufficient in size and capacity to support fleet growth and battery electric bus rollout. Investment in the expansion of transit infrastructure is necessary to ensure that the KRTS has the opportunity to grow into the future to meet transit needs of the communities the KRTS serves.

Provincial and federal governments have increased funding toward transit infrastructure projects through the Investing in Canadian Infrastructure Program (ICIP), which lowers the share of local government's capital costs in transit investments. This funding has created an opportunity for transit funding partners to invest in significant transit infrastructure projects, including new transit operations and maintenance facilities.

BC Transit has worked with several Local Government Partners across BC to advance transit operation and maintenance facility projects. These projects typically take 4-6 years to plan and implement. As the project advances, more accurate cost estimates and schedules will be developed. Below are the steps that are typically followed to advance projects:

- Coordinated project planning with the KRTS Local Government Partners to advance design concepts and cost estimates
- Project approvals by the KRTS and the BC Transit Board
- Prepare business case and funding application(s)
- Detailed design
- Construction

To develop an O&M facility investment plan, BC Transit and the City of Kelowna completed a 25-year Facility Master Plan which provided several investment scenarios to facilitate anticipated fleet expansion and the introduction of battery electric buses into the system. The development of a facility master plan allows BC Transit and the KRTS to continue the process to secure federal and provincial funding for necessary infrastructure investment.

### 3.0 Transit Service Expansion and Fleet Growth Forecasts

The current KRTS fleet is comprised of 109 buses that include a mix of heavy-duty (69), medium-duty (5), and light-duty (35) vehicles. The fleet serves the KRTS conventional and handyDART transit services.

The 2012 Central Okanagan Transit Future Plan and subsequent 2018 Transit Future Action Plan have identified the need for the need for 20 additional buses and 50,000 service hours over the next seven years and the long-term vision forecasts a projected fleet of 230 buses, which is through a 3% annual growth rate over the next 25 years.

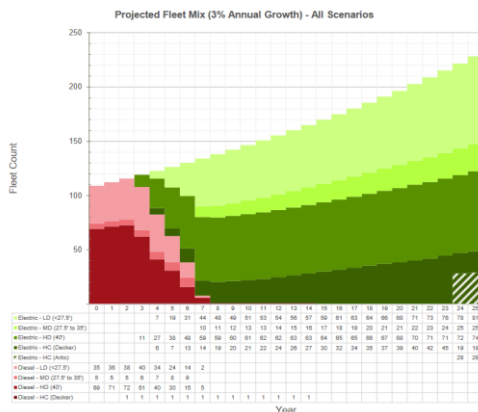
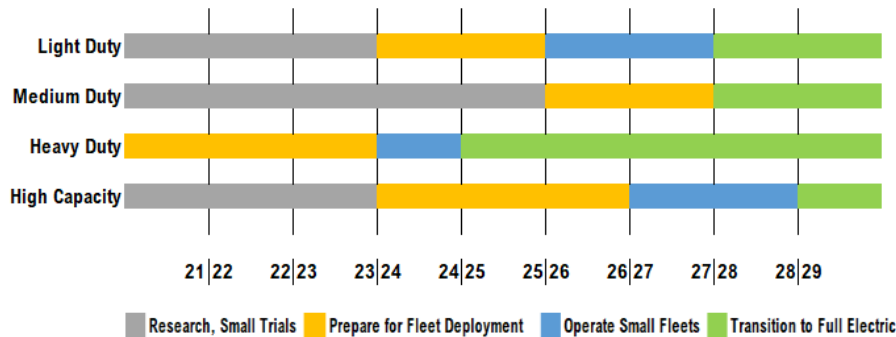


Figure 1: Kelowna Region Fleet Forecast

## 4.0 Low Carbon Fleet Program

In 2018, BC Transit approved a Low Carbon Fleet program to support provincial targets for reducing greenhouse gas (GHG) emissions and to align with the CleanBC plan. The program will reduce GHG emissions from the transit fleet by over 98% and provide a savings of up to 80% on fueling transit buses. Core to this program is a 10-year fleet replacement strategy to replace over 1,200 existing buses and expand the fleet by an additional 350 buses. The transition is structured around the replacement and expansion needs of the BC Transit fleet and the expected technological readiness of specific bus types to move to electrification (light duty, medium duty, heavy duty, high capacity). BC Transit will be working with Local Government Partners to begin planning for battery electric bus deployments in the 2023/24 fiscal year, subject to availability of federal funding.



2022 Strategy for Low Carbon Fleet Transition to Electrification

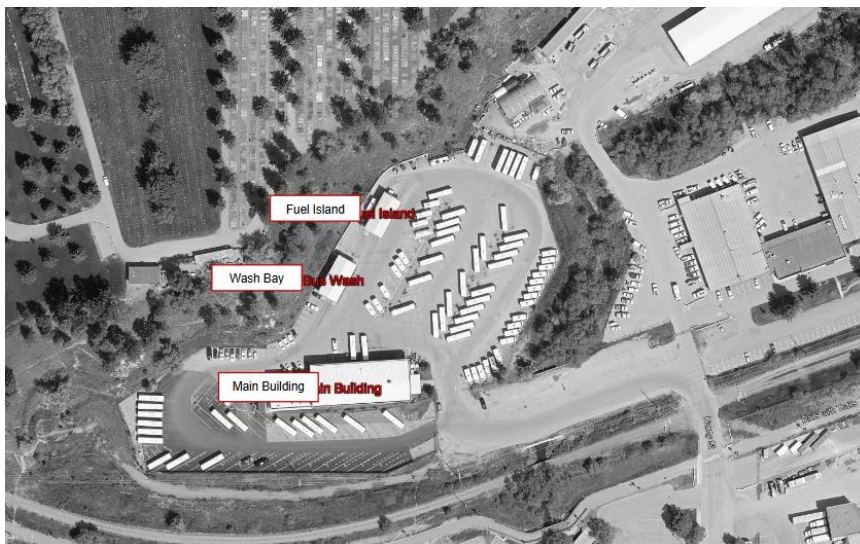
## 5.0 Existing Transit Facility

The existing KRTS O&M facility is beyond its useful life without additional investment. Located at 1494 Hardy Street, the "Hardy" facility was built by BC Transit in 1998 and was designed to support 70 conventional vehicles. After modifications to accommodate more buses, the O&M facility now supports a fleet of 109 buses, operating far above its original design capacity. The southern portion of the property is required for the future Clement Road extension, which is currently being studied. Future growth is currently limited to 900 transit service hours with no additional buses until a facility solution is provided.

The land for the Hardy O&M facility is owned by the City of Kelowna leased by BC Transit. Both parties agree that it is necessary to extend the operational life of the Hardy facility until the planned

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new Transit Facility is ready for service, and the City of Kelowna has agreed to extend the term of BC Transit's lease to align with the development of the future facility.



*Aerial photo of the existing Hardy Transit Facility*

## 6.0 Option Selection

### 6.1 Property Search

With support from the BC Transit, the City of Kelowna has undertaken a property search for new facility locations over the last six years and assessed twelve potential sites. One viable location was identified at 4690 Hwy 97 (commonly referred to as the "Hollywood Road" property, owing to the name of a planned road going through the area). This location is 40 hectares and is located between downtown Kelowna and the University of British Columbia Okanagan.

The Hollywood Road location provides good access to local transit service areas and supports the cost-effective delivery of transit service. No other properties assessed during the property search meet BC Transit's business needs. For example, a location in West Kelowna was considered, but the distance between the property and the service delivery area (referred to as "deadhead") was excessive. The cost of "deadhead" would exceed any benefit. With forecasted growth in regional transit services, the Hollywood site is capable of housing an operations and maintenance facility that can service up to 230 buses.

When making long-term investments with communities BC Transit has a preference to own or have long-term care and control of lands and facilities for business continuity purposes. Land ownership for BC Transit ensures long-term financial predictability and confidence in making strategic investments, such as the implementation of battery electric buses and avoids capitalization and write-off risks. The Hollywood Road property is currently owned by the City of Kelowna and the parties are discussing BC Transit ownership of the land.

## **6.2 Master Plan Options**

In 2021, BC Transit and the City of Kelowna completed a 25-year Facility Master Plan which provided several investment scenarios to facilitate anticipated expansion and the introduction of battery electric buses into the system. The Master Plan process identified two viable options for the development of an expanded O&M facility:

Option 1 - One Facility Scenario. Retain the Hardy Transit Centre until the lease expiration and phase the construction of a new O&M facility at Hollywood Road for 230 buses, or

Option 2 - Two Facility Scenario. Retain the Hardy Transit Centre and phase the construction of a second facility at Hollywood Road for 150 buses.

In early 2022 the City of Kelowna was successful in their application to remove a 16.2 acre parcel of the 4690 Hwy 97 (Hollywood Road) property from the Agricultural Land Reserve and final steps are being taken to define the area to support construction of a new O&M centre as well as road access and egress. Following this recent ALR exclusion application, BC Transit and the City of Kelowna met in early June to discuss advancing Transit Facility Plans. The City of Kelowna indicated there is a long-term need to expand the adjacent public works facility and extend Clement Road making the Hardy Site not available for long-term transit purposes and Option 1 was selected for advancement. The attributes of this option are as follows:

- Phase the construction of a second facility at Hollywood Road (to accommodate up to 230 buses based on the Master Plan concepts)
- Retain the Hardy Transit Centre (up to 130 buses) until the Hollywood Road Facility is in service

Pursuit of Option 1 will allow for modernization of the current location to support the deployment of battery electric buses 5-7 years earlier and enable modest bus expansion until a second O&M centre is constructed, while also allowing for more direct replacement of diesel buses for electric buses to best support local and provincial low-carbon and GHG emission reduction goals.

## **6.3 Project Approach**

In order to advance Option 1 of the Master Plan, two infrastructure projects are being developed: one to advance the improvements to the Hardy Transit Facility to extend the operational life of the facility and one for the pre-implementation work necessary to further develop designs and cost estimates for a new Transit Facility at Hollywood Road. The scope of the two infrastructure projects are proposed as follows:

#### Hardy Transit Facility Refurbishment Project

The project is intended to extend the life of the existing facility, support modest service expansion and support the first deployment of battery electric buses in the KRTS. Installation of the bus charging infrastructure for battery electric buses will be integrated and delivered with other facility investments planned at the Hardy Transit Centre. The refurbishment project is budgeted to cost \$4 million inclusive of up to \$285,000 dollars to prepare an ICIP application. The costs of charging equipment infrastructure will be funded separately through vehicle lease fees.

Ultimately, the Hardy Transit Refurbishment Project will consist of:

- Refurbishment of administrative, operations, and maintenance buildings, and requisite operations equipment
- Site improvements and charging equipment to support deployment of up to 40 battery electric buses
- Site improvements to accommodate fleet growth of up to 23 expansion buses

#### Hollywood Transit Facility Planning and Design Project

The planning and design project for a new facility is being advanced to secure federal funding to support the long-term needs of the Central Okanagan Transit Future Plan. It is expected the costs for a new transit facility will require Provincial and Federal Business Cases and BC Transit will engage Infrastructure BC to support development and delivery of the planning and design project. The planning and design project is estimated to cost \$4 million to prepare a future plan for a funding application.

Ultimately, the Hollywood Transit Facility Planning and Design Project will consist of:

- Advancement of design options, development of Class C cost estimates, confirmation of Transit Facility characteristics and the eligible or ineligible project scope and costs
- Development of an engagement plan for public and Indigenous stakeholders
- Development of a preliminary Transit Facility delivery schedule
- Preparation of a business case and subsequent federal funding application



## 7.0 Funding and Costs

### 7.1 Infrastructure Funding

The provincial and federal governments provide funding toward transit infrastructure projects through ICIP, which has created an opportunity for BC Transit and its Local Government Partners to invest in significant transit infrastructure projects, including new transit O&M facilities. BC Transit is working with local governments across BC to develop plans to take advantage of current federal funding programs to keep local government's share of transit infrastructure projects affordable while it is available. Key details include:

- Projects are approved on an application basis with BC Transit developing a business case and making an application to the federal government on behalf of the local government(s)
- Costs eligible for federal funding are shared at 20% KRTS, 40% Province of BC and 40% Government of Canada under the current ICIP
- Property costs and pre-project planning activities are not cost eligible for federal funding. Ineligible costs are shared between the KRTS and BC Transit based on the Parties' current share of Conventional Transit Services (53.31% KRTS / 46.69% BC Transit)
- The program application deadline was originally in 2027 but had been revised and applications under the current program are required at or before March 31, 2023.

A new program is being developed and it is anticipated that the Federal government will continue to provide capital funding for projects but details, including timelines, funding contribution levels and eligibility of project for future programs, are not yet available.





## 7.2 Local Government Cost-Sharing

Federal funding opportunities can reduce the local government share of construction costs to 20%, which in the KRTS is divided amongst Local Government Partners. Local cost sharing is determined by the total percentage of service hours delivered in each local government jurisdiction. Local revenue sharing is split by the total percentage of ridership (75%) and service hours (25%) in each local government jurisdiction.

The following table describes the cost-sharing arrangement between the Local Government Partners of the KRTS. The table assumes a \$4 million project being cost shared with the local government contribution of 20%.

Local government partners' contributions are not required until the project is in-service. Contributions could be funded through a lease fee that is payable over the life of the asset as a part of the Annual Operating Agreement, or through a one-time contribution. Lease fees start at the in-service date of the project. If the projects do not proceed, the local governments' share of project development costs will be recovered in the Annual Operating Agreement.

|              | 2023 KELOWNA SPLITS (ACTUALS) |               |               |             |
|--------------|-------------------------------|---------------|---------------|-------------|
|              | Conventional                  | Community Bus | Blended Split | Local Share |
| Kelowna      | 82.59%                        | 42.06%        | 75.67%        | \$605,360   |
| West Kelowna | 9.69%                         | 32.64%        | 13.61%        | \$108,488   |
| WFN          | 1.94%                         | 15.50%        | 4.25%         | \$34,000    |
| Lake Country | 5.59%                         | 5.41%         | 5.56%         | \$44,480    |
| RDCO         | 0.20%                         | 0.00%         | 0.16%         | \$1,280     |
| Peachland    | 0.00%                         | 4.39%         | 0.75%         | \$6,000     |
| Total        | 100%                          | 100%          | 100%          | \$800,000   |

## 8.0 Next Steps

### 8.1 Steps to ICIP Application

With the support of the local KRTS funding partners BC Transit is in the process of submitting an application to pursue ICIP funding prior to the March 31, 2023 deadline to advance implementation of the Kelowna Regional Transit Facility Strategy. The following activities are underway to support the application including:

- Preliminary design activities
- Engagement of the 6 Local Government Partners

- First Nations Notifications
- Business cases development and approval
- ICIP application on or before March 31<sup>st</sup>

## 8.2 Future Steps

It is anticipated that BC Transit will be notified if the parties have a successful ICIP applications for both projects in the spring of 2023. If successful, BC Transit will work with the parties to develop and execute a Project Agreement to formally secure local governments' share of the project costs for the Hardy Transit Centre Refurbishment Project.

As the planning and design project advances for the new transit facility at Hollywood Road, BC Transit will be providing regular updates on the project and develop a plan to secure all parties' support to submit a future funding application for the new facility project. Typically, BC Transit-led planning, design and construction projects in other communities have included:

- Approval of a Project Agreement by funding parties
- Technical advisory committees
- Presentations to Council/Boards within the jurisdiction of the project
- Engagement with First Nations as appropriate
- Active projects include meetings with local stakeholders
- May include the formation of local advisory committees

## 9.0 Action Item

BC Transit requests letters from the six Local Government Partners providing support for BC Transit to submit two ICIP applications;

- An ICIP application for the Hardy Transit Centre to refurbish the facility and support the implementation of battery electric buses
- An ICIP application for the planning and design of the new Hollywood Transit Centre to complete the pre-implementation work necessary to further develop designs and cost estimates for a future funding application.