

# Integrated Infrastructure Services

Infrastructure Planning and Design

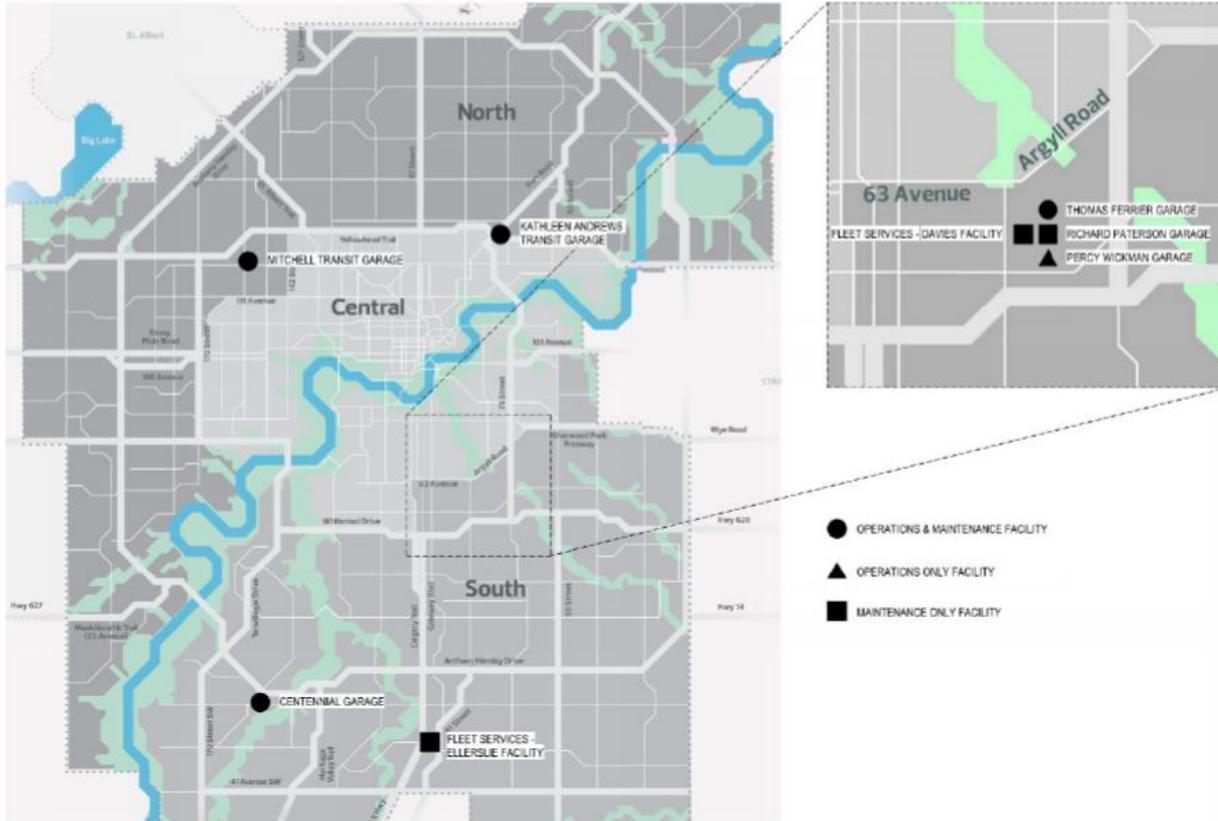
Edmonton

## ETS Fleet Storage, Operations and Maintenance Facility Project

City Council  
February 22, 2022

IIS00416

# Current State



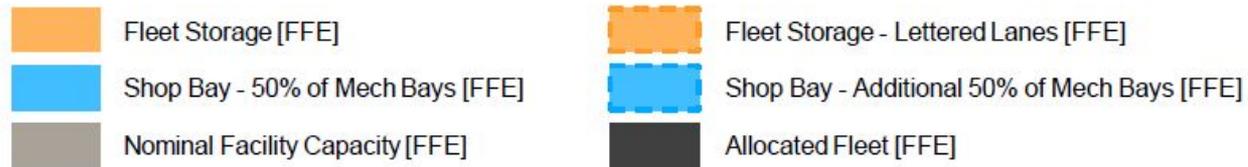
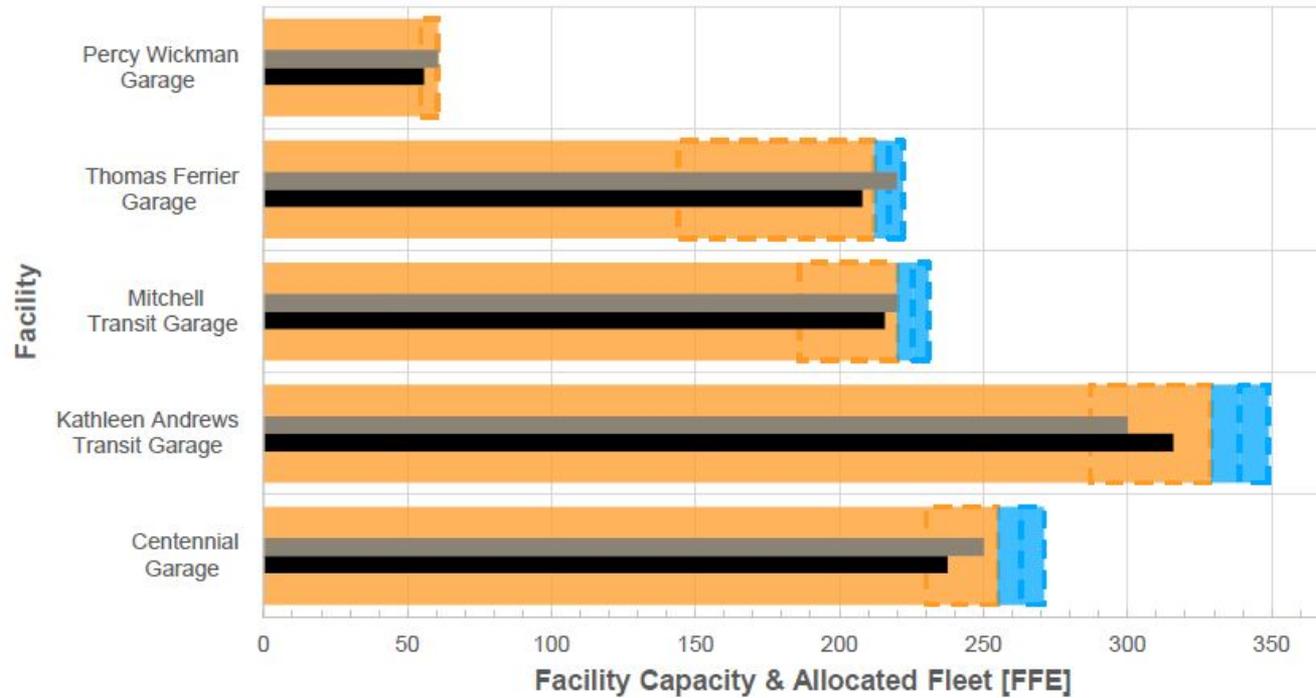
## Background

- ETS fleet storage, operations and maintenance facilities are operating at full capacity, unable to support fleet growth and achieve the City's greenhouse gas emission reduction targets.
- New facilities and renovations to existing facilities are required to support future growth and electrification of the bus fleet.
- The long-term strategy has been developed to guide fleet growth, electrification, facility renewal and development of facilities through 2040.

## Bus Garage Operations

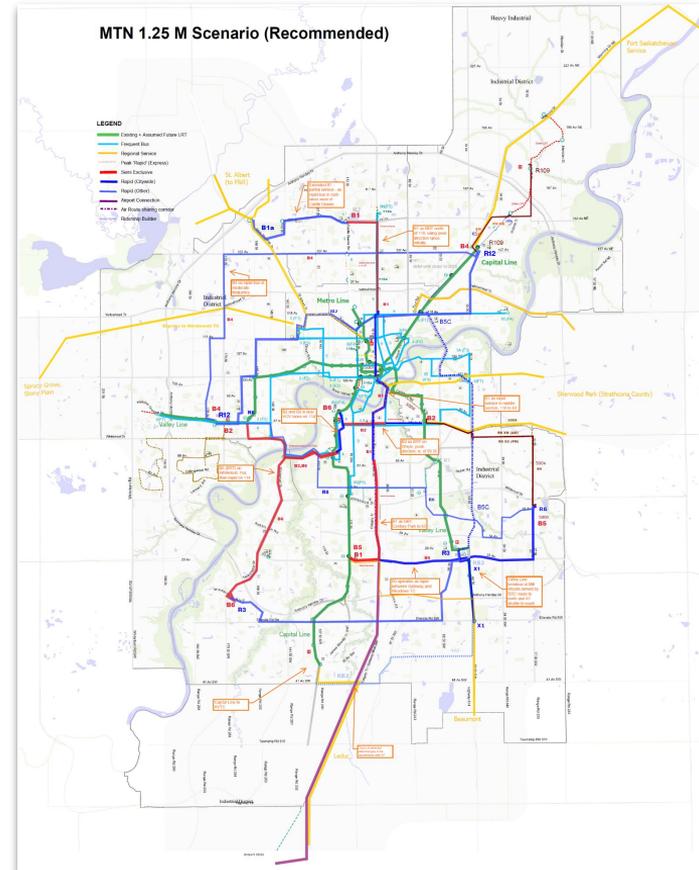
- Transit service delivery:
  - Dispatch
  - Service deployment
  - Operator support
  - Fleet maintenance
- 24/7 operation
  - First bus of the day leaves at 3:41am
  - Last bus of the day arrives back at 4:57am

### Facility Capacity vs. Allocated Fleet by Facility



## Strategic Alignment: City Plan

- Mass Transit Network for interim horizon of 1.25 M population (~2030).
- Recommended network includes LRT growth and several BRT/rapid bus corridors.
- Projected fleet growth aligned with Mass Transit Network requirements



## Strategic Alignment: Electrification

Edmonton's Community Energy Transition Strategy calls for the transition of the bus fleet to electric or zero emissions fuel

- ETS currently operates 40 electric buses
- By 2034, the Strategy would provide infrastructure for 450 electric buses
- Initiative underway exploring hydrogen electric buses and could help address infrastructure challenges for zero-emission fuel

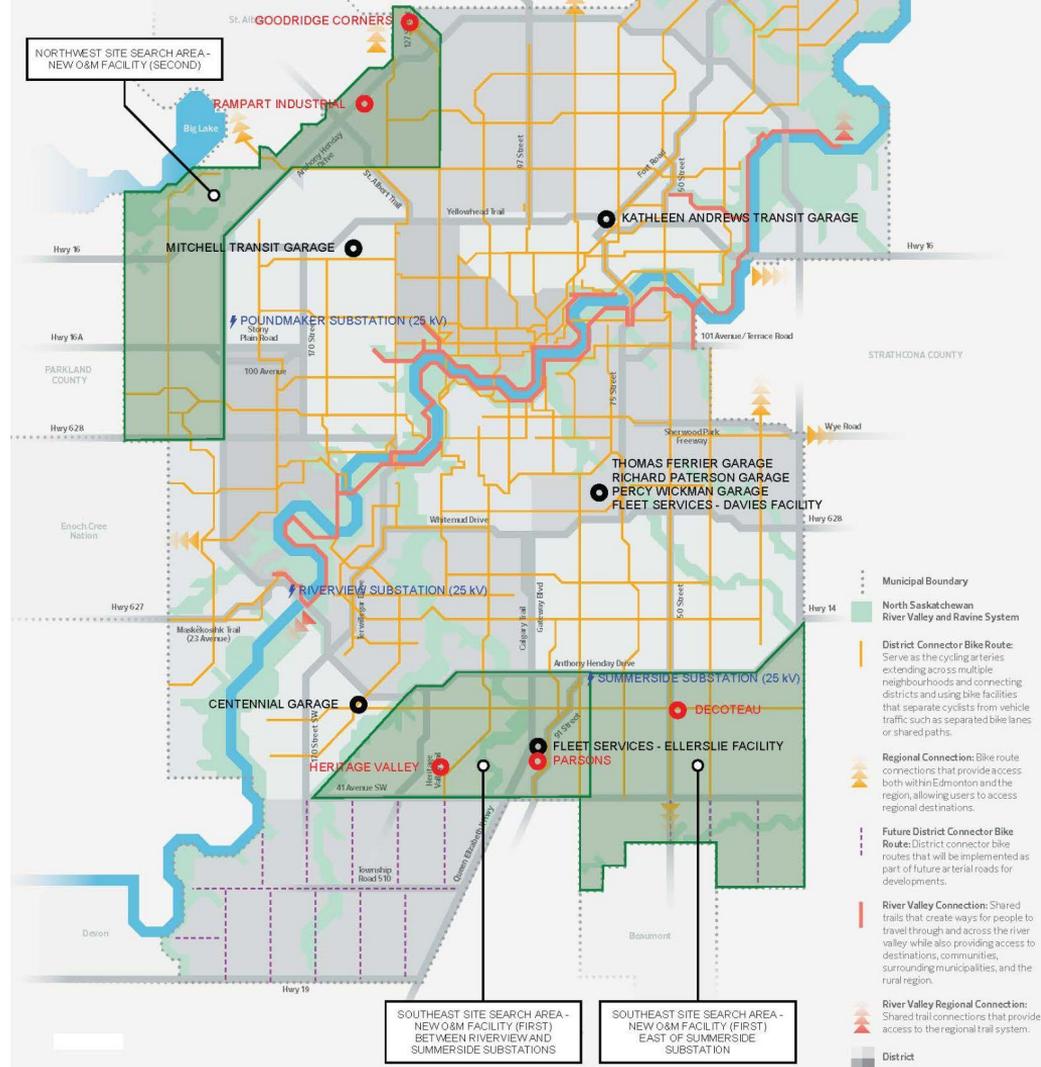
# Strategy Overview

New Garage in south east quadrant

Progressive renewal and expansion of existing facilities

- Davies
- Eilerslie
- Paterson
- Ferrier
- Centennial
- Kathleen Andrews

New Garage in north west quadrant



## Opportunities for Growth Before 2027

- Establishing a satellite storage facility
  - Creates capacity for expansion of the fleet ahead of a new full service garage
  - Creates capacity in existing facility for safe and efficient expansion and upgrades
- Accelerating the upgrades to the electric bus charging infrastructure of Centennial Garage and Kathleen Andrews Transit Garages to support additional electric buses

## Next Steps - Strategy Development

### Work in Progress

- Complete Functional Programming for New Southeast Garage (PDDM Checkpoint 2)
- Advance concept and preliminary design for Davies and Ellerslie facility expansions (PDDM Checkpoint 3)
- Advance planning for a satellite facility and the acceleration of the upgrades to the electric bus charging infrastructure of Centennial Garage and Kathleen Andrews Transit Garages

### Future Requests

- Land acquisition is on critical path to advance design & construction for the New Southeast Garage (estimate of \$45M)

# Potential Grant Funding Options

- **Federal Zero Emissions Transit Fund**
  - \$2.75B over next 5 years to support bus fleet electrification and supporting infrastructure, including charging infrastructure and facility upgrades. Program's primary focus appears to be ZEB procurement
- **Federal Permanent Transit Fund**
  - Permanent measure of \$3B annually beginning in 2026/27 to support public transit initiatives. Program currently in development; allocation method unknown.
- **Canada Community Building Fund (formerly federal Gas Tax Fund)**
  - Permanent measure currently at \$2.2B annually, allocated to municipalities on a per capita bases; funding grows incrementally with inflation (2% indexing) and population growth.
- **Local Government Fiscal Framework (MSI replacement)**
  - Will replace MSI in 2024 when program ends; provincially legislated annual funding based on a revenue sharing formula. Program parameters expected to mirror MSI.

## Recommendation

That Urban Planning Committee recommend to City Council:

That the strategy outlined in the February 15, 2022, Integrated Infrastructure Services report, IIS00416, be approved.

**Thank you.**

Questions?

Integrated Infrastructure Services  
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**Edmonton**