

Welcome

Metro Line Northwest LRT Extension Project

Today's information session provides you with an update on the Metro Line NW LRT extension project, and an opportunity to learn and ask questions about the final grade separation recommendations (elevated, trenched, or at-grade).

Today's event is taking place in advance of Administration presenting final recommendations to City Council on November 6, 2018 for approval, as part of a non-statutory public hearing.

Please tell us where you live

For more information on the Metro Line NW LRT project, please visit edmonton.ca/metronw

Future Metro Line NW LRT Extension

-  Future Metro Line Extension Alignment
-  Future Metro Line Stations

Edmonton



Metro Line Northwest Project History

In 2009/2010, the City evaluated corridor options to connect the NAIT station to a future Park and Ride facility at the northwest city limits.

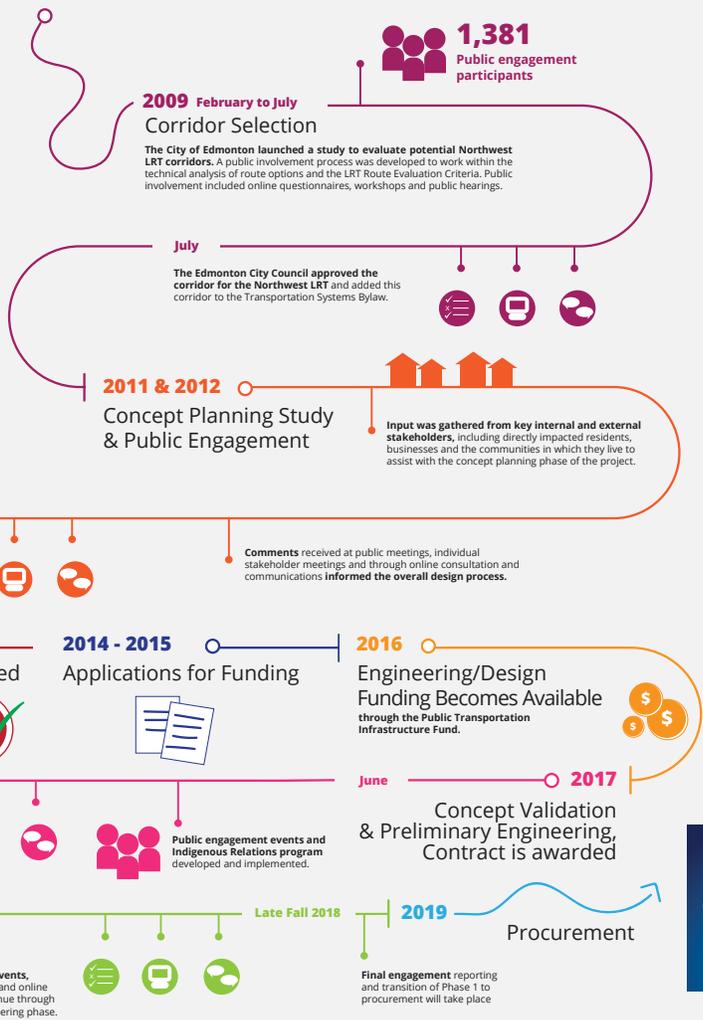
In 2013/2014, City Council approved the Northwest LRT Concept Plan and identified public support for the LRT expansion to the north and northwest parts of the city.

What stakeholders had to say:

- Support for expanding the Metro Line to connect to the City of St. Albert.
- LRT expansion has great potential to serve both the region and the local population.
- The alignment must serve residents where they live, work and play.
- Concerns regarding traffic congestion at intersections, noise impacts and safety.
- LRT planning should integrate and complement other transportation modes, such as transit, pedestrian and cyclist connections.

Examples of adjustments made to the recommended Concept Plan:

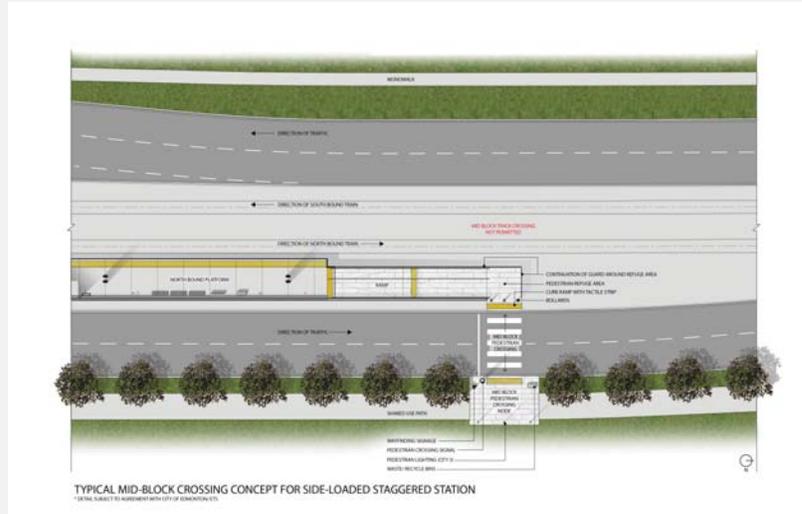
- Provided intersection access to YMCA from Castle Downs Road signalled and pedestrian crossings.
- Provided a Park and Ride at Campbell Road.
- Improved continuity of shared use path at 137 Avenue.
- Established 'urban style' guidelines to improve how LRT 'fits' into communities.



Metro Line

Mid-Block Crossing

Mid-block pedestrian crossings are marked crosswalks placed between intersection points. At intersections with high traffic volumes, mid-block crossings can be signalized with pedestrian flashers to increase safety and ease of crossing for pedestrians.



- **Pedestrian access to stations is provided at both ends of the station platform wherever possible. The main access point will be from the typical pedestrian crossing at street intersections; with a second access from the end of the platform at a mid-block crossing point**
- **Where mid-block crossings of both tracks is not recommended for safety reasons, mid-block access is provided to one side of the street only at these locations**
- **Locations for mid-block crossings are assessed on an individual basis. Considerations for mid-block crossings include: safety, traffic movements, ETS operations and procedures (such as train speed), services and maintenance access, community access and pedestrian desire lines, adjacent land uses, and potential ridership**

Metro Line

Centre-Running LRT Alignment

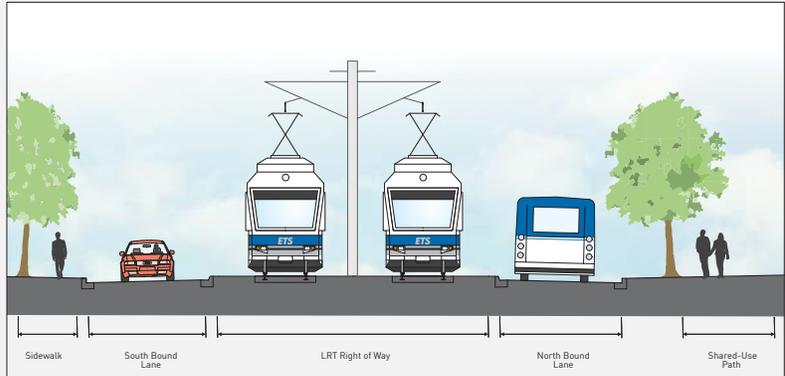
Urban style LRT is designed to be easily accessible for all transit users, and to fit into the roadway to allow for efficient traffic flow.

Embedded track design is recommended from NAIT Station to Castle Downs Station when the track is running at street level.

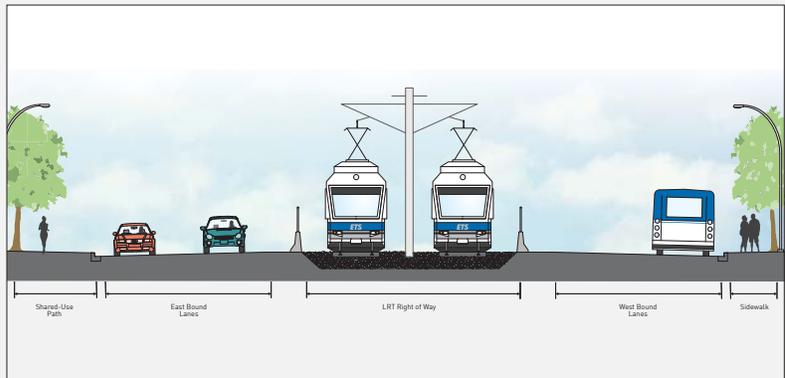
- This design has fewer barriers (e.g., gates, fencing). LRT trains move at lower speeds (less than 50km/hr). Construction costs and maintenance requirements are higher compared to ballasted track.

Ballasted track is recommended from Castle Downs Station west to 153 Avenue Station when the track is running at street level.

- Ballasted track is lower cost for construction and maintenance. The LRT travels at faster speeds, and the track is fenced and separated from traffic.



Centre-running alignment with 'embedded' track



Centre-running alignment with 'ballasted' track

Metro Line

Grade Separations

The City is determining the need for grade crossings along the Metro Line NW LRT alignment. 137 Avenue, 153 Avenue/Castle Downs, 127 Street, 142 Street, and Campbell Road are being evaluated to determine if the LRT track should be:

- **At-grade:** LRT crosses through the intersection at street level when the light is green (and waits when the light is red), just like a car.
- **Elevated:** LRT crossing requires a bridge to clear the intersection.
- **Urban LRT Underpass (Trenched):** LRT crossing has the LRT travelling just below grade and the underpass is not covered.

The CN Rail Walker Yard is being evaluated for either a bridge or tunnel.

As part of this process recommendations to City Council will be based on initial traffic modelling analysis, high level road network analysis, and project costs and estimates. In addition, the following LRT Crossing Assessment Framework is being used to provide a preliminary evaluation of each intersection:



Metro Line

Yellowhead Trail
& CN Walker Yard



Bridge Option

ADVANTAGES

- Provides active mode connections for pedestrians and cyclists
- Easier access for emergency vehicles
- Lower project cost

DISADVANTAGES

- Significant visual impact to surrounding communities
- Construction risks which can increase project cost

Metro Line

137 Avenue &
Castle Downs Road



ADVANTAGES

- Improved LRT and ETS schedule reliability due to LRT/traffic segregation
- Improved bus to LRT connections
- Fewer traffic lane crossings for pedestrians to access stations
- Improved transit network operations on 137th Ave which is a cross-town bus route

DISADVANTAGES

- Greater project cost
- Elevator access only for people with mobility challenges
- Tougher access for emergency services to platforms

Metro Line

153 Avenue &
Castle Downs Road



ADVANTAGES

- Lower project cost
- Easier access for emergency services to platforms
- Better platform access for people with mobility challenges

DISADVANTAGES

- Decreased connections between station and community
- Warning system, including gates and alarm bells, may be required at west side access and Castle Downs Road/153rd Ave

Metro Line

127 Street &
153 Avenue



Trenched Option

ADVANTAGES

- Improved traffic operations at intersection due to LRT/traffic separation
- Improved connections between station and community
- Improved road network operations as 127th St is a truck route and regionally significant arterial roadway

DISADVANTAGES

- Greater project cost
- Elevator access only for people with mobility challenges
- Less efficient access for emergency services to platforms

Metro Line

142 Street &
153 Avenue



At-Grade Option

ADVANTAGES

- Lower project cost
- General road network in this area is expected to operate well, even with a gated at-grade crossing
- Easier access for emergency services to track

DISADVANTAGES

- Warning system, including gates and alarm bells, required

Metro Line

Campbell Road

At-Grade Option



ADVANTAGES

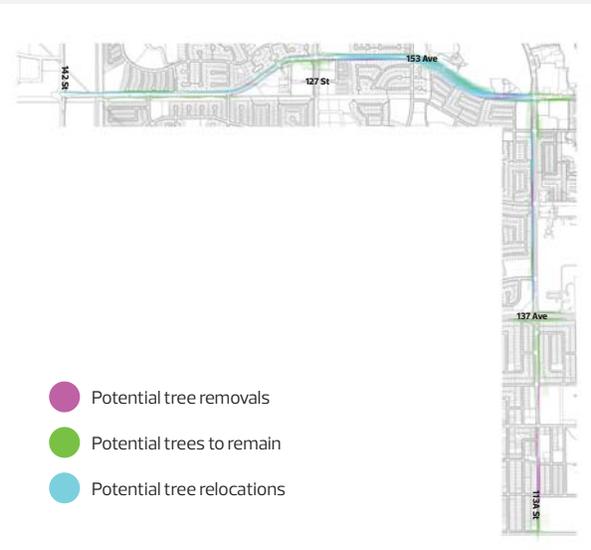
- Lower project cost
- Efficient access for emergency services to platforms
- Platform access better for people with mobility challenges
- Better connection with transit centre

DISADVANTAGES

- Warning system, including gates and alarm bells, required
- Traffic impacts to truck route into industrial area

Metro Line Trees

Trees are an important part of the landscape of our city and our urban forest is considered to be one of its most valued assets. Consistent care and attention is given to protecting this asset. As the city grows and infrastructure needs increase, tree removal and relocation becomes an important consideration. Wherever possible, the City designs and constructs in ways to make sure trees are protected. In the case trees must be removed, the City invests the dollar value of the trees back into the neighbourhood.



Tree Inventory (approximate):

- 300 -350 trees will be removed along this alignment.
- 700 trees will be relocated.
- 1700 new trees are proposed to be planted.

Existing ages of trees to be removed (approximate):



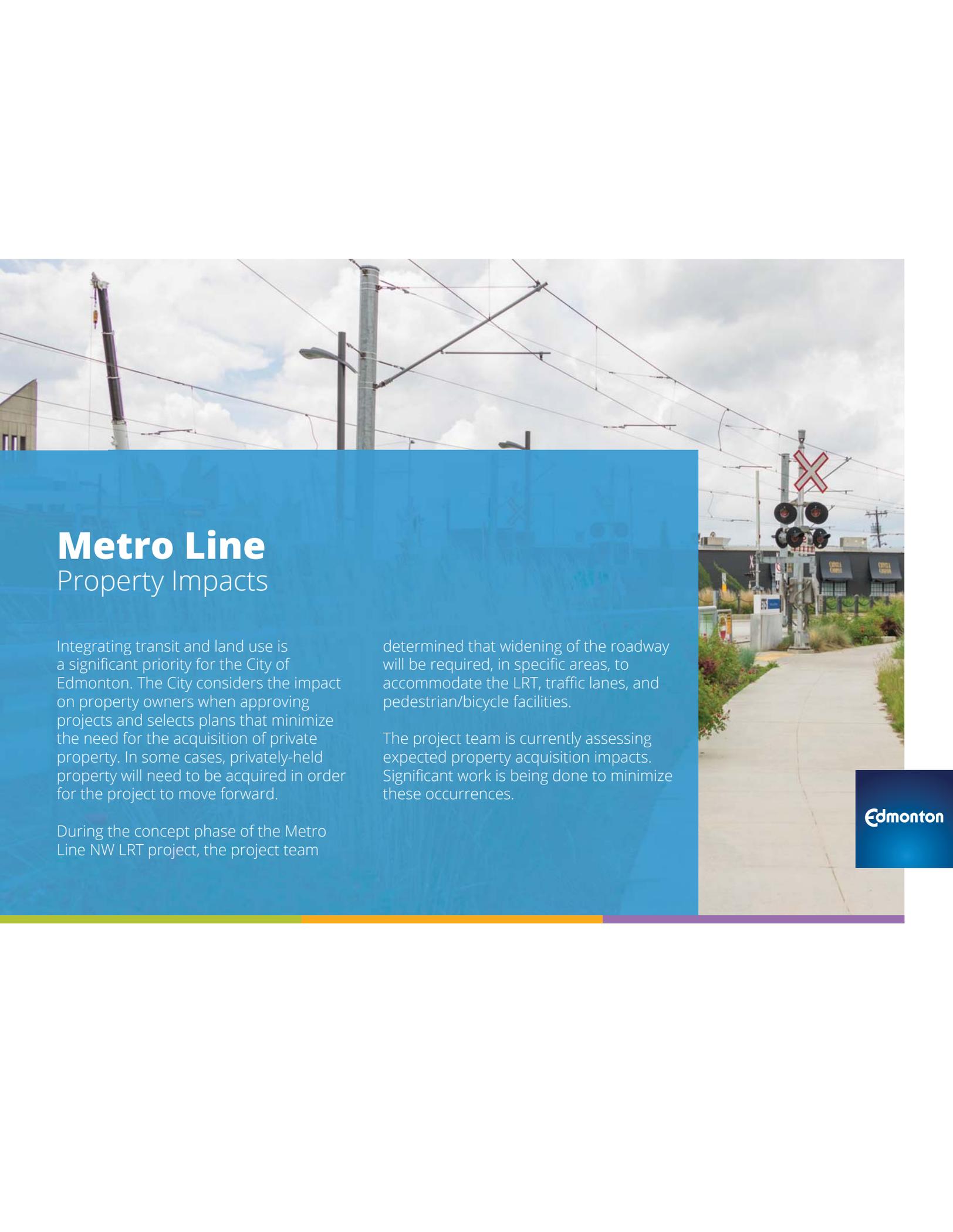
Under 20 years old
(20 trees)



20-40 years old
(285 trees)



40+ years old
(25 trees)



Metro Line

Property Impacts

Integrating transit and land use is a significant priority for the City of Edmonton. The City considers the impact on property owners when approving projects and selects plans that minimize the need for the acquisition of private property. In some cases, privately-held property will need to be acquired in order for the project to move forward.

During the concept phase of the Metro Line NW LRT project, the project team

determined that widening of the roadway will be required, in specific areas, to accommodate the LRT, traffic lanes, and pedestrian/bicycle facilities.

The project team is currently assessing expected property acquisition impacts. Significant work is being done to minimize these occurrences.

Metro Line

Indigenous Engagement

The City of Edmonton is committed to keeping First Nations and Métis communities with historic and cultural connections to locations within city boundaries informed and engaged when projects of interest intersect with Indigenous concerns.

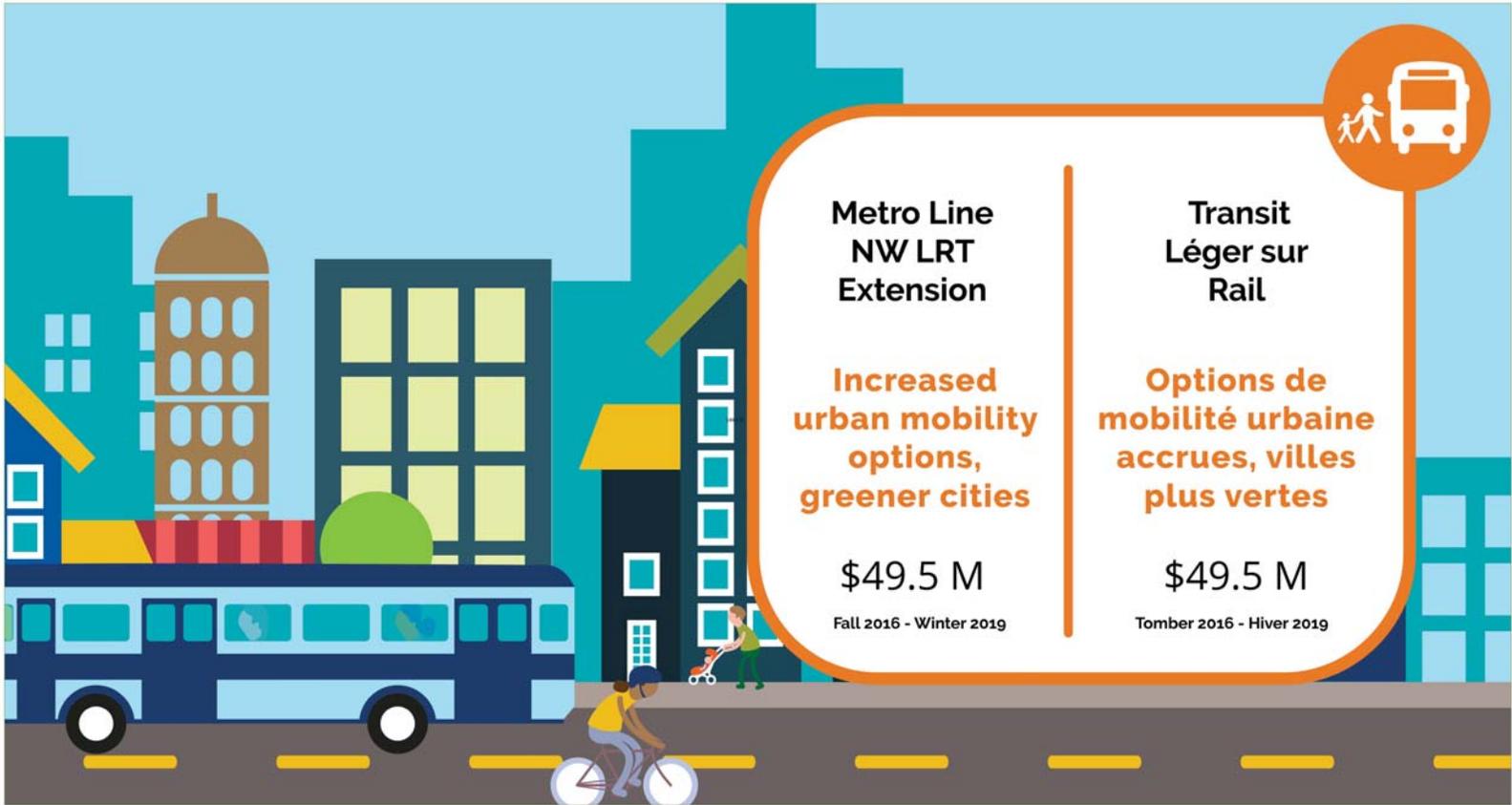
The City has developed an Indigenous Engagement Charter, and has started outreach with Indigenous communities to work together on future Light Rail Transit projects.

Over the summer, the City met with 21 First Nations and Métis communities to tour future LRT alignments. These projects included:

- **Capital Line South LRT Extension**
- **Valley Line West**
- **Centre LRT Study**
- **Metro Line NW LRT Extension**

The City is committed to continuing to seek the communities' input on how together we may continue to deliver affordable, accessible, and environmentally sustainable public transportation in Edmonton.





**Metro Line
NW LRT
Extension**

**Increased
urban mobility
options,
greener cities**

\$49.5 M

Fall 2016 - Winter 2019

**Transit
Léger sur
Rail**

**Options de
mobilité urbaine
accrues, villes
plus vertes**

\$49.5 M

Tomber 2016 - Hiver 2019

Canada 

Edmonton

Alberta 
Government