



## Interim Alternative Uses of Blue Line and Green Line LRT Rights-of-Way – Rapid Transit Expansion Projects

The City of Calgary has established alignments for each of the Blue Line and Green Line LRT, with rights-of-way being acquired along the corridors. Since LRT construction is anticipated to be several years into the future, Administration has investigated other options to make use of these land holdings to provide enhanced transit service along these alignments.

This presents a summary of potential projects that were considered as part of this evaluation. These projects are capital investments. Operational improvements, such as service frequency, are not included in this analysis as that scope of work is within Calgary Transit's ongoing service optimization, and would not typically have any impact on the LRT rights-of-way. The potential projects respond to Council direction to explore options for mode progression on the Green Line North and Southeast corridors, and the Blue Line Northeast corridor. Mode progression is the concept of providing increasing levels of transit service and infrastructure to build ridership and respond to demand as the city develops.

Potential projects included in the attachment range from upgrading existing bus rapid transit routes (BRT) to MAX level of service (enhanced customer amenities, including heated shelters and real-time information), to constructing transitways, to pre-building grade separations for the future Green Line LRT and using them for bus service in advance of LRT construction.

Each potential project was evaluated in terms of the expected lifespan, the benefits and risks, if the necessary land was already City-owned, and an order of magnitude construction cost. Based on these factors, some of the projects are recommended to be forwarded to the RouteAhead evaluation process where they will be evaluated against other rapid transit expansion projects. Before any potential projects move forward to implementation there are requirements such as completing all required Corporate Project Management Framework (CPMF) requirements, stakeholder engagement, completing designs, undertaking technical investigations, securing funding, purchasing land, and tendering the construction projects.

## Rapid Transit Expansion Projects

**Attachment 1 - Potential Rapid Transit Expansion Projects**

Geographic Limits	Project Scope	Locations	Expected Lifespan	Benefits	Risks	Land Ownership	Order of Magnitude Construction Cost	Recommendation
Green Line North	Upgrade existing Route 301-BRT North to MAX service (in-street on Harvest Hills Blvd).	Use existing roadway north of Beddington Trail N to North Pointe. Includes queue jumps, transit priority, development of park and ride lot at 96 Avenue N.	In use until Green Line is extended, and at that time infrastructure can continue to be used by local routes, or shelters/real-time displays can be relocated.	Provides an enhanced service for existing transit customers. Potential to increase ridership and support mode progression.	Limited to typical project risk management/mitigation.	City, within road right-of-way.	\$5M + \$6M for park and ride (construction costs only, does not include vehicles, design, financing, etc)	Forward to RouteAhead evaluation process.
	Upgrade existing Route 301-BRT North to MAX service (median transitway on Harvest Hills Blvd)	Use existing median north of Beddington Trail N to North Pointe. Includes development of park and ride lot at 96 Avenue N station.	In use until Green Line is extended, and at that time infrastructure is converted for LRT. Would incur throwaway costs in conversion.	Provides an enhanced service for transit customers. Likely to increase ridership, service reliability, and support mode progression.	Potential for design changes before LRT is constructed, land acquisition (depending on design), tree removals required in median, conversion costs. Encumbers LRT construction.	City, primarily within road right-of-way.	\$70-90M (construction costs only, does not include vehicles, grade separations, land, financing, design, etc)	Do not forward to RouteAhead evaluation process due to project cost, conversion costs, and construction disruption.
	Construct grade separations required for future Green Line LRT and use for buses in the interim	Underpasses at Beddington Trail/Harvest Hills Blvd interchange grade separation, new bridges at West Nose Creek, underpass at 96 Avenue N, underpass at Country Hills Blvd N.	Long-term: designed and constructed to be used for LRT in the future and buses in the interim.	Provides an enhanced service for transit customers. Likely to increase ridership, service reliability, and support mode progression.	Disruptive during construction, land acquisition (depending on design). Potential for LRT design changes before construction.	Land acquisition/construction easements required for construction.		\$125M (construction costs only, does not include land/easements, financing, design, etc)
Green Line Southeast	Upgrade existing Route 301-BRT North to MAX service (in-street on Centre Street N)	Use existing roadway between downtown and Beddington Trail N. Includes queue jumps, transit priority.	In use until Green Line is extended, and at that time infrastructure can continue to be used by local routes, or shelters/real-time displays can be relocated.	Provides an enhanced service for existing transit customers. Potential to increase ridership and support mode progression.	Limited to typical project risk management/mitigation.	Primarily City-owned, some land acquisition/easements required.	\$15M (construction costs only, does not include land, utilities, design, financing, etc)	Forward to RouteAhead evaluation process.
	Construct grade separations required for future Green Line LRT and use for buses in the interim	Underpass at McKnight Blvd N.	Long-term: designed and constructed to be used for LRT in the future and buses in the interim.	Provides an enhanced service for transit customers. Likely to increase ridership, service reliability, and support mode progression.	Disruptive during construction. Land acquisition (depending on design). Potential for design changes before LRT is constructed. Need to understand traffic operations.	Primarily City-owned, some land acquisition/easements required.	\$35M (construction costs only, does not include land/easements, financing, design, etc)	Do not forward to RouteAhead evaluation process due to project cost and construction disruption.
Blue Line Northeast	Upgrade existing Route 302-BRT SE to MAX service (in-street on 52 Street SE)	Use existing roadway south of 126 Avenue SE. Includes queue jumps, transit priority, development of surface park and ride lots at Prestwick, Auburn Bsy/Mahogany, Bay/Mahogany, Seton stations.	In use until Green Line is extended, and at that time infrastructure can continue to be used by local routes, or shelters/real-time displays can be relocated.	Provides an enhanced service for existing transit customers. Potential to increase ridership and support mode progression.	Limited to typical project risk management/mitigation.	City, within road right-of-way.	\$13M + \$14M for three park and rides (construction costs only, does not include vehicles, design, financing, etc)	Forward to RouteAhead evaluation process.
	60 Street NE	Transportation corridor	In use until Green Line is extended, and at that time infrastructure is converted for LRT. Would incur throwaway costs in conversion.	Provides an enhanced service for transit customers. Likely to increase ridership, service reliability, and support mode progression.	Potential for design changes before LRT is constructed, land acquisition (depending on design). Conversion costs. Encumbers LRT project.	City, primarily within road right-of-way.	\$170-210M + \$14M for three park and rides (construction costs only, does not include grade separation, land, financing, design, etc)	Do not forward to RouteAhead evaluation process due to project cost and construction disruption.
			To be determined based on future recommendation.	To be determined based on future recommendation.	To be determined based on future recommendation.	To be determined based on future recommendation.	To be determined based on future recommendation.	Do not forward to RouteAhead evaluation process. As road network and communities develop Calgary Transit will evaluate opportunities for transit priority measures within the ROW for improved travel time/reliability/customer experience.

NOTE: Construction costs are provided to indicate an order of magnitude, and are subject to change based on design/scope/technical investigations that would be undertaken with any project. Costs are based on 2016 dollars and do not include fees/designation/finance/land purchase/easements/utilities/vehicles/environmental remediation.