

July 2014

LRT ROUTE PLANNING & EVALUATION CRITERIA

In December 2008, based on the City's new strategic direction to build a more compact, transit oriented and sustainable city, where more people walk, cycle and use transit, City Council approved a new set of decision-making criteria for LRT route planning studies. New potential LRT route corridors will be evaluated using these criteria to ensure the preferred corridor reflects the City's Transportation Master Plan, *The Way We Move*.



In the CONCEPT phase of any LRT project, City Administration determines the preferred corridor for an LRT line using Council-approved evaluation criteria.

There are many ways to get from points A to B, so applying screening criteria is important to ensure that the preferred corridor reflects a balance between the screening criteria detailed below. In this screening process, all potential routes are screened per the criteria below to arrive at a shortlist of candidate corridors.

PHASE 1: SCREENING

Feasibility

- Meets project purpose
- Technically feasible
- Primarily uses existing transportation corridors
- Minimizes conflict with goods movement
- Multimodal: Connects with bus, existing LRT
- Allows future extension
- Route is primarily at grade

Environment

- Does not create irresolvable social impacts
- Does not create irresolvable environmental impacts
- Connects priority revitalization areas
- Minimizes the impact to parks and open spaces, while maximizing access

Community

- Consistent with Transportation Master Plan and Municipal Development Plan
- Provide needed service to the area
- Connect to current and/or future activity centers
- Adjacent to transit supportive planned land use
- Current, future population along alignment
- Current, future employment along alignment
- Create irresolvable neighbourhood barrier
- Potential for station "fit" within neighbourhoods

PHASE 2: EVALUATION

Once the screening criteria have been applied and a shortlist is formed, several of the options that do not help achieve the City's goals are eliminated. In order to determine the preferred corridor, each shortlisted option is measured against a refined set of criteria with a specific Council-approved weighting for scoring.

Category (weight)	Typical Criteria
Land-use/ Promoting Compact Urban Form (4)	<ul style="list-style-type: none"> Existing transit centres/park and ride Existing/future activity centres/destinations Land available with potential for redevelopment Existing/future population density Existing/future employment density Existing/future mix of housing/zoning/land use types Number of large development proposals under review or construction Existing land-use plans/bylaws support development/redevelopment
Movement of People/Goods (3)	<ul style="list-style-type: none"> Percentage within existing public/rail right-of-way Projected ridership Projected travel time Potential changes in roadway capacity within existing transportation corridors Includes existing/future bicycle/pedestrian facilities Potential for park and ride locations
Feasibility/ Construction (2)	<ul style="list-style-type: none"> Estimated capital/operating cost per kilometer Estimated cost per rider How much of route is at grade (and grade-separated)? Complexity to extend route in future Proximity to LRT maintenance facility Number of at-grade crossings
Parks, River Valley and Ravine System (2)	<ul style="list-style-type: none"> Impacts/benefits to parks/open space/river valley access Need to acquire public land for the route
Social Environment (2)	<ul style="list-style-type: none"> Need for private property acquisition Impact on local property values Ability to avoid, minimize, or mitigate neighbourhood impacts Potential for noise/vibration impacts Adjacent known cultural resource/heritage sites Student population near stations Number of low-income, no car, senior households near stations
Natural Environment (2)	<ul style="list-style-type: none"> Impact on riparian habitat Number of river/stream crossings Potential for disruption due to construction

Once the weighted scores are applied, a preferred option is considered by Council and Administration for the CONCEPT and DESIGN phases. The design is then refined through planning and engineering analysis and design.

For more information on LRT Route Planning and Evaluation Criteria, visit www.edmonton.ca/LRTprojects.