

Executive Summary

Introduction and Study Purpose

The Airdrie Transportation Master Plan (TMP) - **Connecting Airdrie** provides the direction for transportation planning to enhance Airdrie's quality of life and economic vitality through the provision of a transportation system that offers balanced choice. A well-connected and accessible transportation system is critical to our quality of life and to build stronger communities. It draws together a mix of land use, growth and sustainability planning into a comprehensive plan with a common direction for transportation.

Connecting Airdrie establishes an important link between the Municipal Development Plan (MDP) and transportation policy. Although previous plans have been considered, Connecting Airdrie has attempted to take a new, more proactive approach. Past planning has focused on an incremental approach that builds on the existing infrastructure. The traditional approach appears to provide financial efficiencies and effectiveness in the short term, but rarely allows the long-term vision and associated benefits to be realized.

Connecting Airdrie has started with the long-term and aspirational vision ***“to develop an integrated, cost-effective, reliable multi-modal transportation system that connects people and places while managing present and future travel demands.”*** The plan has set forth guidelines, developed through community desires and stakeholder input, for achieving that vision through cooperation between the City and the development community.

The vision is intended to guide the material development of a transportation system that offers choice, reliability and effectiveness. As such, network options and transportation strategies identified were based on adherence to this vision. However, existing development patterns and plans have also required that several of these remain aspirational in nature. Successive plans should ensure that additional steps are taken to achieve the vision for Airdrie.

Transportation Recommendations

Skeletal Road Network

The skeletal road network provides higher speed connections on major mobility corridors to/from and within the City. It connects to similar regional and provincial routes and comprises the primary entry points to the City.

The skeletal network introduces a Skeletal Arterial classification on the basis of a roads' regional importance. This also allows for an increase in lower order arterials that serve traffic within the City and provides the foundation for a more dense street network with more intersections and active streetfronts.

Complete Streets

In line with a more dense network of streets, Complete Streets is an approach to multi-modal transportation network planning that seeks to maximize the use of the street right-of-way for all modes and multiple street functions. In Airdrie, the approach to Complete Streets is to “soften” the hierarchy somewhat and allow for flexibility to make the most efficient use of street space and adjacent right-of-way possible.

The plan has developed general Complete Streets guidelines that provide a softened and more flexible collection of street classifications and suggests which current City Road Standard they can most appropriately be applied to. A stand-alone Complete Streets Toolbox has also been developed to provide further detail on the desired street components within each classification as well as indicative dimensions for each. The Toolbox also contains information on target connectivity and street network density.

Proposed Skeletal Roads

East-West	North-South
Veterans Boulevard east and west of Highway 2	24th Street with shift to 40th Street
Yankee Valley Boulevard west of Highway 2	Range Road 292
56th Avenue west of Highway 2	

Aspirational Road Network

The Aspirational Road Network builds on the Skeletal Network, taking into consideration existing Area Structure Plans while aligning with Complete Streets principles to suggest the long-term network the City should aspire to develop. It therefore serves as the network used for travel demand modelling and forecasting.

The modelling was completed for the network and corresponding land-use at the 65,000, 80,000 and 110,000 population levels. Several broad network and land-use scenarios were modelled. In addition the model was used to analyze specific areas of concern.

In order to avoid significant overburdening of Yankee Valley Boulevard and to a lesser extent Veterans Boulevard, additional access to Highway 2 should be provided within the 65,000 planning horizon. It is recommended that a functional planning study be commissioned for the interchange at 56th Avenue before a 40th Avenue partial interchange is constructed, to determine which additional access is most beneficial.

By the 80,000 population horizon, it is recommended that a significant focus is placed on providing alternative modes such as transit and active mobility. Some strategic capacity expansion projects should be considered. To provide improved access to the East Lake Industrial Park without unduly affecting existing residential neighbourhoods, it is recommended that the City support improvements to Range Roads 291 or 292 (the proposed East Skeletal Arterial).

At the ultimate build-out of the aspirational network at the 110,000 population horizon, some capacity expansion projects may be required. This will depend on the extent of the improvements that will have been made to alternative modes as well as how land-use is used to shape transportation demand. Long-term improvements that are suggested for this horizon include a connection over Highway 2 between Yankee Valley Boulevard and Veterans Boulevard as well as a similar facility between Veterans Boulevard and Township Road 274. A full movements interchange at Township Road 274 may also be considered by this planning horizon.

Transit

A review of the existing system and a comparison with peer cities revealed a requirement for several improvements. Additional service provision is required; however, improvements to the structure of the local and the Intercity Express (ICE) routes should also be provided. In addition, built form should be constructed and/or reconfigured to be more transit friendly. The recommendations for transit include,

- A focus on the ICE core Airdrie to Downtown Calgary service with more direct routing that does not utilize Calgary Centre Street
- Restructuring local service routes to be more direct, with a higher weekday frequency and improved neighbourhood bus stop accessibility
- Investigating the role of taxis to supplement fixed route transit and thus eliminating the requirement for a Dial-a-Bus service

Goods Movement

The Existing Truck and Dangerous Goods Route was reviewed and considered in the development of the Skeletal Road Network. The relevant bylaws were also reviewed and compared to peer cities'. The following recommendations were established from the reviews:

- That the Truck and Dangerous Goods Route is not revised. The industrial areas are adequately served in terms of truck and dangerous goods access
- The City of Airdrie update their by-law to define a truck, or heavy truck in more detail by assigning a weight limit
- The City of Airdrie monitor the Province's High Load Corridor map to see if or when the proposed Highway 567 corridor becomes formalized

Active Transportation

Active transportation is any mode of transportation that is human powered. Walking and cycling are typical, but it may also include modes such as rollerblading, skateboarding, cross-country skiing and parents with strollers, among others. Walkability is a key factor for residential location choice. Currently Airdrie has a low walkability score, indicating that there are few amenities that are within walking distance for the majority of residents. Guidelines have been suggested to improve walkability.

To improve local accessibility, particularly to schools, several connections across significant barriers have been recommended. These include several bridges over water features and crossings

over the railway as well as connections within existing residential areas to increase network permeability.

A hierarchal cycling network has been proposed that aims to leverage the existing multiuse path system and improve it in a manner that makes everyday, purposeful cycling more convenient and likely. The proposed network aims to accommodate cyclists of various skill and comfort levels. It will also accommodate trips for additional active modes such as rollerblading, skateboarding, jogging, cargo-bikes, etc. as well as provide more convenient options for pedestrians.

The active transportation recommendations and improvements coincide with Complete Streets principles and provide guidance on the extent and level of prioritization of the components – streets on the cycling network should aim to include dedicated bicycling facility components.

Transportation Noise

As part of Connecting Airdrie, a review of the existing Airdrie Noise Policy has been undertaken and compared to peer cities in Alberta. The policy is extensive in scope and appropriately recognizes the requirement to mitigate noise in outdoor amenity space. However, further recommendations include:

- Orienting dwellings so that front yards face the street and the building itself provides backyard noise attenuation.
- Less reliance on concrete noise walls that pose barriers to neighbourhood connectivity

Summary of Main Infrastructure Improvements

The following tables and figure provide a summary of the main infrastructure improvements as found in the Transportation Improvements and Investment Plan (TIIP). The projects identified for the road network were guided by connectivity and accessibility principles intended to enhance local economic activity, activate the city centre and provide a more sustainable transportation system in line with the AirdrieONE Sustainability Plan.

However due to the large expected growth and in light of existing development plans, additional network link and roadway capacity expansion projects are also included.

Road Network

Planning Horizon	Project	Location	Approx. X-Section	Cost Estimate	Responsibility
Growth-Related Projects					
65,000	YVB upgrade east	Kings Heights Gate to Ravenswood View	Upgrade to 2 lanes urban + ped	\$3.8 M	Developers(s)
65,000	YVB upgrade west	Bayside Gate to 24th St	Upgrade to 4 lanes urban + ped	\$7.0 M	Developers(s)
65,000	40th Ave Interchange ¹	40th Ave and Hwy 2. Includes 40th Ave eastward to Kingsview Blvd	Southbound Movements only	\$46.0 M	Airdrie/Province/Developers(s)
65,000	8th St	YVB to 40th Ave	Upgrade to 4 lanes urban divided + ped	\$4.0 M	Developers(s)
65,000	40th Ave with Grade Separated CP Crossing	Reynolds Gate to Main St	New 2 lanes urban + ped	\$10.0 M	Developers(s)
65,000/ 80,000	40th Ave	From Windsong Blvd to 24th St	New 2 lanes urban + ped	\$7.0 M	Developers(s)
65,000/ 80,000	24th St	YVB to future 40th Ave	New 2 lanes urban, ROW for 6	\$7.0 M	Developers(s)
80,000	56th Ave Interchange	56th Ave and Hwy 2. Includes 56th Ave eastward to Kingsview Blvd ext.	Full Movements	\$46.0 M	Province/Developers(s)
80,000	56th Ave westward	Hwy 2 to 8th St	Upgrade to 2 lanes urban, ROW for 6	\$7.5 M	Developer(s)
80,000	YVB Grade Separated CP Crossing	Yankee Valley Blvd at CP Railway tracks	Expand to 6 lanes	\$20.0 M	Airdrie/Developers(s)
80,000	YVB expansion	8th St to Main St	Expand to 6 lanes	\$4.5 M	Developers(s)
80,000	Veterans Blvd upgrade east	East Lake Blvd to East Lake Rd	Upgrade to 4 lanes urban divided + ped	\$4.5 M	Developers(s)
80,000	8th St	40th Ave to 56th Ave	New 4 lanes urban divided + ped	\$8.0 M	Developers(s)
80,000	40th Avenue East	Connect Kingsview Blvd to East Skeletal	New 2 lanes urban divided + ped	\$11.5 M	Developers(s)
110,000	RR292 (East Skeletal)	East Lake Hill extension to Regional Connection ²	New 4 lanes urban	\$18.5 M	Developers(s)

¹ The implementation of the 40th Ave interchange can be delayed and the 56th Avenue interchange prioritized, depending on the outcomes of additional functional planning.

² This connection and its exact location will depend on regional transportation planning and will require cross-jurisdictional collaboration and negotiation.

Planning Horizon	Project	Location	Approx. X-Section	Cost Estimate	Responsibility
110,000	RR291 upgrade	From East Lake Hill extension to Veterans Blvd	Upgrade to 2 lanes urban + ped	\$4.0 M	Developers(s)
110,000	YVB upgrade east part 2	Ravenswood View to East Skeletal	Upgrade to 4 lanes urban + ped	\$6.0 M	Developers(s)
110,000	40th St (RR13) / 24th St Skeletal	From 40th Ave to 56th Ave	New 4 lanes urban, ROW for 6	\$14.5 M	Developers(s)
110,000	RR291 upgrade north	Veterans Blvd to 800 m north	Upgrade to 2 lanes urban divided + ped	\$4.5 M	Developers(s)
110,000	East Lake Blvd	Highland Park Lane to 800 m north	Upgrade to 2 lanes urban undivided + ped	\$4.5 M	Developers(s)
110,000	24th St north	Veterans Blvd to 1600 m north	Upgrade to 2 lanes urban divided + ped	\$9.0 M	Developers(s)
110,000	8th St north	Veterans Blvd to 1600 m north	Upgrade to 2 lanes urban undivided + ped	\$9.0 M	Developers(s)
110,000	North Fly-over	Located between Veterans Blvd and Twp Rd 274	New 2 lanes + ped & cycling	\$TBD	Airdrie
110,000	Twp Rd 274 Interchange	Twp Rd 274 Ave and Hwy 2.	TBD	\$46.0 M	Province/Developers(s)
110,000	Veterans Blvd upgrade east Part 2	East Lake Rd to RR291	Upgrade to 4 lanes urban divided + ped	\$4.5 M	Developers(s)
Aspirational Network Improvements					
65,000	Ridgegate Way extension	Connect Railway Gate with Tower Lane Dr / Ridgegate Way	New 2 lanes + ped & cycling	\$3.0 M	Airdrie
65,000	Bayside Blvd extension	Connect current Bayside Blvd to Yankee Valley Blvd	New 2 lanes + ped & cycling	\$TBD	Airdrie/Developers(s)
80,000	East Lake Hill extension	Connect to future RR291	New 2 lanes	\$6.0 M	Airdrie/Developers(s)
80,000	Bridge over Canal	Connect Canals Blvd with Canoe Ave	New 2 lanes + ped & cycling	\$4.5 M	Airdrie/Developers(s)
110,000	Kingsview Blvd extension	56th Ave to Sharp Hill Way	New 2 lanes	\$8.0 M	Airdrie/Developers(s)
110,000	Mid-city Fly-over	Approximately connecting Allen St to East Lake Cres	New 2 lanes + ped & cycling	\$TBD	Airdrie

Transit

A 10 year transit plan for a community population of at least 65,000 would require the capital investments as shown in the following table.

Vehicle or Facility	Quantity	Total
Bus Fleet	40 (buses)	\$16.0 M
Park & Ride and Bus Intercept Facilities	2 sites totaling 400 stalls (approx. 4 acres)	\$6.0 M
Bus Storage and Maintenance Facility	50 bus capacity	\$12.0 M
Transit Zone Improvements	\$300,000/yr over 10 yrs	\$3.0 M

Active Transportation

All of the proposed projects included in the table below should occur within the 10 year timeframe of the TIIP, especially under a high growth scenario.

Improvement Type	Qty	Cost Estimate
Bike Lanes	6500 m	\$750,000
Multiuse Path	8570 m	\$800,000
Multiuse Crossing	3	\$40,000
Multiuse Bridge	3	\$850,000
Bicycle Path	1650 m	\$150,000
Multiuse Path & Midblock Crossing	600 m	\$55,000
Striping	1	\$13,000
Sidewalk	100 m	\$5,000
Midblock Crossing	2	\$3,000