



ROCKY VIEW COUNTY
Cultivating Communities

Active Transportation Plan

SOUTH COUNTY

OCTOBER 2018

Presented by:



ACKNOWLEDGEMENTS

Rocky View County would like to thank everyone that contributed to this planning effort. Special thanks are extended to stakeholders, the community and County staff members of the Technical Review Committee and Rocky View City Council for their support.

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EXECUTIVE SUMMARY

The Rocky View County Active Transportation Plan South County (the Plan) is Rocky View County's first ever active transportation plan. By taking the step to develop a comprehensive master plan means that Rocky View County is showing continued commitment to developing programs, policies, and infrastructure that serve the needs of all residents and visitors. The Plan is inspired by the myriad of trails and pathways that have been recommended in previous planning efforts and knits them together to provide a backbone active transportation network that is both connected and consistent with previous planning efforts.

The Plan resulted from months of public engagement, field work, and analysis. It involved numerous meetings with stakeholders and was continually refined to reflect the type of community where people want to live, work and play.

Chapter 1. Introduction – describes the plan background, framework and goals. A summary of the public process is also included.

Chapter 2. Baseline Analysis – includes a narrative that breaks down the types of active transportation facilities included within Rocky View County, describes their location, and explains how they relate to existing land use.

Chapter 3. Active Transportation Needs Analysis – provides a data-driven assessment of the existing infrastructure and identifies gaps in countywide infrastructure as well as within the communities of Springbank, Langdon, and Bragg Creek.

Chapter 4. Active Transportation Network – presents a toolbox of potential active transportation facilities that serve as building blocks for network development as well as comprehensive countywide recommendations and more detailed recommendations in focus areas of Springbank, Langdon, and Bragg Creek.

The Plan includes recommendations for over 40 discrete infrastructure projects and supporting education, encouragement and policy projects as well as recommended design guidance for on- and off- street facilities in rural and more urban areas to help ensure consistency in facility construction and maintenance.

The development of the network recommendations was an iterative and collaborative process that considered both existing data and feedback gathered through conversations with staff, stakeholders, and the public. The needs of people walking and bicycling are balanced with the safety and comfort of other users as well as roadway characteristics and corridor constraints.

Chapter 5. Implementation – introduces a recommended seven-step process for near-term (five-year) Plan implementation and other supporting infrastructure, programmatic, and policy recommendations that can be implemented opportunistically as well as potential funding sources.

The near-term steps include:

1. Develop enabling policies and procedures
2. Implement connections and programs to support active school travel in Langdon
3. Improvements in Bragg Creek on Balsam Avenue and Burnside Avenue
4. Apply for Walk Friendly Communities designation
5. Build continuous path on Centre Street in Langdon
6. Active transportation policy for new developments
7. Build Range Road 33 shared-use pathway

CHAPTER 1

Introduction

PURPOSE OF THE ACTIVE TRANSPORTATION PLAN

Rocky View County is taking steps to develop a cohesive and comprehensive active transportation plan. While Rocky View has always benefitted from many initiatives to build pathways, sidewalks, and other places for people to walk and cycle. However, the efforts have lacked coordination and as a result, the infrastructure has been ad hoc and does not meet the needs of all user groups. Rocky View County understands this deficiency and has sought to address it in previous years through efforts such as the Parks and Open Space Master Plan (POSMP), which laid the ground work for a plan focused on pathways and recreation. That initial effort has grown into this planning effort that fills a larger need. The Active Transportation Plan: South County (ATPSC) provides direction on priorities for establishing a connected network of on- and off-street facilities where walking and cycling is a safe and accessible choice for all residents. The ATPSC includes infrastructure, policy, and programmatic recommendations that can be implemented strategically over time by the Rocky View County as it grows into its role as a provider of active transportation facilities and programs.

Guiding principles provide overall direction for the ATPSC and are described below. The principles support the overall County vision as articulated in the Rocky View County Plan (2013).

The ATPSC guiding principles state that the plan will:

- Provide clear guidance for active transportation facility development that incorporates best practices while being sensitive to the context in which facilities are developed.
- Contribute to quality of life by supporting economic development, environmental sustainability, and healthy lifestyles.
- Be a realistic transportation choice to safely and comfortably connect people with their day-to-day activities.
- Support access to features and amenities within Rocky View County.
- Create connections and spaces for social interaction within and between communities, contributing to a greater sense of community.
- Accommodate a range ages and abilities that reflects the needs of the surrounding community context.
- Identify year-round active transportation opportunities where there is high demand and where year-round maintenance can be realistically be applied and sustained.
- Be prioritized within the financial means of Rocky View County and will consider capital and life-cycle costs.

The Plan's guiding principles all support the overall County vision:

“Rocky View is an inviting, thriving, and sustainable county that balances agriculture with diverse residential, recreational, and business opportunities.”

PLAN AREA

Rocky View County surrounds the City of Calgary to the north, east, and west. Between 2011 and 2016, Rocky View County grew by 110 percent, to reach 39,407 residents. The County is comprised of 14 hamlets and numerous country residential subdivisions. While agriculture shapes most of the landscape, most residents of Rocky View work outside of their home. The ATPSC addresses two regions in the County: the Elbow River Ranch Lands and Bow River Plains areas shown in Figure 1.

The Elbow River Ranch Lands region is located in the southwest portion of Rocky View County and includes the hamlet of Bragg Creek and the communities of

Springbank, Elbow Valley, and Harmony. The region is bounded by the City of Calgary to the east and has a direct connection to the Town of Cochrane to the north.

The Bow River Plains region is located in the southeast and includes the hamlets of Langdon, Indus, Conrich, Dalemead, and Janet. In addition to bordering the City of Calgary, this region also shares a boundary with the City of Chestermere.

Combined, the Bow River Plains and Elbow River Ranch Lands form the South County study area.

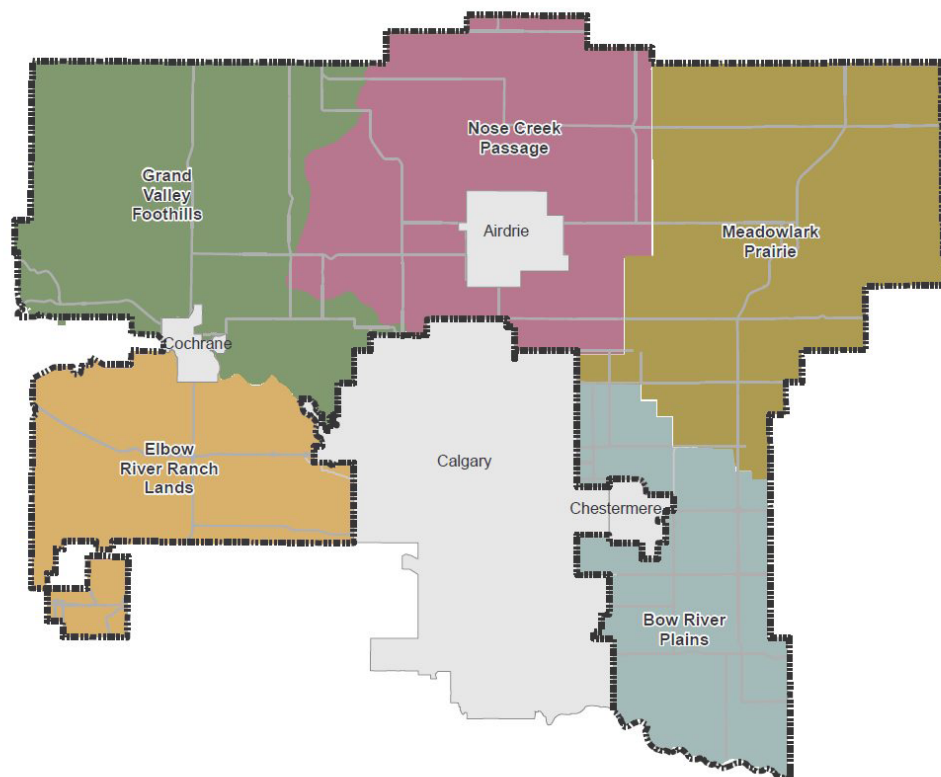


Figure 1: Rocky View Country regions developed as part of the Parks and Open Space Master Plan

ACTIVE TRANSPORTATION USER TYPES

Active transportation is a term that is typically used to describe modes of travel that are people-powered. In the minds of most people, active transportation users typically fall into two categories: people who walk and people who cycle. Though there are many other active transportation user types (e.g., people on scooters, people on rollerblades, and people with strollers) this Plan focuses primarily on people who walk and cycle. These user types are explained here and then in more detail in the design guide in Appendix A.

PEDESTRIANS

Walking is an everyday activity for the majority of people. People walk to go to school or work, to shop, for leisure, and for recreation or exercise. Suitable pedestrian facilities provide youth with a comfortable and safe walk home from school and allows community members to visit their neighbours.

Elderly people and others with mobility impairments may utilize mobility devices to navigate the pedestrian environment. While many trips are made by motor vehicle, bus, or train, most trips involve at least a small walking component.

CYCLISTS

People ride bicycles for many reasons: it may be for recreational purposes, for training or fitness purposes, to get to work, school, or to run errands. For many, riding a bike may be a primary mode of transportation for at least some daily trips. Where people choose to ride, how long they ride for, and what destinations they access largely depend on their level of comfort and proximity to destinations. Cyclist comfort is often influenced by the availability (or lack thereof) of dedicated and separated cycling infrastructure. Generally, cyclists will fall into one of four categories shown in Figure 2.

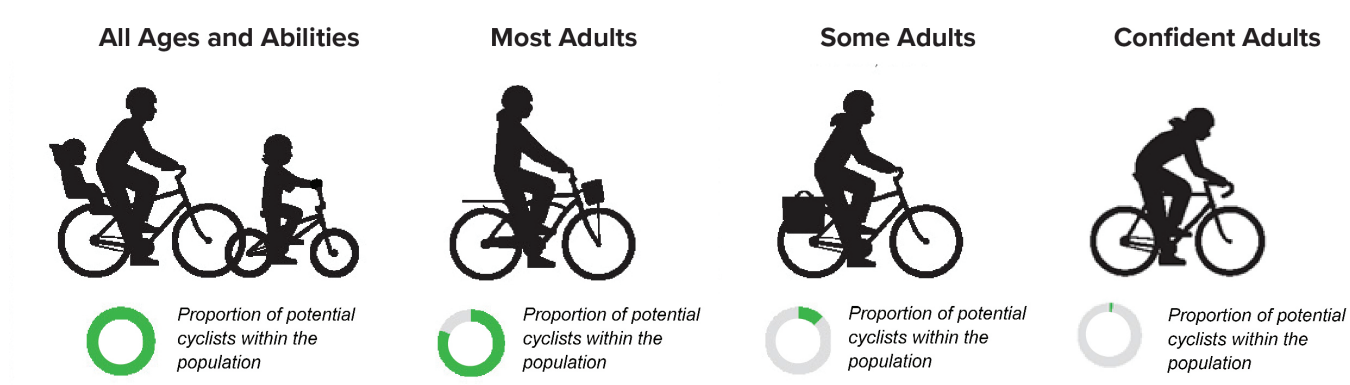


Figure 2: Four types of bicyclists

PLAN DEVELOPMENT PROCESS

The development of the ATPSC was a collaborative effort that brought together residents, local leaders, regional staff, and adjacent municipalities through a Technical Advisory Committee and public / stakeholder engagement process. To develop a robust and comprehensive plan, the team first reviewed current Rocky View County background documents and representative plans from across North America, then developed the plan in three stages:

Baseline Analysis

This stage reviewed land use, facility types, and existing infrastructure within Rocky View County and then analyzed the existing active transportation and road networks through a lens of quality, equity, and needs to develop a list of potential active transportation corridors.

Active Transportation Network

The Active Transportation Network developed the types and application of active transportation facilities appropriate for Rocky View County and identified network connection priorities between and within communities.

Recommendations

Recommendations provided an ordered list of steps that Rocky View County can take to build the foundation of an active transportation network in the near term. A listing of longer-term opportunities and funding sources was also generated.

These three stages are illustrated in Figure 3.

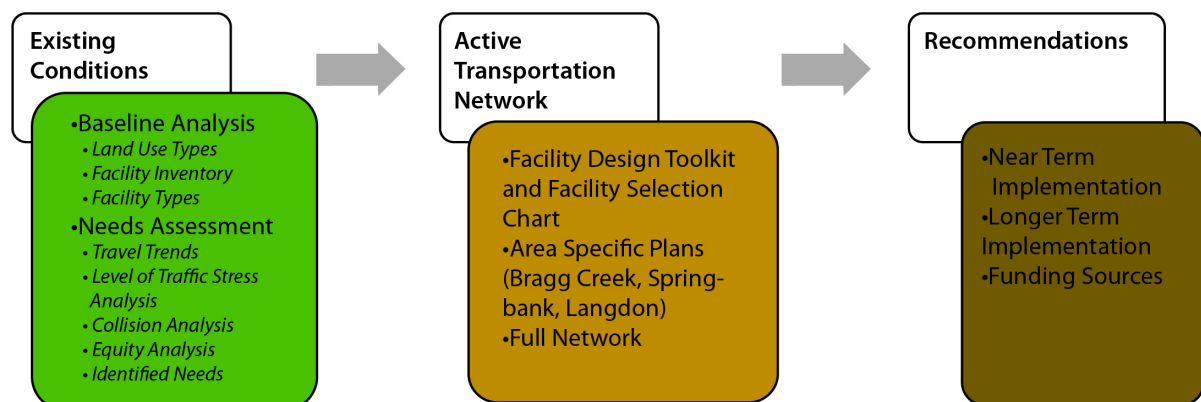
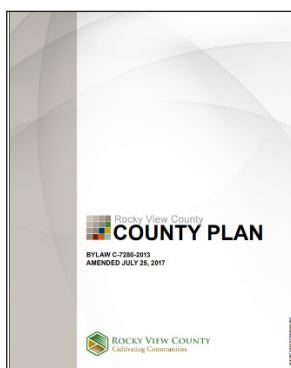


Figure 3: Plan development process

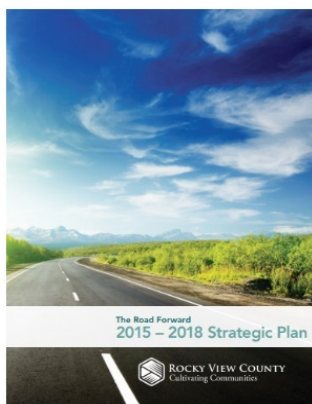
BACKGROUND DOCUMENT REVIEW

The background document review was conducted to identify and summarize relevant policies, plans, and other strategic documents in and around Rocky View County related to the development of the ATPSC. Key documents are discussed here and the entire document review is found in Appendix B.



The Rocky View County Plan (2013) identified nodes for growth and development. The plan states that hamlets should be pedestrian- and cyclist-friendly; safe, accessible, and attractive; and be connected by pathways and sidewalks. It establishes the direction to work with adjacent

municipalities and stakeholders to build connected active transportation facilities. The County plan also includes the policy direction to acquire land for trails and pathways and apply design standards to achieve consistency of pathways and trails.

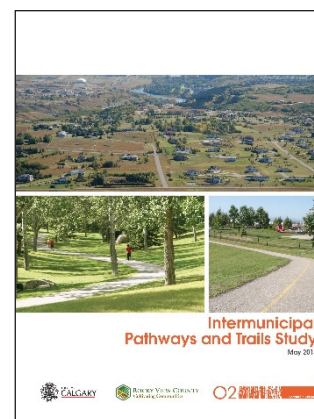


The 2015-2018 Strategic Plan: The Road Forward, references active transportation under the Plan's strategic pillars of Sustainable Communities, and Service Excellence. The strategy provides direction for municipal actions, and performance indicators such as the total kilometres of pathways and trails.

The Parks and Open Space Master Plan (2013) is a resource to the community to assist in planning parks and open space that meet the needs of the community and build a foundation for the future generations. Key outcomes of the plan include a breakdown of the County into five distinct regions with corresponding parks and open space development concepts. The plan also includes recommendations, actions, and implementation tools that focus on the incremental development of a comprehensive parks and open space system.



Calgary/Rocky View County Intermunicipal Pathway and Trail Study (2014) identifies linkages and connections that interface between the County and Calgary. It defines five pathway and trail facility types: regional trails, local pathways/trails, natural trails, on-street bikeways, and sidewalks.



TECHNICAL REVIEW COMMITTEE

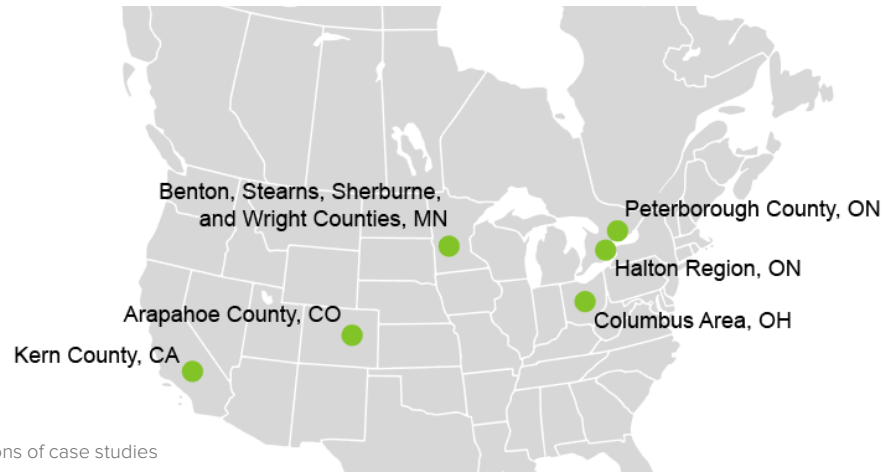


Figure 4: Locations of case studies

In order to understand the wide range of perspective and voices involved in active transportation within Rocky View, the County established a Technical Review Committee (TRC) to provide input throughout the duration of the project.

The TRC was comprised of Rocky View County staff and representation from various community groups including:

- Greater Bragg Creek Trails Association (GBCTA)
- Springbank Trails and Pathways Association (STAPA)
- Langdon Community Association

- Rocky View County Engineering Services
- Rocky View County Capital Projects
- Rocky View County Planning
- Rocky View County Recreation and Community Services
- Rocky View County Municipal Lands
- Rocky View County Road Operations

The TRC met six times throughout the project, providing input to the plan development and recommendations.

In the development of this plan, the project team researched six active transportation plans from municipalities similar to Rocky View in geography, population, climate, and land uses. The review provides examples of strategies and methods used in other jurisdictions that may be appropriate for Rocky View County's ATPSC. "Experience Elsewhere" examples illustrate how the experience in other jurisdictions helped to guide Rocky View County's ATPSC. The complete memo can be found in Appendix C. The locations of these case studies are shown in Figure 4.

PUBLIC AND STAKEHOLDER ENGAGEMENT

During the planning process, the County was committed to listening and understanding the needs of residents and then providing opportunities to comment on potential solutions. A variety of methods were used to reach the greatest number of people possible during engagement. The following list summarizes and outcomes of each communication or engagement activity.

Web Page

A web page was established on the Rocky View County website to provide updates on the Plan development and information about how residents could provide input to the Plan.

Issues Scoping Workshop

A workshop was held for the TRC, stakeholders, and other agencies and to identify issues, challenges, and opportunities associated with the Plan development. The input was used to help establish the guiding principles and initial active transportation network connections as well as to focus elements of the baseline analysis.

Online Questionnaire

An online questionnaire, targeted at stakeholders and interest groups, allowed open-ended responses to obtain in-depth insights into active transportation activity and gauge acceptance of various types of active transportation facilities. Although targeted at key groups, the questionnaire was open to all. A total of 42 individuals completed the questionnaire.



Rocky View Active Transportation Plan - South County website

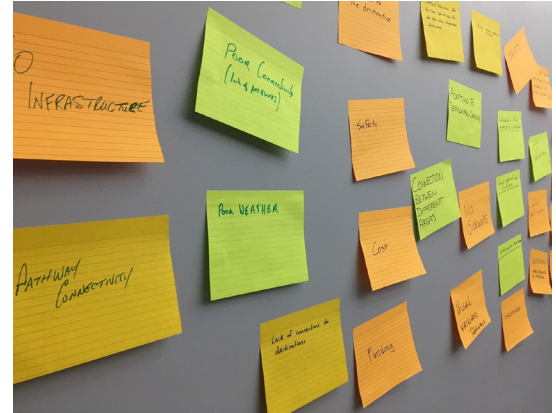
Community Workshops

Two community workshops were held - one in Langdon and one in Springbank. Workshop participants were invited to provide input through two mapping exercises – one that focused on main streets and connections within communities and a second to identify important connections between communities. The Springbank workshop also included a review of connections across the Elbow River in the Springbank/Elbow Valley area. A total of 56 community members participated in the workshops: 16 in the Elbow River Ranch Lands, and 39 from the Bow River Plains Region.

Youth Workshops

A workshop was held with 27 grade nine students at Langdon School to gain input from students who rely on active transportation as their only means of independent travel. The workshop focused on routes to school, methods of travel, and other desired destinations. Students also participated in a Centre Street redesign activity, which reimagined the corridor with various types of active transportation facilities and urban design elements such as lighting, street furniture, street trees, and parklets. While the workshop was focused on Langdon, the input received from the students is transferrable to other areas and provides insight into the types of features that make walking and cycling attractive to Rocky View residents.

Post-it notes were used for people to share their ideas at the community workshops. Image: HDR



Online Mapping

The draft active transportation network was posted online, allowing for public input on the network. The online mapping tool provided the ability to zoom in and out as desired and provided the capability for the public to leave comments related to specific locations or about the network in general. There were 19 comments received on the draft network.

Meetings with Adjacent Municipalities

Meetings were held with the City of Calgary and Town of Cochrane to coordinate active transportation planning efforts between municipalities. Although no formal meeting with the City of Chestermere was held, Chestermere staff participated in the Issue Scoping Workshop and input received at this meeting was considered during network planning activities.

Public engagement was used in the development of many of the plans that were reviewed. Engaging the community on the plans allowed for local ownership, helped identify challenges and opportunities, and identified community priority. Using public workshops was one technique that gave residents the opportunity to pick up markers and draw different ideas with members of the project team.

CHAPTER 2

Baseline Analysis

The following chapter provides a review of baseline information used to develop the Plan recommendations:

- Land Use Types
- Facility Inventory
- Facility Types

LAND USE TYPES

The US Federal Highway Administration's *Small Town and Rural Multimodal Networks* guide identifies three general land use areas found in rural communities. These generalized land uses have been applied for Rocky View County to help develop the plan. While active transportation trips are associated with all land uses, the purpose (e.g. travel to school vs. recreation trip), and the appropriate active transportation facilities (e.g. a roadway shoulder vs. protected bike lanes) vary across land uses. These areas are shown on Map 1.

Developed Rural Core

The developed rural core (Figure 5) land use type is generally comprised of towns, hamlets, or regional centres with concentrations of residents, businesses, and community destinations. Developed rural core areas are focal points within Rocky View County. In the Plan area this would include the hamlets of Langdon and Bragg Creek. As Conrich and Harmony continue to grow, they would also be included in this category. The developed area along Range Road 33 north of Springbank Road could also be considered a developed rural core because of the land uses and activities along the corridor, especially between Highway 1 and Springbank Road.



Figure 5: The community of Bragg Creek is an example of developed rural core

Outer Developed Rural

The outer developed rural (Figure 6) includes communities from which many people travel to the rural core for work, shopping, services, or school. These types of communities are sometime referred to as ex-urban, and include the acreage-style residential developments. In Rocky View County, this characterizes the communities of Conrich, Springbank, Elbow Valley, and Indus.

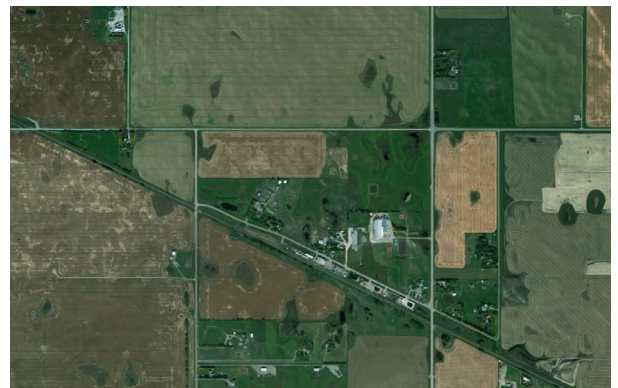


Figure 6: Indus has a school and community centre that serves residents from the surrounding area

MAP 1. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

LAND USE TYPES

LAND USE

- Developed Rural Core
- Outer Developed Rural
- Basic Rural

ROAD NETWORK

- Primary Hwy
- Secondary Hwy
- Major
- Collector

OTHER FEATURES

- Plan Area
- Hamlets
- Water Feature
- Municipal Boundaries



The plan areas shown are consistent with the Parks and Open Space Master Plan regions

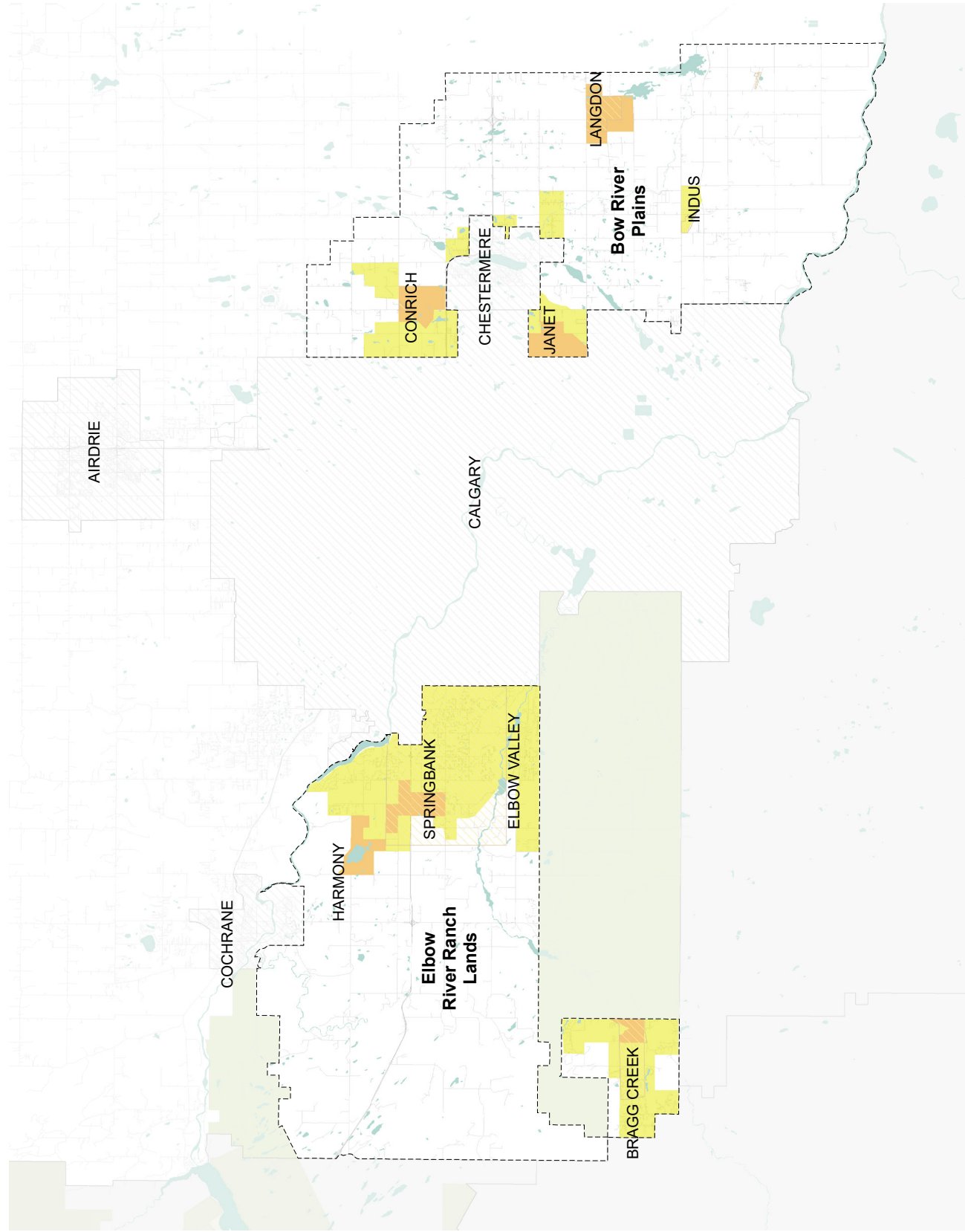


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1 centimetre = 2,500 metres



Data provided by Rocky View County, City of Calgary, Alberta Infrastructure, and Statistics Canada. Map produced July 2018.



Basic Rural

Basic rural areas (Figure 7) are communities that are relatively underdeveloped and have very low-intensity land uses. The majority of the land area in Rocky View County is agricultural in nature and fits into this category. Full active transportation coverage of a basic rural area is typically not practical, but active transportation facilities will pass through basic rural areas to create connections between developed areas, provide access to natural and community amenities, and to connect to adjacent municipalities.



Figure 7: Basic rural land use characterizes the majority of the plan area

FACILITY TYPES

The existing active transportation network is comprised of a combination of recreational trails and pathways, sidewalks in limited areas, some shared-use pathways, and the existing street network. Overall, dedicated active transportation facilities are limited, discontinuous, and found mostly within the hamlets of Bragg Creek, Springbank, and Langdon.

Shared-Use Pathways

Shared-use pathways are physically separated from roadways, either in their own right-of-way or parallel to a roadway. They are generally 2.5 meters to four meters wide and their use is restricted to active transportation modes and motorized mobility devices. They are generally paved with asphalt or concrete or have a hard packed aggregate surface. Shared-use pathways are intended for everyday transportation and recreational trips. In Rocky View, shared-use pathways are categorized as local pathways and regional pathways. The WID Canal Pathway is an example of an existing shared-use pathway.



The WID Canal pathway is a shared-use pathway facility. Image: HDR

Sidewalks

Sidewalks are intended for use by pedestrians for walking along a roadway. There are only a few areas that have sidewalks in Rocky View, most often in subdivisions or hamlets. Sidewalks may be located on one side or on both sides of the roadway. The sidewalks have generally been constructed with the development of a new subdivision and may end suddenly without connection to other pedestrian facilities. The widths of the existing sidewalks vary, but are generally 1.5 metres wide. The sidewalks are typically constructed directly next to the curb, and do not include a planted buffer strip.



An example of a sidewalk in Langdon. Image: HDR

Trails

Rocky View has many existing natural trails. These trails are generally on aggregate surfaces, throughout the countryside, and are built to varying standards. They are primarily intended for recreational uses.



Some pathways are in their own right-of-way, while others are adjacent to roadways, like the West Bragg Creek Trail. Image: HDR

Paved Shoulders

The presence of shoulders in Rocky View County is highly variable. Shoulders are a paved area adjacent to the right general use lane, visually separated with a white painted edgeline. Paved shoulders are used for a variety of purposes including active transportation users, snow storage, and can be used as parking or as a breakdown lane for motor vehicles. In Rocky View, shoulder widths vary from 0.5 m to over 2 m on both sides of a roadway, where they exist.



Paved shoulders are present on some roads in Rocky View County, like this example in Springbank. Image: HDR

Pedestrian Crossings

There are some locations in Rocky View County where improvements have been implemented to enhance crossing visibility and provide safer crossing opportunities. Examples include striped high visibility crosswalks and overhead pedestrian crossing signals.



Crosswalks allow pedestrians to cross busy roadways such as this crossing of Centre Street in Langdon. Image: HDR

EXISTING ACTIVE TRANSPORTATION CONDITIONS INVENTORY

Currently in Rocky View County, the active transportation network is comprised primarily of trails and pathways. These have both a facility type (e.g. shared use or multi use) and a facility status (e.g. existing, adopted or proposed). Pathways and trails with the adopted status are included in plans adopted by the Country and are found in area structure plans, conceptual schemes, and master plans. Pathways and trails with the proposed status have been identified through another planning process.

While a small number of the adopted or proposed pathways and trails are intended to create regional connections, the majority are intended for local use and circulation.

Table 1 summarizes the total distance for facilities in Bow River Plains and Elbow River Ranch Lands in Rocky View County.

Table 1: Length of existing transportation facilities in Bow River Plains and Elbow River Lands

Facility Type	Total Facility Distance (km)
Total length of roadways within plan area	1,100 (approximately)*
County pathways and trails – existing	115
County pathways and trails – adopted	126
County pathways and trails – proposed	251
County sidewalks	34
Paved shoulder (one side of street)	2
Paved shoulder (both sides of street)	237

When viewed at a county-wide scale, the lack of active transportation connections between and within the Plan area is evident. The inventories for the Bow River Plains and Elbow River Ranch Lands are shown on Maps 2 and 3, respectively.

In the Elbow River Ranch Lands, adopted pathways and trails will connect Springbank to Calgary in the east but do not reach Cochrane to the north. Bragg Creek, in the south, is not connected to the active transportation network. In Bow River Plains,

the adopted pathways and trails link Langdon to Boulder Creek. Proposed pathways, particularly in the west, help address gaps in the adopted network. Key connections will include Township Road 244 and Springbank Road.

People crossing the road in Langdon. Image: Alta Planning + Design



MAP 2. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

ELBOW RIVER RANCH LANDS INVENTORY MAP

ACTIVE TRANSPORTATION INFRASTRUCTURE

- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed
- Chestermere Paths

ROAD NETWORK

- Primary Hwy
- Other Roads

OTHER FEATURES

- Plan Area
- School
- Community Facility
- Church
- Hamlets
- Municipal Boundaries
- Railway
- Rocky View County
- Water Feature

The plan areas shown
are consistent with the
Parks and Open Space
Master Plan regions

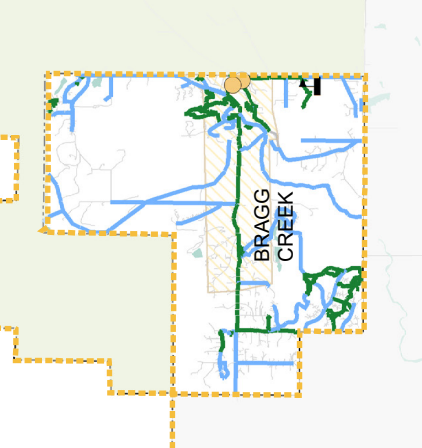
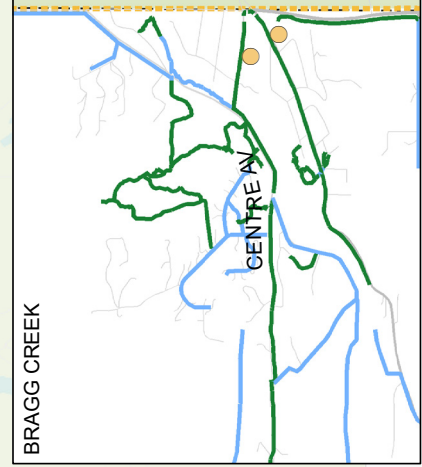
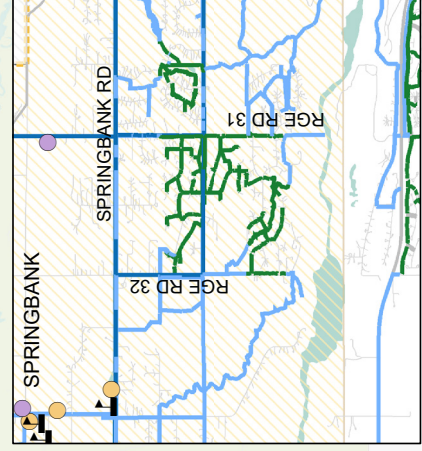
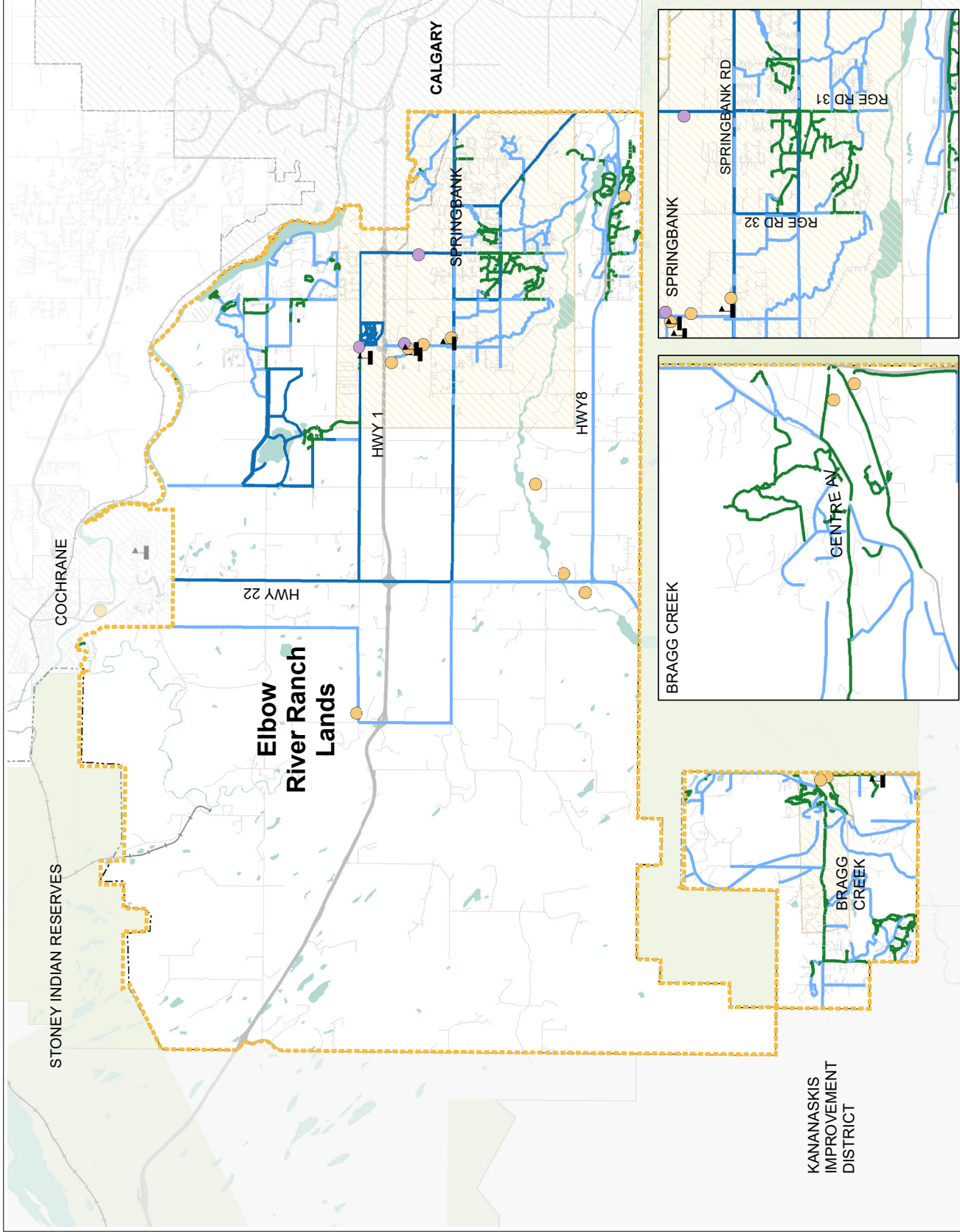


0 2 4
KILOMETRES

1 centimetre = 1,250 metres



Data provided by Rocky View County, City of Calgary,
Town of Cochrane, Aklavik, and Statistics Canada.
Map produced July 2018.



MAP 3. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

BOW RIVER PLAINS INVENTORY MAP

ACTIVE TRANSPORTATION INFRASTRUCTURE

- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed
- Chestermere Paths

ROAD NETWORK

- Primary Hwy
- Other Roads

OTHER FEATURES

- Plan Area
- School
- Community Facility
- Church
- Hamlets
- Municipal Boundaries
- Railway
- Rocky View County
- Water Feature

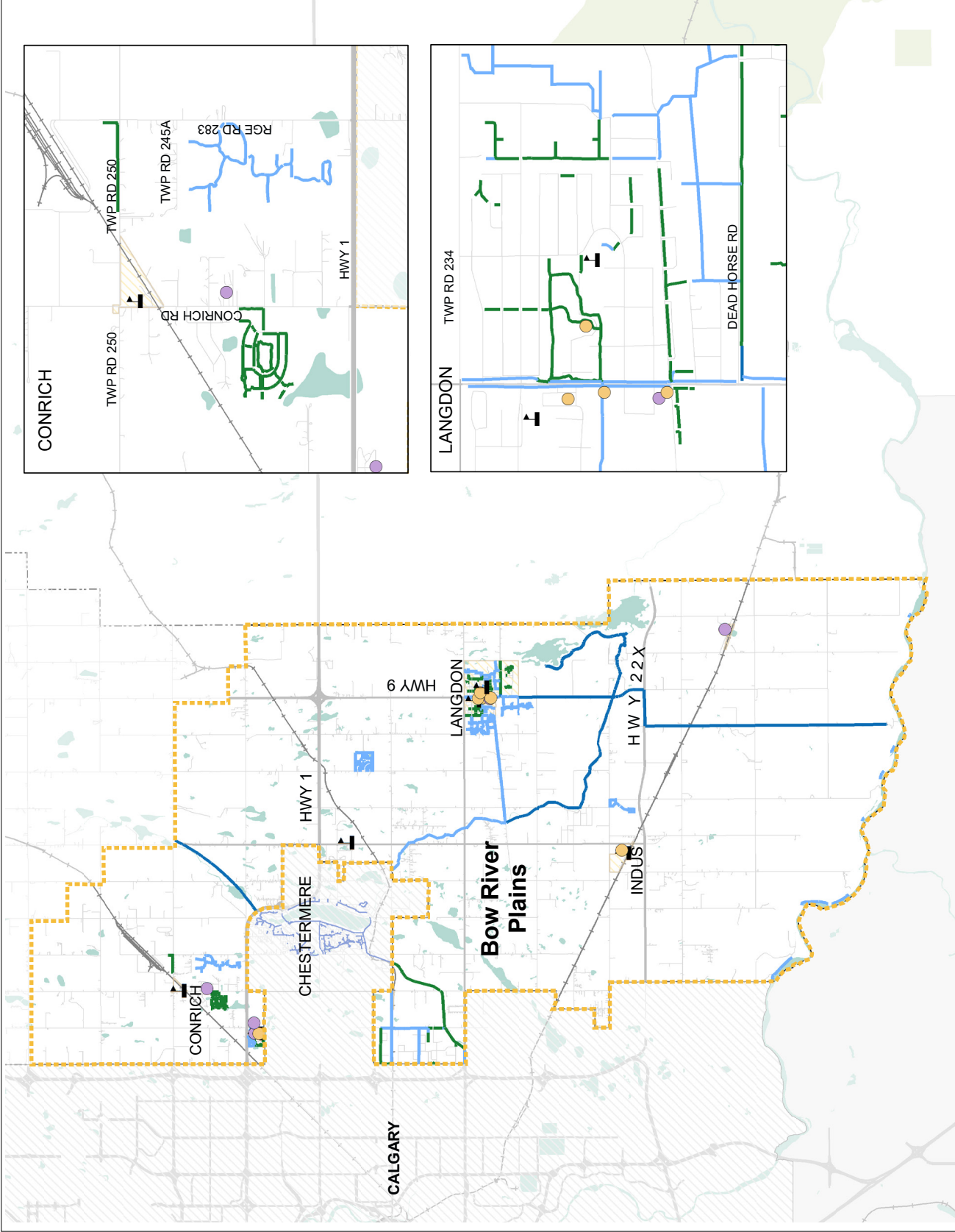
The plan areas shown are consistent with the Parks and Open Space Master Plan regions



0 2.5 5
KILOMETRES
1 centimetre = 1,600 metres



Data provided by Rocky View County, City of Calgary, Town of Cochrane, Alberta, and Statistics Canada. Map produced July 2018.



CHAPTER 3

Active Transportation Needs Analysis

This section provides an evaluation of active transportation needs and identifies the framework for a near-term active transportation network. This assessment of needs covers the following topics:

- Travel Trends
- Level of Traffic Stress Analysis
- Collision Analysis
- Equity Analysis
- Identified Needs



A youth walks home on Range Road 33 in Springbank. Image: Alta Planning + Design

TRAVEL TRENDS

Data on travel by active transportation within Rocky View County is limited. There are pockets of concentrated land use where walking, cycling, and other modes are common, but in general, activity is dispersed and most travel occurs by private motor vehicles. Although there is little data specifically related walking and cycling, there are sources of information about travel patterns in Rocky View County that provide insights into existing active transportation activity.

REGIONAL TRAVEL

The City of Calgary and other communities in the region have a significant influence on travel within Rocky View County. The City of Calgary conducts a comprehensive household travel survey approximately every ten years called the Calgary Household Travel Survey (CHTS). The survey includes the City of Calgary and the surrounding region, including all of Rocky View County, and assesses all modes of travel. The 2011

survey identified several changes in travel patterns since the previous survey, conducted in 2001.

Some of the key findings for the region include:

- More people are travelling to Calgary for work, but discretionary trips generally remain outside Calgary. This suggests there are more trips for purposes like shopping and dining provided locally, in closer proximity to where people live.
- There was a slight mode shift toward high occupancy vehicles and cycling between 2001 and 2011.
- Walk mode share has decreased from about ten percent in 2001 to just under five percent in 2011. This is likely related to a shift away from employment in downtown Calgary, meaning walks over lunch work breaks occur with less frequency and destinations are not as walkable.

COMMUTING

As part of the 2016 Census of Canada, the Journey to Work data series provides insights into commuting trends and patterns. Similar to the results of the CHTS, the large majority of residents in Rocky View County commute alone by motor vehicle.

Specifically, only two percent of people walk or cycle compared with seven percent nationally and 5.7 percent in Alberta. Surprisingly, even in the absence of a formal public transit system, four percent of Rocky View County residents report transit as their main mode of travel to work.

Residents of Rocky View County spend almost 31 minutes per day commuting to work, compared to just over 26 minutes nationally and 25 minutes for Alberta.

Walking and cycling accounts for a small proportion (about two percent) of all commutes, in part due to the long distances. However, for commutes within Rocky View County (people that live and work in Rocky View County), 13 percent of people commute by active modes, which is considerably higher than the provincial and national averages, indicating that when distances are short, walking and cycling are popular.

OTHER TRAVEL

Commuting represents an important component of overall travel. But, it is not the only reason people travel. The CHTS showed that households outside the City of Calgary average 3.6 trips a day per household.

Less than 12 percent of commuting trips have an origin and destination within Rocky View County. But, about two-thirds of discretionary

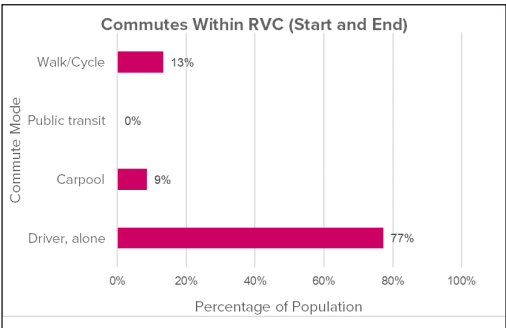
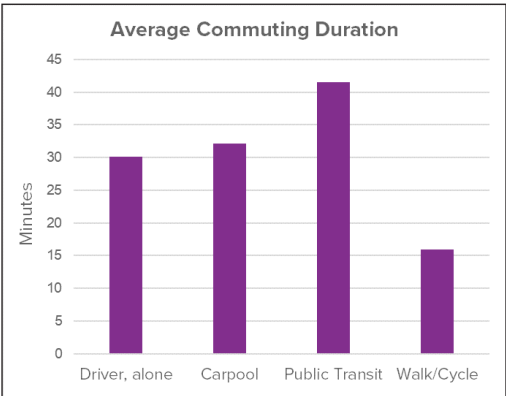
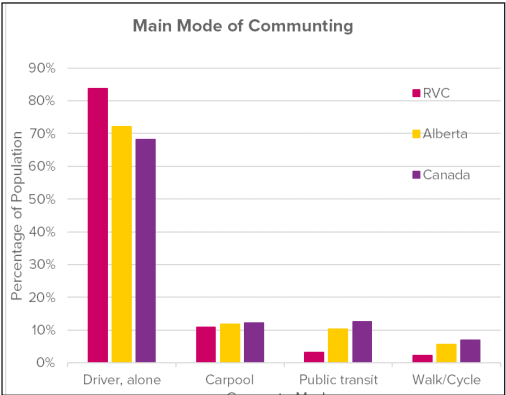


Figure 8: Graphs summarizing the data from the 2016 Census of Canada Journey to Work data

trips such as those for shopping or recreation have an origin and destination within Rocky View County. As identified in the Journey to Work data, there is a higher potential for trips that start and end in Rocky View County to be made by active transportation modes.

CYCLING TRAVEL PATTERNS

Rocky View County does not currently collect information on cyclist or pedestrian travel such as volumes on particular routes. There are sources of information that can demonstrate the relative popularity of routes such as the Strava Global Heatmaps. Strava information focuses on recreational and fitness training trips, but provides useful information about what corridors are most popular, particularly where multiple routes are available. Figure 9 illustrates the Strava Global Heatmaps showing activity up to May 2018 for cycling in the Elbow River Ranch Lands and Bow River Plains, respectively. The highest use corridors are red, with medium use in dark blue and lowest use in light blue.

A review of the heatmaps shows:

- The highest use east-west corridors are Township Road 250, Springbank Road, and Highway 8 and are well-used relative to other corridors in the region.
- There are several roads within Springbank that also have high use such as Range Road 33, Range Road 32, Banff Coach Trail, Lower Springbank Road, and Highway 22.
- The relative cycling activity in the Bow River Plains is considerably lower than in the Elbow River Ranch Lands with the only corridors showing high use being the WID Canal Pathway and Highway 22X.

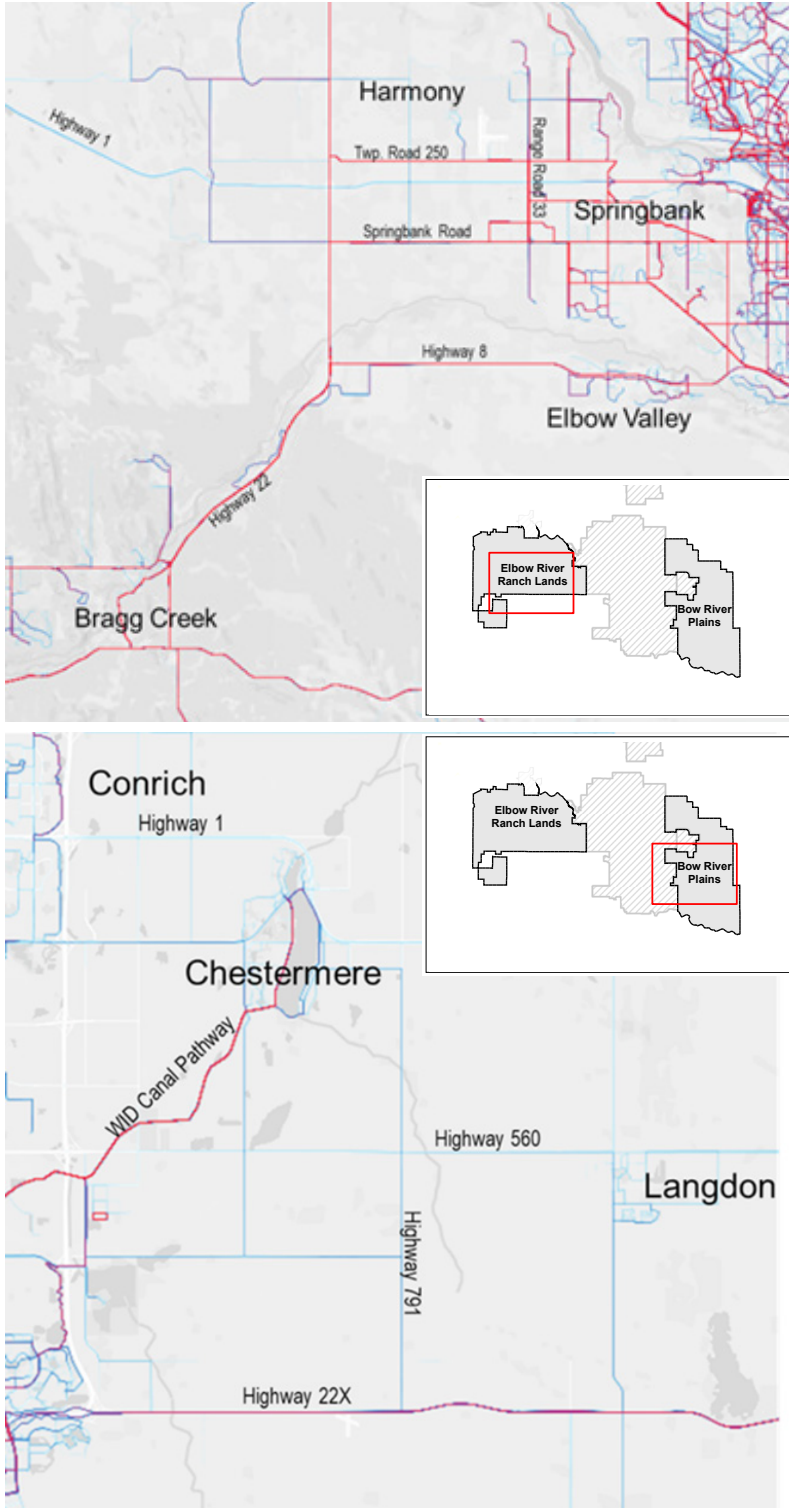


Figure 9: Strava Global Heatmap – Elbow River Ranch Lands (top) and Bow River Plains (bottom) (Retrieved May 2018)

LEVEL OF TRAFFIC STRESS ANALYSIS

The Level of Traffic Stress (LTS) Analysis identifies a perceived level of comfort for potential cyclists determined based on factors such as posted speed limit, roadway width or number of traffic lanes, and the presence and character of bicycle lanes or other bicycle infrastructure. The combination of this criteria separates the bicycle network into one of four scores as shown in Figure 10.

While this analysis is focused primarily on cyclists, the speed and volume factors have been shown to provide a reasonable understanding of the typical pedestrian experience and can be used as a proxy to draw high level conclusions about the comfort of current walking conditions in Rocky View County.

The majority of roads in the County have an LTS score of 3 or 4 due to their high posted speeds. Many local roads in subdivisions and in Langdon received low LTS scores due to their lower posted speeds. The results of this analysis are shown on Maps 4 and 5. Additional details of the analysis and methods are included in Appendix D.

LTS 1



Appropriate for all ages and abilities

LTS 2



Appropriate for most adults

LTS 3



Appropriate for some adults

LTS 4



Appropriate for confident adults

Figure 10: The four LTS scores with examples to illustrate a roadway/facility in Rocky View County with the corresponding LTS score

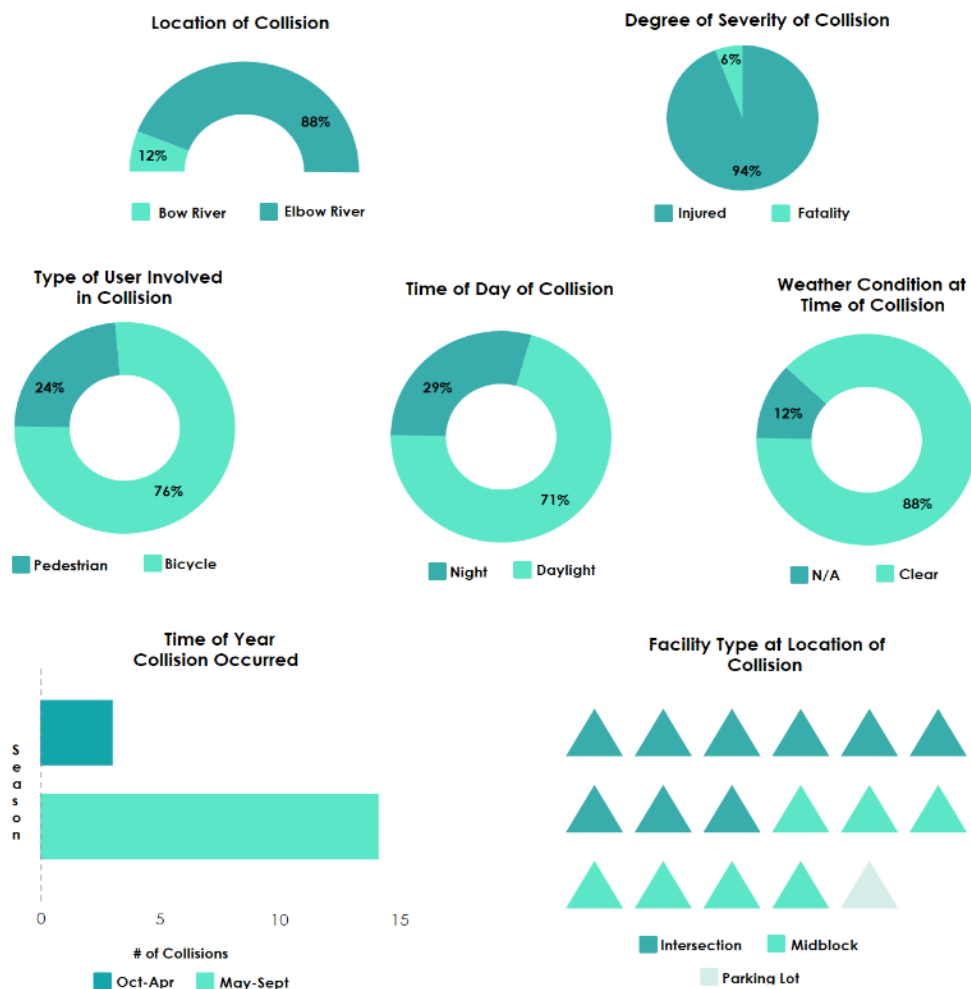
SAFETY ANALYSIS

A detailed review of pedestrian- and cyclist-involved collisions between 2011 and 2015 was conducted, which is the most-recent five-year period of data available for the Plan area. The data was derived from police reports where location of the collision was described in text form and often included estimated distances.

In addition to collision frequency, the review included consideration of roadway

characteristics including: location (midblock or at intersection), speed limit, number of lanes, and presence of an existing active transportation facility such as a paved shoulder, pathway, trail, or sidewalk. The safety analysis results are summarized graphically below. The locations of collisions involving pedestrians or cyclists in the 2011 to 2015 period are shown on Map 6. Additional details are included in Appendix D

Figure 11: Infographic illustrating the results of the safety analysis



MAP 4. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

ELBOW RIVER RANCH LANDS LEVEL OF STRESS ANALYSIS

Level of Traffic Stress Analysis

- 1- Low Stress Roadway
- 2
- 3
- 4- High Stress Roadway

- Existing Regional Pathway
- Existing Local Pathway or Trail
- Existing Sidewalk

OTHER FEATURES

- Plan Area
- Hamlets
- Municipal Boundaries
- Rocky View County
- Water Feature

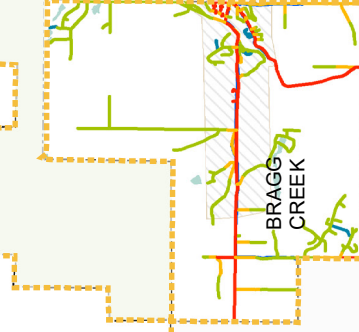
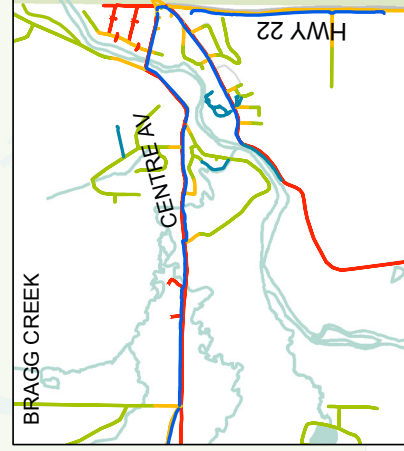
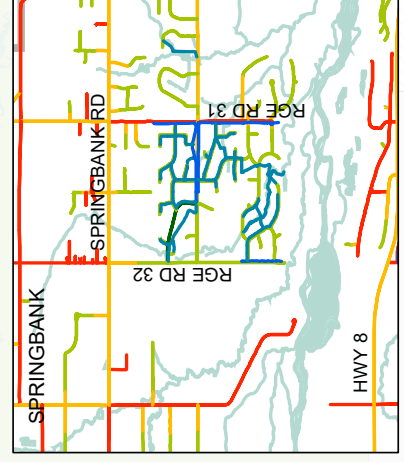
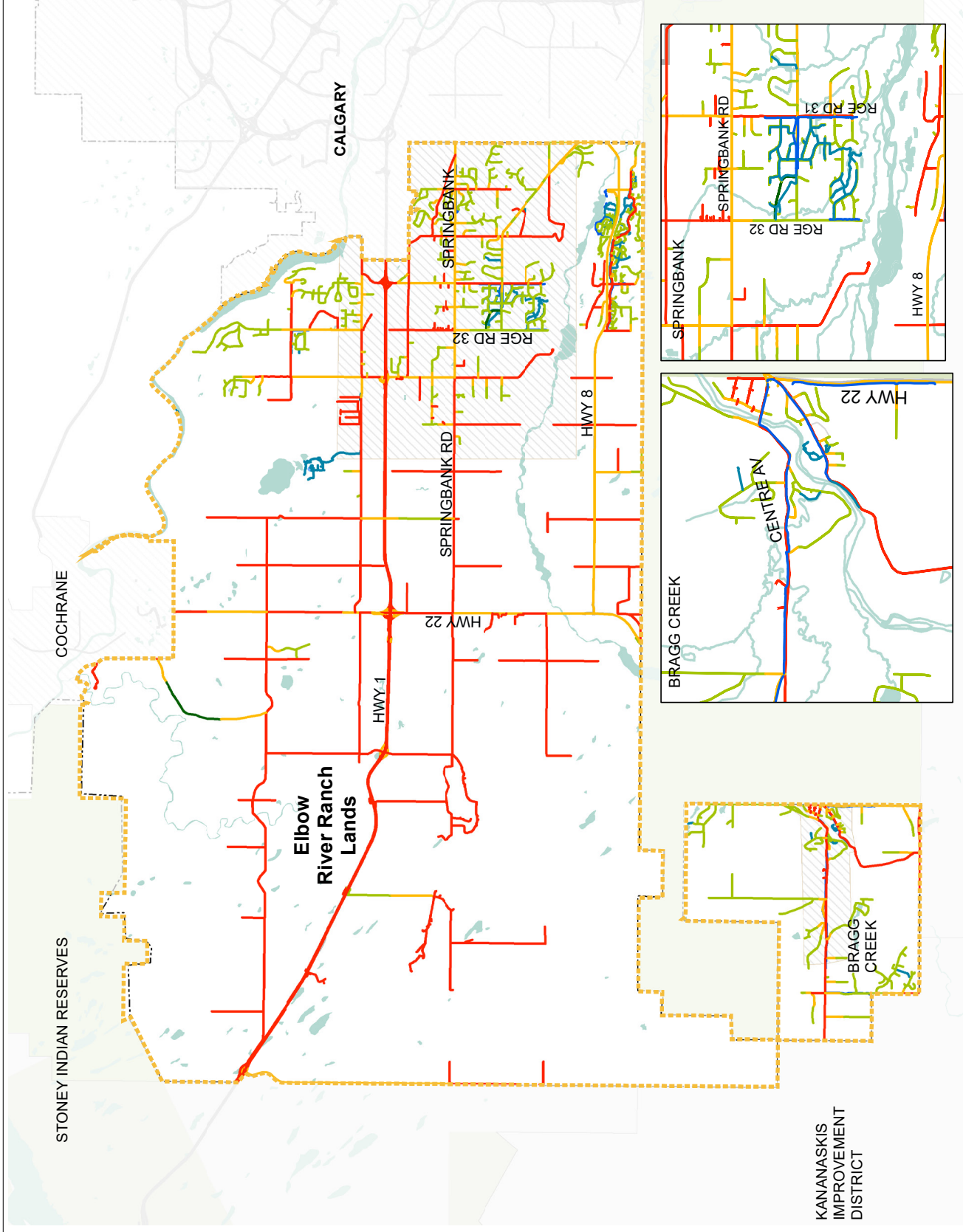
The plan areas shown are consistent with the Parks and Open Space Master Plan regions



0 2 4 KILOMETRES
1 centimetre = 1,250 metres



Date provided by Rocky View County, City of Calgary, Town of Cochrane, Ahtahk and Statistics Canada. Map produced July 2018.



MAP 5. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

BOW RIVER PLAINS LEVEL OF STRESS ANALYSIS

Level of Traffic Stress Analysis

- 1- Low Stress Roadway
- 2
- 3
- 4- High Stress Roadway

- Existing Regional Pathway
- Existing Local Pathway or Trail
- Existing Sidewalk

OTHER FEATURES

- Plan Area
- Hamlets
- Municipal Boundaries
- Rocky View County
- Water Feature

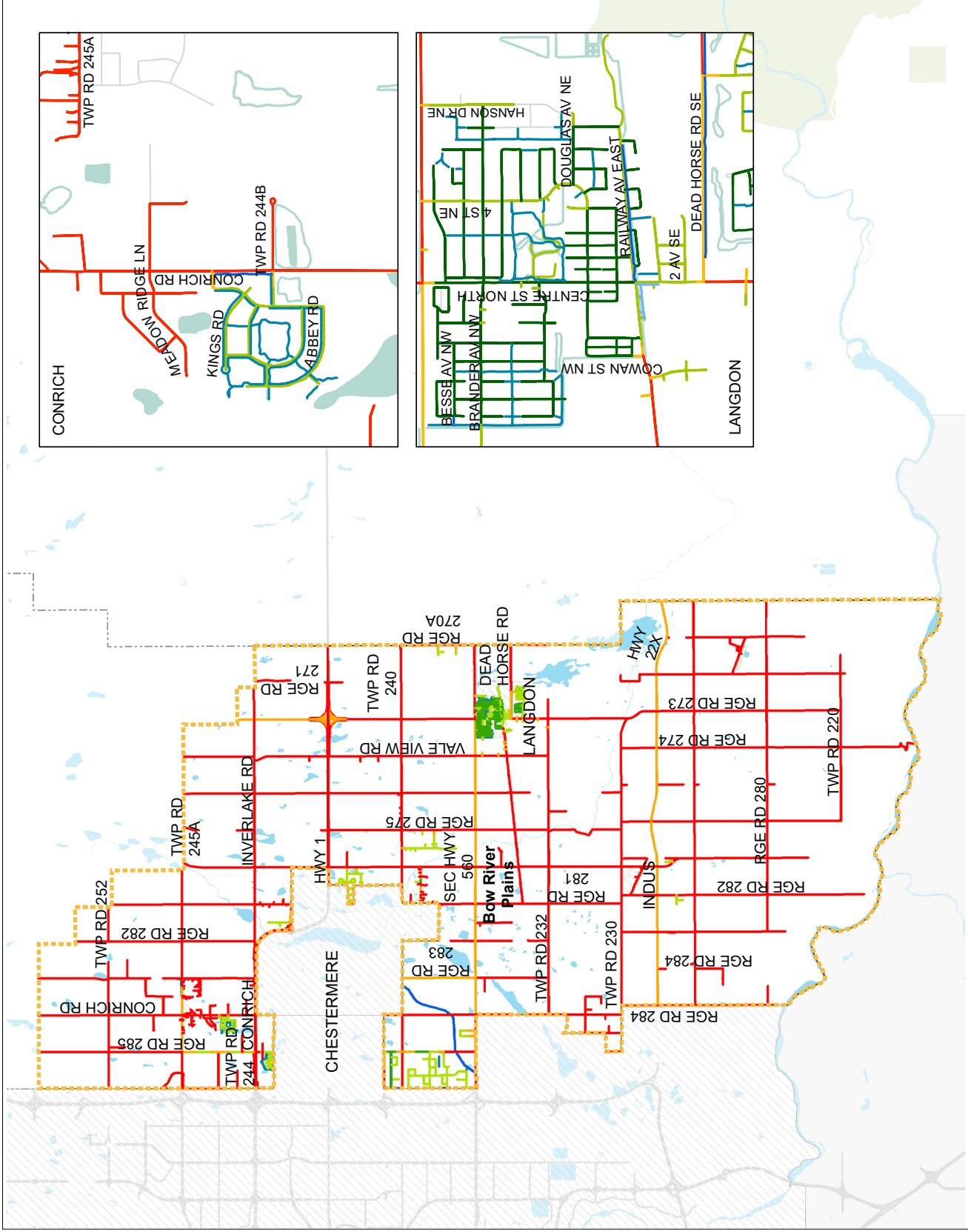
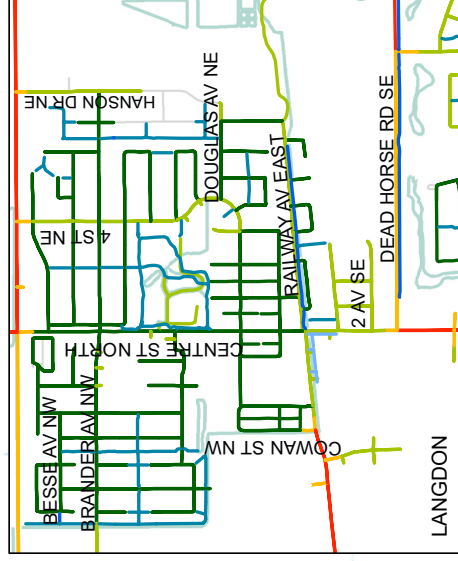
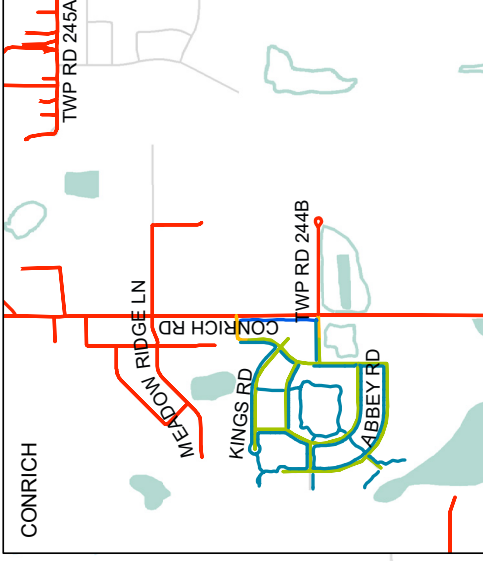
The plan areas shown are consistent with the Parks and Open Space Master Plan regions



0 2.5 5 KILOMETRES
1 centimetre = 1,600 metres



Data provided by Rocky View County, City of Calgary, Town of Cochrane, Ahtahk, and Statistics Canada. Map produced July 2018.



The map displays the Kananaskis Improvement District, which is part of the Municipal District of Foothills. It shows the proposed water service areas for the district. The map includes labels for Stoney Indian Reserves, Cochrane, Elbow River Ranch Lands, Bow River Plains, Langdon, and Bragg Creek. It also shows Highway 9, Highway 22, and Highway 8. The map is divided into several colored regions: yellow for the northern part, green for the central part, and blue for the southern part. The map is titled 'Kananaskis Improvement District' and 'Municipal District of Foothills'.

- Collisions with Fatality
- Collisions with Injury

- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed

- Railway
- Plan Area
- Hamlets
- Municipal Boundaries
- Rocky View County
- Water Feature



ROCKY VIEW COUNTY
Cultivating Communities



Data provided by Rocky View County, City of Calgary,
Town of Cochrane, AltaLis, and Statistics Canada.
Map produced July 2018.

EQUITY ANALYSIS

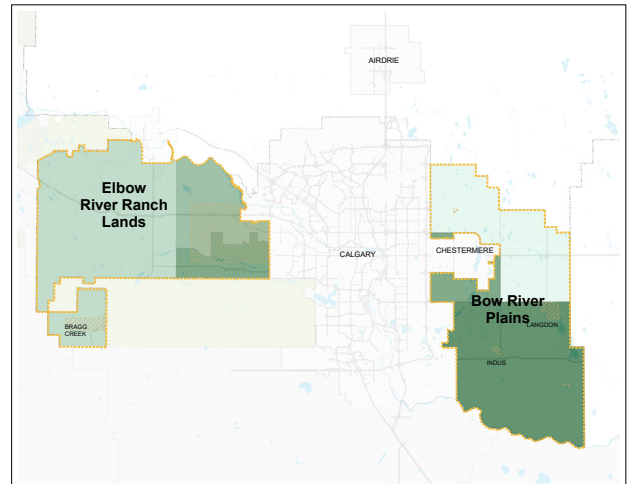
Equity mapping is the process of visually depicting the general areas where historically vulnerable or disadvantaged groups of people reside according to the Census. In the simplest of terms, equity recognizes that different people experience different barriers when travelling in Rocky View County.

The 2016 Census of Canada data was retrieved for census tracts in Rocky View County that fall predominantly within the Plan area. For purposes of analysis, the following socio-economic indicators define the potential underserved populations, as shown as thumbnail maps on Figure 12a and 12b.

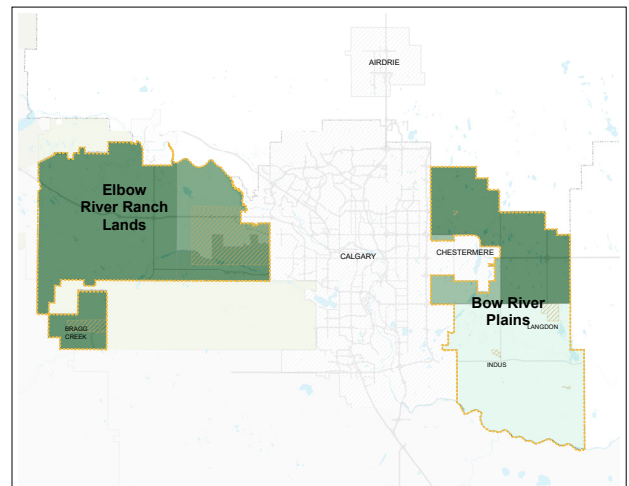
- Percentage of population aged 19 or younger
- Percentage of population aged 65 or older
- Prevalence of low income population
- Percentage of population with recognized Aboriginal identity
- Percentage of population without a high school diploma (or equivalency)

Kern County ATP

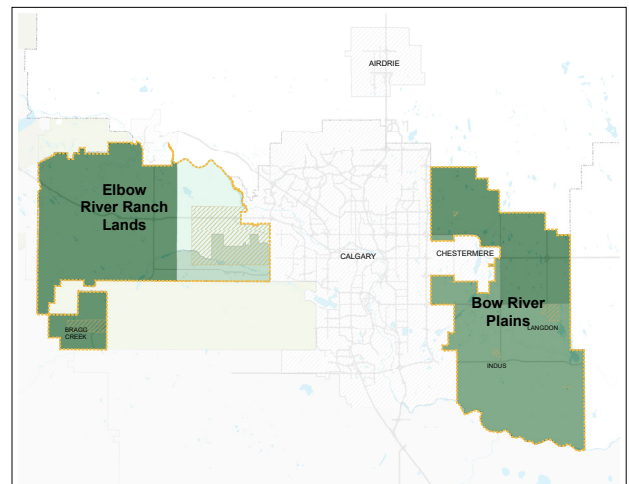
Kern County uses focus areas to provide attention to urban and suburban areas as well as specific user groups such as lower income communities. The focus area strategy has been used for the Rocky View County ATPSC with focus areas being Bragg Creek, Springbank, and Langdon.



Youth (19 or younger)



Seniors



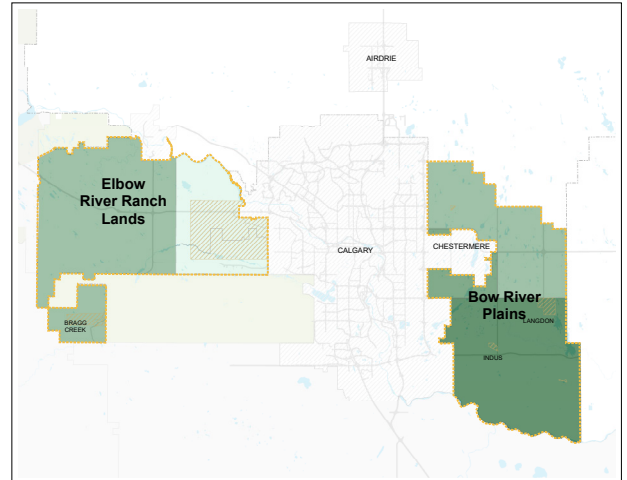
Low Income

Figure 12a. Socio-economic indicators.

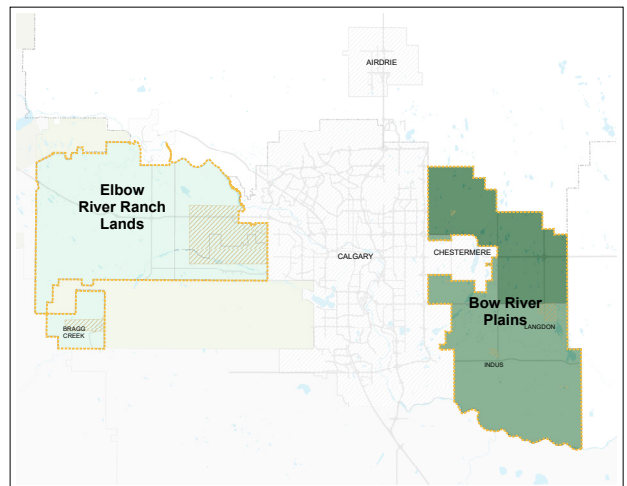
The analysis used the Alberta mean average as a threshold for each of the above indicators, so that census tracts that had a greater value than the Alberta statistical mean were given a score of one. For example, if a census tract had an above average number of adults aged 65 and older, and above average population without a high-school diploma, then the census tract was given a score of two. The highest equity score possible was a five and the lowest possible score was zero. This total equity score combined with further review of the component parts were used to identify areas where making active transportation investment could make the most impact.

EQUITY ANALYSIS RESULTS

Areas of inequality are spread throughout the South County and were summarized at a level that allows only general conclusions to be drawn. Generally, the Plan area has above average populations of children and seniors, and population without a high-school diploma. Based on this information, there are needs for seniors and children who can benefit from enhanced connections to schools and community facilities such as libraries, community centres, and recreation centres.



Aboriginal Identity



Education Attainment

Figure 12b. Socio-economic indicators.



People currently walk along an unpaved shoulder to access stores in Langdon. Image: HDR

IDENTIFIED NEEDS

The demand for travel is generated by land use and associated activities – whether employment sites, schools, retail centres, or residential areas. Not all trips can be made by active modes, but there is an opportunity to better align land use and needs to make active transportation a more attractive option for current and potential users. The land use types identified in the Chapter 2 help to frame the Needs Identification process.

Connections between communities within Rocky View County to active transportation networks in neighbouring municipalities and safe routes to parks and natural amenity areas have been identified as priorities for the ATPSC. Currently, gaps exist that make walking and cycling between existing destinations challenging. The introduction of active transportation facilities can “fill in the gaps” for many of these connections. Beyond addressing gaps in the network, the identified needs analysis builds on the LTS, safety, and equity analyses.

A portion of the ATPSC focused on specific identified issues in these following three communities.

- Langdon – connections to schools and Centre Street
- Bragg Creek – improving Balsam Avenue, White Avenue, and Highway 22
- Springbank – continuous connectivity through Springbank

Identified Needs are described on Maps 7 and 8. Details of the corridors are found in Appendix E.

Table 2 summarizes the priority connections and needs in the Elbow River Ranch Lands.

The connections between Rocky View communities will generally take advantage of existing north-south and east-west routes, with a focus on the currently popular routes. Given the distances, most of these connections will be suited to more experienced and confident cyclists and pedestrians and will be less of a priority for facility investment than those connections suited to all ages and abilities.

The Transportation and Utility Corridor (TUC) creates a barrier for connections to Calgary. Therefore, the connections the east of the TUC into Calgary will need to take advantage

Table 2: Elbow River Ranch Lands priority connections

Elbow River Ranch Lands Communities	<ul style="list-style-type: none">• Bragg Creek• Range Road 33 (Township Road 250 to Springbank Road)• Harmony• Other Developed Rural areas (Remainder of Springbank, Elbow Valley, areas around Bragg Creek)
Neighbouring Communities	<ul style="list-style-type: none">• Cochrane• Calgary
Amenity Areas	<ul style="list-style-type: none">• West Bragg Recreation Area• Glenbow Ranch Provincial Park• Elbow River• Weaselhead (in the City of Calgary)

of appropriate crossings of the TUC. The proposed West Ring Road interchanges at 17 Avenue SW / Township Road 242 and Old Banff / Springbank Road have ramps on the south side of West Ring Road crossings. This will allow a shared-use pathway or other active transportation facility to be developed on the north side of the road with no interaction with freeway ramps. By contrast, the Bow Trail crossing of the West Ring Road will include ramps in all four quadrants, some at high speed, which are uncomfortable for cyclists and pedestrians to cross.

Highway 22 is the primary north-south route within the County. With a lower level of traffic stress than many of the other roads, it has higher cycling use than many other roadways. It is the only continuous north-south route, and is the only crossing of the Elbow River. It provides access to Cochrane to the north and is the connection between Bragg Creek and the rest of the County. Range Road 33 provides a north-south connection in Springbank and, most importantly, between the schools and recreation centre.

The priority corridors and needs for the Bow

River Plains are summarized in Table 3.

There are several destinations within and adjacent to the Bow River Plains that can be accessed with longer-distance active transportation links. Chestermere includes a range of services and amenities that are not available in the County. Similarly, Calgary supports a high proportion of employment in the region. Within the Bow River Plains, there is a potential cycling desire line between Langdon and the Indus Recreation Centre. Janet is an emerging employment centre within the region and could be a commuting destination, particularly for those commuting from Langdon.

There other destinations and corridors that are opportunities to create pleasant active transportation corridors. There is an opportunity to extend the existing Western Irrigation District Canal southward to provide access to Langdon (along with Township Road 233), to Indus (with connections along Range Road 275, Township Road 230 and Highway 791). Weed Lake east of Langdon may be a popular destination and an appropriately-placed shared-use pathway could create a loop that is easily accessed from Langdon. Although distant from Langdon and other populated areas, McKinnon Flats is a popular destination and could be a destination for day trips by bike. Chestermere Lake is approximately 11 kilometres from Langdon and seven kilometres from Conrich (straight-line distance) and could be accessed by bicycle from these communities with the appropriate facilities.

Table 3: Bow River Plains priority connections

Bow River Plains Communities	<ul style="list-style-type: none"> • Langdon • Conrich • Janet • Indus
Neighbouring Communities	<ul style="list-style-type: none"> • Chestermere • Calgary
Amenity Areas	<ul style="list-style-type: none"> • Chestermere Lake • Weed Lake Complex • McKinnon Flats

MAP 7. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

ELBOW RIVER RANCH LANDS IDENTIFIED NEEDS

ACTIVE TRANSPORTATION INFRASTRUCTURE

Identified Gap

- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed

LAND USE

- Developed Rural Core
- Outer Developed Rural
- Basic Rural

ROAD NETWORK

- Primary Hwy
- Secondary Hwy
- Major
- Collector

OTHER FEATURES

- Plan Area
- Municipal Boundaries
- Rocky View County
- Water Feature

The plan areas shown
are consistent with the
Parks and Open Space
Master Plan regions

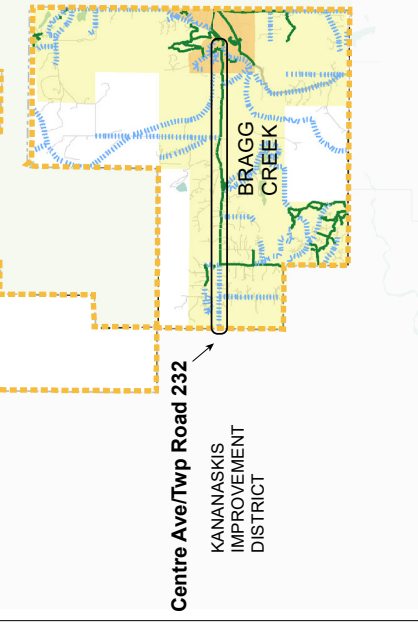
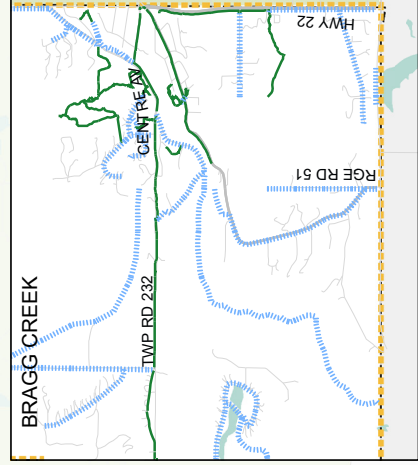
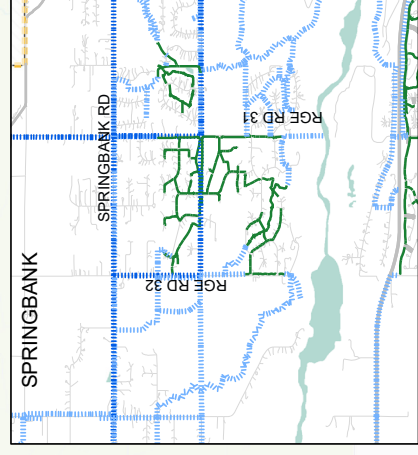
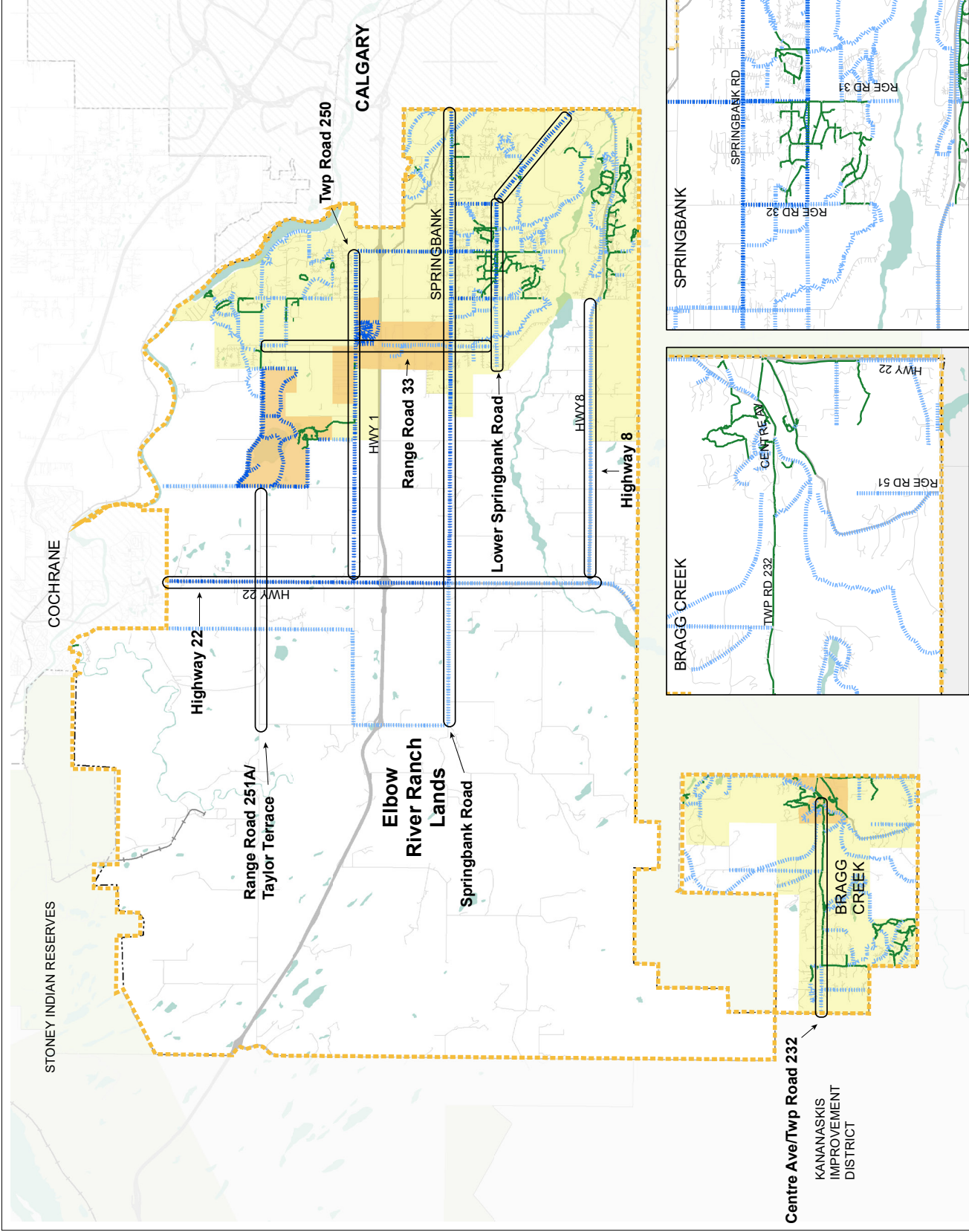


0 2 4
KILOMETRES

1 centimetre = 1,250 metres



Data provided by Rocky View County, City of Calgary,
Town of Cochrane, AltaLis, and Statistics Canada.
Map produced July 2018.



MAP 8. ROCKY VIEW COUNTY ACTIVE TRANSPORTATION PLAN

BOW RIVER PLAINS IDENTIFIED NEEDS

ACTIVE TRANSPORTATION INFRASTRUCTURE

- Identified Gap
- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed

LAND USE

- Developed Rural Core
- Outer Developed Rural
- Basic Rural

ROAD NETWORK

- Primary Hwy
- Secondary Hwy
- Major
- Collector

OTHER FEATURES

- Plan Area
- Municipal Boundaries
- Rocky View County
- Water Feature

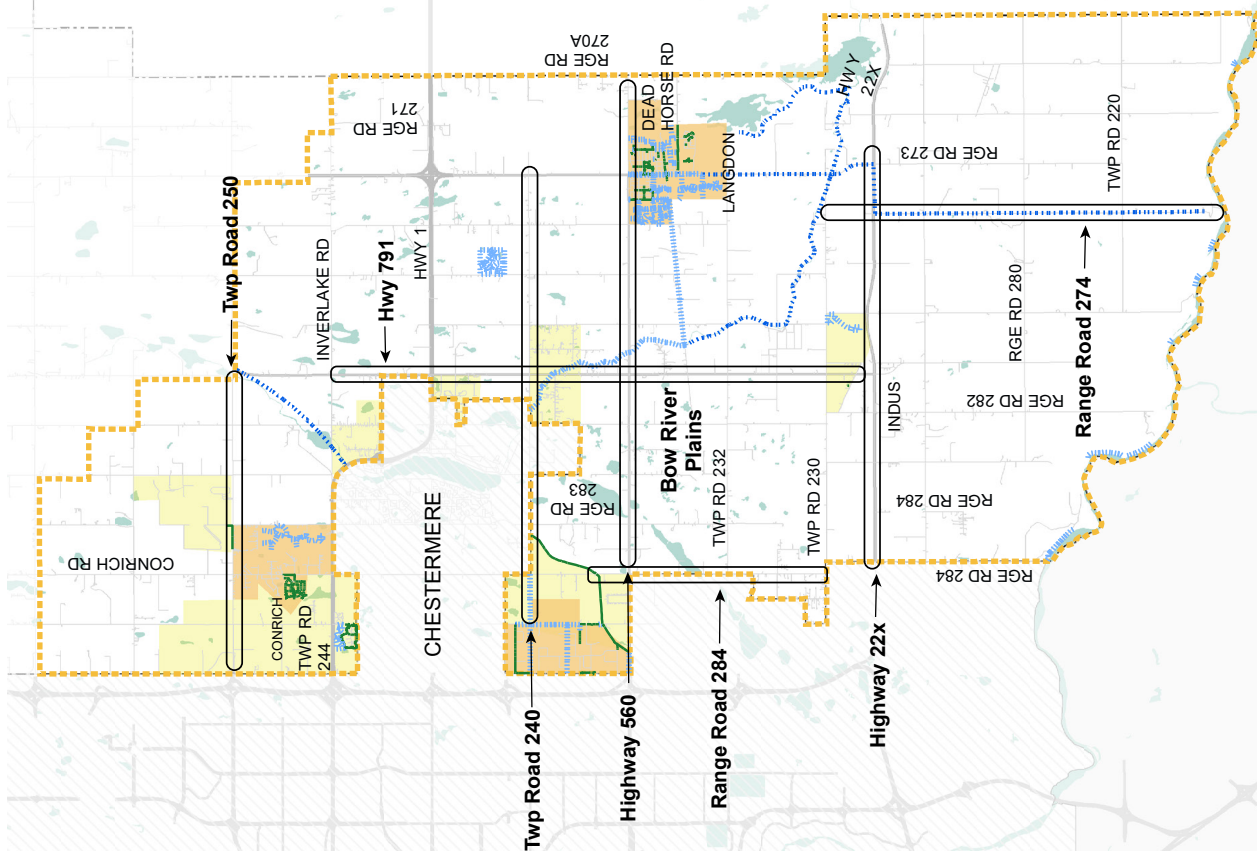
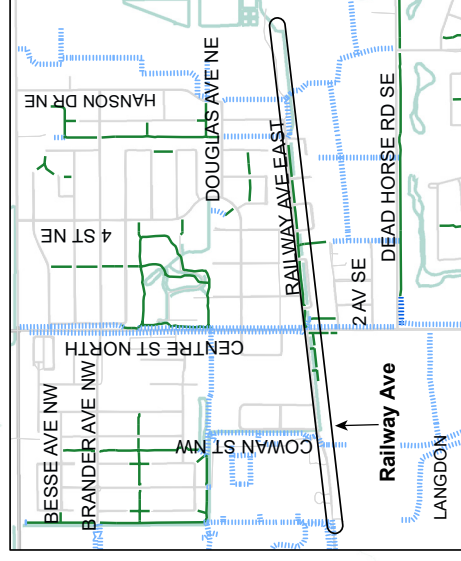
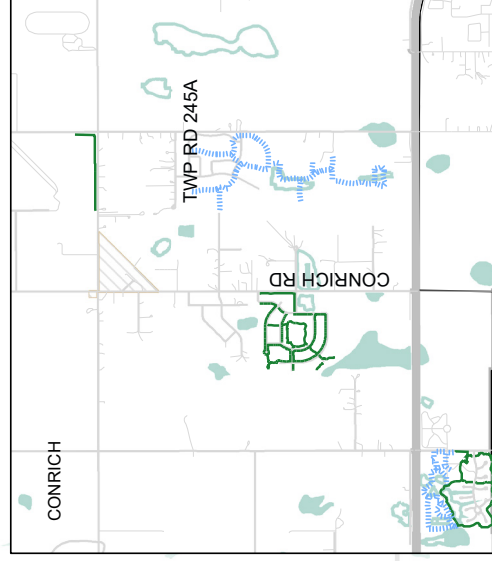
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The plan areas shown
are consistent with the
Parks and Open Space
Master Plan regions



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KILOMETRES
1 centimetre = 1,600 metres



Date provided by Rocky View County, City of Calgary,
Town of Cochrane, Airdrie, and Statistics Canada.
Map produced July 2018.



CHAPTER 4

Active Transportation Network

This chapter provides the following information:

- Facility Design Toolbox
- Facility Selection Matrix
- Network Recommendations (5-year timeframe)
- Area Specific Plan Recommendations (5-year timeframe)

The recommended active transportation network for Rocky View County is comprised of on-street bicycle facilities, shared-use pathways and dedicated pedestrian facilities. The recommendations are context sensitive to land use, probable user types, and local conditions. In Chapter 2, the land use in Rocky View County was organized into three types based on those described in the FHWA Small Town and Rural Multimodal Networks Guide. Connections in Developed Rural areas are described in area plans, while Outer Developed Rural and Basic Rural recommendations are included in the generalized network recommendations.

FACILITY DESIGN TOOLBOX

The Rocky View County Plan (2013) policies 12.7 and 12.11 identify a need for guidelines on facility types and treatments in Rocky View and guidance on where types of facilities should be implemented. The facility design toolbox provides a summary of the facilities that are recommended as part of this plan and into the future for Rocky View. The facility design guidelines (Appendix A) builds on the toolbox with more detail about design considerations and various treatment options. The toolbox and design guidelines were developed for Rocky View using existing best practice guidelines such as the FHWA Small Town and Rural Multimodal Networks Guide

(2016) and the Transportation Association of Canada Geometric Design Guide for Canadian Roads (2017) while also considering the context of Rocky View County.

The toolbox organizes facilities by the context they should be applied in, shown in Table 4.

Table 4: Facilities in the toolbox by context

Rural	Urban
<ul style="list-style-type: none"> • Paved Shoulder • Bicycle Lane • Advisory Lane • Pedestrian Lane • Shared-Use Pathway 	<ul style="list-style-type: none"> • Bicycle Lane • Buffered Bike Lane • Protected Bike Lane • Bicycle Boulevard • Advisory Lane • Yield Roadway • Sidewalk • Shared-Use Pathway

Design Guidelines

As part of the Kern Region Active Transportation Plan (2017, California), Arapahoe County Bicycle and Pedestrian Master Plan (2017, Colorado), and Halton Region Active Transportation Plan (2015, Ontario) design guidelines were developed to provide technical guidance on the types of infrastructure recommended as part of the plan. Design guidelines are helpful for establishing standards based on context.

The toolbox includes a description of the facility and the recommended roadway characteristics for the application of the facility. The roadway characteristics that are used for the application are motor vehicle volumes, posted speed limit, and are complimented by other application considerations.

Detailed guidance on the construction recommendations for these facility types is found in the Design Guidance, in Appendix A.

Rural Areas



Rocky View County, AB. Image: Alta Planning + Design

PAVED SHOULDER

A shoulder is a paved area outside the general-purpose travel lanes delineated by a continuous white line. Located on rural roadways, shoulders suitable for active transportation should be at least 1.5 metres wide and may include bicycle and/or pedestrian-oriented signing and striping. If the shoulder also serves as a breakdown lane for motor vehicles, there should be an additional unpaved portion of approximately 2.4 metres so that disabled vehicles would not block people from walking or bicycling in the shoulder. Parking for motor vehicles in the shoulder should be discouraged. Shoulders may include buffers or rumble strips to discourage motor vehicles from straying into the shoulder.

RECOMMENDED APPLICATION

- Appropriate on rural roads with low to medium volumes, and medium to high speeds
- Posted speed 50 to 80 km/hr
- ADT >1,000 veh/day to <4,000 veh/day (or the road is part of a known cycling route)
- Rural areas (TAC sets density of <400 persons/km²)

Rural Areas



Bow Valley Trail, Canmore, AB. Image: HDR

BICYCLE LANE

Bicycle lanes designate an exclusive space for cyclists distinct from motor vehicle lanes. Bicycle lanes are marked with a solid white line between the vehicle lane and the bicycle lane and include a bicycle stencil, diamond, and are marked with dedicated signs. Located directly adjacent to motor vehicle travel lanes, bicycle lanes follow the same direction of travel. Bicycle lanes can accommodate cycling on roads without a curb and gutter. Where space is available, painted buffer areas can further distance the bike from the adjacent motor vehicle travel lanes.

RECOMMENDED APPLICATION

- Used in rural or urban areas with low to medium average daily traffic (ADT) and high bicycle volumes
- Posted speed is <50 km/hr
- ADT <4,000 veh/day

Rural Areas



Hanover, NH, USA. Image: FHWA Small Town and Rural Multimodal Networks Design Guide pg 2-23

ADVISORY LANE

Advisory lanes include a single bi-directional travel lane for motor vehicles bordered by shoulders. The shoulders are separated from the vehicle travel lanes by dashed white lane lines. When vehicles traveling in opposite directions meet, motorists enter the advisory shoulder to pass. This facility type better accommodates active transportation users within a constrained roadway width. On-street parking is not allowed within advisory bike lanes. However, if an adjacent parking lane is provided, it should be delineated by a solid white stripe and optionally marked with signage.

RECOMMENDED APPLICATION

- Most appropriate on streets with low to moderate motor vehicle volumes and speeds
- Posted speed <50 km/hr
- ADT <2,500 veh/day
- Narrow roadways ≤ 11.1 m

Rural Areas



Detroit, OR, USA. Image: Alta Planning + Design

PEDESTRIAN LANE

Pedestrian lanes provide interim or temporary pedestrian accommodations on roadways lacking sidewalks. Pedestrian lanes are not intended as an alternative to sidewalks and are often used to fill short gaps between higher quality facilities. Use a PED ONLY pavement marking to indicate exclusive pedestrian use.

RECOMMENDED APPLICATION

- May be appropriate on rural roads with low to moderate speeds and volumes
- Appropriate for interim or temporary pedestrian accommodation in areas without sidewalks
- Posted speed is <40 km/hr
- ADT <2,500 veh/day

Rural Areas



Winnipeg, AB. Image: Alta Planning + Design

SHARED-USE PATHWAYS

Shared-use pathways are physically separated from motor vehicles by a large buffer or barrier and provide sufficient width and supporting facilities to be used by cyclists, pedestrians, and other non-motorized users. Shared-use pathways are generally paved and ideally at least three metres wide. Pathways should also have 0.6 metres of clear shoulders to offer adequate maneuvering space and visibility and to reduce potential for user conflicts at crossing or curves.

RECOMMENDED APPLICATION

- Provision may be based on opportunity/connectivity rather than roadway context
- Posted speed >40 km/hr
- ADT > 4,000 veh/day
- Areas with high pedestrian or bicycle volumes

Urban Areas



Coquitlam, BC. Image: HDR

BICYCLE LANE

Bicycle lanes designate an exclusive space for cyclists distinct from motor vehicle lanes. Bicycle lanes are marked with a solid white line between the vehicle lane and the bicycle lane and include a bicycle stencil, diamond, and are marked with dedicated signs. Located directly adjacent to motor vehicle travel lanes, bicycle lanes follow the same direction of travel. Bicycle lanes can be retrofitted onto roadways by road diets, which reduce the number of travel lanes and/or reallocate space to better accommodate active transportation.

RECOMMENDED APPLICATION

- Used in rural or urban areas with low to medium average daily traffic (ADT) and high bicycle volumes
- Posted speed is <50 km/hr
- ADT <4,000 veh/day

Urban Areas



Burlington, ON. Image: Alta Planning + Design

BUFFERED BIKE LANE

Buffered bicycle lanes are an exclusive space for cyclists separated from motor vehicle lanes by solid white lane lines with gored pavement markings. Buffered bike lanes are indicated with a bicycle stencil and a diamond and are marked with dedicated signs. Located directly adjacent to motor vehicle travel lanes, buffered bike lanes follow the same direction of travel. The painted buffer areas distance the bicyclist from the adjacent motor vehicle travel lane.

RECOMMENDED APPLICATION

- Used in urban areas with low to medium average daily traffic (ADT) and high bicycle volumes
- Posted speed is <60 km/hr
- ADT <7,000 veh/day

Urban Areas



Kelowna, BC. Image: Alta Planning + Design

PROTECTED BICYCLE LANE

A protected bicycle lane, also called a cycle track, is a bicycle exclusive facility located within or directly adjacent to the roadway. Cycle tracks increase the distance between vehicle traffic and cyclists by including a physical separation from vehicle traffic with a vertical element. This physical separation can include a raised curb or median, flexible delineators and painted buffer, or painted buffer and parked vehicles.

RECOMMENDED APPLICATION

- Used in urban areas with high vehicle volumes and speeds, and high bicycle volumes
- Transition areas into towns with higher speeds
- Posted speed is >40 km/hr and <80 km/hr, since a protected facility is not required for speeds lower than 40 km/hr

Urban Areas



Vancouver, BC. Image: Alta Planning + Design

BICYCLE BOULEVARD

Neighbourhood greenways include a range of traffic calming treatments to improve conditions for cyclists and pedestrians on local streets. This typically includes signage and pavement markings and varying degrees of vehicle speed and volume management. Potential traffic calming infrastructure includes speed humps, cushions or tables, traffic circles, lateral shifts (chicanes), or diverter median islands.

RECOMMENDED APPLICATION

- Appropriate on local streets with low volumes and low speeds. Speed and volumes may be managed to create desired operating conditions
- Posted speed <40 km/hr
- ADT <2,500 veh/day. Ideal volumes are around ≤1000 veh/day

Urban Areas



Gibsons, BC. Image: Alta Planning + Design

ADVISORY LANE

Advisory lanes include a single bi-directional travel lane for motor vehicles bordered by shoulders. The shoulders are separated from the vehicle travel lanes by dashed white lane lines. When vehicles traveling in opposite directions meet, motorists enter the advisory shoulder to pass. This facility type better accommodates active transportation users within a constrained roadway width. On-street parking is not allowed within advisory bike lanes. However, if an adjacent parking lane is provided, it should be delineated by a solid white stripe and optionally marked with signage.

RECOMMENDED APPLICATION

- Most appropriate on streets with low to moderate volumes and moderate speed motor vehicles
- Posted speed of <50 km/hr
- ADT <4,000 veh/day, ideally <2,500 veh/day
- Narrow roadways ≤ 11.1 m

Urban Areas



Manaznita, OR, USA. Image: FHWA Small Town and Rural Multimodal Network Design Guide, pg. 2-7

YIELD ROADWAY

Yield roadways are designed to serve pedestrians, cyclists, and motor vehicle traffic in the same low-speed travel area. They serve bidirectional motor vehicle traffic without roadway markings in the travel area. Roadway lanes should be narrow to encourage slow travel speeds and require courtesy yielding when vehicles traveling opposite directions meet.

RECOMMENDED APPLICATION

- Most appropriate on streets with low to moderate volumes and moderate speed motor vehicles
- Posted speed of <40 km/hr
- ADT <2,5000

Urban Areas



Langdon, AB. Image: Alta Planning + Design

SIDEWALK

Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible. They are physically separated from the roadway by a curb or unpaved buffer space.

RECOMMENDED APPLICATION

- Recommended on all but the most low-speed and low-volume roadways

Urban Areas



SHARED-USE PATHWAYS

Shared-use pathways are physically separated from motor vehicles by a large buffer or barrier and provide sufficient width and supporting facilities to be used by cyclists, pedestrians and other non-motorized users. Shared-use pathways are generally paved and ideally at least three metres wide. Pathways should also have 0.6 metres of clear shoulders to offer adequate maneuvering space and visibility, and to reduce potential for user conflicts at crossing or curves.

RECOMMENDED APPLICATION

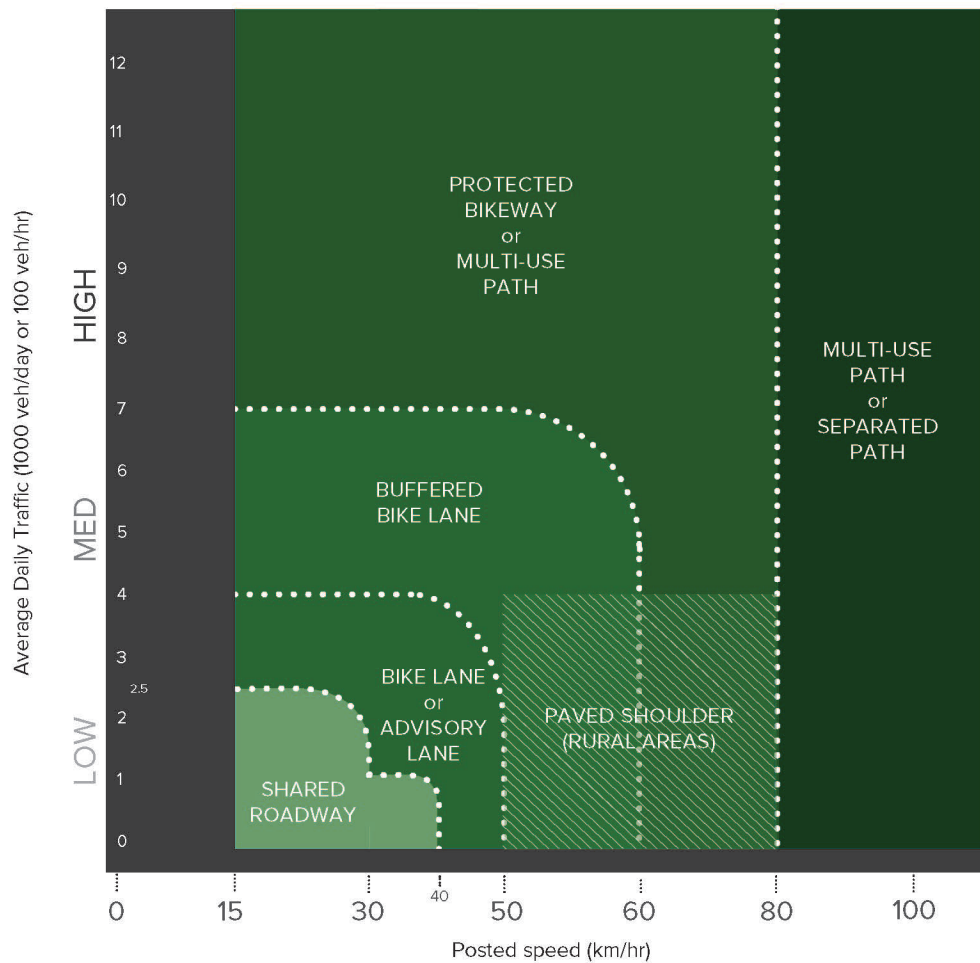
- Provision may be based on opportunity/ connectivity rather than roadway context
- Posted speed >40 km/hr
- ADT > 4,000 veh/day
- Areas with high pedestrian or bicycle volumes

FACILITY SELECTION

Figure 13 shows the relationship between roadway type and recommended bicycle facility types. As a general rule of thumb, increasing roadway speeds and motor vehicle volume require increasing modal separation to achieve comfortable active

transportation travel conditions for most potential users. This figure provides a reference for planners, designers, and the public for determine what type(s) of active transportation facilities can be used within a given corridor.

Figure 13: Rocky View County bicycle facility selection tool Note: Shared roadways includes: Bike boulevard, yield roadway, pedestrian lane, and advisory lane



SHARED ROADWAY includes:
BIKE BOULEVARD, YIELD ROADWAY,
PEDESTRIAN LANE, AND ADVISORY LANE

NETWORK RECOMMENDATIONS

The following section describes the active transportation network for the Elbow River Ranch Lands and the Bow River Plains. More detailed networks in Bragg Creek, Springbank, and Langdon areas reflect the short distance, day-to-day needs within these communities. The longer-distance networks show connections between communities and other destinations.

These networks represent the backbone corridors of the broader network, which also includes local trails and pathways (existing, proposed, and approved). Most recommended network elements have been included in previous plans or are among those trails and pathways previously identified as adopted or proposed. However, the adopted and proposed trails and pathways include facilities that extend beyond primary active transportation needs and, in many cases, represent local facilities that will connect to the backbone corridors. Exclusion of a particular corridor or facility, particularly those that have previously been proposed or approved from these networks does not imply that they should not be

developed or are not important, only that they do not represent the near-term priorities set forth as part of the backbone for the active transportation network.

The corridors are designated as on-street or off-street, and in some cases a combination of both. On-street corridors are either on low volume/low speed roadways or are priorities for development as connections for confident cyclists. Corridors designated as off street should include separation of pedestrians and/or cyclists from vehicle traffic. Where a corridor includes both on- and off-street facilities, there is a desire to separate high speed cyclists from pedestrian and less confident cyclists.

Highway 791 in Bow River Plains. Image: Alta Planning + Design



AREA-SPECIFIC PLAN RECOMMENDATIONS

BRAGG CREEK

The proposed network is shown on Figure 14 and includes:

- Cycling and pedestrian improvements along and across Balsam Avenue and Whyte Avenue
- Designation of active transportation space on Two-Pines Drive
- Upgrades to the West Bragg Creek Trail from the Centre Avenue Bridge over the Elbow River to the bridge at Bragg Creek west of Echlin Drive so that it can accommodate a full range of pedestrians and cyclists

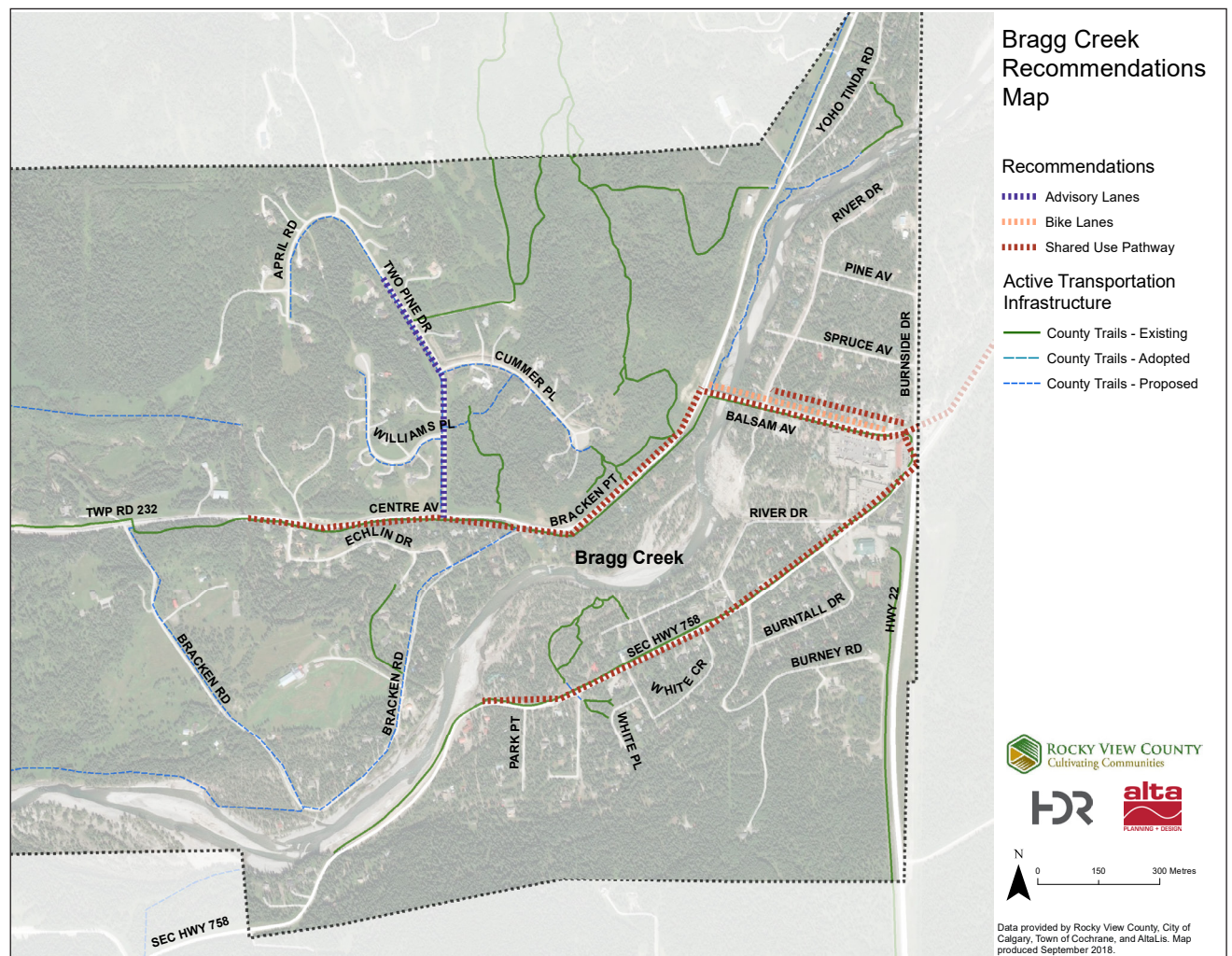


Figure 14: Bragg Creek proposed network

SPRINGBANK

The Springbank area has several local pathways and trails that provide connections within individual neighbourhoods. The initial active transportation network, shown in Figure 15, provides a continuous route through Springbank for various user types and allows some of the existing local pathways and trails to connect to a broader network. The Springbank Trails and Pathways Association (STAPA) have proposed a much broader network of facilities in Springbank. The network shown in Figure 15 and Map 9 is considerably less comprehensive than the STAPA proposals as it is focused on the initial active transportation network only. It does not conflict, nor preclude future

development of other network components as proposed by STAPA. Key features of the Springbank active transportation network in this area include:

- Recognition of the popularity of the area for experienced, high-speed cyclists with on-street corridors identified on Springbank Road, Twp Road 250, Range Road 33, Old Banff Coach Road, Range Road 31, and Lower Springbank Road
- Off-street corridors on Range Road 252, connecting to a corridor along the Bow River to the south to the City Calgary future pathway
- Off-street corridors through Harmony, along Twp Road 252 from Harmony to Calling Horse Drive, north to a new active transportation

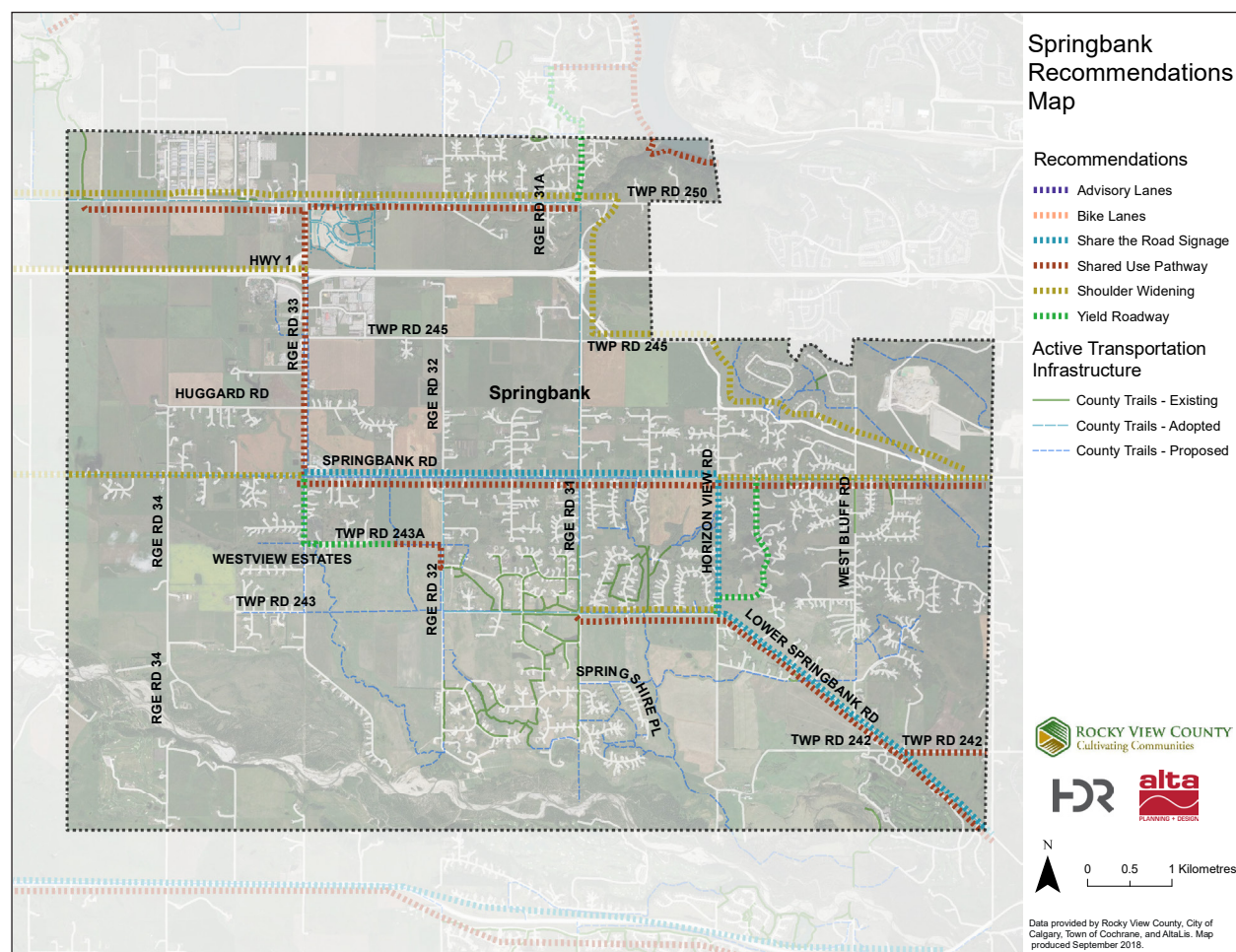


Figure 15: Springbank proposed network

corridor south of the golf course extending east to the corridor along the Bow River to create an off-street loop for recreational use and a comfortable connection between neighbourhoods

- Off-street corridor along Range Road 33, extending south to Twp Road 243A, then continuing east with a combination of new active transportation corridors and corridors along existing streets to Horizon View Road where it splits north to Springbank Road and south along Lower Springbank Road, providing a continuous connection between Harmony and Springbank through to the Calgary network

LANGDON

The Langdon network is the most complex of the communities in the plan area and has the most diverse group of pedestrians and cyclists, representing a range of ages, abilities, and trip purposes. The network is shown on Figure 16 and includes the following new corridors to support the existing pathways and sidewalks:

- Combined on-street and off-street corridor along the full length of Centre Street in Langdon, including provisions for crossing Centre Street and creating a more comfortable environment

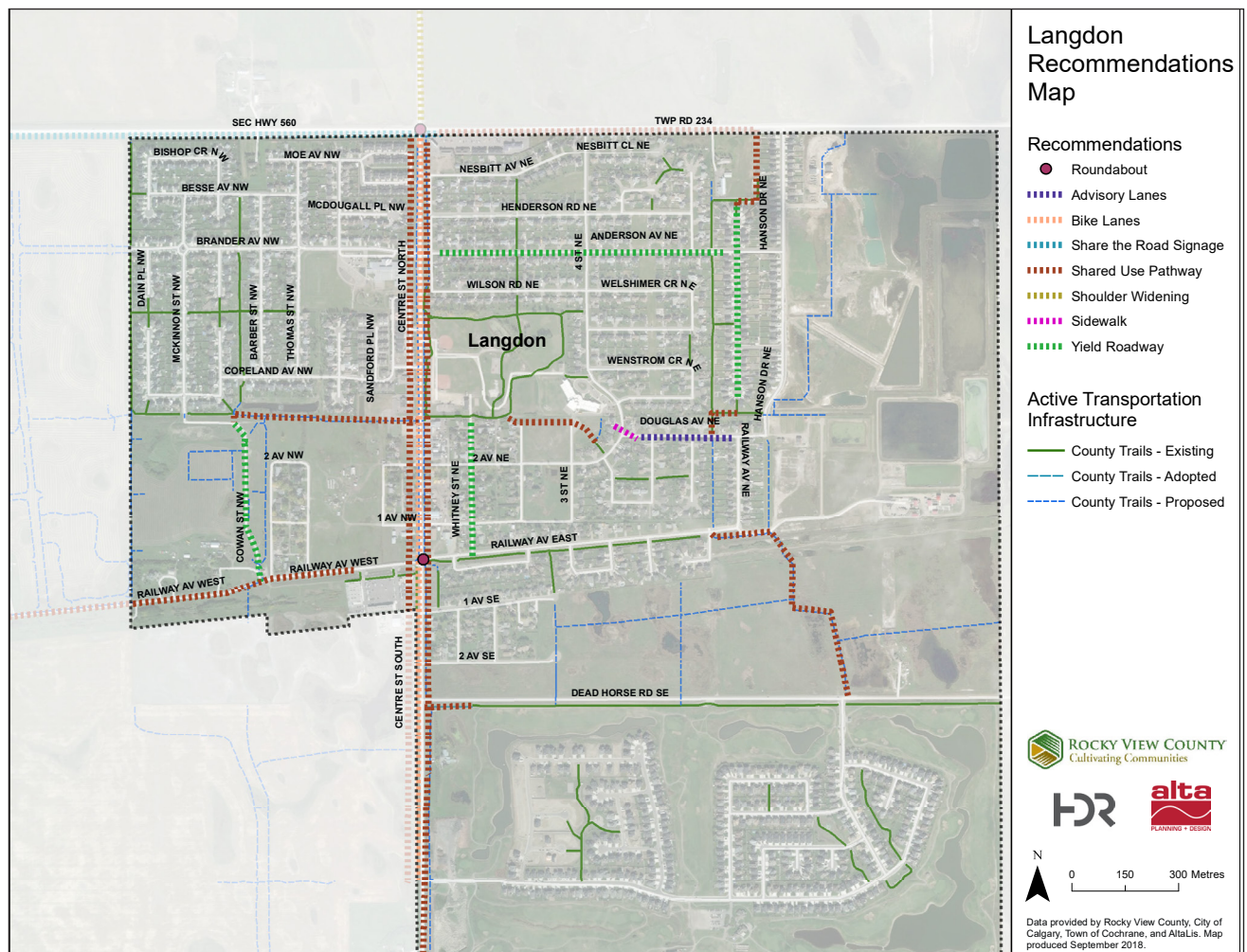


Figure 16: Langdon proposed network

- New on-street treatments to better support pedestrians and cyclists, with a focus on connections to school on 4 Street, Anderson Avenue, Douglas Avenue, Railway Avenue, Whitney Street, and Cowan Street
- Off-street corridors connecting Boulder Creek to Railway Avenue and in other key locations to make missing connections

FULL NETWORK

The South County Network is shown on Maps 9 and 10. Within the Elbow River Ranch Lands, it includes components of the future Trans Canada Trail (TCT) along Highway 8 and Highway 22 south of Highway 8, as well as into Cochrane north of Township Road 252. The section between Highway 8 and Township Road 252 has not been included in the initial network as an off-street corridor because it does not represent a priority connection for Rocky View County. However, it remains an important TCT connection and

A view of the mountains from Range Road 33. Image: Alta Planning + Design



should funding become available through TCT sources, an off-street connection along the full length of the TCT should be considered.

In the Bow River Plains, new off-street corridors along the WID Canal and into the Weed Lake complex and south to Indus, combined with an off-street corridor along Railway Avenue will provide comfortable off-street connections between Langdon and most other destinations. The cities of Calgary and Chestermere are undertaking plans for Conrich Road (Range Road 284)

that are expected to include off-street active transportation facilities. Corridors that make use of Conrich Road will provide north-south connectivity.

McKinnon Flats in the Bow River Plains Area. Image: Alta Planning + Design



MAP 9. ELBOW RIVER RANCH LANDS RECOMMENDATIONS MAP

Recommendations

- Crossing Study
- Advisory Lanes
- Bike Lanes
- Share the Road Signage
- Shared Use Pathway
- Shoulder Widening
- Yield Roadway

Active Transportation Infrastructure

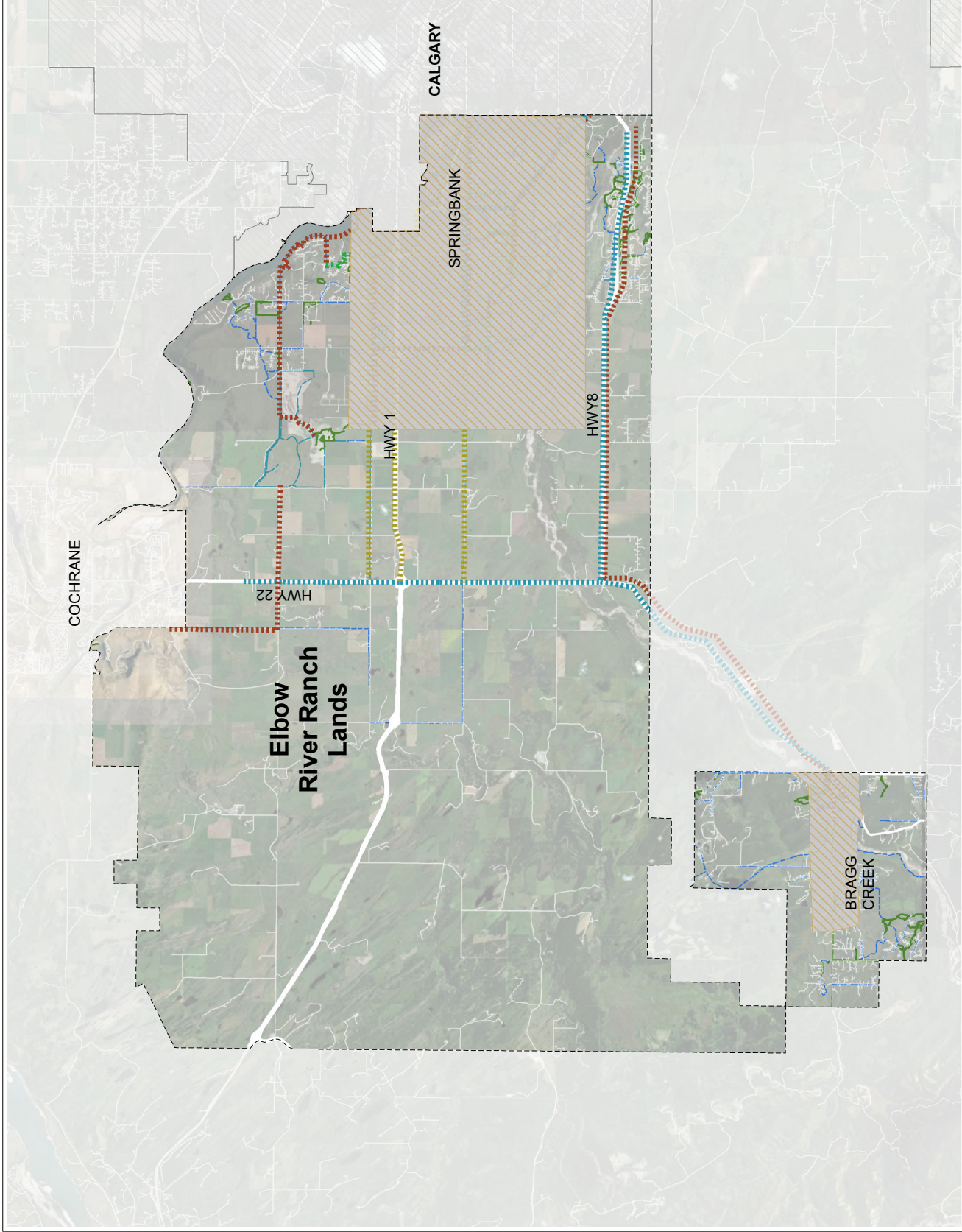
- County Trails - Existing
- County Trails - Adopted
- County Trails - Proposed



1 centimetre = 1,255 metres










Data provided by Rocky View County, City of Calgary, Town of Cochrane, Atlas, and Statistics Canada. Map produced July 2018.






MAP 10. BOW RIVER PLAINS RECOMMENDATIONS MAP

Recommendations

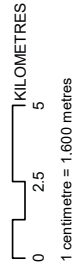
-  Crossing Study
-  Advisory Lanes
-  Bike Lanes
-  Share the Road Signage
-  Shared Use Pathway
-  Shoulder Widening
-  Yield Roadway

Active Transportation Infrastructure

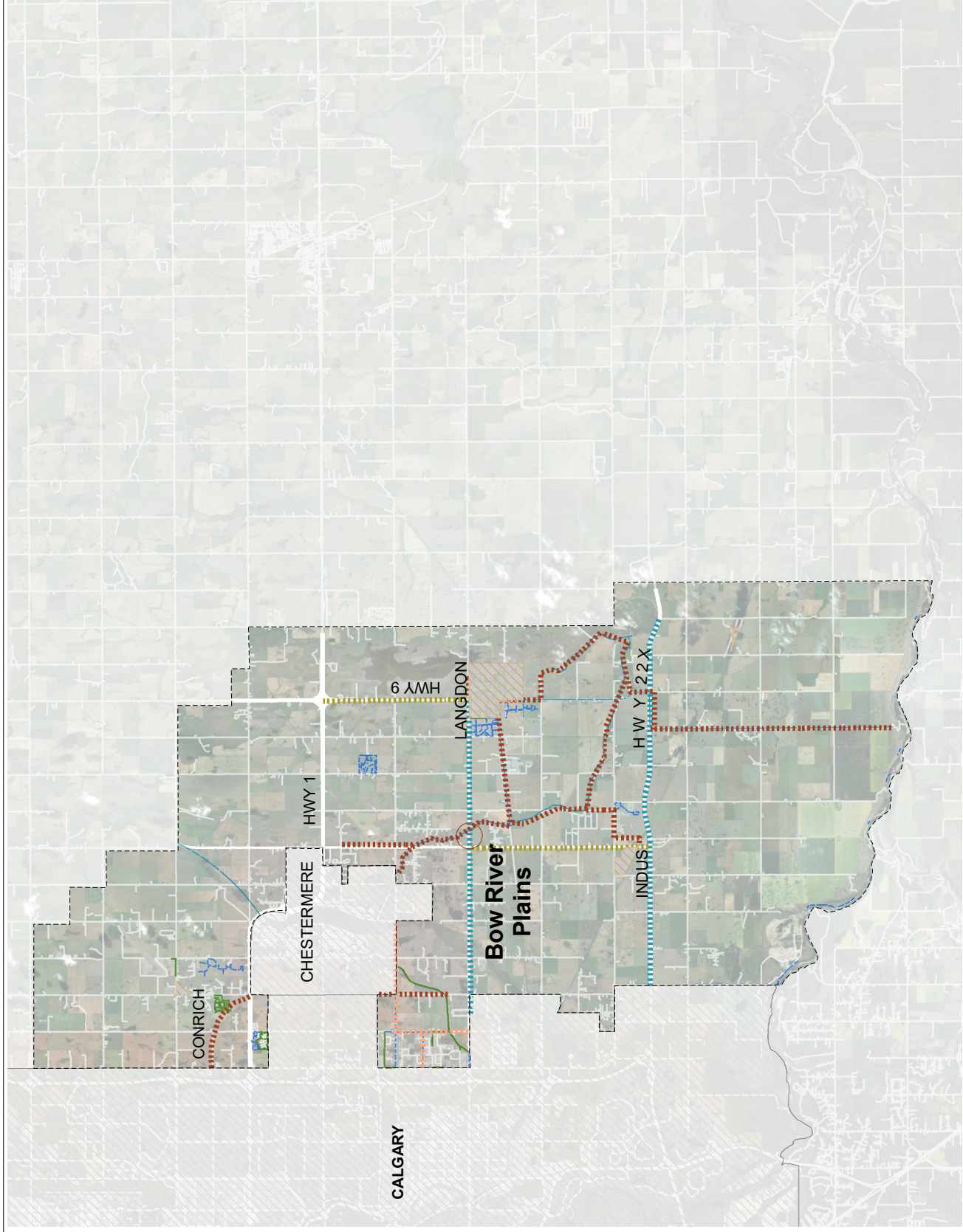
-  County Trails - Existing
-  County Trails - Adopted
-  County Trails - Proposed



The plan areas shown
are consistent with the
Parks and Open Space
Master Plan regions



Data provided by Rocky View County, City of Calgary,
Town of Cochrane, Atlas, and Statistics Canada.
Map produced July 2018.



CHAPTER 5

Implementation

With the development of the ATPSC, Rocky View County is at a turning point. Previous plans and trail construction efforts have resulted in a discontinuous active transportation network. The recommendations set forth in this plan build upon previous planning efforts and identify a complete and continuous network along with accompanying program and policy recommendations. The recommendations are divided into a set of steps to be undertaken in the near term and then a longer list of recommendations that can be accomplished opportunistically. This section concludes with a high level discussion of funding sources that can be used to implement recommendations.

NEAR-TERM PRIORITY

The steps included here build upon each other and are intended to build Rocky View County's capacity to build, educate, and encourage visitors and residents to walk and cycle. The recommendations outlined in the seven steps below include a balance of infrastructure, programs and policies that provide a balanced, holistic approach to plan implementation. A general description of each step is identified in the table and details are provided in the accompanying text. Each of these steps require further budget development and council approval prior to expenditure of funds.

STEP 1 – DEVELOP ENABLING POLICIES AND PROCEDURES

Before making significant investments, Rocky View County needs to clarify organizational responsibilities and update current policies and procedures to facilitate ATPSC implementation.

1a. Active Transportation “Champion”

Currently, there is no clear staff position responsible for active transportation. An internal staff “champion” can continue to make active transportation a priority and support the various RVC departments that will be involved with the plan implementation. At this time, it is unlikely that the County

Table 5: Step 1 tasks/actions

Task / Action	Type	RVC Responsibility
1a – Identify RVC Active Transportation “Champion”	Policy	RVC Senior Management
1b – Pathway Development Guideline and County Servicing Standards	Policy	RVC Engineering
1c – Classify Active Transportation Facilities as Transportation Infrastructure	Policy	RVC Council / Management
1d - 30 km/h zones on identified active transportation streets	Policy	RVC Operations
1e - Update maintenance policies and procedures to support active transportation	Policy	RVC Operations

can support a full-time active transportation position and therefore this would need to be a new responsibility for an existing position. This individual could come from one of many departments but understanding of project development implementation will be important. A reporting structure and responsibilities description will depend on the responsible department.

1b. Pathway Development Guideline and County Servicing Standards

All upgrades to active transportation facilities or development of new active transportation facilities, whether undertaken by the County, private entity, or community group, will refer to the Rocky View County Active Transportation Facility Development Guidelines. The County Servicing Standards will need to be updated and expanded active transportation facilities and reference the Active Transportation Facility Design Guidelines. The Pathway Development Guidelines included in Appendix F provides guidance for planning and engineering requirements associated with pathway development and upgrading to minimize feasibility, cost and constructability risks.

1c. Classify Active Transportation Facilities as Transportation Infrastructure

Designate active transportation facilities as identified in the ATPSC as capital infrastructure projects. Alignment with the ATPSC should be a consideration in the prioritization scoring. Similar to the Storm Drainage Improvements Policy, develop a process to identify improvements to support active transportation with a value under \$400,000. Update the Annual Road Program policy to reference active transportation

Policy Recommendations

The Arapahoe County Bicycle and Pedestrian Master Plan (2017, Colorado) in addition to defining an active transportation network, recommended policies to support and develop active transportation. Some recommended policies were accompanied by strategies to help direct the implementation of the policy. Examples of policies included publishing a bike and walking map or implementing a wayfinding signage program, both of which support active transportation.

facilities and include on-street active transportation improvements referenced in the active transportation network in the Annual Road Program.

1d. 30 km/h Zones on Identified Active Transportation Streets

The County Servicing Standards indicate that any school or playground zone must have a posted speed of 30 km/h, but there are currently no provisions for accommodating 30 km/h zones on other streets. It is recommended that the 30 km/h requirement for school and playground zones be expanded to shared space streets that have been designated in the ATPSC as Yield Roadways, Advisory Lanes, or Bike Boulevards. This would not apply to streets not identified as part of the ATPSC network or to other active transportation facility types such as bike lanes.

1e. Maintenance Policies and Procedures

The following updates should be considered to support active transportation:

- Identify key active transportation facilities or off-street pathways as “all-season” and designate as priorities for snow and ice control through and update to the Snow and Ice Control policy
- Include budget items to allow for the monitoring, development, and maintenance of active transportation facilities as part of the County’s transportation system
- Prioritize street sweeping in the spring on urban roads and rural subdivision roads that are included in the active transportation network and expand the sweeping of rural non-residential roads to include annual spring sweeping of those included in the active transportation network. An operating budget should be developed for this activity
- Expand the Sidewalk Maintenance policy to include pathways and other facilities designated as part of the active transportation network within hamlets
- Develop an app or other method to allow users to report maintenance issues on active transportation facilities

STEP 2 – IMPLEMENT CONNECTIONS AND PROGRAMS TO SUPPORT ACTIVE SCHOOL TRAVEL IN LANGDON

Walking and cycling are already important modes for travel to and from schools in Langdon. But, the lack of sidewalks and cycling facilities in many areas of the hamlet may discourage some walking or cycling trips. The workshop with grade nine students at Langdon School as well as other analysis and feedback, revealed a number of potential priority issues for active school travel in Langdon.

2a. Yield Roadways on Anderson Avenue and Whitney Street

Yield Roadways involve minimal investment, limited primarily to signage and education (see the final task for Step 2). Both streets are important routes to school and in many ways already function as yield roadways at the end of the school day. Designation as Yield Roadways will include reducing the posted speed to 30 km/h and adding share the road signage and shared lane pavement markings.

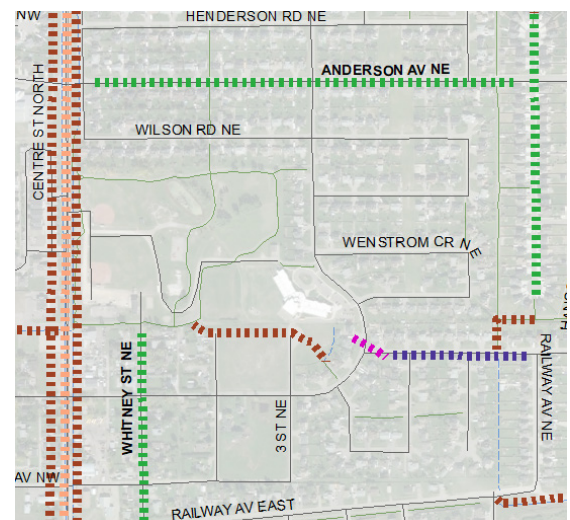


Figure 17: Map showing near-term priority step 2a

Table 6: Step 2 tasks/actions

Task / Action	Type	RVC Responsibility
2a – Yield Roadways on Anderson Ave and Whitney St	Project	RVC Engineering / Operations
2b – Advisory Lanes on Douglas Ave	Project	RVC Engineering / Operations
2c – Extend 2nd Ave sidewalk from school to Douglas Ave	Project	RVC Engineering / Capital Projects
2d – Shared-Use Pathway from Boulder Creek Dr to south end of Railway Ave	Project	RVC Capital Projects (potentially partnered with developer)
2e – Langdon Active and Safe Routes to School	Program	RVC Planning / Rocky View Schools

2b. Advisory Lanes on Douglas Avenue

With relatively few driveways on Douglas Avenue and low on-street parking demand, removal of on-street parking to allow advisory lanes will have minimal disruption. Implementation will include reducing the posted speed to 30 km/h, adding signage and pavement markings, and providing education on how advisory lanes work.

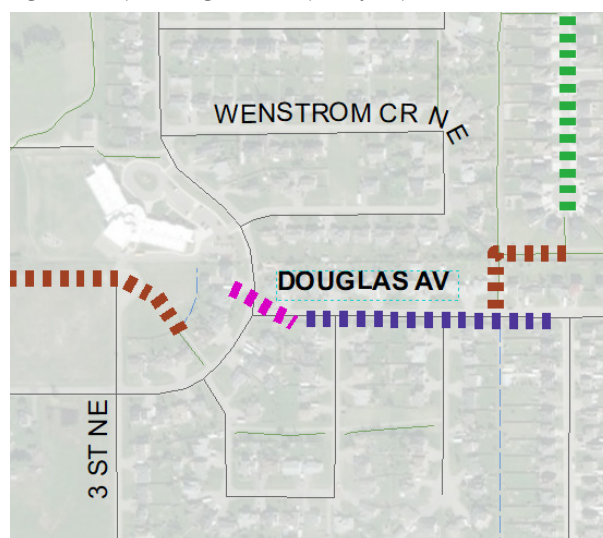
2c. Extend 2nd Avenue Sidewalk from School to Douglas Avenue

The sidewalk along 4 Street NE currently ends at the Sarah Thompson Elementary School property line. This project will extend the sidewalk approximately 60 metres south to Douglas Avenue and may require drainage infrastructure as the sidewalk would encroach into the ditch. The sidewalk should match the design of the existing sidewalk. A marked crosswalk across 4 Street NE should also be included at Douglas Avenue.

2d. Shared-Use Pathway from Boulder Creek Drive to south end of Railway Avenue

This pathway will provide a connection between Boulder Creek and the east side of Langdon. A future adopted pathway is indicated, but is tied to future development

Figure 18: Map showing near-term priority step 2b and 2c

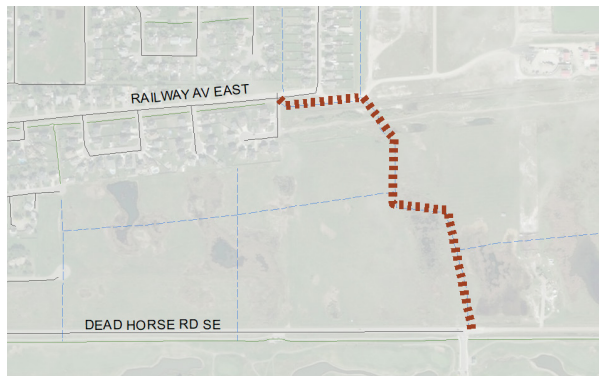


of the parcel. This project advances the pathway connection, recognizing that it may need to be partially replaced once the land is developed.

2e. Langdon Active and Safe Routes to School

An Active and Safe Routes to School program targets improvements to school traffic safety and increases active transportation among families and children. Active and Safe Routes to School (ASRTS) refers to a variety of multi-disciplinary programs aimed at promoting healthy alternatives to driving alone in the family car and improving traffic safety around school areas through education, fun

Figure 19: Map showing near-term priority step 2d



events, enforcement and safety reminders, and engineering measures. Walking and biking to school are healthy alternatives to being driven and can provide a sense of independence for children. Riding the bus and carpooling similarly reduce traffic and improve safety for the school community and can be part of promoting healthy lifestyles.

ASRTS programs typically involve partnerships among municipalities, school districts, community organizations, parent volunteers, and law enforcement agencies. Among the goals of ASRTS programs are improved safety for children, establishing good health and fitness habits in families, and decreased traffic and air pollution from private automobiles. ASRTS programs help integrate physical activity into families everyday routine and can help to address parents' safety concerns by encouraging greater compliance with traffic laws and implementation safer streets near schools.

There are many ways to begin an ASRTS effort, including convening a Task Force to define goals and problems and begin developing an action plan to focus efforts on addressing identified problems. ASRTS plans may include individual school plans that identify needed safety improvements around schools and/or regional strategic ASRTS plans that may focus on funding, staffing or communications needs. An ASRTS Task Force may include representatives from the county, the school district, the RCMP, school administration, parents, and interested community members.

Schools and partners can implement a wide variety of encouragement activities, depending on volunteer and school staff capacity and interest. Popular events across Canada include:

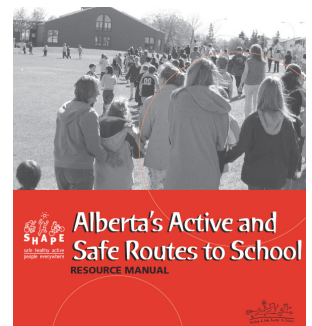
- International Walk to School Day every October
- Winter Walk Day in February
- Bike to School Week at the end of May
- Walking School Bus and/or Bike Train programs
- Walk-a-Thons and theme days
- Other fun and educational activities

Partners can track the progress of their ASRTS efforts by collecting data on school travel behaviours and parents' concerns through the student hand tally and parent surveys.

There are several potential partners, including Rocky View Schools, Rocky View County, City of Calgary, City of Chestermere, and RCMP.

The following sample programs and resources can be used to support implementation:

- Safe Healthy Active People Everywhere (SHAPE) Active and Safe Routes to School Resource Manual
- Ontario Active School Travel
- Healthy Schools BC Programs and Support
- U.S. National Center for Safe Routes to School, Safe Routes Guide



The ASRTS should be combined with an overall education program associated with Yield Roadways and Advisory Lanes, targeted at both drivers and students.

**STEP 3 - BRAGG CREEK,
BALSAM AVENUE AND
BURNSIDE AVENUE**

Bragg Creek is a popular destination in the region. The concentration of restaurants and shops in the centre of the hamlet generates considerable walking trips between businesses and for local residents, and is popular with cyclists. In the summer, the section along Balsam Avenue is very walkable, but issues with drainage and snow make walking challenging in winter and spring.

**3a. Upgrade Existing Balsam Avenue
Pathway on South Side and New
North Side Pathway**

The existing pathway on the south side of Balsam Avenue is narrow and suffers from drainage issues. Upgrading the pathway will provide a better pedestrian environment and will improve accessibility for all users. Providing a pathway on the north side of the street will close an existing network gap, reduce the need for pedestrians to walk in the roadway, and enhance connections to several destinations. These projects could be implemented in conjunction with a broader “main street” program for Bragg Creek.

**3b. New Burnside Drive Pathway to
Connect Balsam Avenue and White
Avenue**

This project would provide a continuous pathway connection along Balsam Avenue to White Avenue, via Burnside Drive. Like the Balsam Avenue pathways, this could be considered as part of a “main street” program in Bragg Creek.



Burnside Drive in Bragg Creek. Image: HDR

Table 7: Step 3 tasks/actions

Task / Action	Type	RVC Responsibility
3a – Upgrade existing Balsam Ave pathway on south side and new north side pathway	Project	RVC Capital Projects
3b – New Burnside Dr pathway to connect Balsam Ave and White Ave	Project	RVC Capital Projects



Existing pathway on Balsam Drive in Bragg Creek. Image: HDR

STEP 4 – WALK FRIENDLY COMMUNITIES DESIGNATION

The Walk Friendly Communities program is not yet a national program and formal designation is not available in Alberta. However, even if designation cannot be secured, there is value in promoting and celebrating walkability in Langdon and Bragg Creek through compliance with the program.

4a. Langdon and Bragg Creek Walk Friendly Communities

Participation in the Canada Walks program can help create a source of pride associated with being a walkable community. Canada Walks is a department of Green Communities Canada and is a leader in Canada's walking movement. Canada Walks has a well-established WALK Friendly Communities program that encourages municipalities to create and improve walk conditions by awarding four tiers of recognition: Bronze, Silver, Gold, or Platinum. The program helps to give walking a prominent profile in the community while encouraging municipal governments to set targets for ongoing improvements.

Canada Walks also offers online resources and services to support and encourage communities in promoting walking and active transportation. Resources include a guide to safer streets near schools, walk survey results, and information on the benefits and obstacles to walking. Canada Walks also offers customized fee-for-service workshops and on-site services including walkability audits, community engagement, and facilitated breakout groups.

Rocky View County can work with residents in Langdon and Bragg Creek to assess their readiness to apply for WALK Friendly Community status and encourage them to apply or simply to promote their compliance with the program. At this time, WALK Friendly Community designation is only available in Ontario. Rocky View County could take a leadership role to encourage Green Communities Canada the Province of Alberta to develop a similar program in Alberta – and possibly with a rural and small town focus.

Potential program partners include seniors clubs, community associations, and Alberta Health Services.



Table 8: Step 4 tasks/actions

Task / Action	Type	RVC Responsibility
4a - Langdon Walk Friendly Communities Designation	Program	RVC Planning
4b - Bragg Creek Walk Friendly Communities Designation	Program	RVC Planning

STEP 5 – CONTINUOUS PATHWAY ON CENTRE STREET (EAST SIDE), LANGDON

Currently, there are sections of pathway, but no continuous off-street walking or cycling facilities along Centre Street in Langdon. This means that pedestrians and cyclists utilize motor vehicle travel lanes along Centre Street. A continuous pathway along one side of Centre Street will significantly improve active transportation along the street and reduce potential conflicts with motor vehicles. The pathway should be placed at the outside of the existing right-of-way to maximize separation between the roadway and the pathway. The pathway could be implemented in conjunction with a “main street” improvement for Centre Street.

5a. Highway 560 to Wilson Road

This section of pathway would close a gap between existing pathway at the project’s southern end and provides access to the businesses fronting on Township Road 234. The pathway should be located as close to the frontage road as possible to maintain options for future Centre Street widening and to avoid the existing ditch. This project requires consideration of drainage issues at the northern end.

Figure 20: Map showing near-term priority step 5a, 5b, and 5c, and 5d

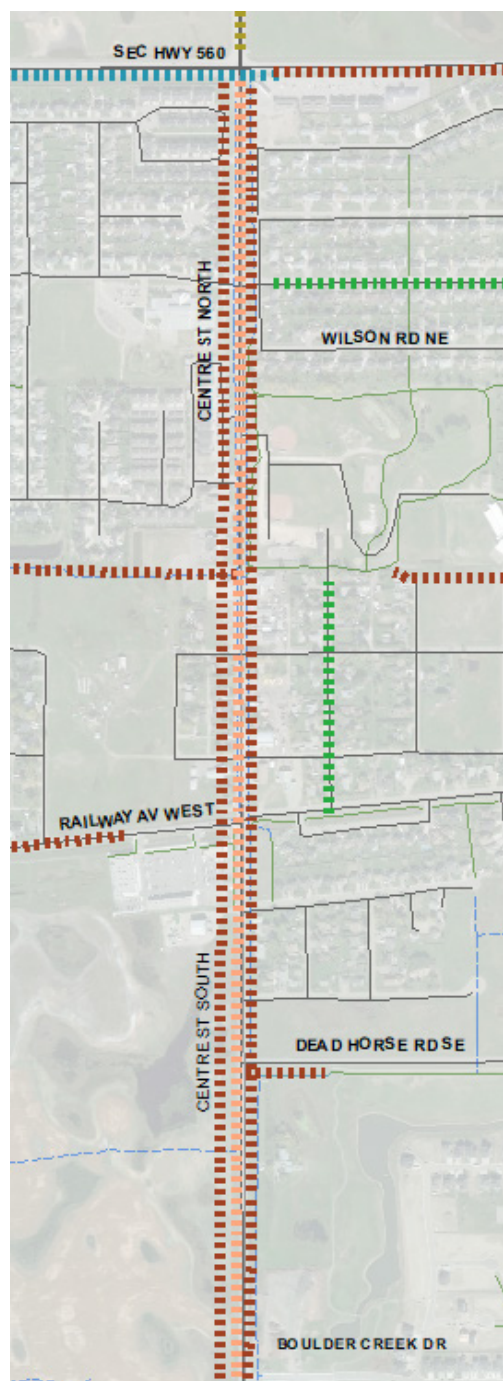


Table 9: Step 5 tasks/actions

Task / Action	Type	RVC Responsibility
5a - Centre St East Side Shared-Use Pathway - Hwy 560 to Wilson Rd	Project	RVC Capital Projects
5b - Centre St East Side Shared-Use Pathway - 3 Ave to Railway Ave	Project	RVC Capital Projects
5c - Centre St East Side Shared-Use Pathway - Railway Ave to Boulder Creek Dr	Project	RVC Capital Projects
5d - Dead Horse Rd South Side Shared-Use Pathway - Centre St to existing pathway	Project	RVC Capital Projects

5b. 3 Avenue to Railway Avenue

This section of pathway is the most challenging along the Centre Street corridor. The right-of-way is narrow (only 20 metres) and property access is not well defined. Project considerations include:

- potential property acquisition
- development of enclosed drainage
- access management
- order of magnitude costs do not include property acquisition

Further refinement and understanding of plans for Centre Street will be necessary to develop more reliable costs for this section.

Design for this section should be undertaken along with design for Centre Street upgrading. For this short section, it may be appropriate to consider more “urban” facility types such as a raised cycle track due to the space constraints.

5c. Railway Avenue to Boulder Creek Drive

This section completes the pathway to Boulder Creek Drive and provides a walking and cycling connection between Boulder Creek, Langdon Centre Shopping Centre, and the rest of Langdon. There are no significant uncertainties or issues on this section. Like the other sections, maximizing the setback from Centre Street will reduce the potential for drainage issues.

5d. Dead Horse Road South Side

This short section of pathway (approximately 125 metres) connects the existing pathway on the south side of Dead Horse Road to the future Centre Street pathway.

STEP 6 – ACTIVE TRANSPORTATION POLICY GUIDANCE FOR NEW DEVELOPMENTS

Basic active transportation infrastructure such as sidewalks and pathways are already requirement for new developments. However, current policies, guidelines, and standards are focused on infrastructure requirements. New guidelines should provide direction on connectivity within new developments and to the overall active transportation network. Although an active transportation network has only been developed for the plan area, it is recommended that this policy guidance be applicable to all new developments and that the ATPSC be recognized in the next update of the County Plan.

6a. Formalize Active Transportation Policies for New Developments

The following can used as guidance to help develop policies and guidelines for active transportation new developments:

- Area Structure Plans (ASP), conceptual schemes, master plans, and subdivision applications should be reviewed against the ATPSC as part of the development application and approval process

- In new communities, developers should demonstrate that the active transportation network maximizes ten-minute walking access to commercial areas, schools, major parks, village centres, and other key attractions
- New urban and suburban developments should require a low stress cycling network with approximately 80 metre spacing allowing for connections to day-to-day destinations, to the regional active transportation network, and to networks in neighbouring communities
- New communities should include high-quality dedicated pedestrian crossings with a minimum spacing of 400 metres on arterial roadways, connecting to walking and cycling destinations along arterial and major collector streets within urban and suburban areas
- Pedestrian connections into neighbourhoods should be provided at a minimum spacing of approximately 200 metres along collector and arterial streets within urban and suburban areas
- New residential developments over ten lots and within two kilometres of the active transportation network should include off-site upgrades consistent with the Active Transportation Facility

Table 10: Step 6 tasks/actions

Task / Action	Type	RVC Responsibility
6a – Formalize active transportation policies for new development approval applications	Policy	RVC Planning
6b – Update traffic impact assessment guidelines to include active transportation and trip reduction provisions	Policy	RVC Engineering
6c – Add bike parking requirements to the Land Use Bylaw	Study / Policy	RVC Planning
6d – Include off-site active transportation facilities in the Off-Site Levy Bylaw	Study / Policy	RVC Planning / Engineering

Guidelines to allow safe and comfortable connections to the active transportation network

- New neighbourhoods should have a minimum active modes connectivity index of 1.6 (see Appendix G for a description of connectivity index)
- Encourage the dedication of linear corridors that connect to the active transportation network as municipal and environmental reserves

6b. Update Traffic Impact Assessment Guidelines to Include Active Transportation Provisions

The traffic impact assessment guidelines should be expanded to include consideration of active transportation. Specifically, they should require reviews of the adequacy of pedestrian and cycling facilities within a proposed development and connecting to the proposed development. Connections within 800 metres of the proposed development should be considered for pedestrian facilities and within two kilometres for cycling facilities. Modifications to traffic impact analysis guidelines should encourage assessments of methods to reduce vehicle trip generation through active transportation infrastructure and services. Additionally, the assessment

guidelines should include the following:

- **Bike Parking Requirements** - Consider adding bike parking requirements to the Land Use Bylaw, particularly for industrial, institutional and commercial land uses
- **Off-Site Levy Bylaw** - Include off-site active transportation facilities in the Off-Site Levy Bylaw, by treating active transportation facilities as part of the overall transportation network

STEP 7 – RANGE ROAD 33 SHARED-USE PATHWAY

A pathway along Range Road 33 will connect Springbank Community High School and Springbank Park for All Seasons with Elbow Valley Elementary School and Springbank Middle School. This pathway will create the initial stage to an ultimate network between Cochrane and Calgary through Harmony and Springbank. A gravel pathway currently exists along the west side of the Range Road 33 that provides an initial alignment for the pathway. The pathway should be extended into the high school / Park For All Seasons site.

Table 11: Step 7 tasks/actions

Task / Action	Type	RVC Responsibility
7a – Range Rd 33 West Side – Springbank Middle School to Springbank Rd	Project	RVC Capital Projects

LONGER-TERM PROJECTS AND PROGRAMS

The following infrastructure projects and programs can be implemented opportunistically to align with other projects or as funds become available.

PROJECTS

The following are the remaining projects to complete the active transportation network. Timing for these projects will be reliant on other initiatives such as road rehabilitation projects, new development and other improvement projects. The remaining projects include:

- Range Road 33 / Twp Road 250 Shared Use-Pathway (School to Harmony)
- Langdon – Indus Connection (via WID Canal)
- Bragg Creek Encouragement / Awareness Programs and Balsam Avenue Bike Lanes
- Janet Industrial Area Bike Lanes
- Bragg Creek Network Expansion
- Springbank – Share the Road and Pathway Connections South of Springbank Road
- WID Canal Langdon to Chestermere
- Calling Horse Drive (Share the Road) / Twp Road 250 (Shared-Use Pathway) to Range Road 33
- Harmony to Highway 22
- Complete Langdon Network
- Springbank Road Shared-Use Pathway – Range Road 33 to Calgary
- Hwy 8/22 Wayfinding and Share the Road Signage
- Lower Springbank Road / Twp Road 242 Shared-Use Pathway Connection to Calgary
- Langdon Centre Street West Side Pathway and Bike Lanes
- Springbank Road and Lower Springbank Road On-Street – Range Road 33 to Calgary
- WID Canal / Weed Lake
- Harmony – Bow River Connection (via Twp Road 252 Shared-Use Pathway)
- Highway 8 / Highway 22 Pathway
- Highway 22 – Harmony/Cochrane Pathway
- Highway 791 Shoulder Widening and Signage
- Highway 560, Highway 22X Share the Road Signage
- Springbank Road to Highway 22 Shoulder Widening
- Janet – Conrich Shared-Use Pathway
- Old Banff Coach Road / Twp Road 250 Shoulder Widening and Signage
- Centre Street Roundabouts / Traffic Control
- Springbank – Upgrade Share the Road Routes to Shared-Use Pathways
- McKinnon Flats Shared-Use Pathway Connection
- Highway 9 Shoulder Widening / Signage
- Highway 8 Bridge – Elbow River
- Shoulder Widening, Twp Road 250 – Harmony to Hwy 22

PROGRAMS AND POLICY GUIDANCE

In addition to the education and encouragement programs identified in Langdon and Bragg Creek, there are other potential programs that may be considered, particularly as longer-term projects are implemented. Similarly, the implementation of longer-term projects will generate the need for additional policy development. The following are longer-term programs and policy guidance for consideration:

- Active transportation use monitoring before and after infrastructure and/or program implementation, potentially involving volunteers from various community groups to collect and organize data
- Updated signage on roadways with active transportation facilities consistent with provincial guidelines currently being developed
- Development of a wayfinding plan for active transportation routes
- Media campaign designed to increase respectful behavior between cyclists, pedestrians and motorists, targeted in the Springbank area
- Bicycle tourism program to attract and better support mountain and road cyclists in the Elbow River Ranch Lands focused on the Bragg Creek area
- Bike to Work Day or Bike Month to encourage and promote cycling during Bike Month and Bike to Work Week
- Bicycle Education Workshops to enhance understanding, confidence and independence related to cycling for transportation, with a focus in Springbank
- Bicycle-Friendly Business Program target at employers in Bragg Creek to recognize employers for their efforts to encourage, support, and promote bicycling in their workplace

Cyclists riding on a paved shoulder in Elbow River Ranch Lands. Image: Alta Planning + Design



Table 12: Summary of Grant Opportunities

Funding Source Name	Funder	Funding Match Required	Infrastructure	Operations or Maintenance	Plans, Studies, or Programs	Available Funding
Alberta Blue Cross Healthy Communities Grant Program	Alberta Blue Cross	N				\$50,000
Municipal Sustainability Initiative Capital Funding	Government of Alberta – Municipal Affairs	N				Not specified
Basic Municipal Transportation Grant	Government of Alberta – Alberta Transportation	Unclear				Per capita
Strategic Transportation Infrastructure Program (STIP)	Government of Alberta – Alberta Transportation	Y				\$100 million over 3 years
Alberta Municipal Infrastructure Program (AMIP)	Government of Alberta – Alberta Transportation	N				\$500,000 over 5 years
TD Friends of the Environment Foundation Grant	TD Canada Trust	N				Typically up to \$8,000
Alberta Healthy School Community Wellness Fund	Alberta Health and University of Alberta	N				Not specified
Green Municipal Fund	Federation of Canadian Municipalities	Y				Loan maximum of \$50 million
Alberta Traffic Safety Fund	Government of Alberta – Alberta Transportation	N				Up to \$25,000
10 Year Capital Road Plan / Annual Road Plan and Annual Operating and Capital Budget	Rocky View County	N/A				Based on prioritization of projects

FUNDING

ROCKY VIEW COUNTY

The County's project prioritization and budgeting processes are critical to implementing active transportation infrastructure and supporting active transportation education, encouragement, monitoring, and reporting programs in the South County. The ATPSC identifies active transportation facilities that largely fall within the County's rights-of-way, and so the prioritization, funding, and construction should largely be incorporated into the short- and long-term planning and budgeting for roadway facilities. Prioritized active transportation projects should be included in the shorter-term annual road Capital and Operations Budget as well as longer-term the ten-year Strategic Road Development Plan. A process similar to the Storm Drainage Improvements Policy (Policy #459) should also be considered to support active transportation projects with a value less than \$400,000.

Additional administrative resources should also be accounted for from supporting departments, including: Capital Projects, Municipal Lands, Engineering, Planning, Recreation and Community Services, and Communications. County staff may be involved in the implementation of active transportation projects, design reviews, engagement activities, monitoring and reporting programs, and/or education and outreach campaigns.

GAS TAX FUND

The Alberta Government flows the Gas Tax Fund (GTF) to the County to support local infrastructure priorities. Many municipalities solely use GTFs for roadway projects; however, under Schedule B, GTF can be applied to the construction, renewal, or enhancement of active transportation infrastructure including, but not limited to: bicycle lanes, shared-use pathways, and sidewalks.

GRANT OPPORTUNITIES

Grant opportunities are broken down by Federal, Provincial, Regional/Local, and Private sources. Most funding sources are currently available; however, their future is uncertain and may change with successive governments or economic cycles. A summary of potential funding sources directly accessible by the County is shown in Table 12. There are additional funding sources available to community / non-profit organizations within Rocky View County such as the Government of Alberta's Community Initiatives Program (CIP).

FEDERAL

Green Municipal Fund (Federation of Canadian Municipalities)

This program funds studies that focus on reducing or avoiding fossil fuel use and reducing pollution by improving transportation networks or encouraging people to switch to less-polluting commuting options. Funding is available for a study grant for transportation networks and commuting options, pilot projects, and capital project loan and grant.

PROVINCIAL

The sections below present a summary of federal active transportation funding sources currently available. At the time of writing this plan, future federal levels of investment and the future of some programs is uncertain.

Municipal Sustainability Initiative (MSI) Capital Funding (Government of Alberta)

MSI capital funding is limited to projects that involve the purchase, construction, development, betterment, rehabilitation, or non-routine maintenance of a capital asset, owned by a municipality.

Healthy Communities Grant Program (Alberta Blue Cross)

Every year, five \$50,000 grants are awarded to support community amenities and facilities that promote active living including active transportation infrastructure. For this fund, 'political organizations' are ineligible, so the County may need to partner with a local organization to apply and receive the funds.

Basic Municipal Transportation Grant (BMTG) (Government of Alberta)

BMTG supports municipalities in developing and maintaining their capital transportation infrastructure requirements, promote economic growth, and improve the quality and transportation safety of community life. This program provides annual allocation-based funding for capital construction and rehabilitation of local transportation infrastructure including ancillary roadway facilities such as sidewalks, commuter bikeways, lighting, traffic control signals, and pedestrian signals.

Strategic Transportation Infrastructure Program (STIP) (Government of Alberta)

The Strategic Transportation Infrastructure Program (STIP) provides financial assistance to rural and smaller urban municipalities for developing and maintaining key transportation infrastructure. STIP supports municipalities as they complete projects that improve accessibility and the movement of goods to market, increase opportunities for economic growth, and enhance safety and efficiency while extending the life of key transportation infrastructure. Eligible projects include local municipal initiatives as well as activities to improve existing bridges – engineering, maintenance, rehabilitation, or replacement.

Alberta Municipal Infrastructure Program (AMIP) (Government of Alberta)

The goal of the Alberta Municipal Infrastructure Program (AMIP) is to support the development of infrastructure to maintain or enhance economic, social, and cultural opportunity and wellbeing while protecting and improving the quality of our environment upon which people and economies of

Alberta depend. Eligible projects include ancillary works such as sidewalks, commuter bikeways, lighting, traffic control signals, pedestrian signals, storm drainage and utility relocations; construction or implementation of traffic management projects such as major intersection improvements, major traffic signal coordination; and municipality-wide or regional transportation planning studies and major systems planning reviews.

Alberta Healthy School Community Wellness Fund (Alberta Health and University of Alberta)

The Alberta Healthy School Community Wellness Fund promotes sustainable and healthy school communities across the province by providing facilitated support and grants to schools and jurisdictions. This is an opportunity for the County to partner with Rocky View School District to develop and active and safe route to school program.

Alberta Traffic Safety Fund (ATSF) (Government of Alberta)

The purpose of the ATSF is to encourage and enable communities and other traffic safety stakeholders to develop and implement community-based collaborative traffic safety projects. The ATSF aims to build community capacity to identify and address local traffic safety priorities. The project must focus on one or more of the following traffic safety improvements: Vision Zero, speed, driver error, intersections, aggressive drivers, new and young drivers, pedestrians, cyclists, and motorcyclists.

PRIVATE

TD Friends of the Environment Foundation Grant (TD Canada Trust)

Eligible projects include trail buildings and restoration and in-class/indoor and outdoor environmental education programming.