

BYLAW NO. B-17/2022
CITY OF AIRDRIE
PROVINCE OF ALBERTA

BEING A BYLAW of the City of Airdrie, in the Province of Alberta, to adopt Bylaw No. B-17/2022, being the Key Ranch Neighbourhood Structure Plan.

WHEREAS under the authority and subject to the provisions of the ***Municipal Government Act***, Revised Statutes of Alberta, 2000, Chapter M-26, and amendments thereto, the Council of the City of Airdrie may pass Bylaws adopting an Area Structure Plan; and;

NOW THEREFORE the Council of the City of Airdrie in Council duly assembled, enacts that Bylaw No. B-17/2022 “Key Ranch Neighbourhood Structure Plan”, be adopted in the manner as written and illustrated in the attached Schedule ‘A’.

Read a first time this 19th day of April, 2022.

Read a second time this 19th day of April, 2022.

Read a third time this _____ day of _____, 2022.

This bylaw was executed as of the latest date evidenced by digital signature below.

Mayor

City Clerk

Bylaw No. B-17/2022
Schedule 'A'
(Key Ranch Neighbourhood Structure Plan document)



Key Ranch

neighbourhood structure plan



Key Ranch Neighbourhood Structure Plan

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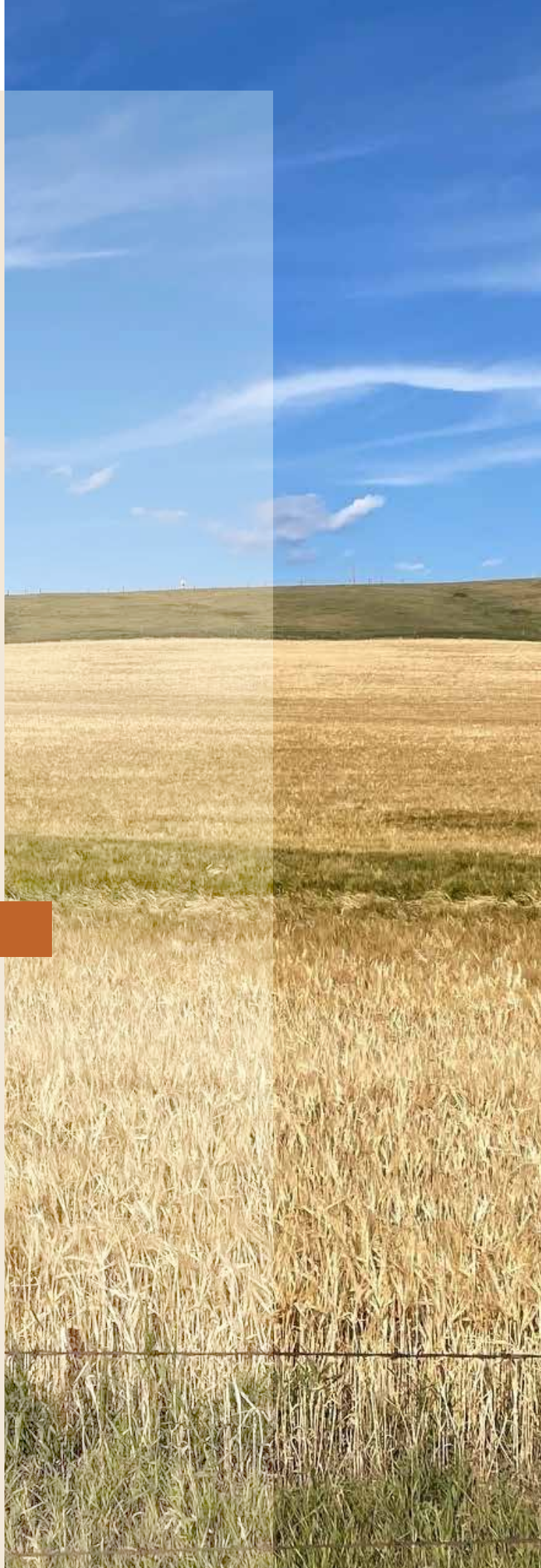
1.0 Introduction

The Key Ranch lands are located on the west edge of the City of Airdrie, within the West Hills Community Area Structure Plan. These lands are located adjacent and West of 24th Street and are a logical extension of development west from Bayview and Sagewood, as well as south from the proposed Wildflower community (Minto).

This Neighbourhood Structure Plan (NSP) conforms with the policies contained within the approved *West Hills Community Area Structure Plan (Bylaw B-22/2019)*, *Airdrie City Plan (Bylaw B-29/2009)*, *AirdrieONE Sustainability Plan*, and the *Land Use Bylaw (Bylaw-01/2016)*. The details provided in this plan are intended to provide clarity on the implementation of these higher-level policy documents and flexibility to direct the neighbourhood design of a new community.

THE VISION FOR THE KEY RANCH COMMUNITY IS:

Located on the lands rising steeply west of Airdrie, Key Ranch will elevate the concept of community.



2.0 Plan Context

The western edge of the City of Airdrie, annexed in 2012, exists on a fringe of land that introduces a landform and context that is new to Airdrie. The Lands rise up steeply/ proudly from 24th Street and provide dramatic views of Airdrie and the surrounding region.

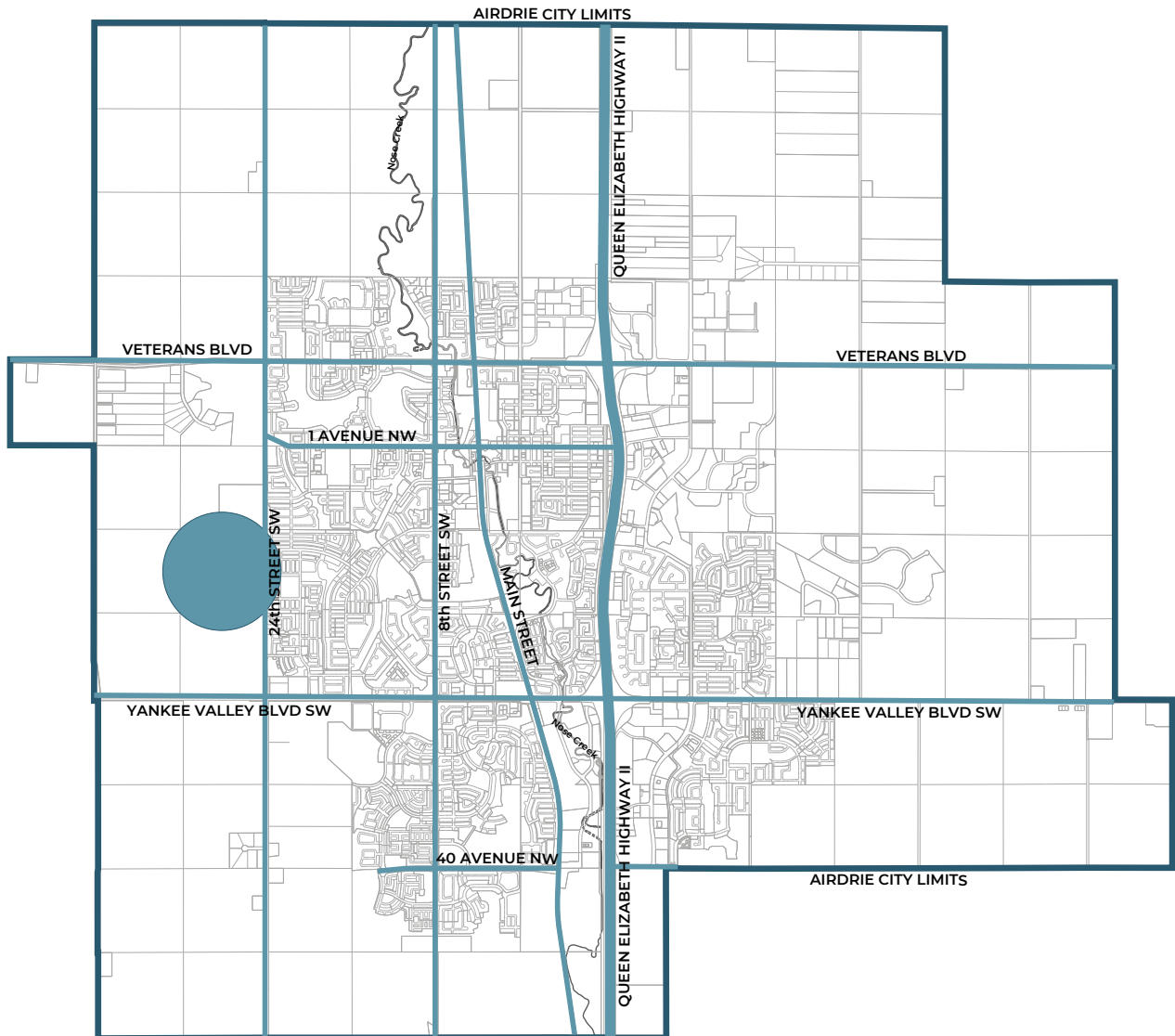


FIGURE 1. REGIONAL CONTEXT PLAN

2.1 CONTEXT

The subject lands are located on the west side of Airdrie, adjacent to 24th Street. The neighbourhood comprises 64.7 hectares (160 acres).

The neighbourhood area is in the central portion of the West Hills Community Area Structure Plan and is bounded by the existing neighbourhoods of Bayview, Bayside and Sagewood to the east, and future residential neighbourhoods to the north, south and west.



FIGURE 2. SITE CONTEXT

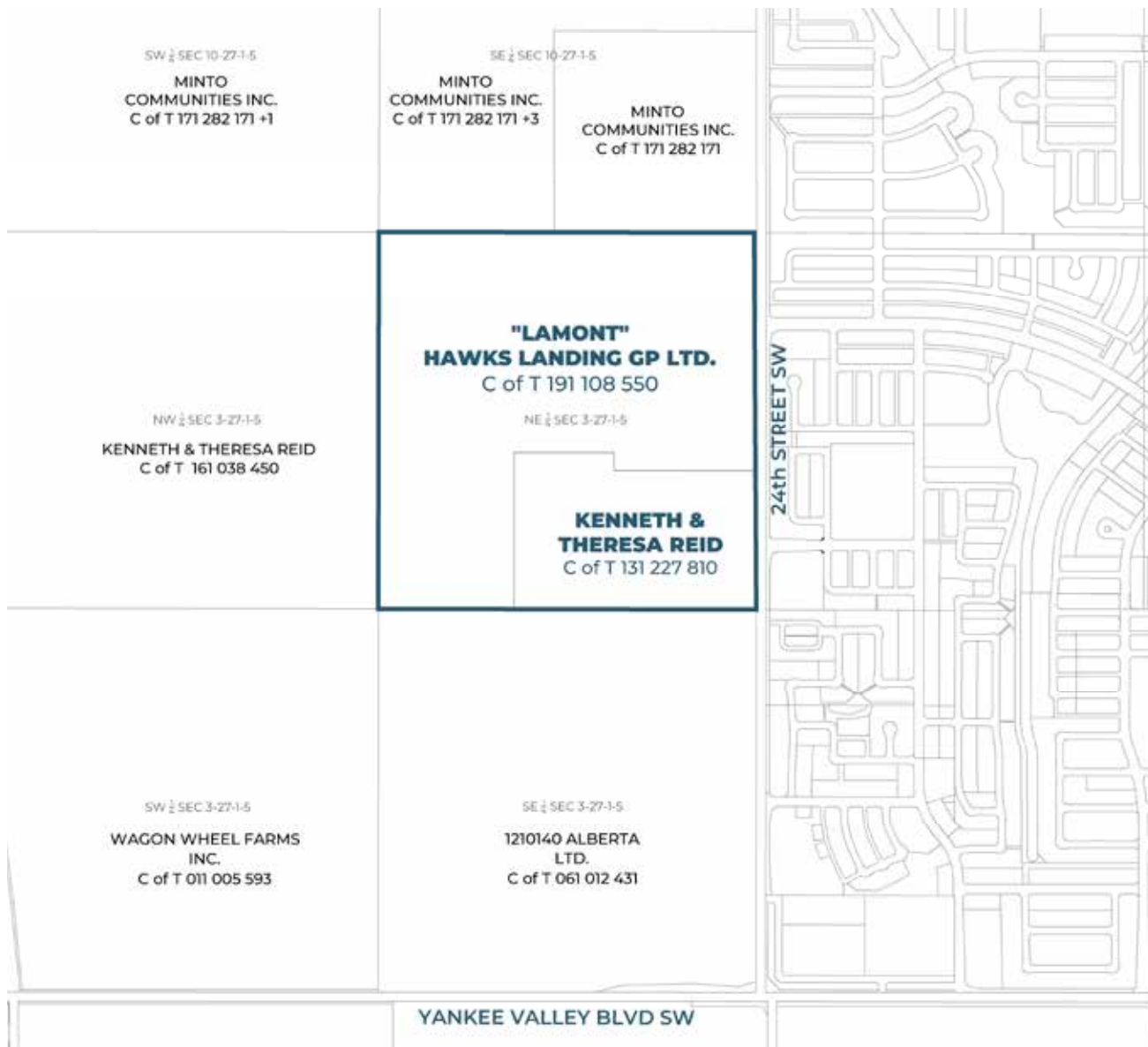


2.2 LAND OWNERSHIP

The Key Ranch neighbourhood is currently owned under two landowners:

- Hawks Landing GP Ltd. "Lamont" who own 48.49 hectares (119.94 acres); and
- Kenneth George Reid and Theresa Lynne Reid "Reid Family" who own 16.21 hectares (40.06 acres).

Lamont is leading the NSP application for all the lands, with support and communication with the Reid Family and their consultant, ensuring compatible development will occur on both properties. See **Figure 3. Land Ownership.**



Legend
Neighbourhood Structure Plan Boundary


Not to Scale

FIGURE 3. LAND OWNERSHIP



2.3 HISTORY

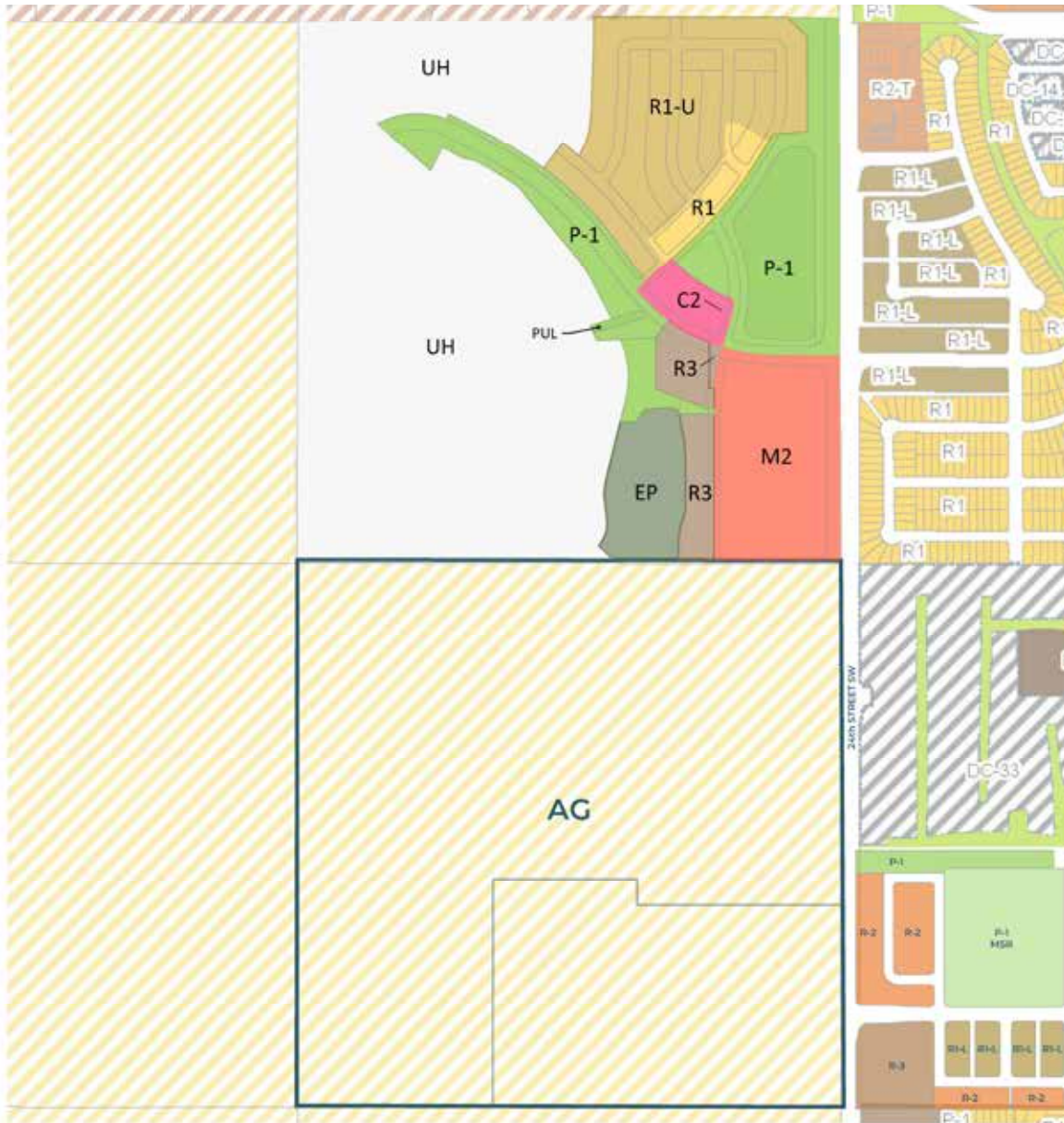
The Hallman Brothers from Ontario homesteaded the SE and SW of Section 10 in 1902. They also purchased all of Section 3 from the CPR at around the same time, for 6 quarters all together. They built a one room house in 1902 and returned to Ontario for the winter. In the spring of 1903, the brothers returned to Airdrie with their possessions including three railroad cars of Clydesdale horses. They named the property the Key Ranch (although it was also know as the J Hallman & Sons Horse Ranch) and the focus was mainly raising work horses, but they did some farming also. The Hallman family built a large 2 storey house on the property. In about 1910, after a few years of farming and ranching, the Hallman's sold the properties and moved to the Oyen and Acadia Valley district where they homesteaded. The land turned over many times in the next few years and one owner tore down the huge house and sold the lumber.

In 1937 Frank and Margaret Reid were married and rented a farm in the Airdrie area. In 1944 they purchased Section 3-27-1-W5 and south half of Section 10-27-1-W5 for \$ 20per acre. The property being hilly, rocky, and light soiled was considered best for ranching and not farming, but Frank broke the prairie sod on much of the property and it was reported to have grown good crops. The land is still farmed by the Reid family today by Frank and Margaret's son, grandson and their families. Frank and Margaret Reid were well known in the Airdrie community and participated and took their turn leading the various community groups. They thrived in the community and were able to give back to Airdrie and beyond as philanthropists.

-History details kindly provided by Ken and Terry Reid, and H. Hallman.

2.4 EXISTING LAND USE

The lands subject to this NSP are designated as General Agriculture District (AG) in the City of Airdrie Land Use Bylaw B-01/2016. They are currently used for a propane service business, a private residence, and agricultural and grazing purposes.



Legend

- Neighbourhood Structure Boundary
- AG General Agriculture District
- C2 Community Commercial District
- M2 Mixed Use District
- R1 Single Detached Residential District
- R1-L Narrow Lot Laned Residential District

- R2 Low Density Residential District
- R3 Low-Rise Multifamily Residential District
- R5 High Density Residential District
- P-1 Public Open Space District
- DC33 Direct Control
- UH Urban Holdings District



Not to Scale

FIGURE 4. EXISTING LAND USE

2.5 TOPOGRAPHY + VEGETATION

The most striking feature of Key Ranch is the topography, marked by a significant ridge that rises steadily to the west from 24th Street. The views of the ridge provide for a unique landmark in the neighbourhood and a community focal point. The elevation difference from 24th Street (1097m) on the east up to the highest point

(1152m) in the north west of the neighbourhood is approximately 55 meters.

Overall, the lands are described as primarily agricultural with an active farmstead and a propane business. There is a mature/old stand of poplar trees surrounding the existing residence.

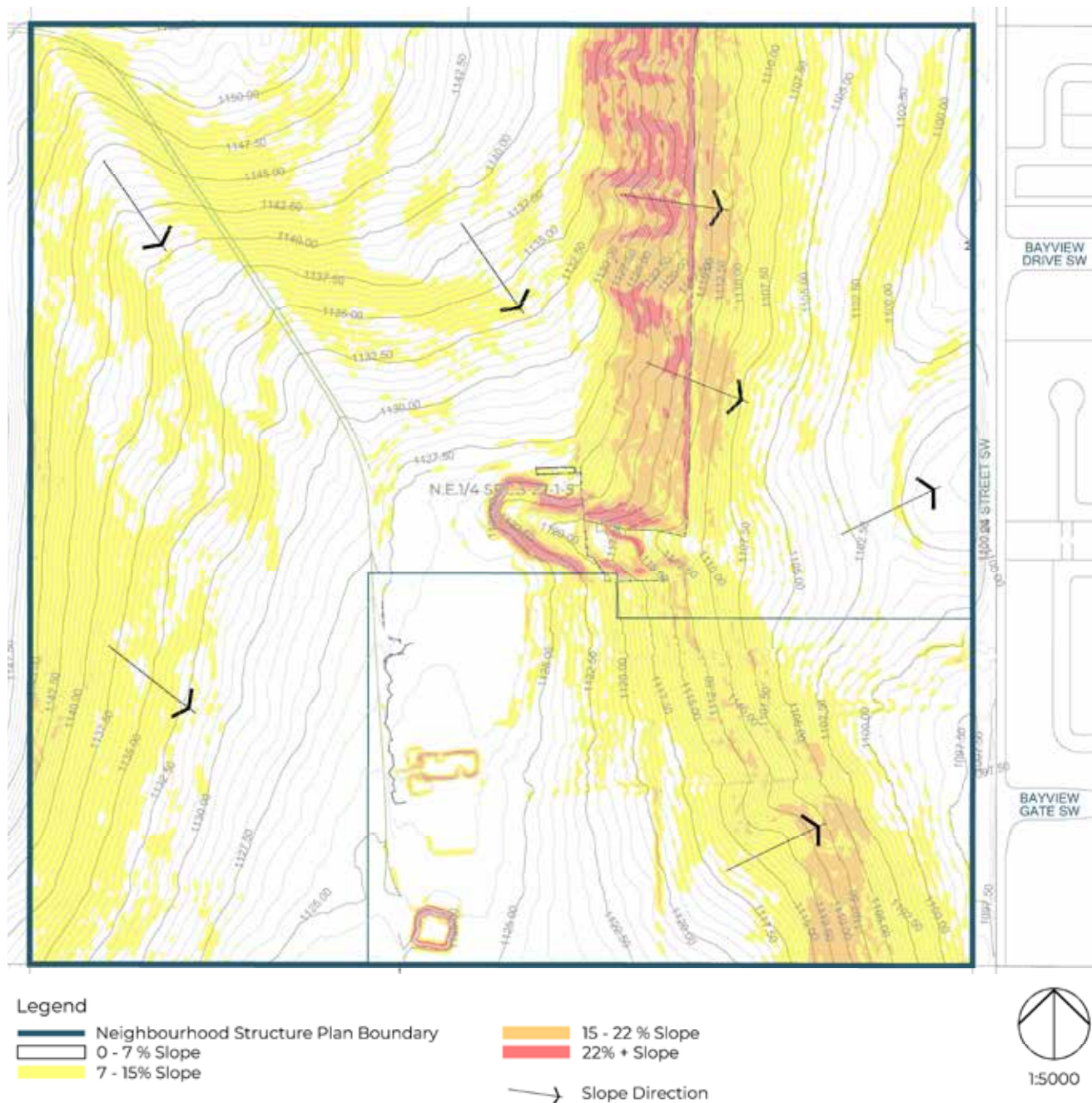


FIGURE 5. TOPOGRAPHY

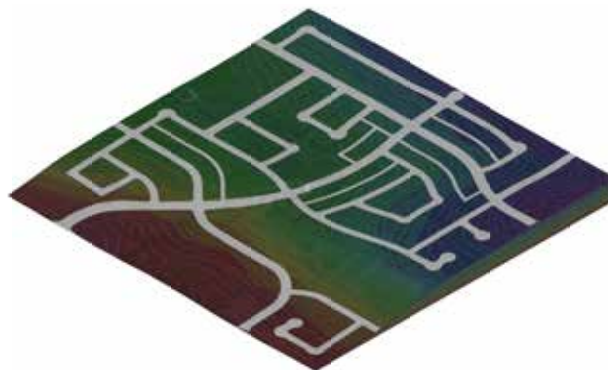
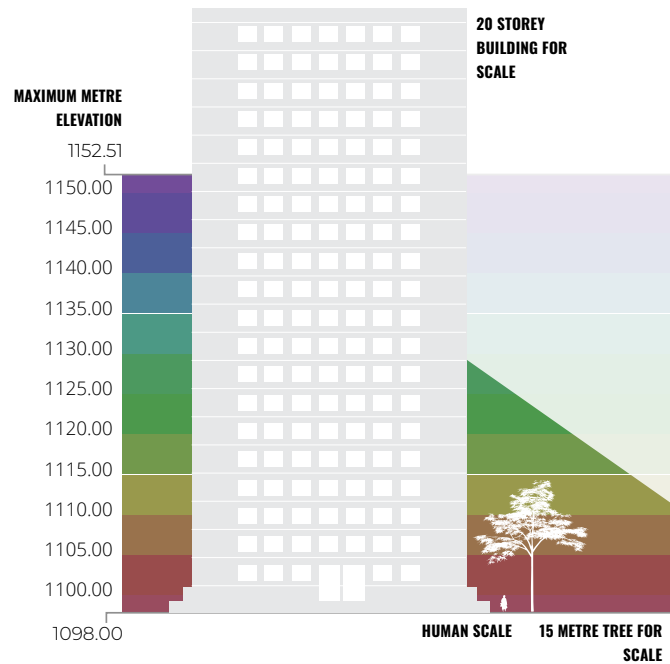


FIGURE 6. 3D TOPOGRAPHY AND CONCEPT RENDERINGS



2.6 SITE ASSESSMENTS

2.6.1 BIOPHYSICAL IMPACT ASSESSMENT (BIA)

A Biophysical Impact Assessment was prepared by Tetrattech in 2020/2021 (Biophysical Impact Assessment - NE-03-027-01 W5M) Presently, the lands are comprised of three separate agricultural fields, one private residence, and an area of native grassland.

Unique features on the site include significant slopes (>15%) that contain native grassland which have been identified as an area for Environmental Protection (EP). The Environmental Protection area is contiguous with the parcel to the north, ensuring that both areas can be utilized by wildlife and vegetation. This area will be partially regraded to work with the surrounding grades and installation of pathways to enhance public enjoyment with disturbed areas being reseeded with natural vegetation.

There are no wetlands or watercourses identified on the site. An ephemeral waterbody was found in a lower slope position, but it does not meet the criteria for designation as an EP, and removal will not materially alter the overall hydrology of the site.

2.6.2 ENVIRONMENTAL SITE ASSESSMENT (ESA)

A Phase I ESA was prepared by Tetrattech in November 2021. The report recommended that a Phase II ESA be conducted to assess the potential sources of environmental concern identified within the central farmstead area which include above ground storage tanks, chemical use and storage, and potential fill areas. Further, a Hazardous Building Materials Assessment for the buildings on site was recommended prior to removal. These additional assessments are further discussed in the **Section 8.0 - Implementation**.

A supplementary assessment was completed by Tetra Tech in January 2022 for the lands comprising the school site in the south portion of the plan area. Based on the findings from the initial Phase I ESA and the supplementary assessment, Tetra Tech did not observe any significant areas of environmental concern that would pose a risk to redevelopment of the area as a future school site and a Phase II ESA of the area is not recommended by Tetra Tech.

2.6.3 GEOTECHNICAL

According to the geotechnical report completed by McIntosh-Lalani Engineering (2017), soils are described as a thin (125 mm – 305 mm) cover of topsoil overlying layers of silt and silty clay glacial till on bedrock. Siltstone and sandstone bedrock was encountered at depths ranging from 0.5 to 5.2 meters. Deepest bedrock depths are generally associated with the lowest point of land on the east side of the study area. McIntosh Lalani has confirmed that the 2017 geotechnical report remains valid for the proposed development.

The topography of the area consists of rolling hills that rise steadily up from 24th Street westwards to a total elevation change of approximately 55 meters. The general drainage direction is east, with the lowest elevations found along 24th Street, across from Bayview Gate SW.

A slope stability assessment of the existing slopes was conducted by McIntosh Lalani (October 2021). Based on this analysis, no slope stability concerns were identified with respect to the existing topography, water loading or onsite soil conditions.

2.6.4 HISTORICAL RESOURCES

Historical Resources Act approval has been granted for the plan area.

3.0 Policy Plans + Guidelines

3.1 HIGHER-LEVEL POLICY GUIDANCE

3.1.1 SOUTH SASKATCHEWAN REGIONAL PLAN

The South Saskatchewan Regional Plan (SSRP) guides land use policy and decision making for a broad region of southern Alberta. The City of Airdrie is within the jurisdiction of this plan and must adhere to its direction in all municipal plans, policies, and regulations. As demonstrated through alignment with Airdrie's City Plan and the principles of the Calgary Metropolitan Regional Board's (CMRB's) Growth Plan (GP), the Key Ranch NSP also follows this direction and aligns with the strategic goals of the SSRP to promote development that respects the environment, contributes to a resilient economy, and creates people-friendly communities.

3.1.2 CALGARY METROPOLITAN REGIONAL BOARD GROWTH PLAN & EVALUATION FRAMEWORK

Airdrie is a member of the Calgary Metropolitan Region Board (CMRB). The CMRB's Growth Plan (GP) provides direction for regional coordination between municipalities in the Calgary region, encouraging collaboration and sustainable growth for all members. The Key Ranch Neighbourhood Structure Plan has been prepared in alignment with the principles of the GP. An overview of this alignment- using the Regional Evaluation Framework- has been submitted under separate cover to support the submission to the Board. Figures 1 and 2 in Appendix D show the NSP in relation to the CMRB's mobility corridors.

3.1.3 CITY OF AIRDRIE- ROCKY VIEW COUNTY INTERMUNICIPAL DEVELOPMENT PLAN

The City of Airdrie is adjacent to Rocky View County on all of its municipal boundaries. The Intermunicipal Development Plan is intended to guide shared decision making about land use and infrastructure, and sets out procedures for required collaboration in doing so. The Key Ranch NSP is shown within a "primary urban growth corridor" within the IDP, and is also in a "notification zone." This means that it is an area of anticipated growth, but that Rocky View County must be given the opportunity to provide comments and input before the Plan is approved by the City.





3.2 CITY OF AIRDRIE POLICY GUIDANCE

3.2.1 AIRDRIE CITY PLAN (MUNICIPAL DEVELOPMENT PLAN (MDP))

The MDP for the City of Airdrie is referred to as the “Airdrie City Plan” and was adopted by City Council in 2014 under Bylaw B-17-2014, updated in 2019 (Bylaw B-29/2019). The Plan is a strategic document that includes guidance on future statutory Neighbourhood Structure Plans (NSP) which direct the future land use patterns, transportation and utility networks and sequence of development.

NSPs shall include a refinement of planning principles presented in the Community Area Structure Plan. These details include more refinement on the range of housing types and densities (Policy 6.9), identification of natural features and environmentally sensitive areas and address how these features can be retained and managed (Policy 3.7), and community design principles (Policy 6.2).

The subject lands are identified as being within the Anticipated Growth Boundary for residential uses. Policies guiding the design of new residential areas from the MDP are represented throughout this NSP.

3.2.2 AIRDRIEONE SUSTAINABILITY PLAN

The AirdrieONE Sustainability Plan (2012) is a non-statutory high-level policy document that describes a vision for a sustainable future and proposes goals, objectives, targets and strategies to achieve that vision. Since its adoption, it has guided the City's other major planning documents, tools and reflects community input and support from the City's engagement initiatives. The vision for the plan is:

“Airdrie is a vibrant, caring community rich in urban amenities and opportunities for everyone. We value a healthy, sustainable environment connecting people and places.”

The Key Ranch Neighbourhood Structure Plan specifically implements the following sustainability goals:

- **Built Environment** – By creating a compact, safe, walkable, and connected community.
- **Socially Sustainable Communities** – By providing a variety of housing and transportation options.
- **Sustainable Natural Environment** – By enhancing native grassland through the Environmental Protection area as a means of integrating the city's natural areas, supporting wildlife habitat and the ecological inventory of the City of Airdrie, while providing access to residents to interact with the nature.

The policies and land uses described within this Neighbourhood Structure Plan are designed to implement the vision of this Plan.

3.2.3 AIRDRIE SOCIAL POLICY

The Key Ranch NSP aligns with and supports the governance priorities outlined for Council and Administration in the Airdrie Social Policy (2020). The Policy contains four principles that support the comprehensive social well-being of residents:

- Diversity & Inclusion
- Connectedness
- Equalitable Access to Quality Services
- Proactivity

The vision and design of Key Ranch is intended to uphold a great quality of life and positively impact the social determinants of health for future residents. Care has been taken to ensure that there are housing options for people in many different stages and walks of life, that all residents have access to open spaces that offer unique experiences, efficient delivery of municipal services that underpin basic health needs, and a welcoming neighbourhood character that emphasizes and encourages social interaction.

3.2.4 CITY OF AIRDRIE LAND USE BYLAW

The lands subject to this NSP are designated as General Agriculture District (AG) in the City of Airdrie Land Use Bylaw B-01/2016. The farmstead is currently used for a propane service business, a private residence, and agricultural and grazing purposes.

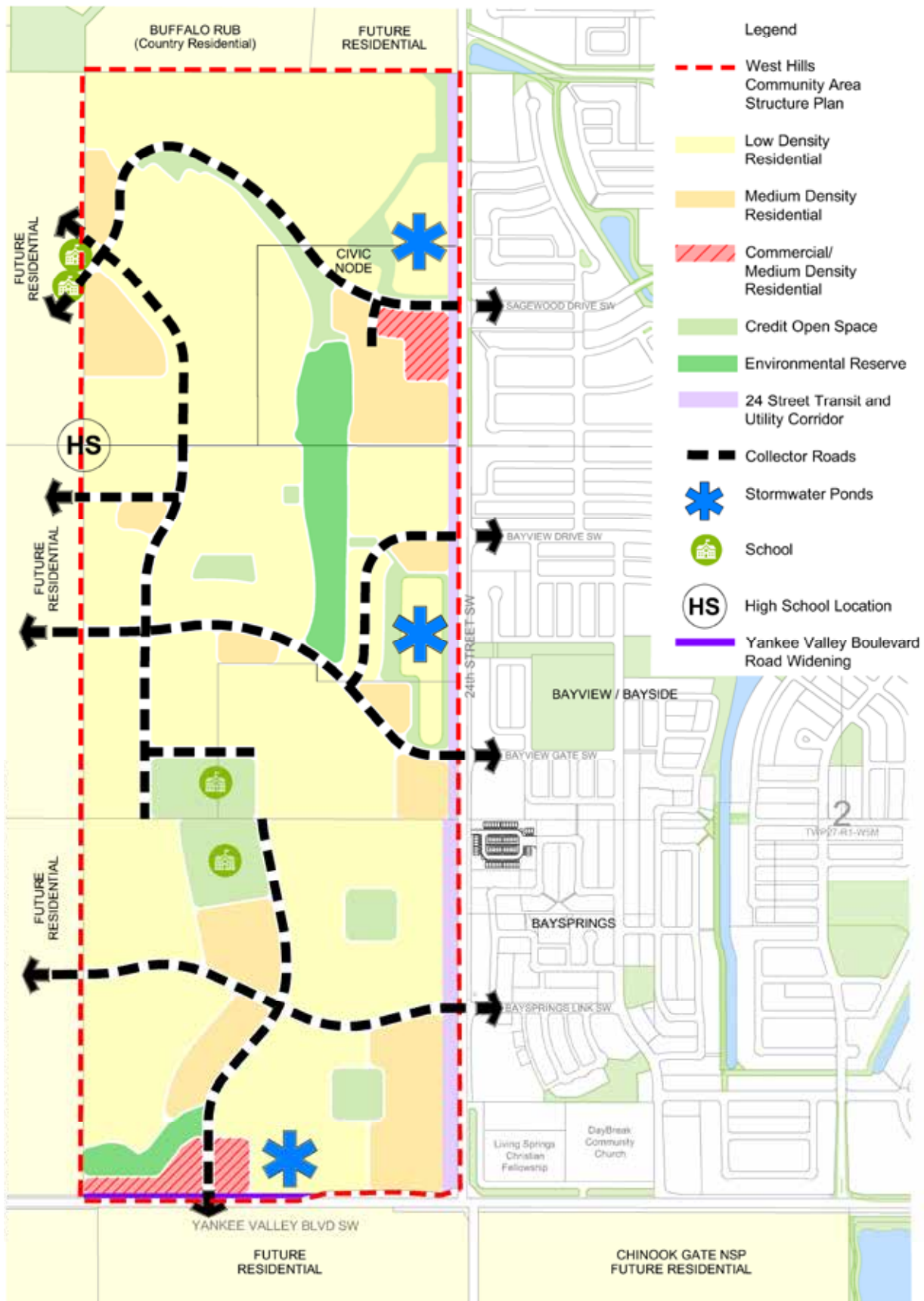


FIGURE 7. WEST HILLS CASP LAND USE PLAN

3.2.5 WEST HILLS COMMUNITY AREA STRUCTURE PLAN

The West Hills Community Area Structure Plan (CASP) (Bylaw B-22/2019) outlines the future land use, transportation and servicing for the plan area. Predominantly residential, the CASP identifies areas of environmental significance, future transportation connections, and a land use concept that provides contiguous and connected development within the plan. The general location of stormwater facilities, servicing, schools, and parks, were also identified. See **Figure 7. West Hills CASP Land Use Plan.**

The proposed land use concept in the CASP includes providing predominantly single-family housing to approximately 9,180 residents to achieve an overall plan density of 8 units per gross developable acre. The CASP anticipates that neighbourhoods will be highly influenced by the natural topography of the land and will include pockets of density, neighbourhood landmarks, slope adaptive housing, and a mix of housing types for a diverse range of residents.

The subject lands are located in the central quarter section of the CASP area. Phasing policies indicate that development sequencing is expected to commence on the easterly edge (24th Street) of the CASP and progress in a westerly direction as servicing becomes available and as market dictates. An area of slopes greater than 15% were identified in the CASP to remain as open space Environmental Protection (EP) with anticipated adjustments to be refined during the preparation of this NSP.

An identified stand of mature/old trees will be reviewed for possible retention with a future NSP application.

A high school location was identified within the CASP, partially located on the subject lands. Policy guidance is provided regarding the allocation, location, size and assembly.

At the NSP stage, the City is to confirm land requirements for utility and transit infrastructure along 24th Street.

The West Hills CASP also includes a Funding Commitment **F** that provided a framework for a utility infrastructure funding agreement prior to adoption an NSP.

3.2.7 CITY OF AIRDRIE GREAT PLACES PARKS MASTER PLAN

The City of Airdrie Great Places Parks Master Plan was endorsed by City Council in March 2016. It identifies eight environmental, social and economic principles (**Section 3.1 – Open Space Principles**) which are to be used as guidelines in the provision of high-quality open spaces in the City.

- Raise the profile of parks, open space and trail systems within the City of Airdrie's Administration to ensure long term planning for sustainable environments in Airdrie
- Reflect the environmental context of Airdrie through the respect of natural features and views. Use plants and other materials that are appropriate to the climate and context, protect and enhance biodiversity; and provide a diversity of places for recreation, physical activity, and enjoyment of the outdoors for a diverse population by ensuring that there is a complete range of open space types appropriate for Airdrie
- Ensure the safety of recreational users in the City of Airdrie is and will continue to be a priority in developing parks, trails and open spaces
- Ensure a walkable and accessible City, neighbourhoods, and streets to the community's assets
- Recognize Airdrie's existing special places, create new ones, and provide good linkages through paths, good streets and linear parks
- Aim to locate parks and open spaces within 5-10-minute walking distances from all residential areas
- Reflect and respect Airdrie's history and culture
- Improve pedestrian access to open spaces in residential areas

See **Section 4.4 - Open Spaces, Parks + Schools** for details and a description of the vision for open spaces in Key Ranch.

3.2.8 CITY OF AIRDRIE TRANSIT MASTER PLAN

Completed in June 2016, the Transit Master Plan for the City of Airdrie provides a short and long-term framework for the future of transit services operated by the City of Airdrie Transit. The plan outlines three guiding principles as follows:

- Transit will connect people with place.
- Transit will plan, design and implement sustainable and accessible transit infrastructure and services for the community.
- Transit will balance system growth with affordability and efficient operations.

The plan emphasizes that rider safety and comfort, universal accessibility, and efficient routing and scheduling are a priority in meeting targets (many set to be met by 2025). In part, these goals and objectives can be met by co-location transit with higher-density, activity centres, and the active transportation/ recreation network of any community. In particular, identified Service Design Standards (**Figure 23 and Figure 24. Conceptual Transit Stop Locations (250m and 400m)**) target 90% of residences to be within 400 metres walking distance of transit service, and 90% of medium and high-density developments to be within 250 metres walking distance to transit service.

4.0 Neighbourhood Plan

4.1 PLAN COMPOSITION + INTERPRETATION

The Key Ranch Neighbourhood Structure Plan has been prepared as an Area Structure Plan in accordance with Section 663(1) and (2) of the Municipal Government Act.

The Key Ranch Neighbourhood Structure Plan (NSP) has been prepared in separate parts:

- **Part 1** introduces the plan,
- **Part 2** provides context regarding the site conditions
- **Part 3** describes how the Key Ranch NSP meets City of Airdrie policy direction defined in relevant statutory and non-statutory planning documents.
- **Part 4** comprises the statutory portion of the NSP and provides the neighbourhood design elements, transportation and servicing components, and development policies for Key Ranch.

Appendices are also included in the document for information purposes and do not form part of the adopted NSP. Administration may freely interpret any content. An area, symbol or figure shown on a map in the adopted NSP shall be interpreted as approximate only and not absolute, except where the area or symbol coincides with a fixed and clearly defined physical or legal boundary such as a property line or road or utility right-of-way.

NSP amendments may be initiated by City Council, City of Airdrie Planning or Engineering departments, developers, landowners, or school boards. Amendments can be related to the NSP or its appendices that implement the NSP amenities, services, or municipal infrastructure. Generally, amendments to the NSP may be required in the following circumstances:

- Where significant shifts in the location of community facilities such as parks or schools are proposed; and/or
- Where significant shifts in the design or layout of infrastructures such as roads and sanitary and water services are proposed; and/or
- When shifts in land use categories, such as from residential to industrial are proposed; and/or
- At the discretion of the City of Airdrie, where the interests of the public necessitate that formal amendments occur.



4.2 GUIDING PRINCIPLES

The guiding principles for the development of the Key Ranch Neighbourhood Structure Plan are:

- 1. Ensure that development is guided by the natural landform and topography.**
- 2. Foster a neighbourhood identity that prioritizes a sense of belonging and neighbourliness.**
- 3. Contribute to the sustainable growth and development of the City of Airdrie.**

4.3 CONCEPT PLAN

Key Ranch is envisioned as a community where connection to the land and to neighbours is reinforced by the open space layout, allowing for sightlines through open space corridors and to active and passive destinations. These spaces will be designed with all four seasons in mind and will aim to appeal to multiple generations, providing variety and flexibility for a diverse spectrum of users.

The community is anchored by amenities including the pond and the escarpment which provides scenic lookout opportunities and extensive pathways and trails that interconnect the community's upper and lower benches and connect into the existing communities. The amenities have been distributed in a way such that access to open space is nearby regardless of where home is, ensuring that there are ample opportunities to find a place to run, play, and connect with neighbours.

Residents of Key Ranch will have opportunity for social connections on a daily basis with neighbours on the street, out enjoying the trails on the escarpment, visiting a local playground, walking or biking to school, and visiting other adjacent neighbourhoods.



4.3.1 LAND USE

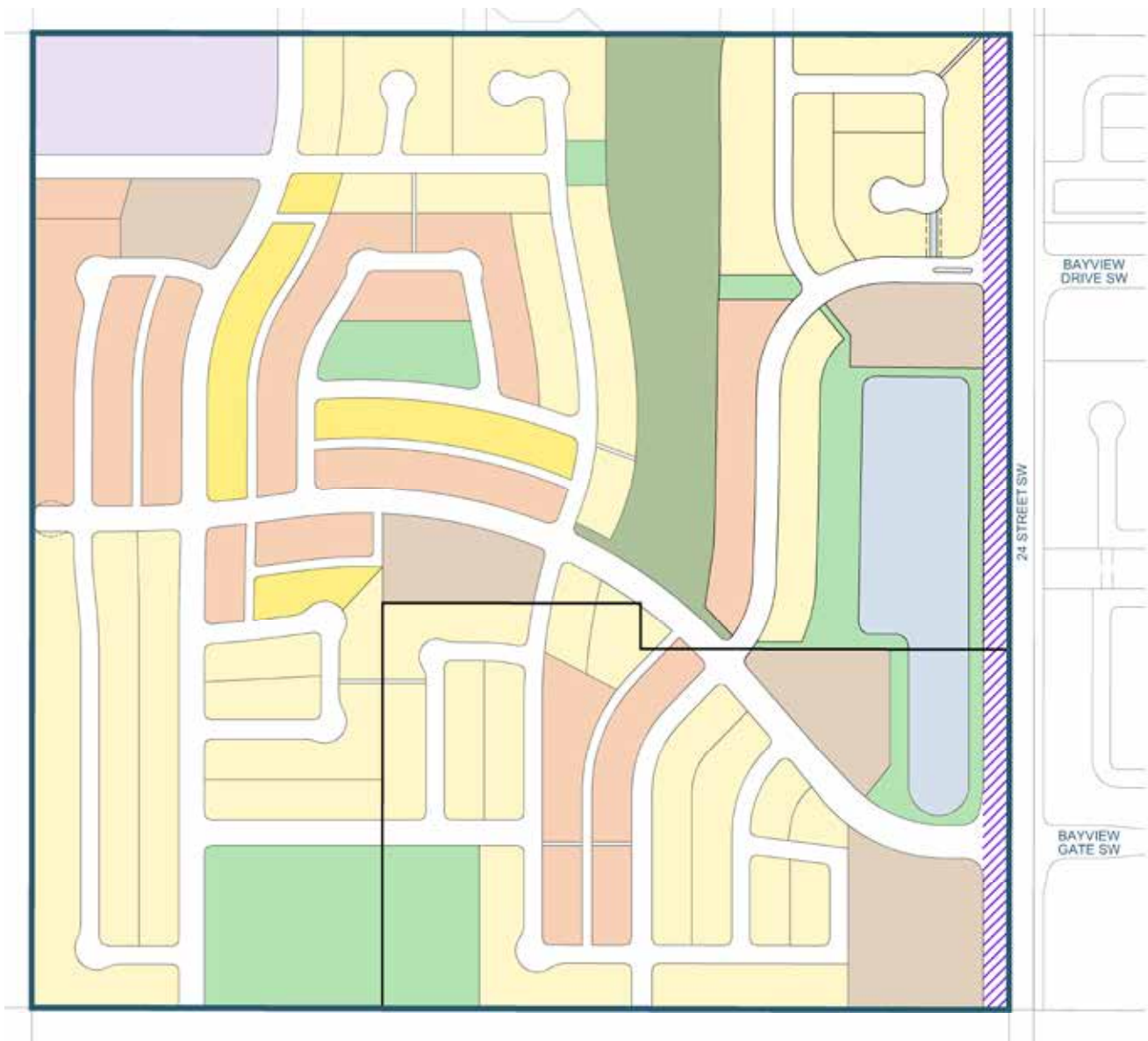
Table 1. Neighbourhood Plan Land Use Category Summary

	Hectare	Acres	%
Gross Developable Area	65.08	160.81	
Less			
(ER) Environmental Reserve	3.76	9.28	
24 th Street Road Widening - to be purchased	1.33	3.29	
24 th Street Road Widening - to be dedicated	0.41	1.01	
High School Purchase	2.02	4.99	
Net Developable Area	57.57	142.25	100
(SD) Single Dwelling (average 11.6m lot width)	10.50	25.95	18
(SDNL) Single Dwelling Narrow Lot (average 9.75m lot width)	10.20	25.20	18
(SDLL) Single Dwelling Laned Lot (average 8.5m lot width)	1.97	4.87	3
(R2) Two Dwelling/Townhome (average 6.7m lot width)	8.44	20.86	15
(MFMD) Multi-Family Medium Density	4.70	11.60	8
(PUL) - Pond	2.65	6.54	5
(MR) Municipal Reserve	5.75	14.21	10
Roads			
Road - Primary Divided Collector (27.00m)	0.47	1.15	1
Road - Collector (23.5m)	0.62	1.54	1
Road - Collector (21.0m)	3.53	8.71	6
Road - Residential (19.3m)	0.97	2.39	2
Road - Residential (16.75m)	0.50	1.23	1
Road - Residential (15.0m)	6.27	15.49	11
Road - Lanes/walkways	1.01	2.50	2
Net Developable Area	57.57	142.25	100

Table 2. Frontage Analysis

	m	ha	ac	Average lot width	unit per ac	# units	uph	upa	%
(SD) Single Dwelling (*lot widths greater than 10.36m)	2760	10.50	25.95	11.6		238			20
(SDNL) Single Dwelling Narrow Lot	2834	10.20	25.20	9.75		291			24
(SDLL) Single Dwelling Laned Lot	769	1.97	4.87	8.50		90			8
(R2) Two Dwelling/Townhome	2397	8.44	20.86	6.70		358			48
(MFMD) Multi-Family Medium Density		4.70	11.60		18.00	210			
Total	8760	35.81	88.48			1186	20.6	8.3	100
Census average of 2.7 residents per dwelling x 1186 units = Approximately 3200 people									

These numbers are estimates based on average lot widths and percentage assumptions for land use typologies. The final lots, products and unit counts are subject to change and will be determined with future land use amendment and subdivision applications.



Legend

- | | | | |
|--|---|--|----------------------------------|
| | Neighbourhood Structure Plan Boundary | | (OS) Open Space Credit |
| | (SD) Single Dwelling / | | (HS) High School Site |
| | (SDNL) Single Dwelling Narrow Lot | | (OS) Environmental Protection |
| | (SDLL) Single Dwelling Narrow Lot Laned | | (PUL) Lands Containing Utilities |
| | (R2) Two Dwelling/Townhome | | 24 Street Road Widening |
| | (MFMD) Multi-Family Medium Residential | | |



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FIGURE 9. NEIGHBOURHOOD STRUCTURE PLAN

LAND USE POLICY:

- 4.3.1.1 The overall minimum density of Key Ranch shall be 8 upa.
- 4.3.1.2 Higher density land uses shall be located with direct access to transit routes, main corridors, and public open spaces.
- 4.3.1.3 A minimum of 30% of the housing stock in Key Ranch shall be either semi-detached or townhome, apartment, or other multi-family housing styles.
- 4.3.1.4 Detailed housing mix information shall be provided for each phase and the overall community with each future land use and subdivision application.
- 4.3.1.5 The use of sound walls and other man-made barriers shall be limited through the use of effective design measures and land use placements instead.
- 4.3.1.6 Higher density forms of housing will be generally concentrated around key community corridors, in proximity to the community’s unique open space features and along 24th Street, which will support a higher-order transit corridor.



4.3.2 HOUSING MIX

The housing mix in the Key Ranch neighbourhood will comprise of single detached, semi-detached, and multifamily homes. Of the five multi-family parcels in Key Ranch, three are strategically located on, or close to, the future 24th Street transit corridor. With this location, the residents will be within a five-minute walk to transit via sidewalks or pathways. Given the topography of the land, housing forms in some areas will require slope adaptability.

Phased land use redesignation applications will solidify these housing types and ensure the mix meets community design intentions and density targets.

4.3.3 BUILDING SCALE

Homes, infrastructure, and public buildings in Key Ranch will all need to respond to the slopes present on the site. Buildings where required and practical should incorporate an element of slope adaptiveness.

4.3.4 SLOPE ADAPTIVE DEVELOPMENT

The steep topography of the subject site makes it unique to Airdrie neighbourhoods to date. The slope condition throughout the neighbourhood will require thoughtful application of standard development principles. Retaining walls will likely be required given the topography of the land. Detailed site design will endeavour to minimize the use of walls by site grading, accommodating grade transitions with walk-out homes, back to front and potentially drive-under lots. Site grading will endeavour to follow the natural flow of the land, being sensitive to the existing topography.

To accommodate this dramatic topography, special considerations may be required of both Land Use and engineering standards during subdivision development approvals when specific design details are available.

The provision of affordable homes and the feasibility of lanes is one special consideration that has been acknowledged at the NSP stage. Due to the steep topography on the subject lands, lanes can be challenging to incorporate into the site layout. However, laned homes

are often the majority of affordable product provided within a neighbourhood and they have been included in the plan, where feasible, but the slopes on the sites have limited the amount of affordable product which can be produced. Without lanes, the affordable product is envisioned to have either an R-1U or R2 land use district which limit the percentage of homes with front garages of 6.0m in width on lot sizes below 10.4m wide. This bylaw restriction limits the amount of affordable product that can be produced so therefore, a slope adaptive policy to modify the current limits in this regard should be applied to the Key Ranch NSP to maintain the availability of affordable product in each phase.

The second special consideration due to slopes applies to parks and open spaces (Municipal Reserve). This neighbourhood plan proposes a variety of park spaces including programmable, informal, and naturalized open spaces that contextually incorporate slopes to provide valuable community amenity. Due to the steep topography of the land the Municipal Reserves spaces will have overall slopes but will be kept to a maximum of 33%.

SLOPE ADAPTIVE DEVELOPMENT POLICY:

- 4.3.4.1 **At the time of building permits for the block of R2 lots located in Phase 1 the Development Authority shall relax the maximum percentage noted under the Land Use Bylaw 8.5.7 (R2, Low Density Residential District) Development Standard 4 from 25% to 50% as it relates to accommodating 6.1m wide garages on lots under 10.36m.**
- 4.3.4.2 **Slopes within Municipal Reserve districts shall be no greater than a maximum of 33% slope. Given the natural topography of the land, anything less than 33% slope shall be credited towards the MR requirement.**
- 4.3.4.3 **A post grading slope stability report shall be submitted at grading permit stage.**

4.4 OPEN SPACES, PARKS + SCHOOL

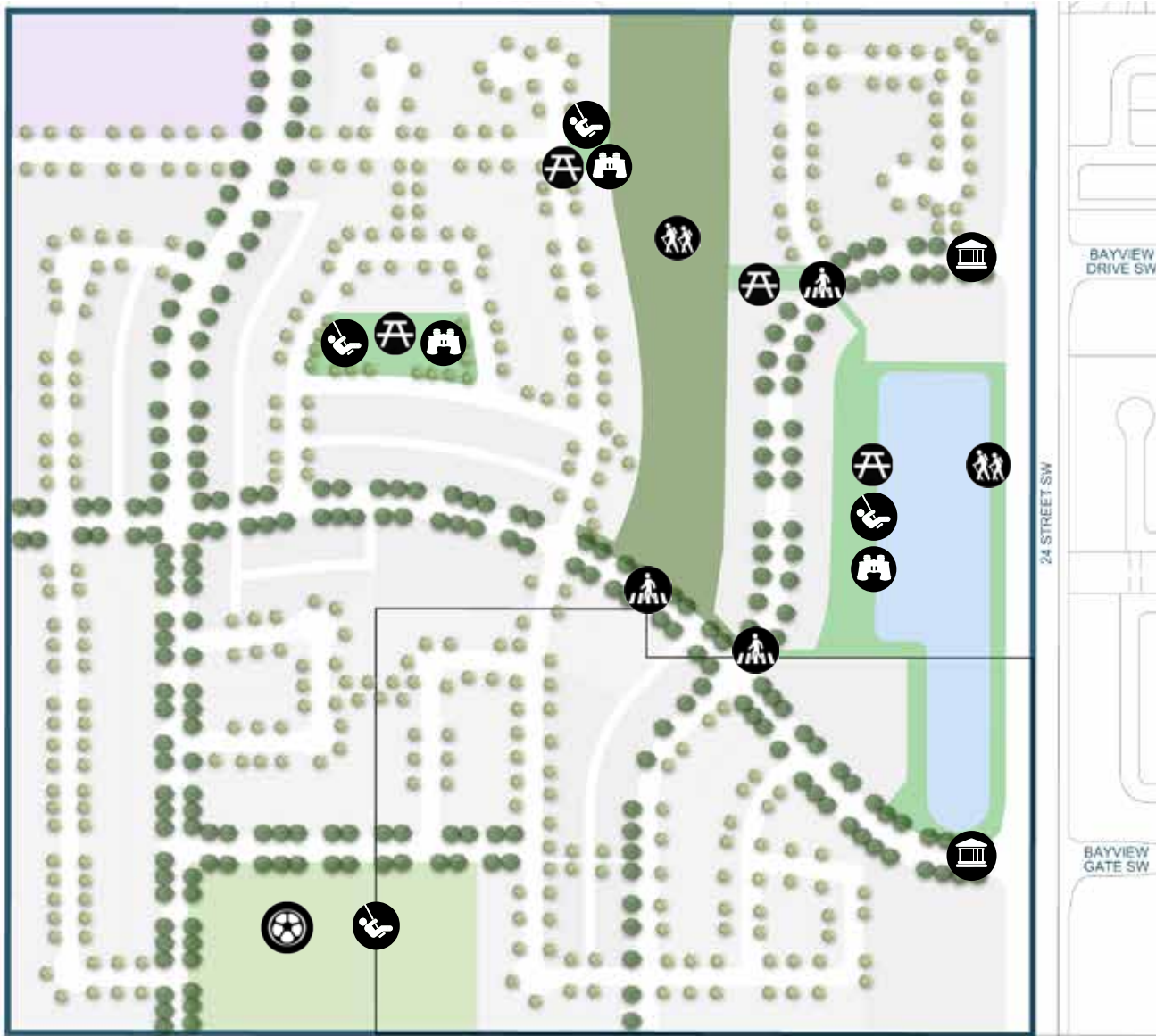
The Open Space network, comprised of both structured and naturalized parks and school sites, will be interwoven with a series of regional pathways and naturalized trails to ensure contiguous and intuitive access. Guiding the process of planning and designing these spaces is the notion of protecting and enhancing the inherent qualities and attributes of the landforms, namely the escarpment and the lower bench which will be home to a prominent stormwater facility and associated park space.

Overarching these amenities is the provision of an elevated lifestyle, one in which people can meet people passively, see beyond their own backyards, and have a variety of spaces to be drawn to and actively enjoy within minutes from their door.



OPEN SPACES, PARKS + SCHOOL POLICY:

- 4.4.1 Key Ranch shall provide up to 10% of the net developable area as credit Municipal Reserve.
- 4.4.2 Open spaces, parks, and school reserves should provide a mix of recreational activities, both passive and active. Parks and open spaces will be designed to be universally accessible, where possible.
- 4.4.3 The pathway network should aim to connect areas within larger parks and open spaces, with access to these areas provided through the modified grid street network.
- 4.4.4 The open space and parks around the escarpment should emphasize lookouts and nature-based activities that provide variety to recreational opportunities in the region.
- 4.4.5 Further to, and in alignment with CASP Policy 3.2.1 & 3.2.2, a portion of the ER area will be subject to contouring to enhance community access and residential interfaces.
- 4.4.6 The City will not be seeking to preserve a mature stand of trees in the south-central portion of the site using Municipal Reserve (MR), but Conservation Reserve (CR) may be discussed if there is opportunity at subdivision.
- 4.4.7 At the detailed design stage --in collaboration with the City of Airdrie-- the developer will consider incorporating interpretive signage with education about the trees.



** Tree layout is conceptual in nature and is subject to change upon utility layout and coordination.



FIGURE 10. OPEN SPACE AMENITIES OVERVIEW PLAN

4.4.1 MUNICIPAL RESERVE SUMMARY

Table 3. Municipal Reserve Summary Table

Owner		Hectares	Acres
Lamont	Total Area	48.87	120.76
	Less Environmental Reserve	3.76	9.28
	24 th Street Road Widening - to be purchased	0.84	2.08
	24 th Street Road Widening - to be dedicated	0.26	0.63
	High School Purchase	2.02	4.99
	Total Developable Area	42.00	103.78
	Reserve (10%)	4.20	10.37
Reid Family	Total Area	16.21	40.05
	Less 24 th Street Road Widening - to be purchased	0.49	1.21
	Less 24 th Street Road Widening - to be dedicated	0.15	0.37
	Total Developable Area	15.57	38.47
	Reserve (10%)	1.55	3.84
Total Key Ranch Reserves:		5.75	14.21

Table 4. Open Space Calculations

	Hectares	Acres
OS1	0.63	1.56
OS2	0.12	0.30
OS3	0.13	0.33
OS4	1.33	3.28
OS5	0.48	1.19
OS6 (School Site)	1.98	4.89
OS7 (School Site)	1.08	2.67
Open Space Total	5.75	14.21
(EP) Environmental Protection	3.76	9.28
(HS) High School	2.02	4.99

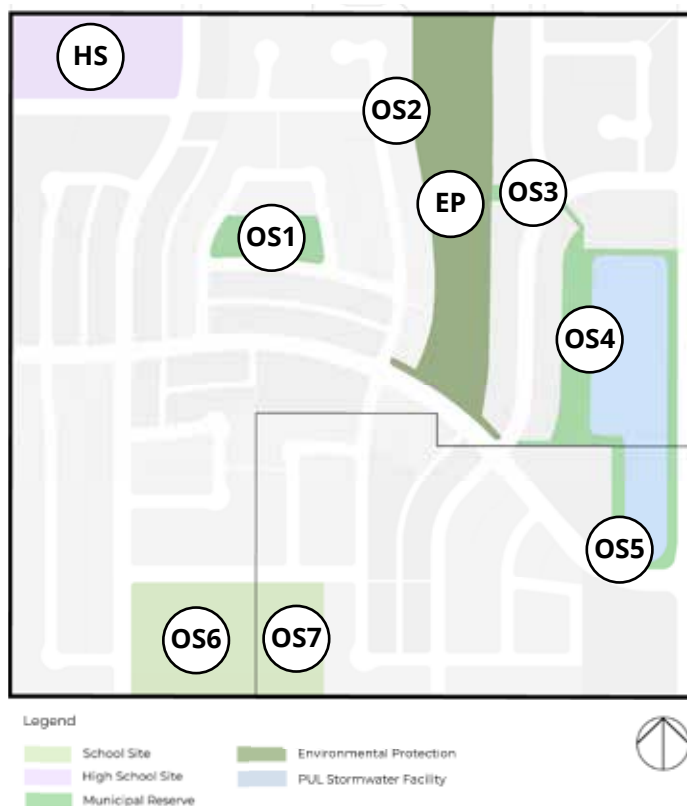


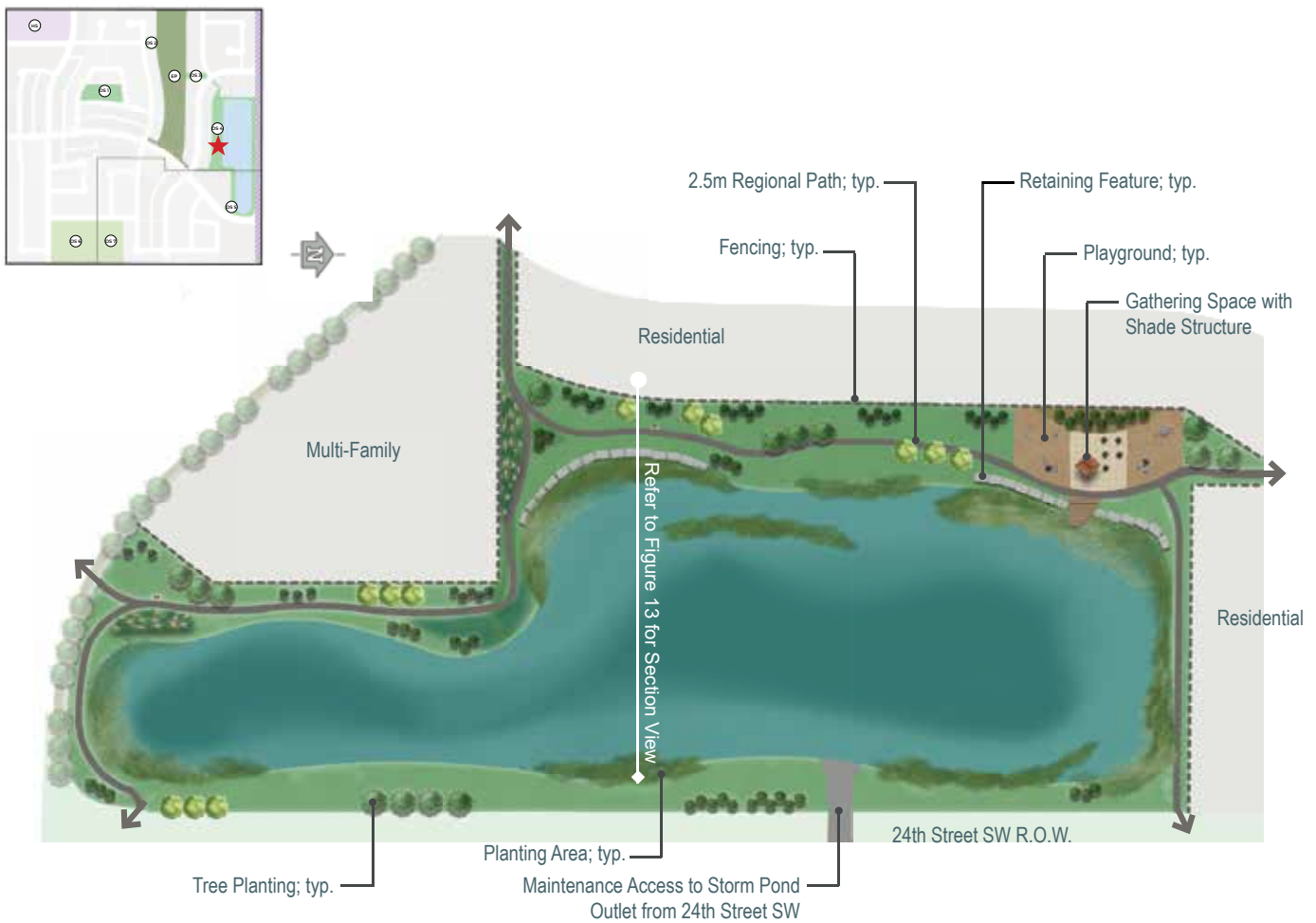
FIGURE 11. OPEN SPACE CALCULATIONS

4.4.2 STORMWATER FACILITY

Over and above its critical function in the community, the storm pond and the programmed amenities surrounding it create a base camp for numerous recreational and social opportunities. The pond, highly visible from 24th Street, anchors the open space system within Key Ranch and presents an element of tranquility for a large portion of the community's interface with the corridor.

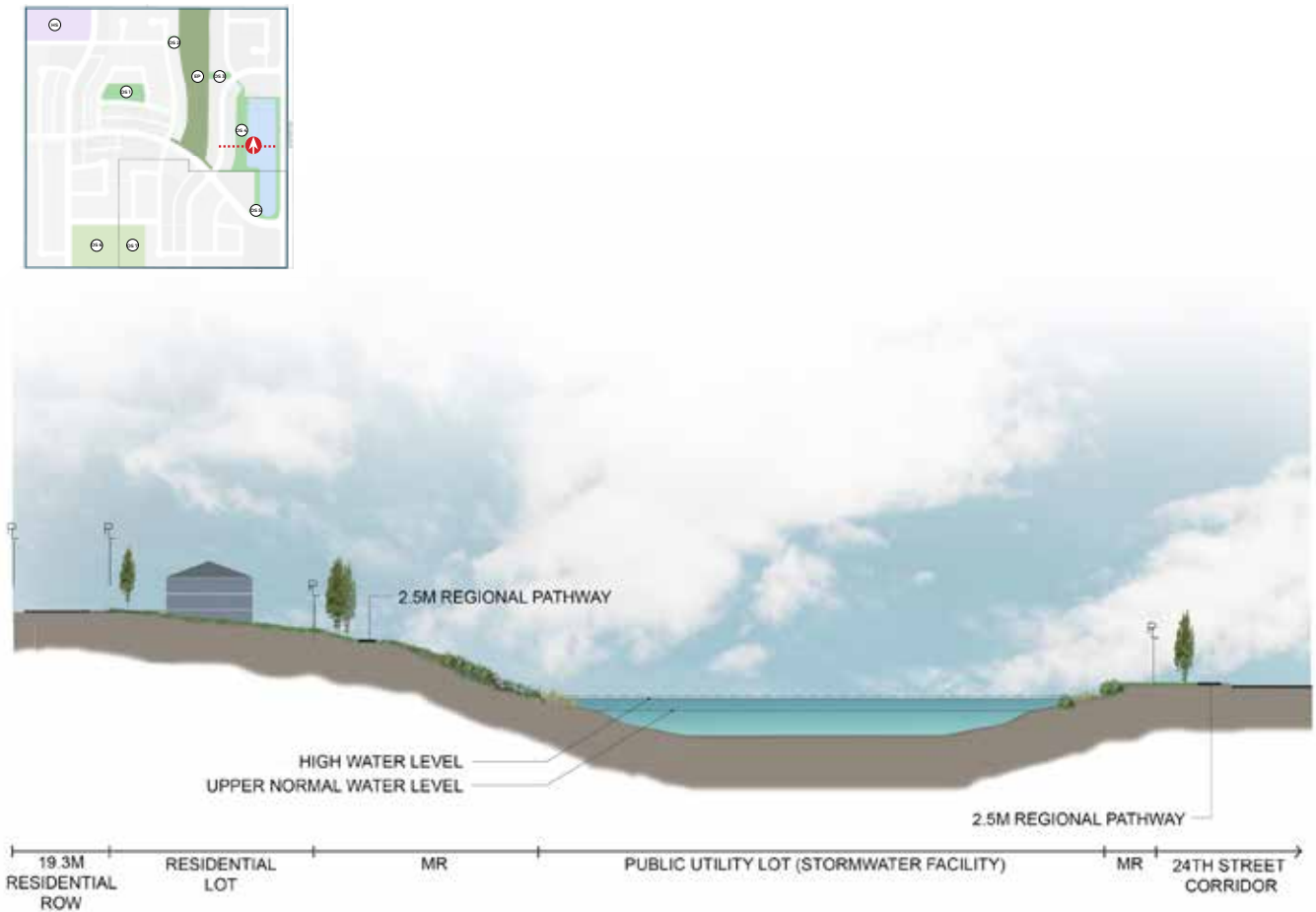
Set between the two main eastern entrances, this area buffers the homes from the bustling street, and it varies the built form of the community's edge, providing visual interest and protecting viewsheds through the lower level of the community to the escarpment. Connected to the southernmost entry point, the stormwater facility and park space reinforces the sense of arrival.

Visual connection between the pond and the escarpment is a keystone of the open space system. The vastness of these two open space anchors and mindfully placed regional pathway connections between them creates a recreational circuit.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

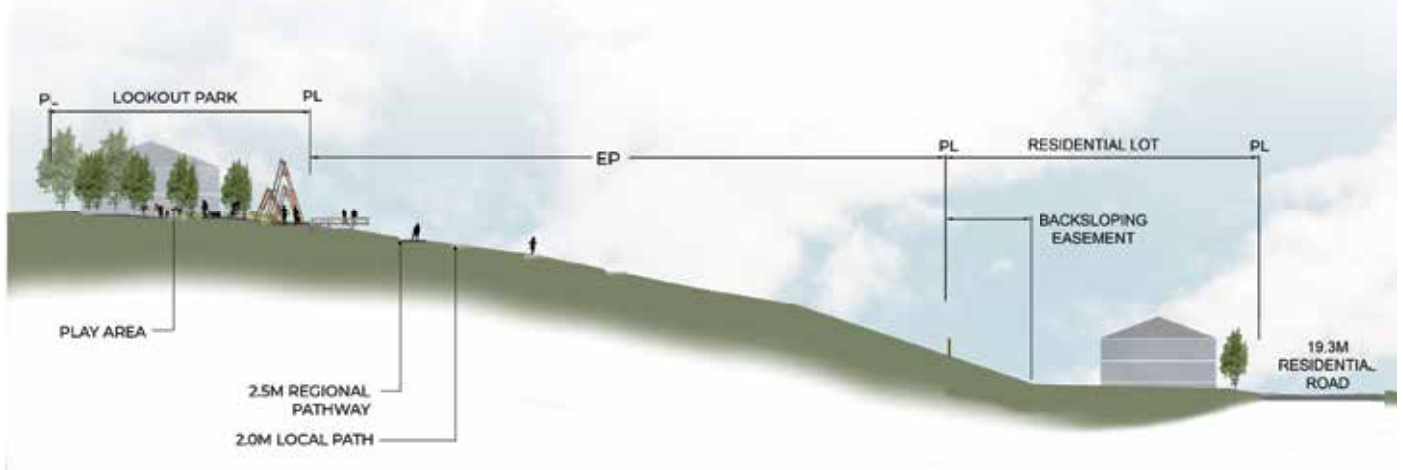
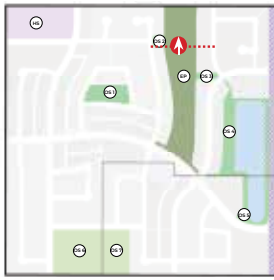
FIGURE 12. STORMWATER PARK ENLARGEMENT



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals. Please see Figure 12 for orientation of section view.

FIGURE 13. STORMWATER POND SECTION

The pond itself has been designed to meet Nose Creek Watershed Water Management Plan targets for rate and volume control. As required water will be drawn out of the pond to irrigate green spaces within the Key Ranch neighbourhood.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals. Please see Figure 12 for orientation of section view.

FIGURE 14. ESCARPMENT SECTION: LOOKOUT PARK

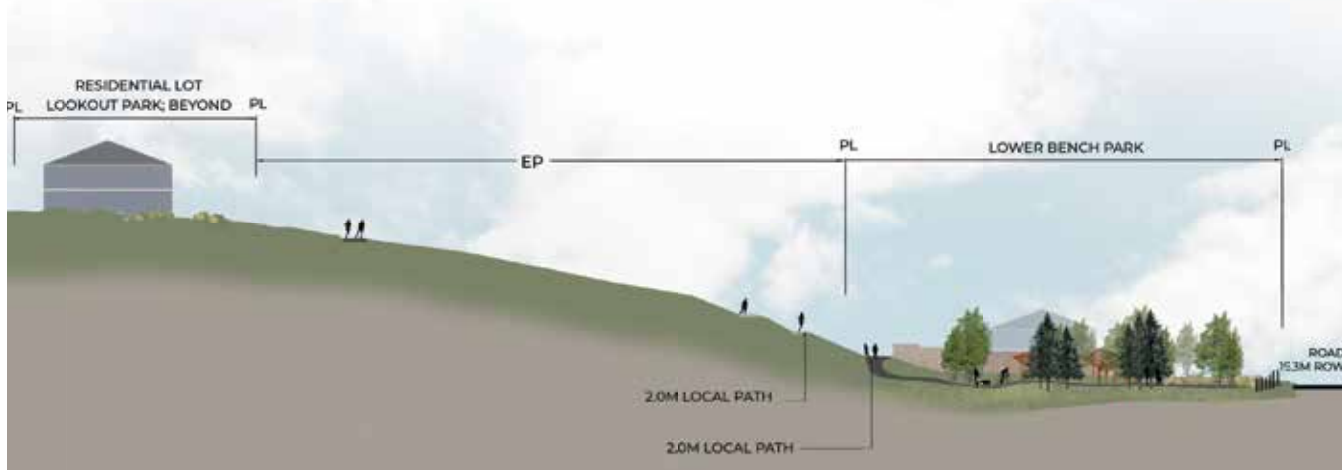
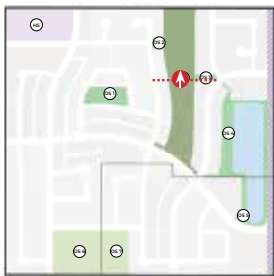
4.4.3 ESCARPMENT

The Environmental Protection (EP) area, a natural draw for residents and visitors will be enhanced by natural soft landscaping and hard landscaping features to create a focal amenity. Grading will be done within the EP for back sloping to work with surrounding road/lot grades and to incorporate the pathways and other added features with disturbed areas being reseeded with natural vegetation. As indicated in **Section 2.6.3 - Geotechnical**, a slope stability assessment of the existing slopes was conducted by McIntosh Lalani (October 2021). Based on this analysis, no slope stability concerns were identified with respect to the existing topography, water loading or onsite soil conditions. Proposed pathway and trail connections within the EP have been designed to anticipate desired movements through the

site and promote pedestrian access, encourage thoughtful movement and discourage unnecessary damage to the lands.

Two types of pedestrian connections have been proposed to present options for a varied experience of the slope. The regional pathway would be used to create strong linkages North-South as well as allow for an accessible means of traversing the slope. An alternate trail is proposed to connect the upper and lower MRs in a more direct alignment.

Along the connections, simple resting points will be located to allow users to enjoy the special vantage points along the escarpment. Interpretive signage may be implemented as a tool at key locations to educate users about the land's unique attributes and inherent environmental assets.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals. Please see Figure 12 for orientation of section view.

FIGURE 15. ESCARPMENT SECTION: LOWER BENCH

4.4.4 VIEWS

At the top of the escarpment, rising to the west, the noble Rocky Mountains serrate the skyline. And to the east, the vast expanse of prairie beyond the footprint of Airdrie itself continues until disappearing. Open spaces throughout Key Ranch will offer views that capitalize on the community's unique location.

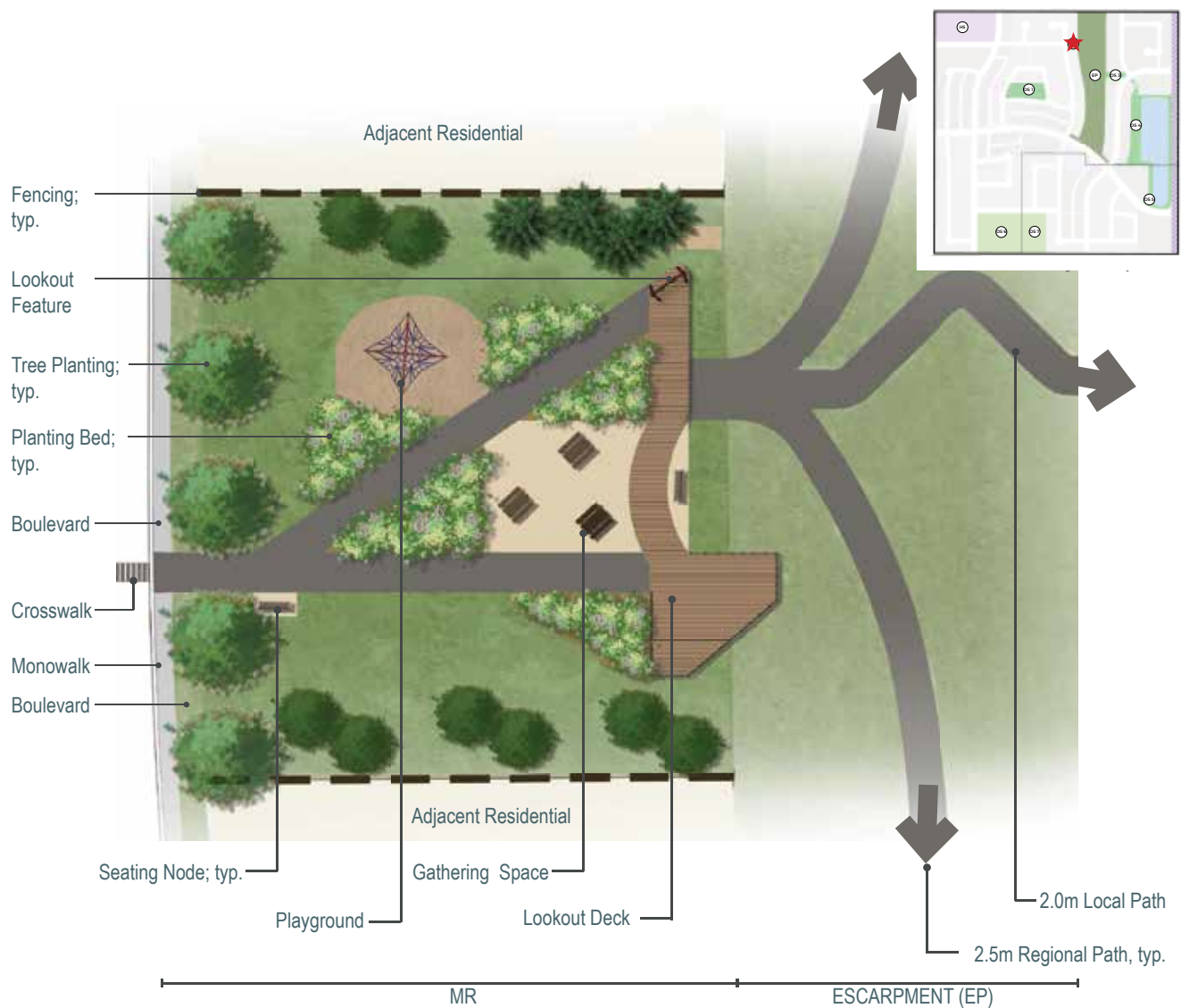
Viewsheds towards and from the escarpment are exclusive to West Airdrie and this is not taken for granted. Seen from below, a feature lookout will provide a local landmark with an opportunity to locate monumentation with unique Key Ranch character building on the history of the land.



4.4.5 MUNICIPAL RESERVES

LOOKOUT PARK

A centralized park along the top edge of the escarpment is nestled centrally amongst homes to provide a key destination within the community. A feature installation will create a point of interest along the edge that is visible from below and beyond Key Ranch’s boundaries, nodding to prominent structures of the lands’ past and providing opportunities for fitness, for discovery and for the community to gather.

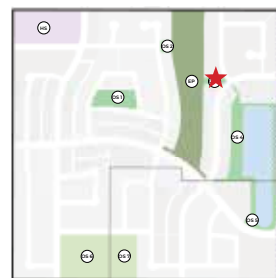


Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE 16. LOOKOUT PARK ENLARGEMENT

LOWER BENCH PARK

Offset from the escarpment's lookout is an elongated MR nestled at the bottom of the slope. The pathway connection to the escarpment segments the slope to allow for a resting spot that takes advantage of the mid-slope views through the lower bench park and beyond the community's northern gateway. The open flexible spaces may be used for informal activities, separated from the street to the east. Gathering areas are placed in response to these activities, with inclusive access via a regional pathway to street connections.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE 17. LOWER BENCH PARK ENLARGEMENT

NEIGHBOURHOOD PARK

The signature neighbourhood park in the heart of the upper bench provides a central amenity space that will contain programmed and unprogrammed play and leisure opportunities. The intent for this space is to include interest and visual connection through a central play structure and landform features to reinforce the interconnectivity of visual elements within the open spaces. Space has been preserved to allow for tobogganing in the winter from a controlled elevation with an outrun to the park below.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE 18. NEIGHBOURHOOD PARK ENLARGEMENT

4.4.6 SCHOOL SITES

ELEMENTARY JOINT USE SITE

The Elementary Joint Use Site will supply play fields and a building envelope in accordance with the Rockyview Schools' requirement and as described in the West Hills CASP. The school site is shared between two landowners. At the appropriate phase of development, the developer will use all commercially reasonable means to provide a complete site in collaboration with the private landowner. The proposed building envelope will be located in the western edge of the parcel and the fields will be located along the eastern edge.

HIGH SCHOOL SITE

A future high school has been conceptually shown in the West Hills CASP and in this NSP application. The developer's proportionate share of the site is located in the north west corner of the plan area. The high school site area is ultimately to be shared equally between four quarter sections. Refer to the West Hills CASP for further policy regarding assembly and implementation of this high school. The high school is not part of the Municipal Reserve dedication and shall be purchased.



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE 19. SCHOOL SITE CONCEPT

4.4.7 PATHWAYS + TRAILS

In keeping with policy direction from the Great Places Plan, the Transportation Master Plan, and the Transit Master Plan, pathways and trails will form a critical part of active mobility connections throughout the neighbourhood. A regional path system will run in tandem with the higher-order transit corridor along 24th Street, with an existing regional path on the east side and a new regional path proposed as part of Key Ranch on the west side. This will offer connectivity for residents accessing this important transit corridor.

Two branches of pathway connections are planned to emanate from 24th Street on the neighbourhood's eastern edge: one along the north edge of the pond, and one at the southern gateway:

- 1) A significant due-west connection- a regional path- aligned with the community's east-west spine along the neighbourhood's southern gateway (collector roadway) that will offer access through the centre of the community and westward to future neighbourhood development outside of Key Ranch.
- 2) A regional path connection along the northern edge of the pond that will turn southward to create a loop around the pond, and connect to other pathways that link to amenities along the escarpment and beyond.

The regional pathway that extends along the east-west collector through the centre of the community will offer access that aligns with conceptual future transit routes along that roadway. It will intersect the community's north-south collector spine towards the eastern edge of the plan, where it will branch and turn south to run past the school site at the southern boundary of Key Ranch (in addition to continuing west outside of this NSP area).

Local pathways will offer connections from the escarpment, through the neighbourhood and connect to key open space features and the future high school site on the northwest corner of the neighbourhood.





FIGURE 20. PEDESTRIAN PATHWAY AND TRAILS PLAN



4.4.8 GATEWAYS

Key Ranch has phenomenal opportunities to enhance the gateway using the themes of the lands' history, inherent assets as well as the vision of the community with features that represent elevation of lifestyle both physically as well as figuratively.

BAYVIEW DRIVE

This entrance will serve as the interim primary entrance in the very first phases of development. It provides access to development below the escarpment and turns south to connect with the main east-west collector. A median at the entry, in line with the significant sightline through the Lower Bench Park and up the escarpment, will be an ideal location to welcome residents and visitors to the community with landmark feature and enhanced landscaping to compliment the theme of elevation.

BAYVIEW GATE

This entrance will be the ultimate primary entrance to the neighbourhood. The collector road will sweep up the hill, and link to future development to the west. There is an opportunity to expand on the brand exhibited through the entry markers that are first implemented. The open spaces along the west side of 24th Street create a highly visible location that can be leveraged to make a gesture with a larger impact as it offsets the views over the stormwater pond and park facilities to the north of the gateway.

4.4.9 STREETScape

Rich and detailed architectural styles will be provided throughout the community, and a comprehensive set of guidelines will be developed to ensure the streetscape is diverse. These guidelines will be submitted under separate cover at the time of subdivision, if necessary based on the Land Use Bylaw requirements for the districts within the subdivision.

Streetscape diversity is achieved by varying lot widths, a mix of laned and non-laned product (where possible), and the incorporation of higher density housing (semi-detached and townhouse). Streets have been designed in the context of the site slopes and will rise with the landscape.

4.4.10 PEDESTRIAN ENVIRONMENT

The pedestrian environment will be influenced by the slopes on the site while still providing strong connectivity between major open spaces and schools. A network of various types of pathways and sidewalks will form a logical and easily-accessible pedestrian realm that supports both travel and recreation. In line with direction from both the Great Places Plan and the Transportation Master Plan, there will be an emphasis on connecting key destinations within the plan, such as the school sites, Upper Bench Park, the escarpment, and the open spaces along the storm pond that connect to 24th Street and the future higher-order transit corridor.. As well, a local pathway is proposed in the escarpment area to provide both connectivity and recreational usage. To conform to City of Airdrie design standards, sidewalks will be provided on all residential standard roads to ensure connections between pathways, major vehicle or transit routes, and local amenities are comfortable and easily accessible for residents.



5.0 Transportation

Key Ranch will ultimately offer an integrated transportation system with a range of travel choices. The diverse housing options and urban amenities will be well-connected both through roadway infrastructure and active transportation facilities. Providing a cohesive and efficient network will enable residents to enjoy a healthy and sustainable lifestyle and promote the growth of a strong, vibrant community.

The Key Ranch neighbourhood is designed to align with the objectives of the Transportation Master Plan. The Key Ranch neighbourhood is designed to:

- Support for a variety of travel modes (including significant options for sustainable modes of travel along the extensive pathway network and consistent sidewalk system),
- Accommodate pedestrian connectivity and accessibility via pathways and sidewalks.
- Take an integrated planning approach that considers not only direct access but also comfort and integration of transit into the neighbourhood design.
- Creating an effective and financially sustainable transportation system that plans for the long-term.

The proposed grid-like road network, with minimal cul-de-sacs, provides good connectivity both within the community and to the adjacent neighbourhoods. Two neighbourhood access points, one opposite Bayview Drive and one opposite Bayview Gate, will limit congestion into and out of the community. The east-west collector, opposite Bayview Gate and stretching



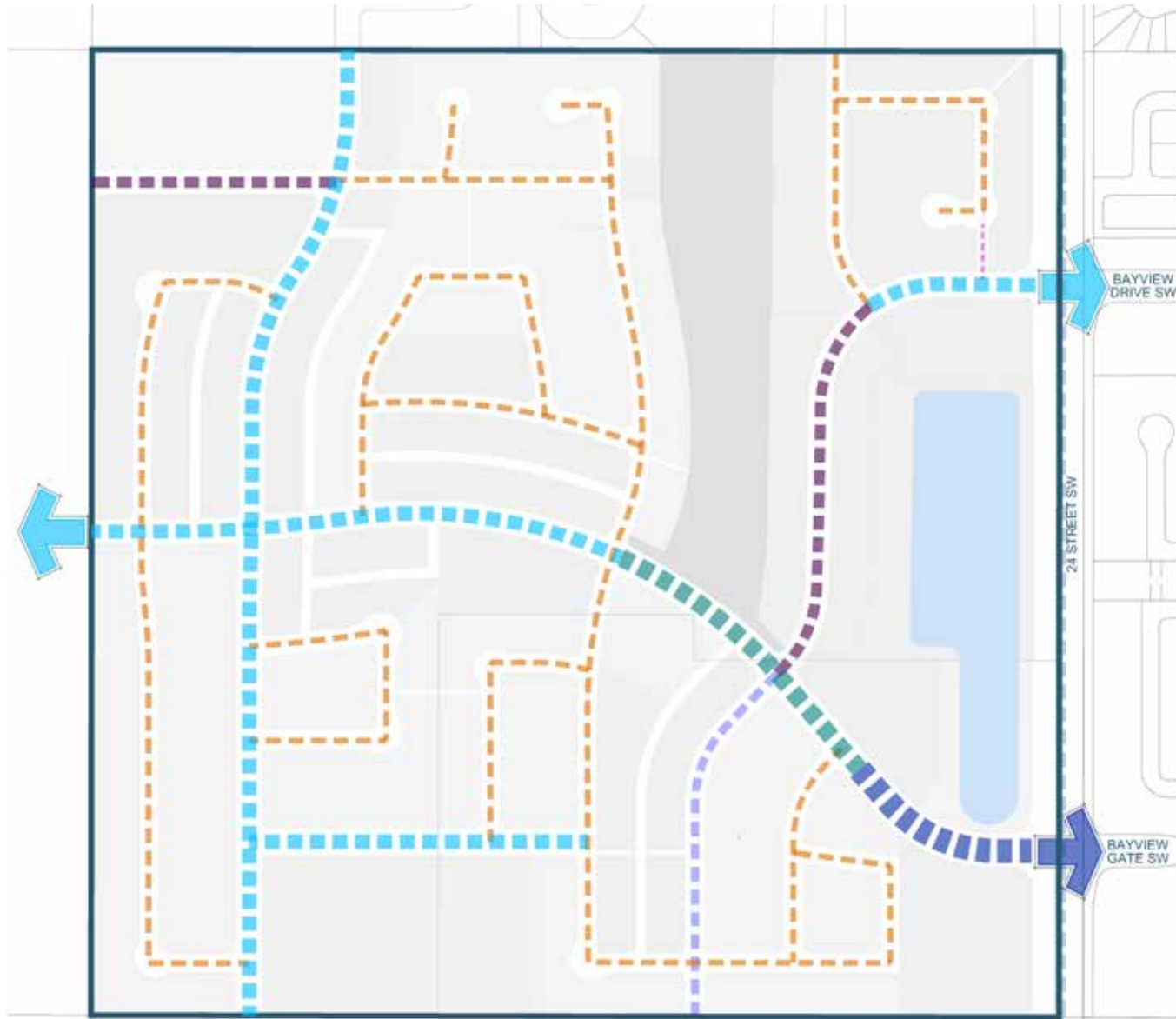
from 24th Street to the west edge of the development, is centrally located providing a convenient and continuous east-west route for most residents of the community. Additional collectors are included throughout the community where higher traffic volumes (such as connection points to Wildflower to the north and future development to the south, along the western side of the plan area) are expected and where additional parking demand is anticipated.

The Key Ranch roadway cross-sections will adhere to the City's Standard Road Cross-Sections. A 27m collector that includes a centre median and separate walk along the south side and a regional pathway along the north side will be provided at the main community access/ egress, opposite Bayview Gate. This roadway will narrow to a 23.5m collector, followed by a 21.0m collector and continue to the western edge of the community. The collectors within the west portion of the site will have a 21m right-of-way with sidewalks on both sides of the roadways and a 19.3m right-of-way, south of the high school site. A 21.0m collector provides a second access to 24th Street and then narrows to a 19.3m collector east of the ER. Additionally, all local residential roadways will maintain a 15m right-of-way with sidewalks on both sides with one 16.75m residential roadway connecting to the south boundary in the SE corner of the plan area. A 6m paved emergency access will be provided at the end of the cul-de-sac in the NE corner. **Figure 21. Road Network** illustrates the proposed road network and corresponding cross-sections. The proposed cross-sections have been included in **Appendix C - Road Cross Sections**.



As summarized earlier in this report, the City of Airdrie Transportation Mater Plan included a recommended cross-section for 24th Street, which accommodates projected travel volumes, transit, and walking.

The active transportation network will be supported by sidewalks on both sides of all Key Ranch roadways. A well-connected network of pathways, as described in **Section 4.4.7 - Pathways + Trails**, will be the heart of the active transportation network providing residents with continuous social and recreational opportunities.



Legend

- Neighbourhood Structure Plan Boundary
- 15.00m Residential
- 16.75m Residential
- 19.3m Collector Avenue
- 21.0m Collector
- 23.5m Collector
- 27.00m Collector
- 6.0m Paved Emergency Access



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FIGURE 21. ROAD NETWORK

The following table reflects a summary of future transportation improvements as identified in the TIA:

Table 5. Transportation Improvements

Horizon	Background Development*	Post Development
Opening Day	None	24 th Street and Bayview Drive: <ul style="list-style-type: none"> • Stop control at Key Ranch access to 24th Street (westbound leg)
2027 (60% build-out)	24 th Street from Veterans Boulevard: <ul style="list-style-type: none"> • Signalized 24 th Street and 1 st Avenue <ul style="list-style-type: none"> • Signalized 24 th Street and Bayview Drive/Key Ranch Access <ul style="list-style-type: none"> • Signalized Yankee Valley Boulevard and 8 th Street: <ul style="list-style-type: none"> • SIGNIFICANT UPGRADES NEEDED 	24 th Street and Bayview Gate/Key Ranch Access: <ul style="list-style-type: none"> • Signalized (consistent with Wildflower TIA) 24 th Street and Bayview Gate: <ul style="list-style-type: none"> • Signalized (consistent with Wildflower TIA)
2032 (full build-out)	24 th Street from Veterans Boulevard to Yankee Valley Boulevard <ul style="list-style-type: none"> • Widen from 2 lanes to 4 lanes Veterans Boulevard from 8 th Street to Main Street: <ul style="list-style-type: none"> • Widen from 2 lanes to 4 lanes Veterans Boulevard from 24 th Street to Reunion Gateway: <ul style="list-style-type: none"> • Widen from 2 lanes to 4 lanes 8 th Street and Veterans Boulevard: <ul style="list-style-type: none"> • Add second (dual) westbound left-turn lane 24 th Street and Yankee Valley Boulevard <ul style="list-style-type: none"> • Add northbound left-turn lane • Add second (dual) southbound left-turn lane 	No improvements required
2042 (10 years after full buildout)	24 th Street South of Yankee Valley Boulevard: <ul style="list-style-type: none"> • Widen from 2 lanes to 4 lanes Yankee Valley Boulevard west of 24 th Street: <ul style="list-style-type: none"> • Widen from 2 lanes to 4 lanes 24 th Street and Veterans Boulevard: <ul style="list-style-type: none"> • Add northbound left-turn lane Veterans Boulevard and 8 th Street: <ul style="list-style-type: none"> • SIGNIFICANT UPGRADES NEEDED 	24 th Street and Veterans Boulevard: <ul style="list-style-type: none"> • Add second (dual) westbound left-turn lane (consistent with the Bayview TIA - 2030 horizon) 24 th Street and Yankee Valley Boulevard: <ul style="list-style-type: none"> • Add second (dual) westbound left-turn lane (consistent with Bayview TIA - 2030 horizon) • Modify westbound right-turn lane to include an add-lane with free operation

*Transportation improvements timing is subject to regional development progression.

TRANSPORTATION POLICY:

- 5.0.1 The transportation network of Key Ranch shall encourage walkability and multi-modal transportation options.
- 5.0.2 The road network in Key Ranch shall provide opportunities for all modes of conventional transportation, including walking, cycling, transit, and driving.
- 5.0.3 The design of the road network should reflect a grid system with modifications for the unique topography.
- 5.0.4 Standard City of Airdrie street cross sections shall be implemented. Modified cross sections are provided in the appendix.
- 5.0.5 A street connectivity index of 1.4 will be targeted.
- 5.0.6 An active mode connectivity index of 1.6 will be targeted.
- 5.0.7 Multi-modal access to the future higher-order transit corridor on 24th Street should be prioritized where possible.
- 5.0.8 Sound attenuation studies for homes along 24th Street will be completed as needed at the development permit or subdivision approval stages.
- 5.0.9 The developer shall ensure appropriate pedestrian and vehicular connections to the transit corridor as detailed plans become available for this corridor. An update to the TIA shall be provided at each phase of subdivision to ensure the recommendations are implemented.
- 5.0.10 Traffic signalization and associated intersection improvements at the development accesses to 24th Street are the responsibility of the developer of the Key Ranch NSP, triggered by the phase of subdivision in the 2027 development year in Table 5 or as modified by an update to the TIA as required by the City of Airdrie. The developer shall construct or provide funds to complete such traffic signals and intersection improvements at the time of subdivision endorsement for the phase triggering the need for those improvements.

5.1 CONNECTIVITY INDEX

The connectivity index provides a method of quantifying the connectivity of a transportation network. It is a comparison of the number of links to the number of nodes. Links are considered road or pathway segments without a break, while nodes occur where links connect (i.e. intersections) or dead-end (i.e. cul-de-sacs).

There are two connectivity indices, the Street Connectivity Index and the Active Mode Connectivity index. The Street Connectivity Index only considers road links and nodes, while Active Connectivity Index considers the links and nodes of both roads and pathways. Refer to the Connecting Airdrie – Complete Streets Toolbox for further details on how the connectivity indices is determined.

The neighbourhood design achieves a street connectivity of 1.62 and an active mode connectivity index of 1.80. Both indices exceed the targets established by the City of Airdrie. **Figure 22. Street Connectivity Index** and **Figure 23. Active Modes Connectivity Index**, illustrate the links and nodes for the street and active mode connectivity.



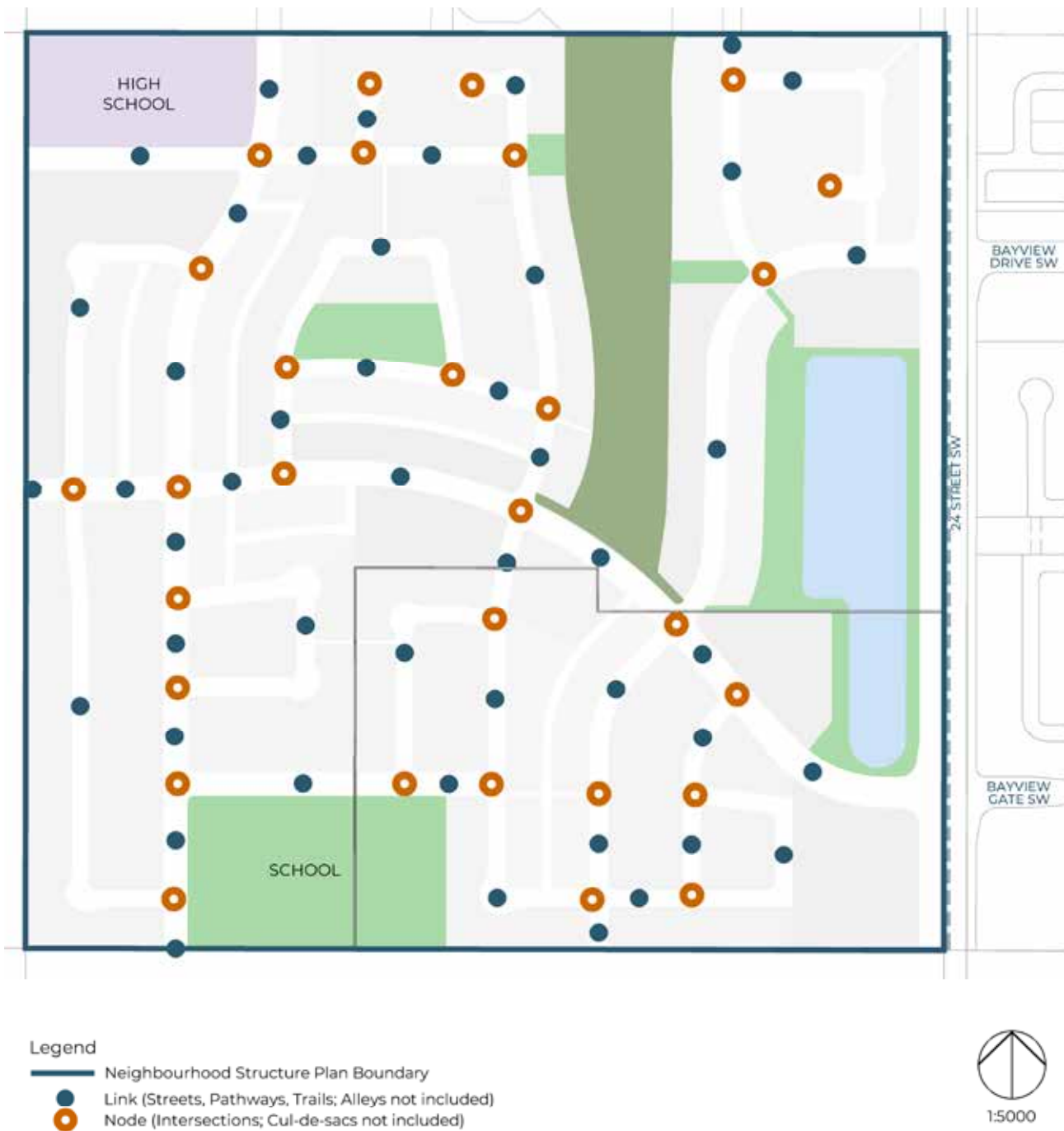


FIGURE 22. STREET CONNECTIVITY INDEX

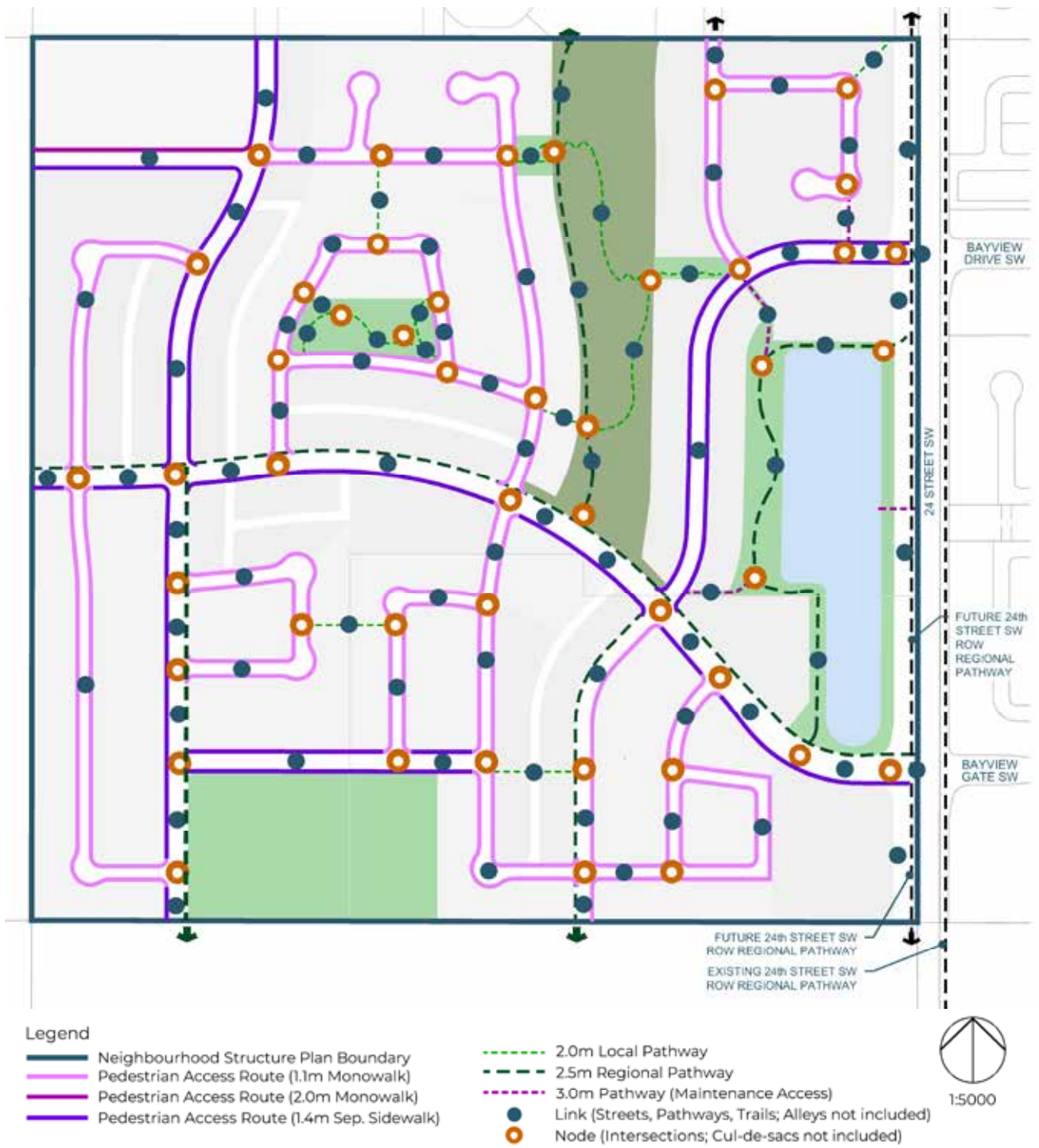


FIGURE 23. ACTIVE MODES CONNECTIVITY INDEX

5.2 PUBLIC TRANSPORTATION

The City's Transportation Master Plan aims to add significant transit infrastructure to the area in support of higher-order transit service: in addition to six vehicle travel lanes and regional pathways on both sides of the 24th Street Corridor, by 2039 regional rapid transit improvements are expected to be implemented along the 24th Street corridor. To support this rapid transit network, local transit service is expected to be implemented within the Key Ranch neighbourhood along the collector road network where it can be located in proximity to higher-density residential development, neighbourhood amenities, and multi-modal connections. Sidewalks on both sides of the collector roadways, along with an integrated pathway network, will ensure a safe and convenient environment for transit users walking to and from transit stops.

The City's Transportation Master Plan (TMP) provides new communities with a target of 90% of residents living within 400m of transit service and 90% of medium and high-density developments being located within 250m to transit service. In order for these targets to be achieved, transit stops along 24th Street should be provided at both neighbourhood accesses on 24th Street and at various locations along the east-west collector. See **Figure 24** and **Figure 25. Conceptual Transit Stop Locations (250m and 400m)**, for conceptual locations of future transit stops. As shown, the Key Ranch transit network aligns with the standards set out in the TMP.



PUBLIC TRANSPORTATION POLICY:

- 5.2.1 Transit stops shall be in locations that are consistent with the Airdrie Transit Master Plan and direction in the Transit Master Plan.
- 5.2.2 90% of residents will live within 400m of a transit stop.
- 5.2.3 90% of medium and high density developments will be located within 250-m of transit service.

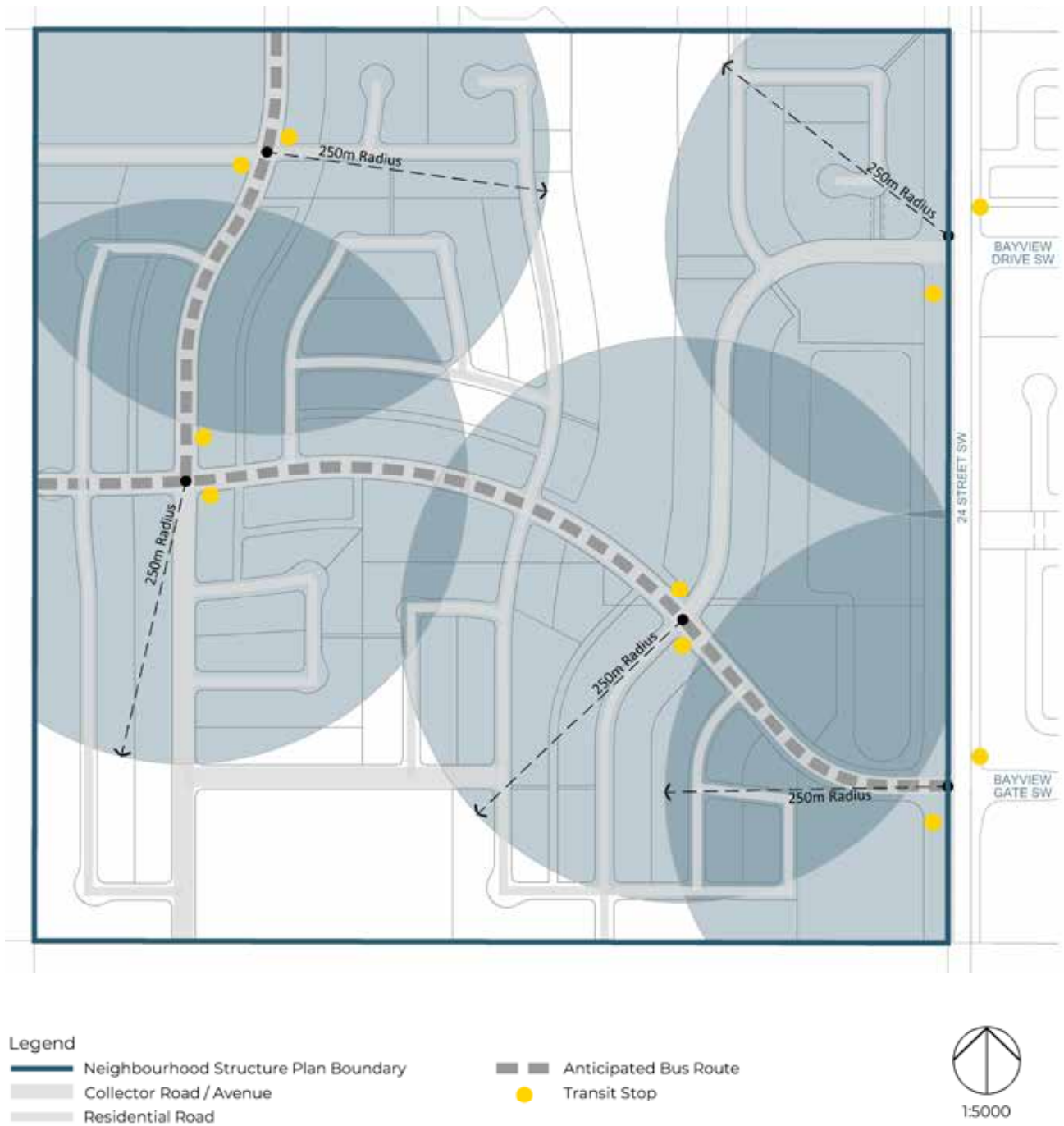


FIGURE 24. CONCEPTUAL TRANSIT STOP LOCATIONS (250M)



FIGURE 25. CONCEPTUAL TRANSIT STOP LOCATIONS (400M)

6.0 Servicing

Servicing of the Key Ranch neighbourhood has been provided in detail in the Key Ranch Servicing Strategy Report and Key Ranch Staged Master Drainage Plan (Urban Systems, 2021), under separate cover. The conclusions and recommendations of those studies are summarized below and provided in **Figures 26 - 30**.

SERVICING POLICY:

- 6.0.1 Water, sanitary, and stormwater infrastructure shall conform with engineering design standards in the City of Airdrie.
- 6.0.2 Stormwater discharges from the Key Ranch pond shall conform to the requirements of the Nose Creek Watershed Water Management Plan.



6.1 WATER

The Key Ranch neighbourhood is located in the west and high west pressure zones as illustrated in the City of Airdrie Utility Master Plan. Ultimately, the future High West Reservoir will service the neighbourhood. The High West Reservoir will be located in the quarter section to the north and west (SW 10-27-1-W5M). Currently, the City of Airdrie is working with Calgary to determine the location of the new feeder main from Calgary. As per the UMP, Airdrie has a redundant water supply to a population of 98,000.

Within the neighbourhood, water servicing in Key Ranch will consist of extending a 300mm regional watermain through the plan area connecting to both the north, south and west boundaries. Proposed watermain sizing and off-site servicing is illustrated in **Figure 26. Water Servicing and Figure 27. Key Ranch Staged Servicing Report (Figure 5)**. A water connection through the ER may be required if development in the adjacent areas and/or delays in regional infrastructure results in areas of the water system being isolated without adequate flow and/or redundancy.

Prior to reaching the ultimate servicing scenario, sequencing of infrastructure is required. Staging of interim servicing for Key Ranch has been detailed in the Key Ranch Servicing Strategy Report, under separate cover. A 400mm main exists within Bayview Gate. An initial connection will be made by extending a 300mm watermain from Bayview Gate west into the

development. As an alternative depending on timing a watermain extension from Bayview Drive or north from Wildflower NSP is possible. Phase 1 may include the extension of a 300mm watermain from Bayview Drive, if the 400mm watermain within Bayview Drive exists at the time of Phase 1 subdivision.

Water servicing will be staged based on supply and fire flow requirements. The following infrastructure is required on a phase by phase basis.

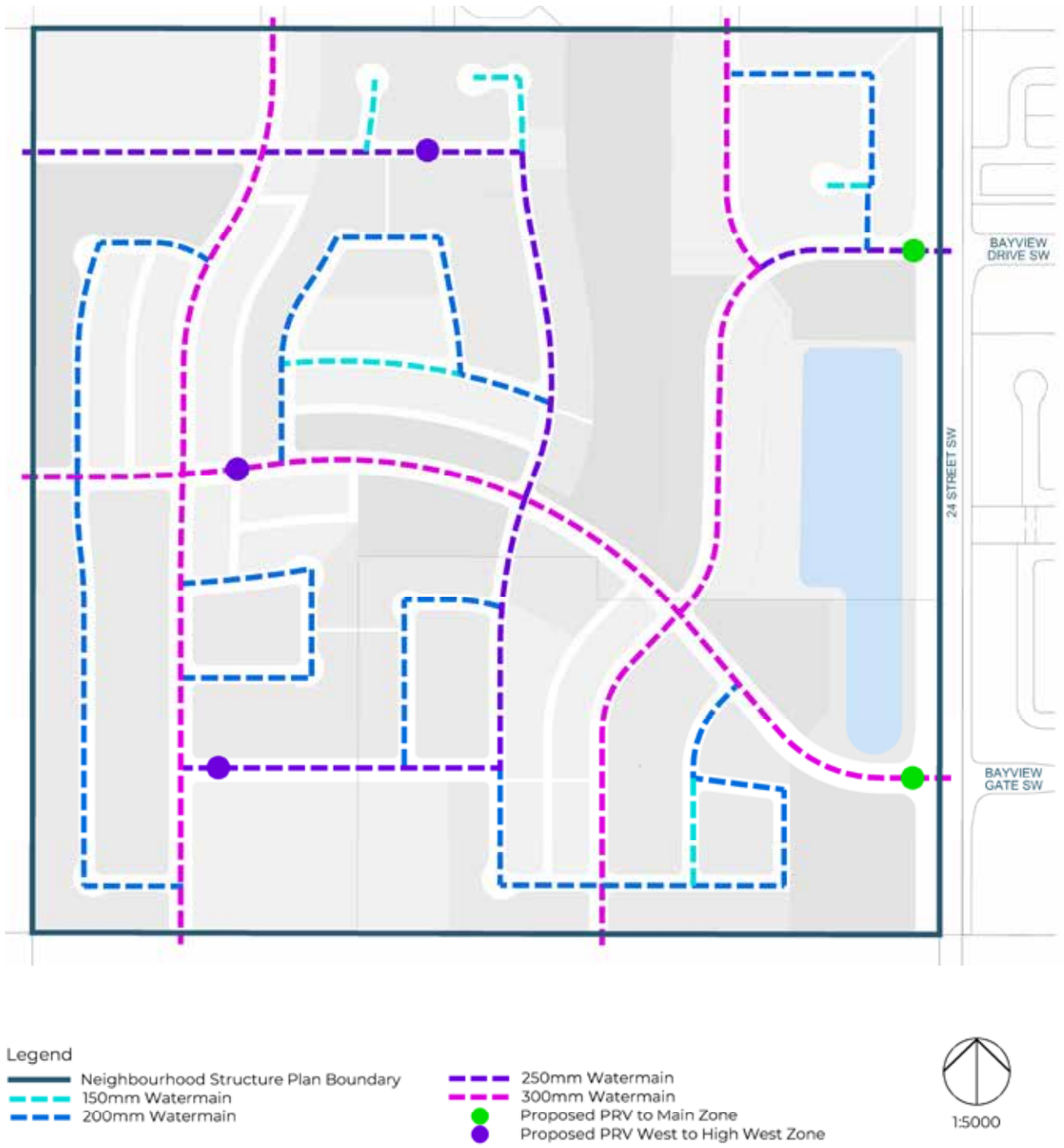
- **Phase 1** = no inline booster required, a second connection to the north is provided
- **Phase 2** = inline booster is required
- **Phase 5** = reservoir required - based on proposed pressure zone elevations

The City of Airdrie is initiating a functional study to further refine the water servicing for the 12,000 acres of recently annexed land. This report will provide further direction on the pressure zones, future reservoirs, booster stations, and servicing from Calgary.

As the regional solution is solidified, permanent and temporary infrastructure will be determined, with permanent infrastructure being the preferred solution where possible. The City of Airdrie's ability to provide potable water is contingent on securing capacity from the City of Calgary, and the conditions of the City's Master Servicing Agreement with Calgary.

WATER POLICY:

- 6.1.1 A water model will be provided with each phase of subdivision to the satisfaction of the City of Airdrie.**



Legend

- Neighbourhood Structure Plan Boundary
- - - 150mm Watermain
- - - 200mm Watermain

- - - 250mm Watermain
- - - 300mm Watermain
- Proposed PRV to Main Zone
- Proposed PRV West to High West Zone



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FIGURE 26. WATER SERVICING

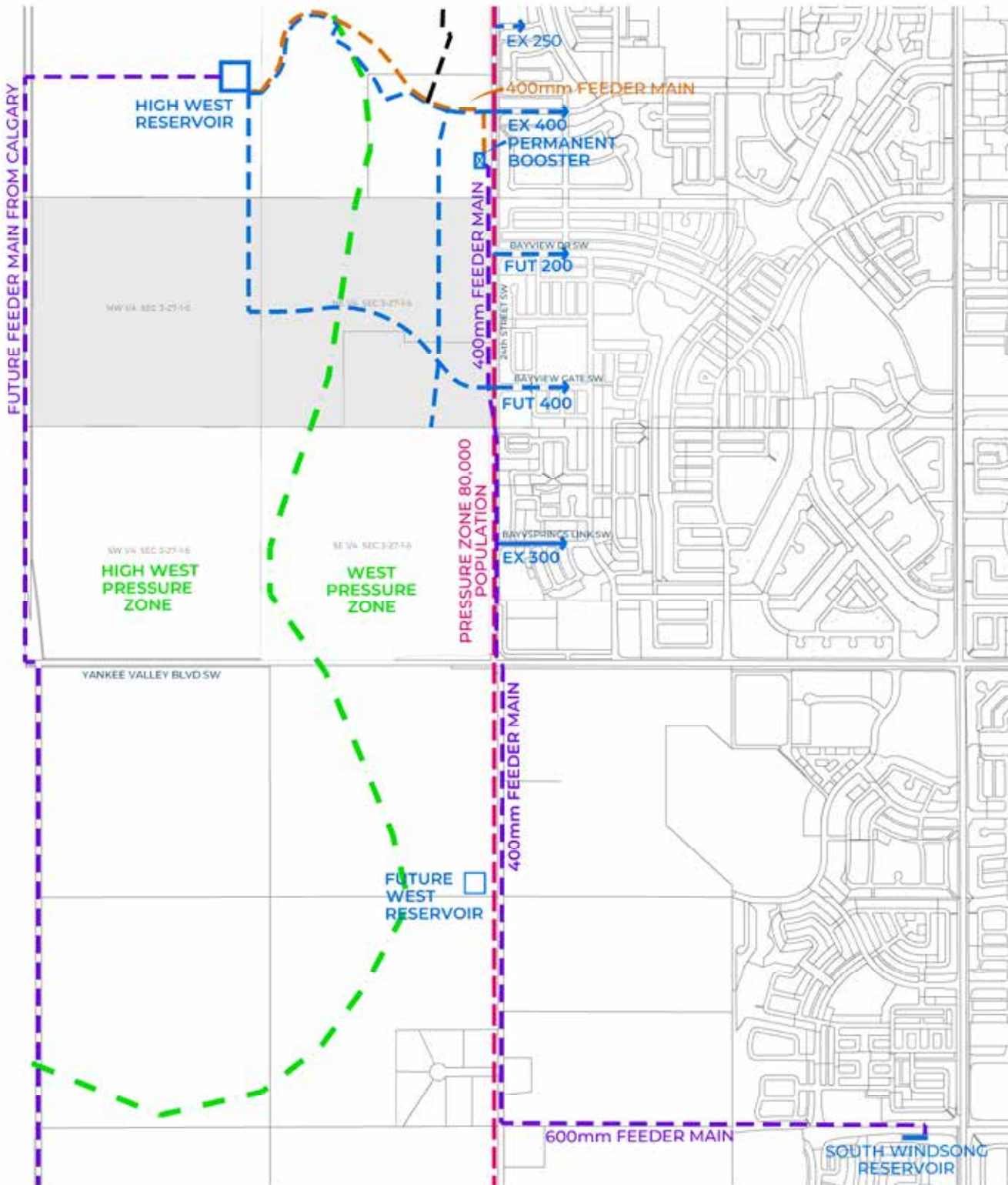


FIGURE 27. KEY RANCH STAGED SERVICING REPORT (FIGURE 5)

6.2 SANITARY

The Key Ranch NSP area will ultimately be serviced by the future south Lift Station #8, and the future west trunk main which will be extended north along 24th Street as per the City of Airdrie Utility Master Plan.

As timing for the construction of this infrastructure is unknown, an interim servicing strategy was established through the West Hills CASP approval. A temporary connection will be made to the sanitary main within Bayview Gate and will utilize a portion of the remaining capacity in the northwest system. Participation in the contribution agreement for the Phase 2 infrastructure is required to permit the use of the latent capacity. Details of interim servicing are outlined in the Staged Servicing Report, under separate cover and funding. Proposed pipe sizing and off-site servicing is illustrated in **Figure 28. Sanitary Servicing** and **Figure 29. Key Ranch Staged Servicing Report (Figure 2)**.

Wastewater servicing will be staged based on the existing system capacities. The following is required per phase:

- **Phase 1-4*** - Interim connection to Bayview Gate, utilize latent capacity in the existing system, contribute to levy for Stage 2 infrastructure. (*latent capacity is available on a first come first serve basis, capacity to be confirmed at subdivision)
- **Phase 5-8*** - Continue to utilize Bayview connection, Stage 2 infrastructure will be constructed with levy collected funds once the two quarter sections of latent capacity is utilized. The entire NSP area can be built out



with Stage 2 infrastructure. (*assumes Phase 5 based on regional growth, latent capacity is available on a first come first serve basis)

An additional 525mm pipe is required within Bayview Road. It is anticipated to be constructed in 2023, in advance of the extra capacity requirement.

Ultimate connection will be made to the regional trunk and Lift station 8 once infrastructure is constructed. The City of Airdrie's ability to provide wastewater servicing is contingent on securing capacity from the City of Calgary, and the conditions of the City's Master Servicing Agreement with Calgary.

Within Key Ranch, sanitary services will be provided with gravity mains that drain east towards 24th Street. These mains will be sized to accommodate future flows from the west quarter sections.

POLICY:

- 6.2.1 Monitoring of wastewater flows at Bayview Gate and upstream of the City's lift station is required to confirm capacity and surcharging within the sanitary system prior to subdivision. Monitoring will be completed by the City of Airdrie. Costs to monitor wastewater flows and analysis to confirm wastewater and/or water capacity for the Key Ranch development are the responsibility of the developer. The City will recapture these costs with each stage of subdivision.**



- Legend**
- Neighbourhood Structure Plan Boundary
 - 200mm Sanitary Main
 - 250mm Sanitary Mian

- 300mm Sanitary Main
- 375mm Sanitary Main
- Sanitary Manhole



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FIGURE 28. SANITARY SERVICING

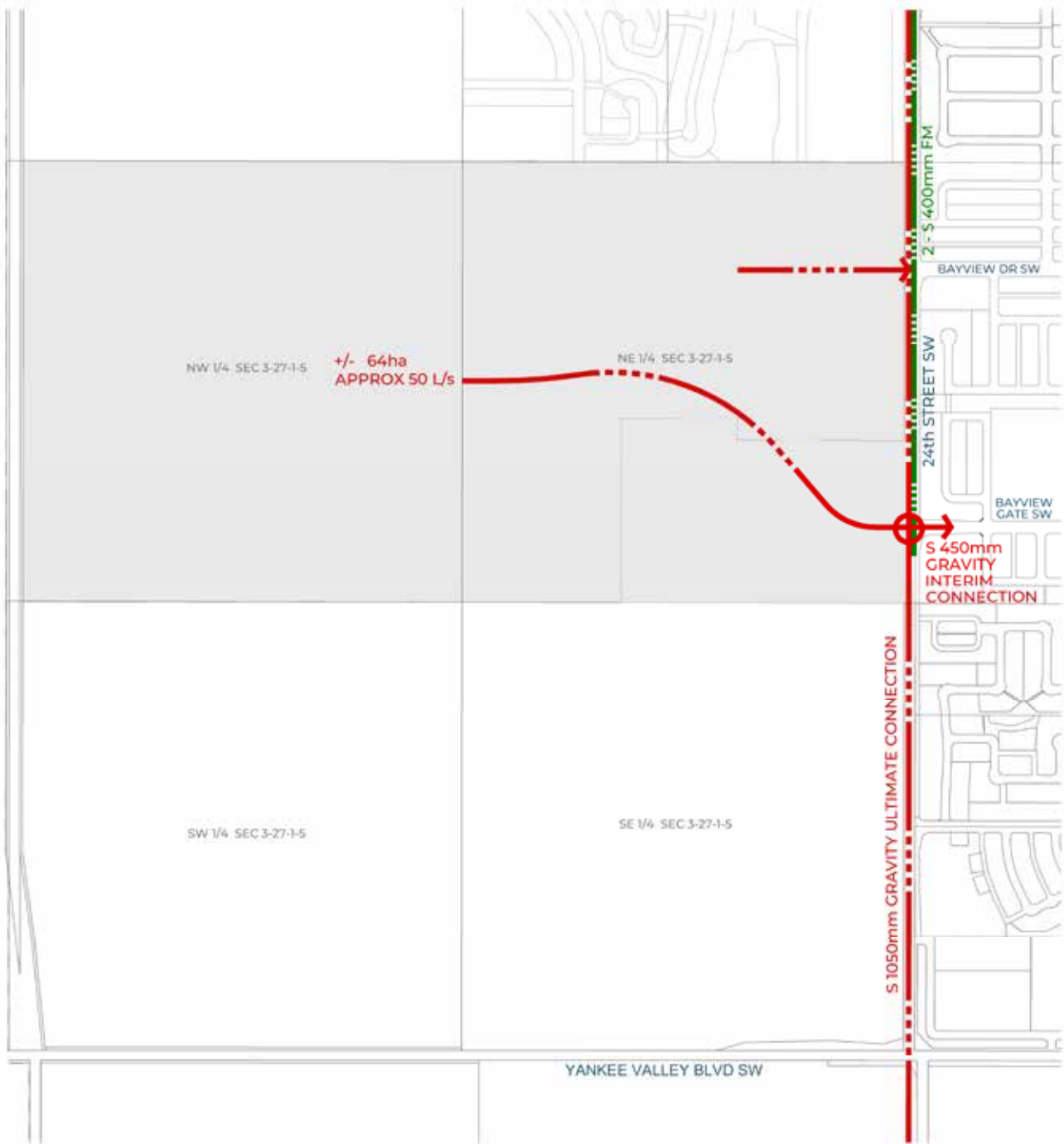


FIGURE 29. KEY RANCH STAGED SERVICING REPORT (FIGURE 2)

6.3 STORMWATER MANAGEMENT

Stormwater servicing for Key Ranch shall be provided by a single stormwater management wet pond. The pond location and size is determined by grading, existing slopes from the escarpment, geotechnical considerations such as bedrock, ownership equity and open space connectivity. Drainage shall be conveyed in a piped system that drains by gravity to the pond. Stormwater quality improvements will be made using oil-grit-separators prior to runoff entering the pond, and water will be drawn from the pond and distributed in an irrigation network to green spaces.

The Key Ranch Neighbourhood Structure Plan shall conform to the requirements of the Nose Creek Watershed Water Management Plan. The Key Ranch stormwater management pond will discharge to the Bayview development minor storm system at Bayview Gate SW, to the Canals of Airdrie storm system which ultimately discharges to Nose Creek. Refer to **Figure 30. Stormwater Servicing** for the layout of on-site stormwater trunk mains and irrigation servicing. An agreement for storm overflow in Bayview is required for the first to tie in upon development.

STORMWATER MANAGEMENT POLICY:

- 6.3.1 Final Acceptance Certificate (FAC) for the stormwater management pond will not be granted until the entire pond is constructed. Partial FAC will not be considered for portions of the pond constructed in separate phases as currently shown in the Development Phasing Plan.
- 6.3.2 A drainage swale along the west NSP boundary shall be provided for conveyance of predevelopment flows from a catchment west of NSP. This drainage swale shall be an interim solution, until such time that areas west of NSP boundary develop. Design of the drainage swale shall be included in the Stormwater Management Report for development phase that includes the western portion of NSP.
- 6.3.3 An adequate emergency escape route, in accordance with current City of Calgary guidelines, shall be determined at Pond Report stage to satisfaction of the City of Airdrie.

6.4 SHALLOW UTILITIES

The Key Ranch NSP area will be serviced with underground electrical, natural gas, telephone, and cable services. Infrastructure will be installed on a phased basis, extending west as development proceeds. The existing networks will service this area. Installation will utilize 4-party trenching.

6.5 FUNDING COMMITMENT

The developer acknowledges that servicing capacity for the NSP requires new infrastructure identified in the 2016 Utility Master Plan (UMP), 2020 Wastewater Lift Station Needs Assessment (WLSNA), and the 2020 Airdrie Pre-annexation Capacity Assessment for Main and West Lift Stations (CAMWLS).

The development industry (BILD CR) and City of Airdrie negotiated the framework for a 'funding and financing model'. In this case, the NSP proponent will enter into a 'Contribution Agreement' for the infrastructure needed to service NSP lands. New infrastructure will be initiated by contribution by the NSP proponent(s) to front-end infrastructure for the benefiting lands.

Initial servicing capacity for the NSP requires use of the City's existing residual servicing capacity (Phase 1) and Phase 2 improvements as recognized in the 2020 CAMWLS to accommodate the development. The upgrades will be funded through mechanism described in Contribution Agreement for any or all of the benefiting lands that proceed to subdivision and utilize the capacity.

Prior to first reading of the NSP, the contribution agreement obligation shall be signed and submitted to the City to accommodate the proposed development. The agreement generally entails:

- 1) The City will allow proposed Phase 1 residual servicing capacity to be made available to various ownership groups.
- 2) The Contribution Agreement may be amended to add a new developer of a new NSP but this must occur prior to first reading of the new NSP.
- 3) Contribution Agreement will outline payment of an acreage assessment equal to the total funding cost for Phase 2 infrastructure.
- 4) The ownership group, party to the Contribution Agreement, will pay an acreage assessment based on benefitting area towards the Phase 2 capacity infrastructure as part of the subdivision servicing agreement (SSA) process.
- 5) The ownership group is responsible to monitor the proposed Phase 1 residual servicing capacity to 100% upon which development will cease should Phase 2 not be available.
- 6) The developer is responsible to monitor the Phase 1 residual servicing capacity to 75% , upon which the City will actively use funds generated by the Contribution Agreement for Phase 2 improvements. The City will utilize such contributions, to design and construct Phase 2 wastewater pumping and transmission capacity and bring forward capital budget amendments and borrowing bylaws to Council.
- 7) The City is under no obligation to supplement (financially or otherwise) Phase 1 and/or Phase 2 capacity for the lands in the NSP; and
- 8) The City being fair and reasonable is ultimately in control of all residual and constructed capacity.

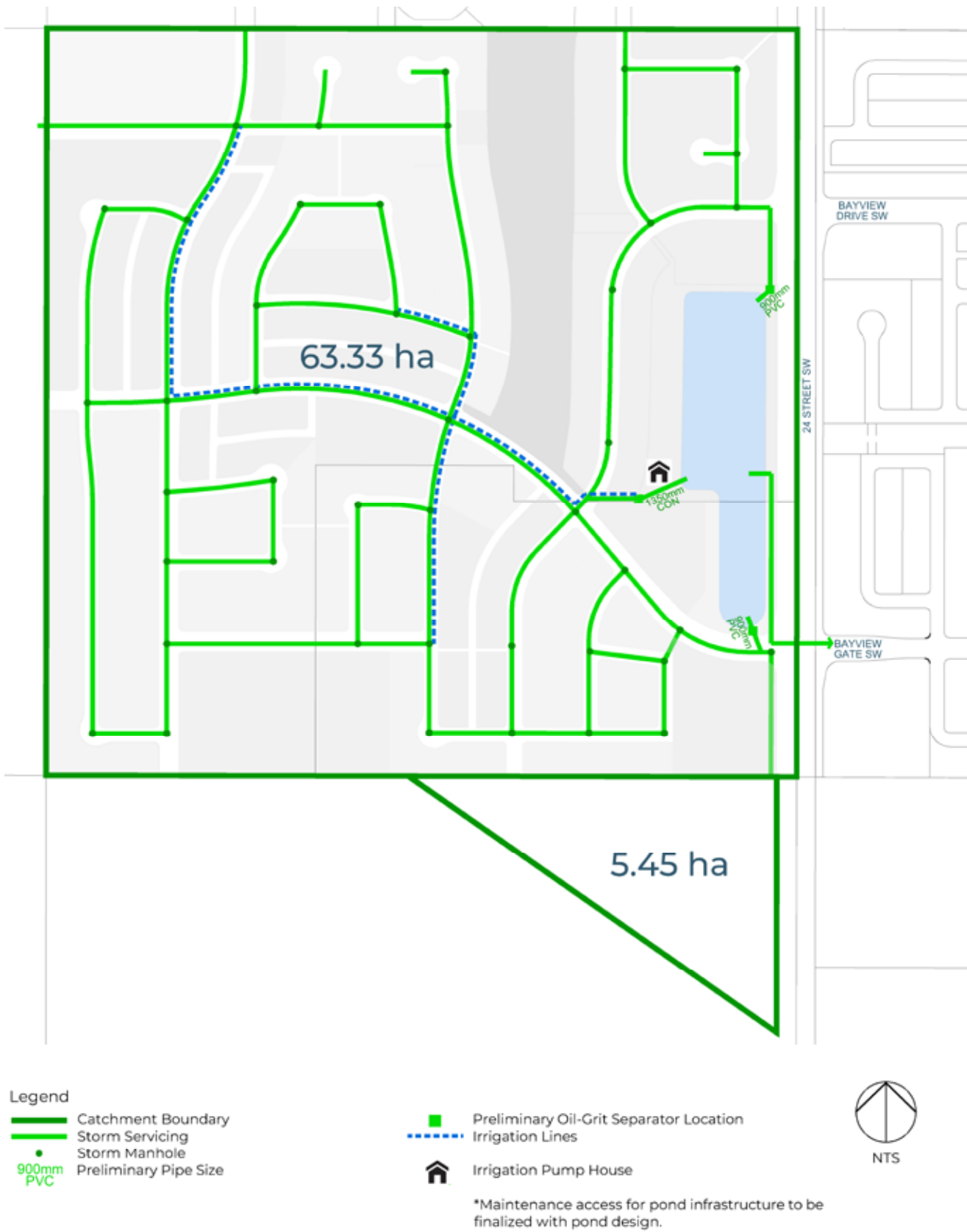


FIGURE 30. STORMWATER SERVICING

7.0 Community Engagement

To generate broad awareness about and interest in the project, our engagement approach aimed to exceed the requirements laid out by the City of Airdrie. Stakeholders were offered three opportunities to participate throughout the engagement period including a virtual open house, a project-specific e-mail, and a survey. A project website was created, allowing stakeholders to view information about the project and understand or access the engagement opportunities that were available. Mail outs were sent directly to 36 adjacent stakeholders to provide brief project information, invite them to attend the virtual open house and to participate in the survey. Newspaper advertisements for the open house, survey, and website were also run for three consecutive weeks (October 12-26, 2021).

On November 2nd, 2021, the virtual open house event was held on Zoom, from 7 – 8 pm. There was a total of eleven (11) participants. A brief presentation by the applicants was followed by an open question period. During the question period, participants had general questions about the project phasing, grading and use of stormwater for irrigation purposes.



8.0 Implementation

Development of Key Ranch is anticipated to occur in three main stages. All phasing and staging is provided for general concept of growth direction which is preliminary and is subject to change as development proceeds.

EAST STAGE

Phase 1 will start with access from 24th Street across from Bayview Drive and a mix of low density and medium density homes. The pond will be included in this stage and will immediately provide the first open space anchor for this new community. The connection to Bayview Gate will also be made in this stage to allow for transportation and other utility connections.

This stage will consist of only the first phase.

WEST STAGE

The upper bench will be the next area to be developed. The lookout at the escarpment will complete the connection between open space anchors well before the completion of this stage, providing an early and unique identity to the neighbourhood as it grows. Also included in this stage are Lamont Land's proportion of the future high school purchase.

This stage will consist of phases 2-6.

The upper bench south will begin to fill in next. Also included in this stage are Lamont Land's proportion of the joint use elementary school.

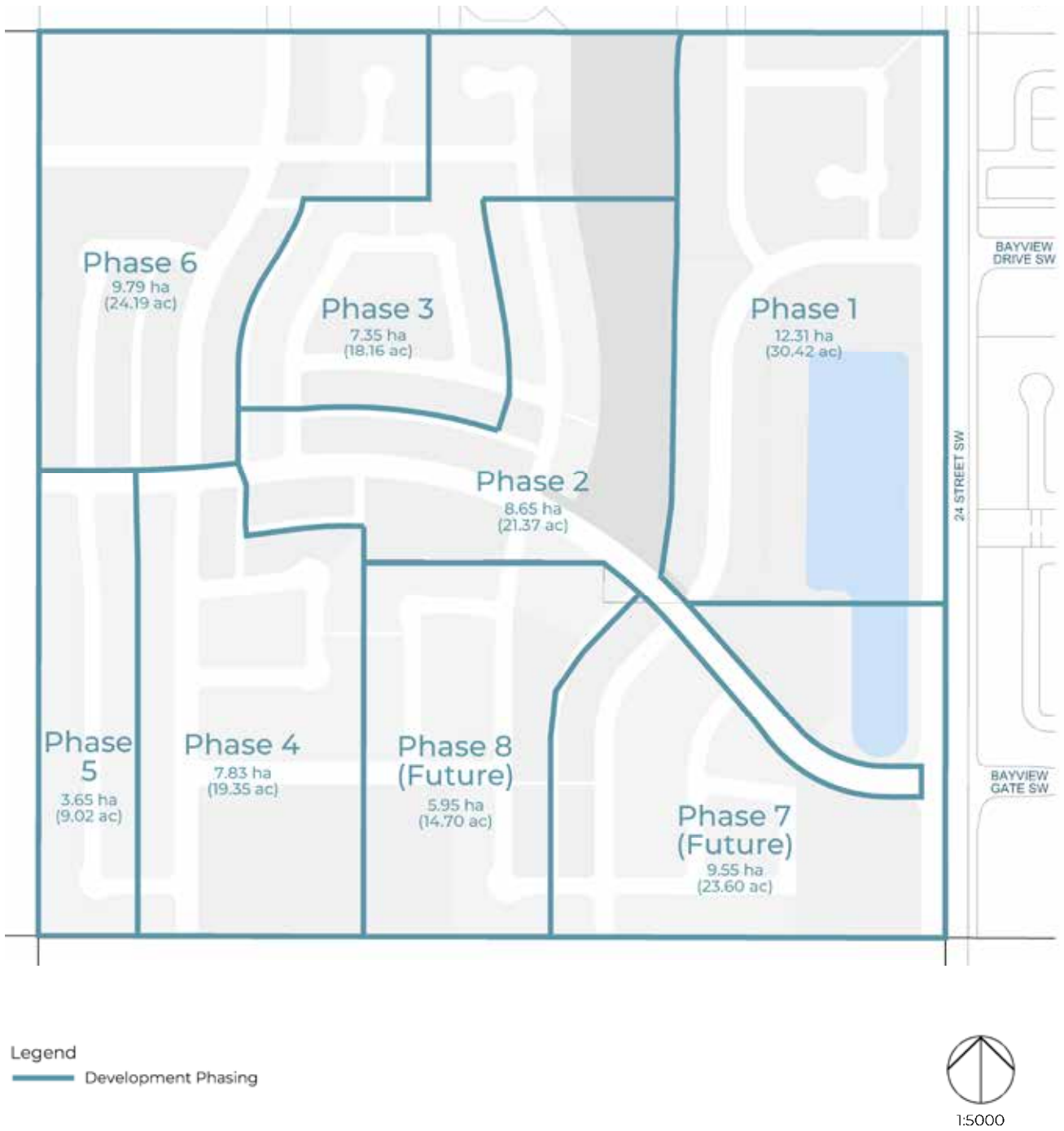
REID STAGE

Near the end of build-out, it is anticipated that the Reid parcel will be the last stage to be completed within the neighbourhood plan area. The pond will be completed in this stage, as well as the remainder of the joint use site, and a residential road connection south.

This stage will consist of phases 7 and 8.

IMPLEMENTATION POLICY:

- 8.0.1 Development will generally follow the eight development phases as shown on **Figure 31. Development Phasing.**
- 8.0.2 Supporting studies and additional information tied to the development of Phase 8 (Reid Parcel) shall be provided when land use redesignation and subdivision applications for these lands are received. This includes a Phase II Environmental Site Assessment.
- 8.0.3 A chart that outlines the amount of each housing type per phase of subdivision will be submitted with subdivision applications.
- 8.0.4 Additional environmental assessment will be completed as required as part of the stripping and grading permit for any area of the farmstead noted within the Tetratex Phase I ESA which are within the stripping and grading permit boundary including stockpile locations.



Legend
— Development Phasing

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FIGURE 31. DEVELOPMENT PHASING

Appendix A

Anticipated Land Uses

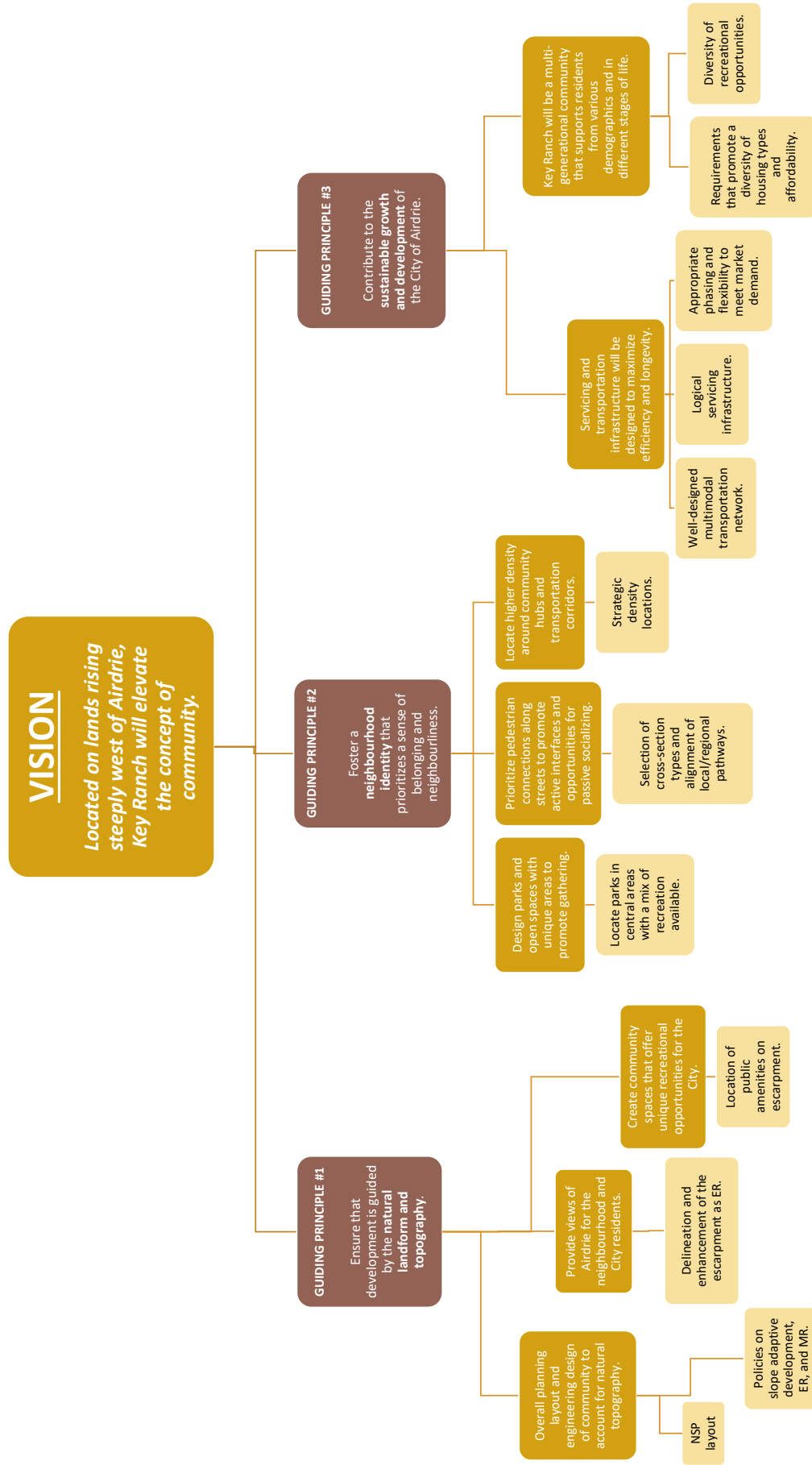
- R1 - Single Detached Residential District
- R1-U - Urban Standard Residential District
- R1-L - Narrow Lot Laned Residential District
- R2 - Low Density Residential District
- R2-T - Townhouse Residential District
- R2-A - Front Attached Garage Townhouse District
- R3 - Low Rise Multifamily Residential District
- P-1 - Public Open Space District
- P-2 - Public Facilities District
- EP - Environmental Protection District
- UH - Urban Holdings District



Appendix B

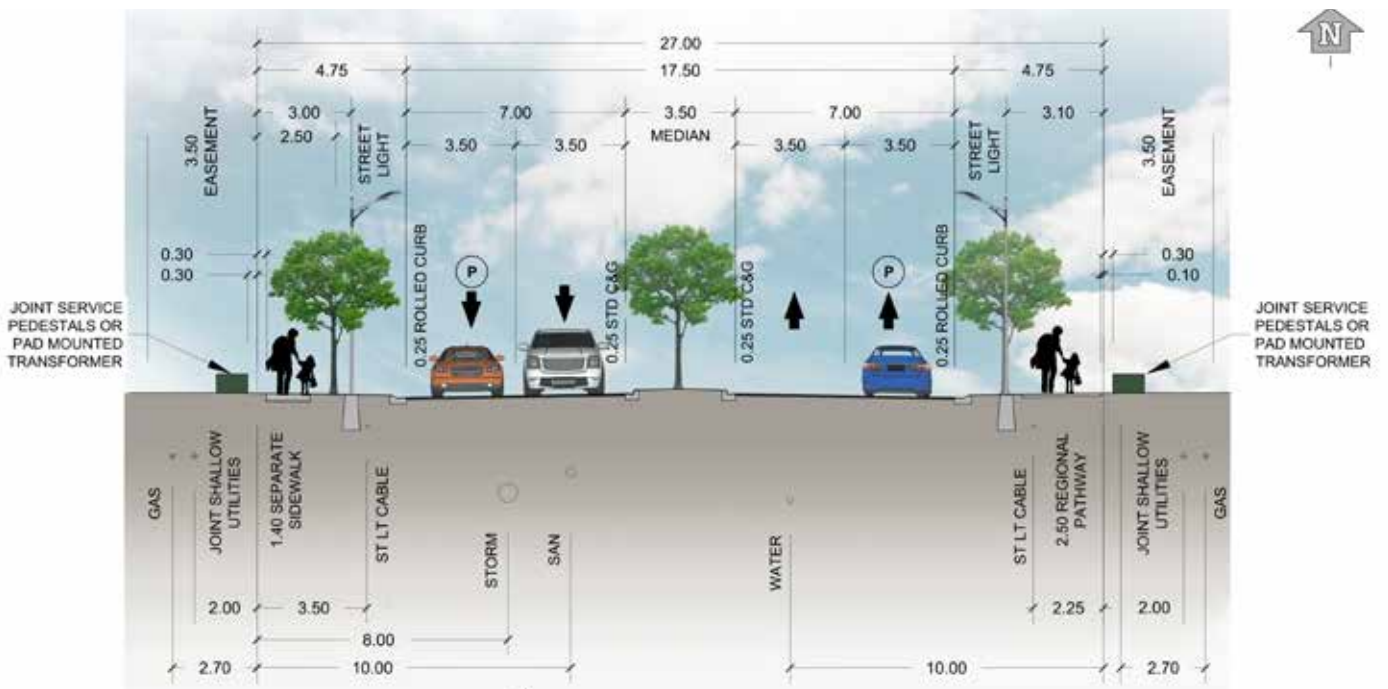
NSP Structure Policy

NEW STRUCTURE OF POLICIES:



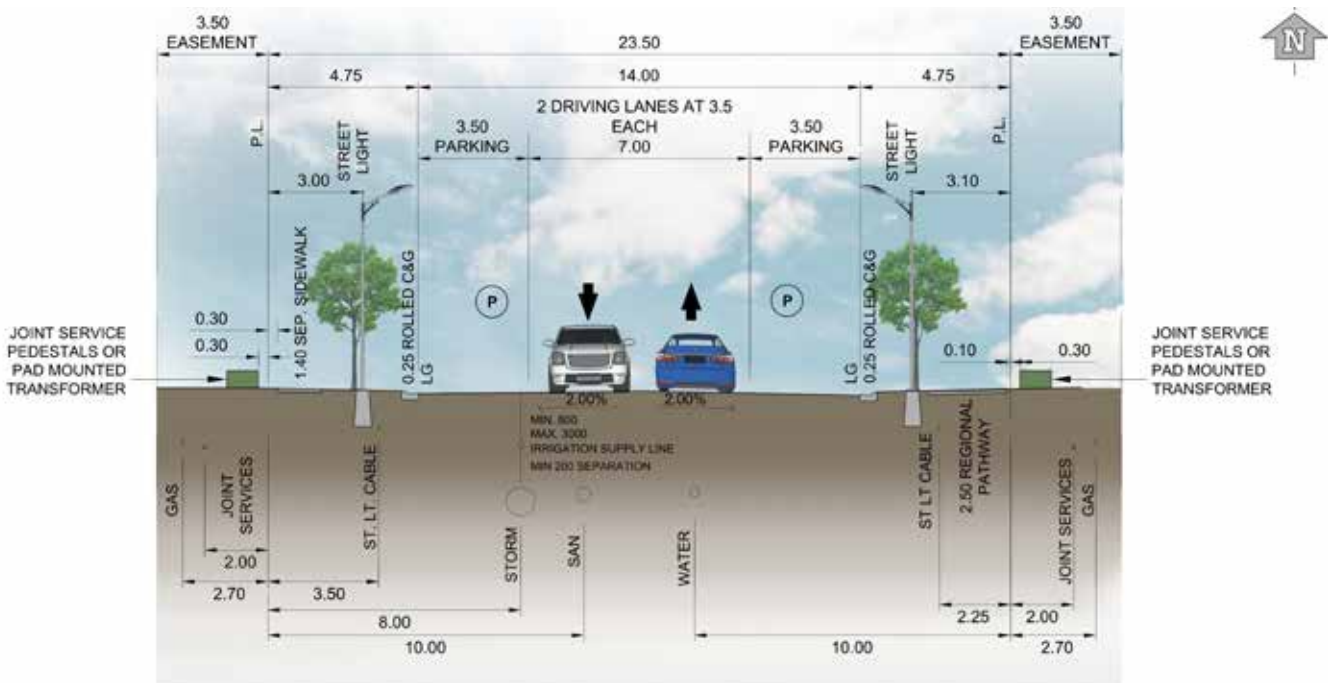
Appendix C

Road Cross Sections



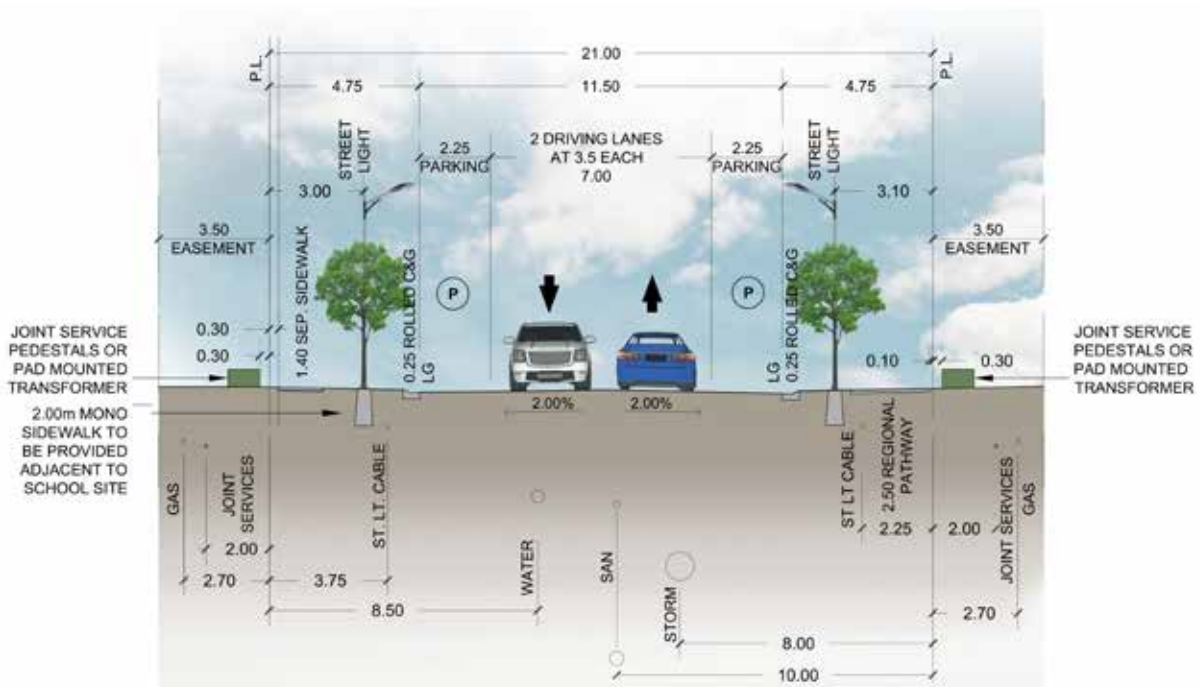
Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-1. 27.00M COLLECTOR



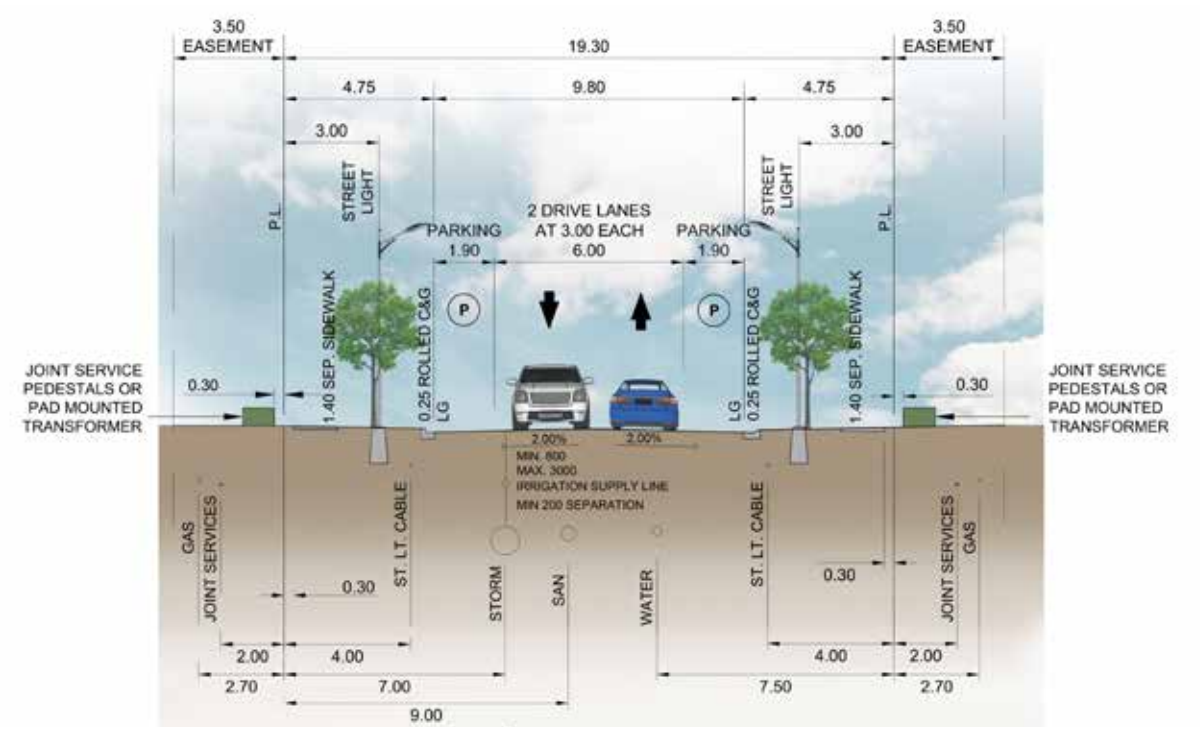
Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-2. 23.50M MODIFIED COLLECTOR



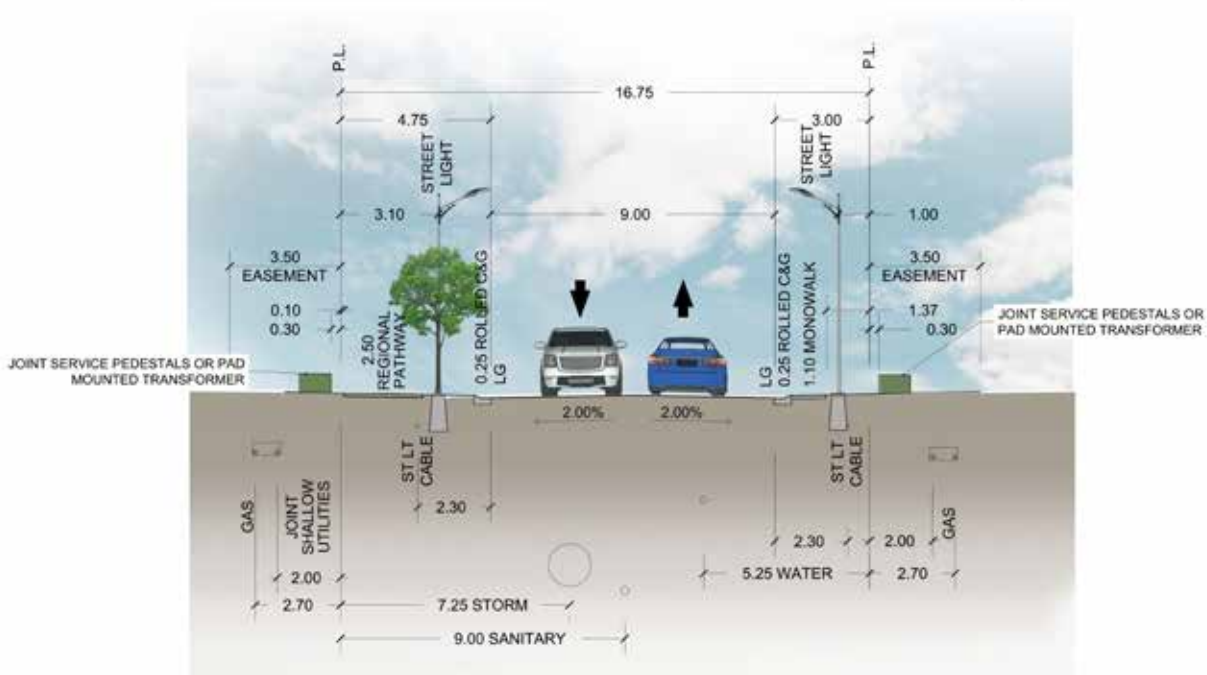
Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-3. 21.00M COLLECTOR



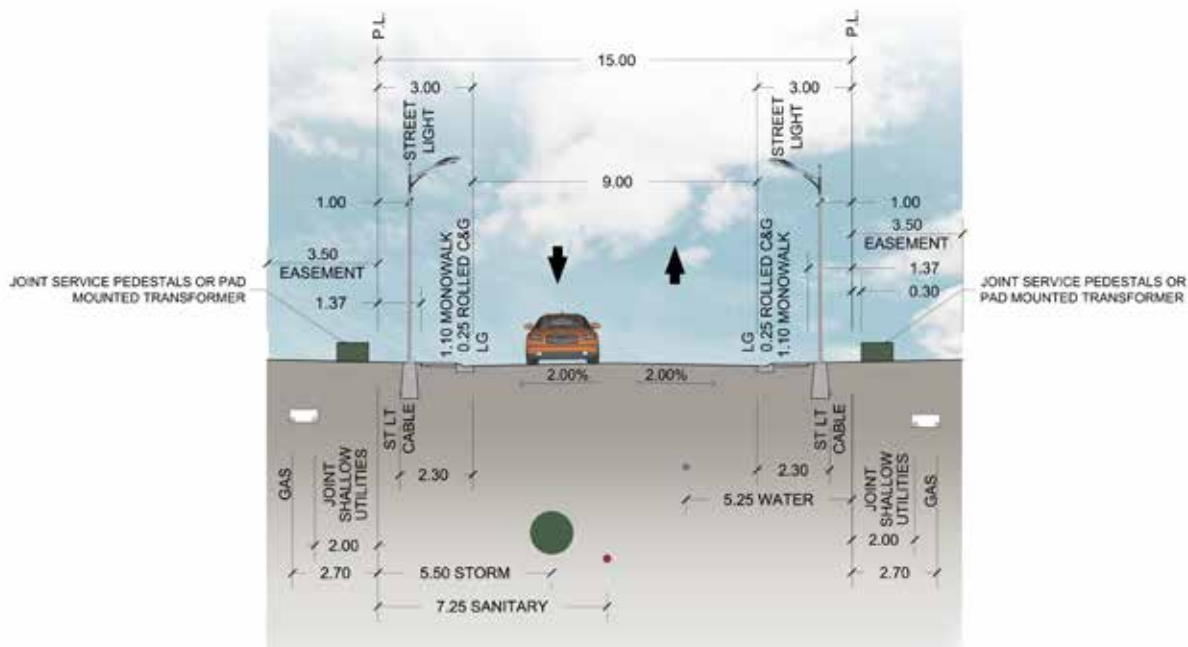
Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-4. 19.30M COLLECTOR AVENUE



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-5. 16.75 RESIDENTIAL



Note: Rendering is conceptual in nature and is subject to change pending detailed design and approvals.

FIGURE C-6. 15.00 RESIDENTIAL

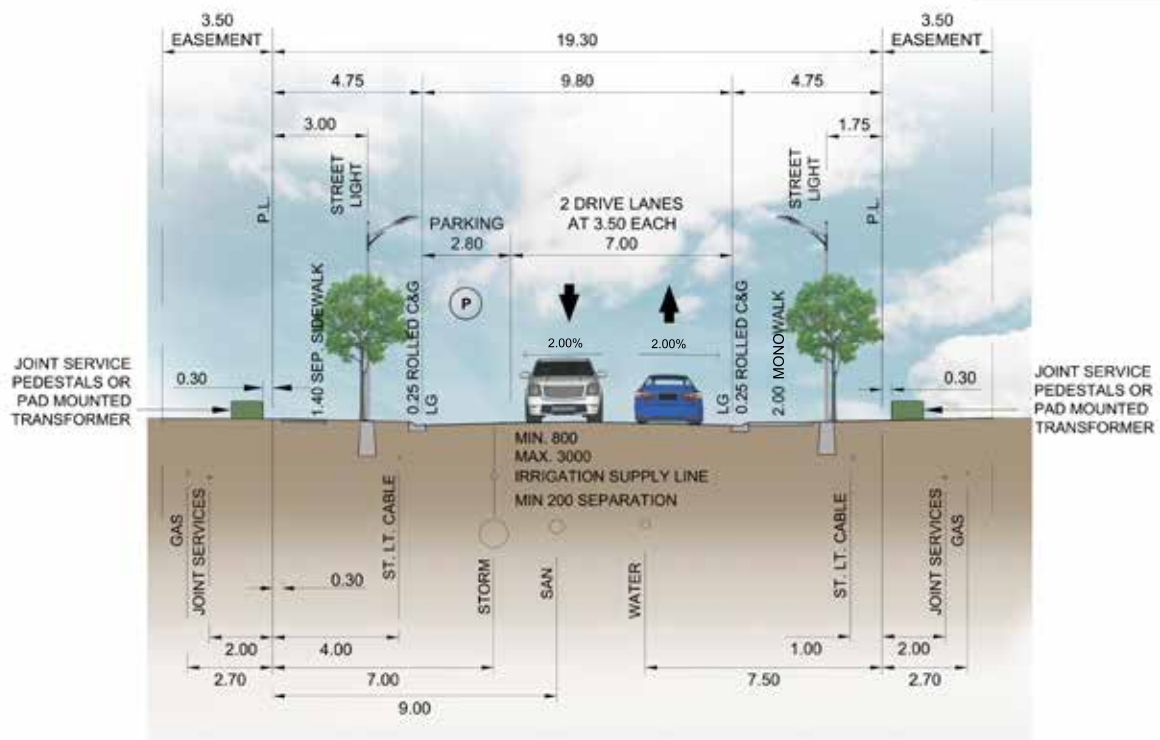
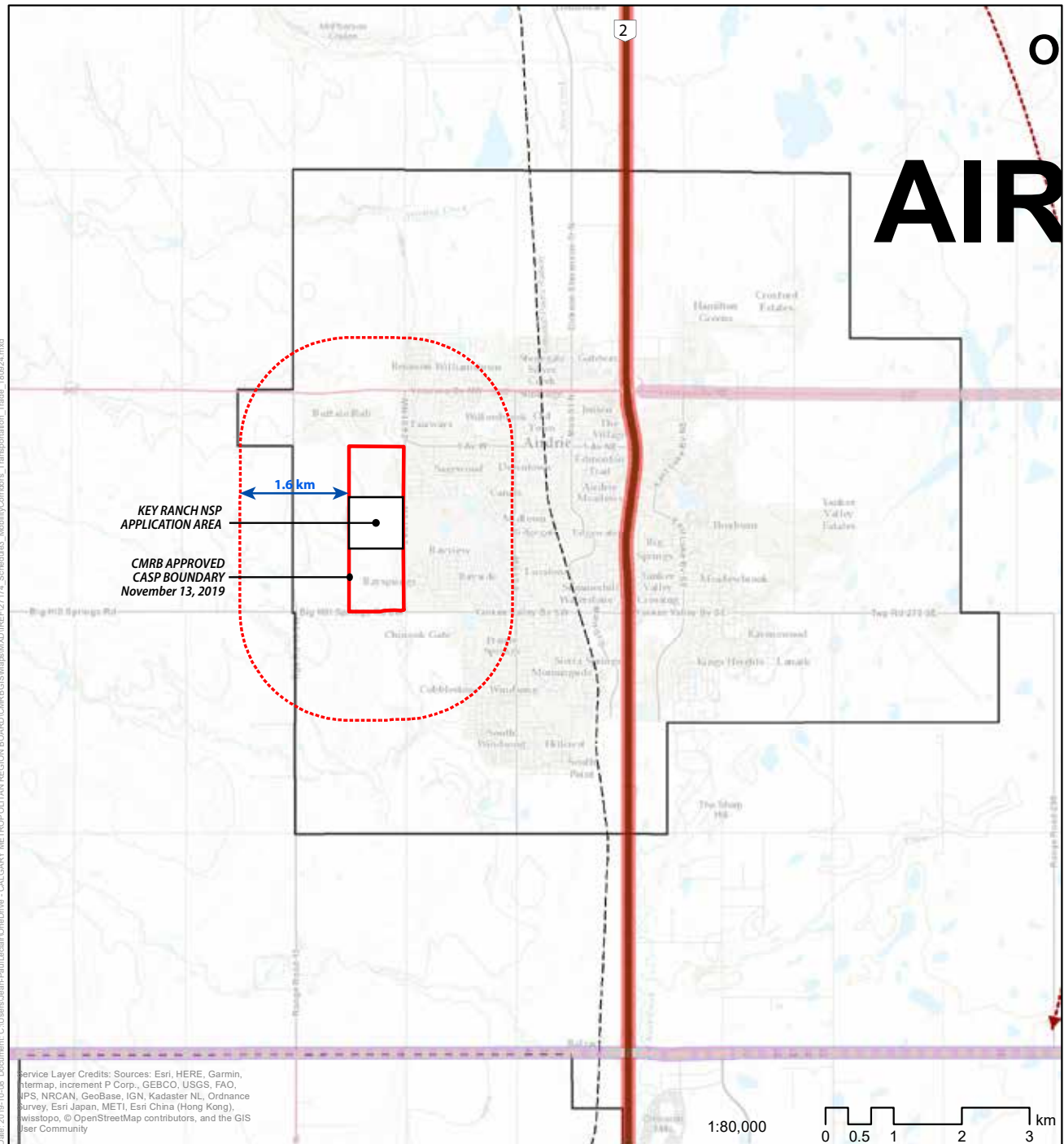


FIGURE C-7. 19.3 MODIFIED COLLECTOR

Appendix D

Calgary Metropolitan Region Board Figures

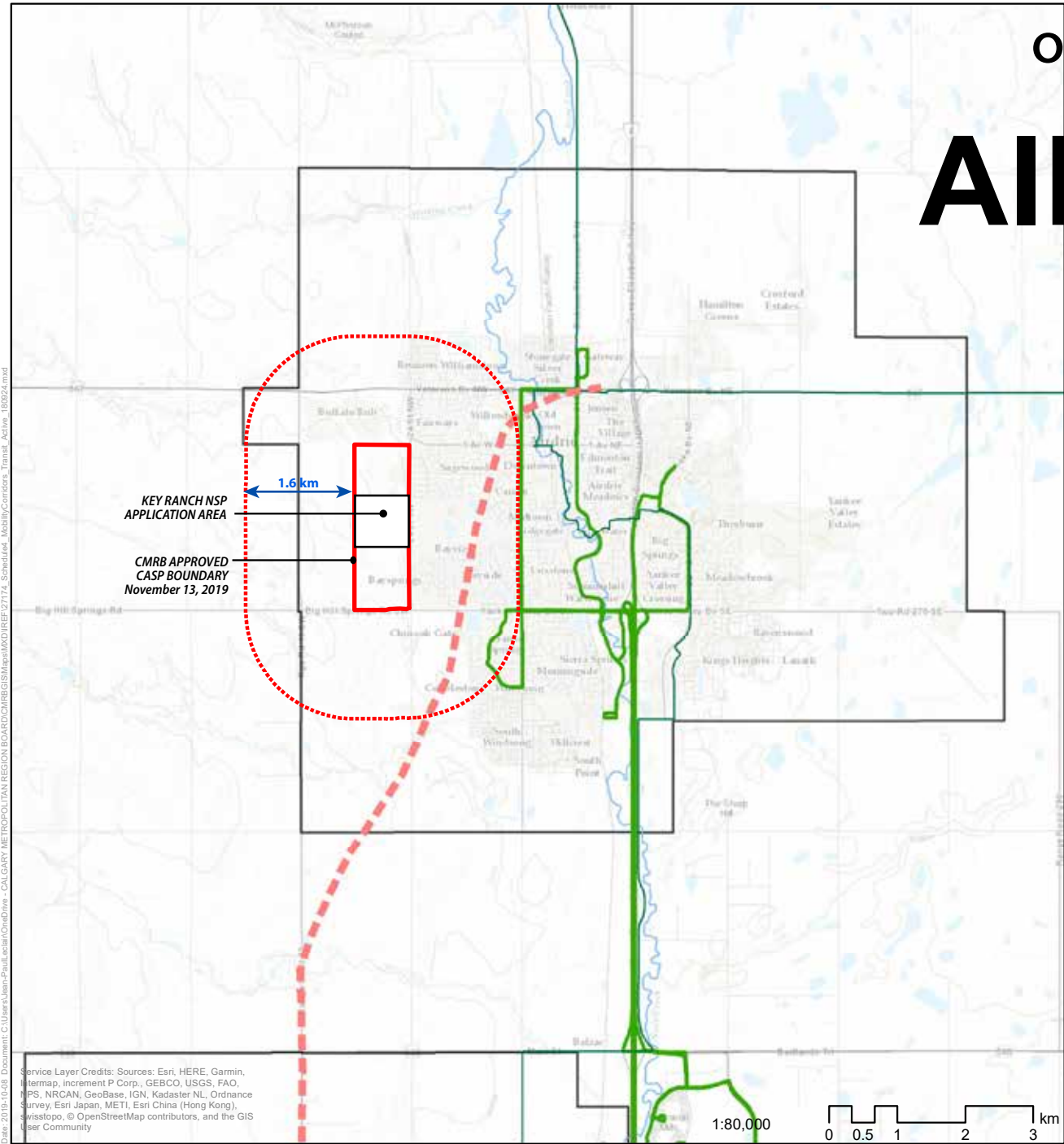
Schedule 3: Mobility Corridors – Transportation and Trade



<ul style="list-style-type: none"> ⌋ Intermodal Facility ○ International Airport ○ Springbank Airport 	<p>Transportation</p> <ul style="list-style-type: none"> --- Rail — Level 1 Highway — Level 2 Highway — Level 3 Highway — Future Level 1 Highway ↔ Conceptual Bypass 	<p>Trade</p> <ul style="list-style-type: none"> CANAMEX Existing High Load † Proposed High Load † Proposed Oversize/Overweight ‡ * Goods Movement 	<p>Calgary Metropolitan Region Interim Growth Plan</p> <p>Calgary Metropolitan Region Board</p> <p>Current as of Sep-24/18</p>
	<p><small>† Per AT's 2015 High Load Corridor on Provincial Highways map. ‡ Per AT's 2018 High Load Corridor and Proposed Oversize / Overweight Corridor on Provincial Highways map. * Foothills County indicates it has not yet accepted or agreed to AT's proposal to use its 274 and 306 Avenues, and Highway 552 east of Highway 2 as Oversize/Overweight Corridors.</small></p>		

FIGURE D-1. MOBILITY CORRIDORS - TRANSPORTATION AND TRADE (CALGARY METROPOLITAN REGION BOARD INTERIM GROWTH PLAN (SCHEDULE 3))

Schedule 4: Mobility Corridors – Transit and Active Transportation



Date: 2019-10-08 Document: C:\Users\lanp\Public\actel\cove\One - CALGARY METROPOLITAN REGION BOARD\CMRB\GIS\Maps\MXD\IBREF\27174_Schedule4_MobilityCorridors_Transit_Active_180024.mxd
 Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community

- (Park and Ride
- (Future Park and Ride
- (LRT Terminus Station/ Intermunicipal Connection
- Active Transportation Corridors**
- The Great Trail †
- Regional Pathway
- Higher Order Transit (HOT) Corridors**
- Existing HOT ‡
- Planned HOT ‡
- - - Potential Future HOT ‡
- Intermunicipal Transit Corridors**
- Public Intermunicipal Transit
- Private Intermunicipal Transit
- - - Future Intermunicipal Transit

Calgary Metropolitan Region Interim Growth Plan

Calgary Metropolitan Region Board
 Current as of Sep-24/18

† Formerly the Trans Canada Trail. ‡ Higher order transit (HOT) includes light rail transit (LRT) and bus rapid transit (BRT).

FIGURE D-2. MOBILITY CORRIDORS - TRANSIT AND ACTIVE TRANSPORTATION (CALGARY METROPOLITAN REGION BOARD INTERIM GROWTH PLAN (SCHEDULE 4))