

A R E A S T R U C T U R E P L A N



SUNSETridge Stage 2

COCHRANE, ALBERTA

JUNE 2012



Contents

1	Introduction	1
1.1	Plan Area	2
1.2	Current Land Use and Ownership	2
1.3	Adjacent Land Uses	2
2	Background Information	5
2.1	Policy Context	5
2.1.1	Municipal Government Act	5
2.1.2	Alberta Land Use Framework	6
2.1.3	Municipal Development Plan	6
2.1.4	Cochrane Sustainability Plan	6
2.1.5	Intermunicipal Development Plan and Ranchhouse Accord	7
2.1.6	Calgary Metropolitan Plan and Calgary Regional Transit Plan	7
2.1.7	Current Area Structure Plan Preparation	7
2.1.8	Statutory Plans for Adjacent Lands	9



2.2	Physical Context.....	9
2.2.1	Topography.....	9
2.2.2	Environmental Site Assessment.....	9
2.2.3	Biophysical Impact Assessment.....	9
2.2.4	Slope Stability Assessment	11
2.2.5	Geotechnical Assessment	11
2.2.6	Historical Resources Impact Assessment	11
2.2.7	Utility Right-of-Way Corridors	11
2.3	Servicing	13
2.3.1	Water.....	13
2.3.2	Sanitary	13
2.3.3	Storm Drainage.....	13
2.4	Mobility	14
2.5	Other Infrastructure	14
3	Public Consultation	
3.1	Public Engagement	15
4	Development Approach	
4.1	Creating Complete Communities.....	17
4.2	Sustainability	18
4.3	Design Features.....	18
4.4	Development Statistics.....	19
5	Land Use Concept	
5.1	General Development Policies.....	21
5.1.1	Objectives	21
5.1.2	Policies.....	23
5.2	Residential	24
5.2.1	Objectives.....	24
5.2.2	Policies.....	24
5.3	Parks and Public Open Space.....	26
5.3.1	Objectives.....	26
5.3.2	Policies.....	26
5.4	Schools and Joint Use Sites.....	28
5.4.1	Objectives.....	28
5.4.2	Policies.....	29
5.5	Commercial	30
5.5.1	Objectives.....	30
5.5.2	Policies	30
5.6	Town Gateway	31
5.6.1	Objectives.....	31
5.6.2	Policies.....	31

5.7	Wetland Conservation.....	32
5.7.1	Objectives.....	32
5.7.2	Policies	32
5.8	Environmentally Significant Areas	34
5.8.1	Objectives.....	34
5.8.2	Policies.....	35
6	Development Servicing	37
6.1	Servicing	37
6.1.1	Objectives.....	38
6.1.2	Policies.....	39
7	Mobility	43
7.1	Mobility System.....	43
7.1.1	Objectives	44
7.1.2	Policies	44
8	Plan Implementation.....	47
8.1	Authority of the Plan.....	47
8.2	Interpretation of the Plan	47
8.2.1	Map Interpretation.....	47
8.2.2	Policy Interpretation	47
8.3	Plan Amendments	48
8.3.1	Objectives.....	48
8.3.2	Policies	48
8.4	Neighbourhood Plans.....	48
8.4.1	Objectives.....	49
8.4.2	Policies.....	49
8.5	Development Phasing	51
8.5.1	Objectives.....	51
8.5.2	Policies.....	51
8.6	North Lands	51
8.6.1	Objectives.....	51
8.6.2	Policies.....	51
9	Interpretations & Definitions.....	53
9.1	Glossary of Terms.....	53

Tables & Figures

LIST OF TABLES

Table 1	Land Use Statistics	19
Table 2	Population Estimate - 8 Units Per Acre	20
Table 3	Population Estimate - 10 Units Per Acre	20

LIST OF FIGURES

Figure 1	Location Plan.....	3
Figure 2	Site Plan	4
Figure 3	Current Land Use Concept.....	8
Figure 4	Topography	10
Figure 5	Design Constraints & Considerations	12
Figure 6	Land Use Concept.....	22
Figure 7	Green Space and Mobility Network	27
Figure 8	Sanitary Servicing	40
Figure 9	Water Servicing	41
Figure 10	Stormwater Servicing.....	42
Figure 11	Phasing Plan	52

-



1

Introduction

As a gateway to the west, the Town of Cochrane is located approximately 40 km west of both downtown Calgary and the Calgary International Airport, and only an hour's drive east of the Rocky Mountains. It is located at the intersection of two major highways west of Calgary; Highway 1A (Bow Valley Trail) which runs east-west and provides access to Banff National Park from Calgary, and Highway 22 (Cowboy Trail) which runs north-south through the Kananaskis Country.

The Town's desirable location has resulted in rapid residential growth in recent years. In response, the Town annexed lands north and south of the Town, effective January 1, 2004, from Rocky View County. In order to properly plan this area and to fulfill the terms of the annexation agreement, the Town prepared an Area Structure Plan (ASP) for Sunset Ridge that was adopted by Council in 2005. Approximately one-third of the Plan area was developed under the 2005 ASP (referred to as Stage 1) by 2011.

Since 2005 the Town of Cochrane has adopted a new Municipal Development Plan, as well as the Cochrane Sustainability Plan. Additionally, a new developer is completing Sunset Ridge Stage 2. In order to develop the remaining portion of Sunset Ridge in compliance with the Municipal Development Plan and Cochrane Sustainability Plan, as well as support the new developer's vision for the community, it was agreed that the Town of Cochrane would create a new Area Structure Plan for the undeveloped portion of Sunset Ridge (referred to as Stage 2). The 2005 ASP will remain in effect for the lands referred to as Stage 1, and this ASP will only apply to Stage 2.



The contextual location of the Stage 2 Plan area is shown in Figure 1.

The Stage 2 Sunset Ridge ASP will provide the long term development direction for the Plan area with a vision for a complete community which adheres to the principles of the Cochrane Sustainability Plan and the Town of Cochrane Municipal Development Plan.

1.1 PLAN AREA

The Stage 2 Sunset Ridge ASP applies to those lands shown in Figure 2, an area which consists of approximately 146 hectares (360 acres). The Plan area is bounded by Highway 22 to the west, the Cochrane Ranche Historic Site to the South, and the Town Boundary with Rocky View County to the north, east, south and west.

1.2 CURRENT LAND USE AND OWNERSHIP

The Plan lands have historically been used predominately for agricultural crop production and livestock grazing. Currently, the southwestern portion of Sunset Ridge has been developed, primarily for residential development. St. Timothy's High School and a previously approved Commercial Area are currently the only non-residential land uses in Sunset Ridge Stage 1. The remaining developable lands are in their pre-development, agricultural state and the south and southeast portions of the community have been left in their natural state because of topography. Currently the lands are zoned as Urban Reserve (UR).

The Stage 2 lands are currently owned by Tirion Properties Ltd. however there is an offer to purchase the lands by Sunset Properties Inc.

1.3 ADJACENT LAND USES

Highway 22 forms the western boundary of the Plan area. As growth in Cochrane continues and regional traffic on Highway 22 increases, a number of improvements will be required along this highway. Ultimately, Highway 22 through the Cochrane area will be twinned. During the future development of Sunset Ridge, access into and out of the Plan area will be coordinated between Alberta Transportation, the Town of Cochrane, and the area developer.

The lands to the east, west and south of the Plan area lie within Rocky View County. The areas west and south support a mix of agricultural, country residential and institutional (church and private school) uses. The area to the north and east are part of the Rocky View County's Cochrane North Area Structure Plan (adopted 2007) and currently support agricultural uses.

The valley to the south of the Plan area contains Big Hill Creek, the Cochrane Ranche Historic Site, and the Cochrane RancheHouse, which contains the Town of Cochrane Administrative Office and other civic facilities.



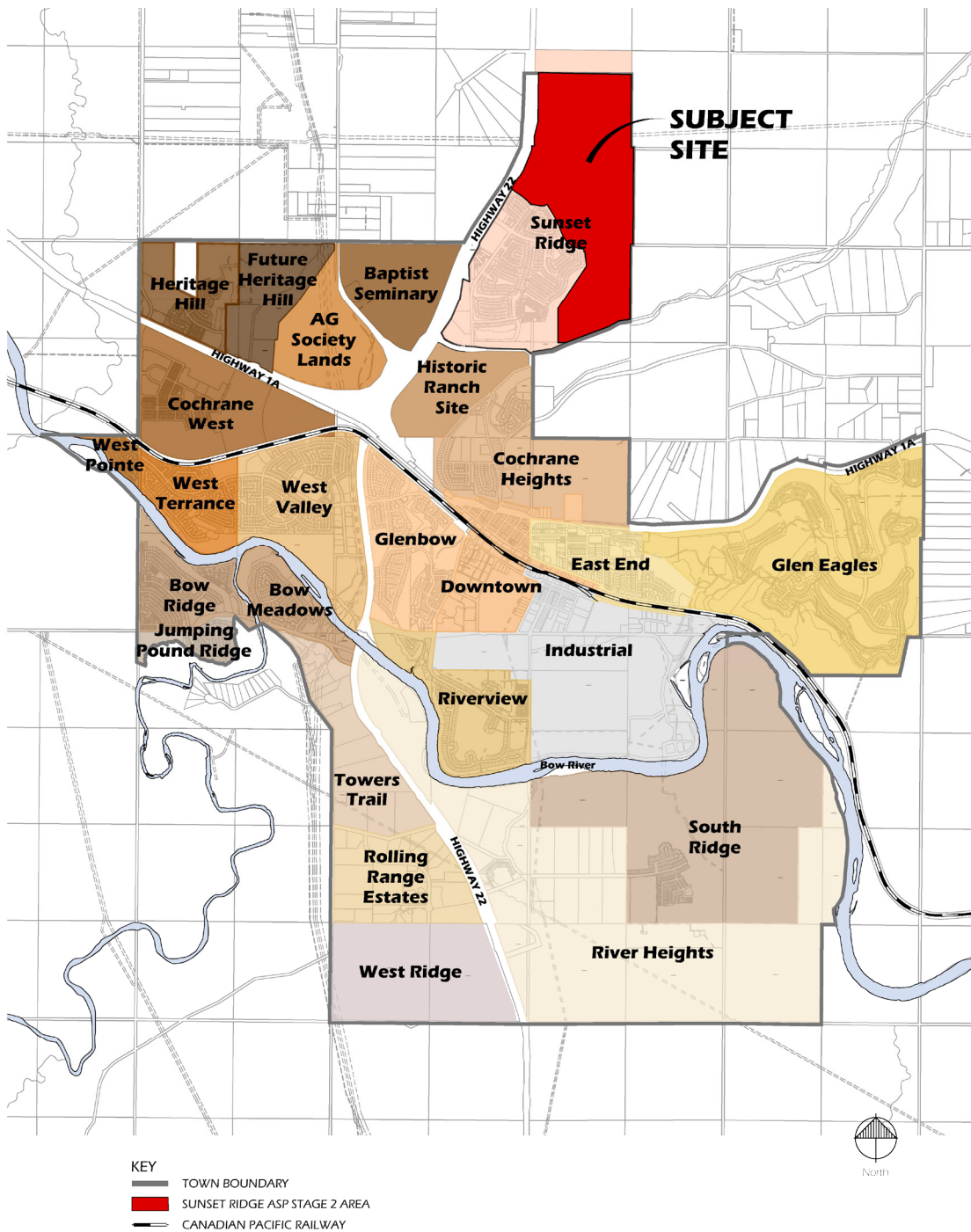


Figure 1 - Location Plan

Cochrane's residential communities of Sunterra Ridge Estates and Cochrane Heights occupy the upland terrace on the south side of the Big Hill Creek valley.

This Plan has "shadow planned" the lands directly north of Sunset Ridge. The 40 acre parcel directly north of Sunset Ridge was annexed by the Town of Cochrane for the purpose of providing an additional access point to the community. The potential for future urban development exists on this parcel.

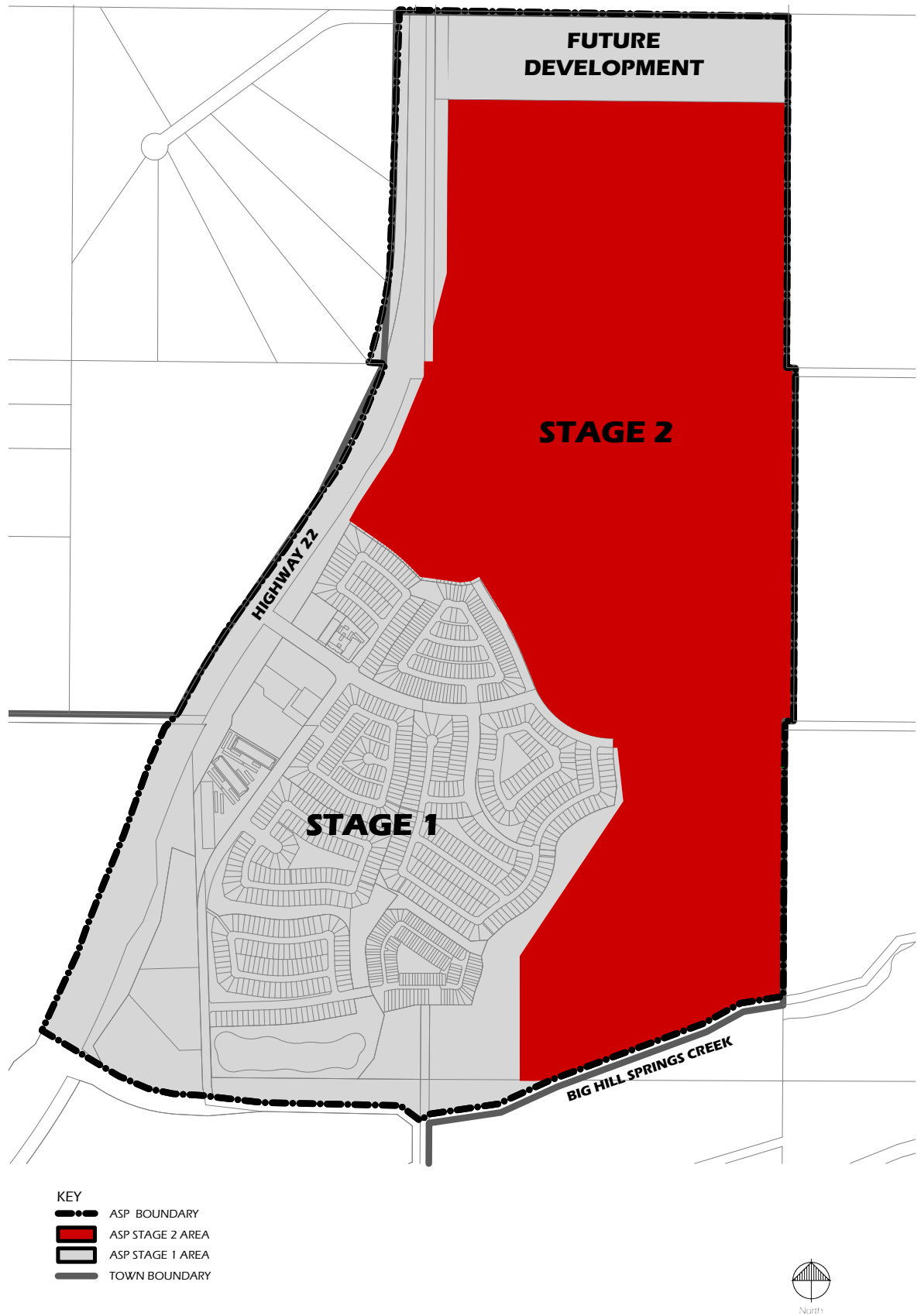


Figure 2 - Site Plan



Background Information

The preparation of the Stage 2 Sunset Ridge Area Structure Plan involved a review of various municipal, intermunicipal and provincial policy documents and studies in order to provide the planning context. In addition, many background studies, such as geotechnical investigation, environmental site assessment, historical resources impact assessment, slope stability assessment and biophysical impact assessments were completed during the current Sunset Ridge ASP and were reviewed for this ASP. The following section describes how this ASP responds to the background information investigated as part of this planning process.

2.1 POLICY CONTEXT

2.1.1 MUNICIPAL GOVERNMENT ACT

Section 633 of the *Municipal Government Act* requires that area structure plans contain the sequence of development, the land uses, the proposed population density, and the general locations of major transportation routes and public utilities for a plan area.

The Stage 2 Sunset Ridge Area Structure Plan addresses these requirements primarily through the Land Use Concept presented in Figure 6, but also through the policies found throughout the document. The complementary nature of the policies and figures provide clarity as do the objectives for development in this Plan area.



2.1.2 ALBERTA LAND USE FRAMEWORK

In 2008, the Government of Alberta published the Land Use Framework, which consists of seven strategies to improve land-use decision-making in Alberta. One of the strategies is to create regional plans for seven land-use regions that are based primarily on watershed boundaries. The Town of Cochrane lies within the South Saskatchewan Regional Plan area, which is currently being prepared. All statutory plans are required to align with their corresponding Regional Plan and once the South Saskatchewan Plan has been completed and adopted, a review of existing municipal planning documents such as this ASP should be conducted to ensure conformance to the Regional Plan.

The Land Use Framework is being implemented through the *Alberta Land Stewardship Act*, which was proclaimed on October 1st, 2009, and by way of amendments to other relevant provincial legislation.

2.1.3 MUNICIPAL DEVELOPMENT PLAN

Section 14.3.2(b) of the Town of Cochrane Municipal Development Plan (adopted in 2008) outlines the requirements for an Area Structure Plan to be adopted in Cochrane. Each plan shall address those matters identified in the Municipal Government Act, as well as, but not limited to, the following points:

- (i) parks and open space;
- (ii) utilities;
- (iii) conflicts between incompatible uses;
- (iv) interface with highway and railway rights-of-way;
- (v) urban design;
- (vi) ecologically significant areas;
- (vii) sustainability standards.”

Accordingly, the Stage 2 Sunset Ridge Area Structure Plan addresses the above matter in Section 4 and Section 5, as well as Figure 6.

2.1.4 COCHRANE SUSTAINABILITY PLAN

The Cochrane Sustainability Plan (adopted in 2009) details six interconnected systems of sustainability that act as the guideposts for development in the Town of Cochrane:

- culture
- social
- natural environment
- economic
- built environment
- governance

The plan also includes thirteen pathways to a sustainable future. Each pathway outlines the description of success and targets that Cochrane is working towards in order to achieve its vision of sustainability. It is incumbent on development in new planning areas to identify how it is meeting the goals to the various pathways and thereby achieving a more sustainable future.

The policies in many areas of Section 5 are designed to create the parameters for development that will help Cochrane work towards achieving its sustainability targets.

2.1.5 INTERMUNICIPAL DEVELOPMENT PLAN AND RANCHEHOUSE ACCORD

The Town of Cochrane is surrounded by Rocky View County. The two municipalities have maintained a good working relationship and jointly prepared the Intermunicipal Development Plan (adopted in 2001) and the RancheHouse Accord (signed in 2010) to maintain and enhance this relationship.

Several key policies in this Area Structure Plan address issues of paramount importance for both municipalities, including land use transition, connectivity and gateway features.

2.1.6 CALGARY METROPOLITAN PLAN AND CALGARY REGIONAL TRANSIT PLAN

In 2009, the Calgary Regional Partnership prepared the Calgary Metropolitan Plan and the Calgary Regional Transit Plan. These plans focus on minimizing the human footprint by intensifying development into compact communities that are well-served by transit and which protect ecologically sensitive natural areas.

The Stage 2 Sunset Ridge Area Structure Plan conforms to the planning objectives outlined by the Regional Partnership in many ways, especially with reference to meeting density thresholds and preparing for future municipal and regional transit systems.

2.1.7 CURRENT AREA STRUCTURE PLAN PREPARATION

As discussed above, Town Council adopted by Bylaw the Sunset Ridge Area Structure Plan in 2005. A portion of the community was developed under the guidance of the 2005 ASP.

The Stage 2 Area Structure Plan builds upon the previous ASP while also reflecting the objectives of Council for developing *complete communities* in line with the municipal development vision and sustainability targets outlined in the Municipal Development Plan and Cochrane Sustainability Plan.

An update to the 2005 Sunset Ridge Area Structure Plan was completed for the Stage 1 lands, Figure 3."

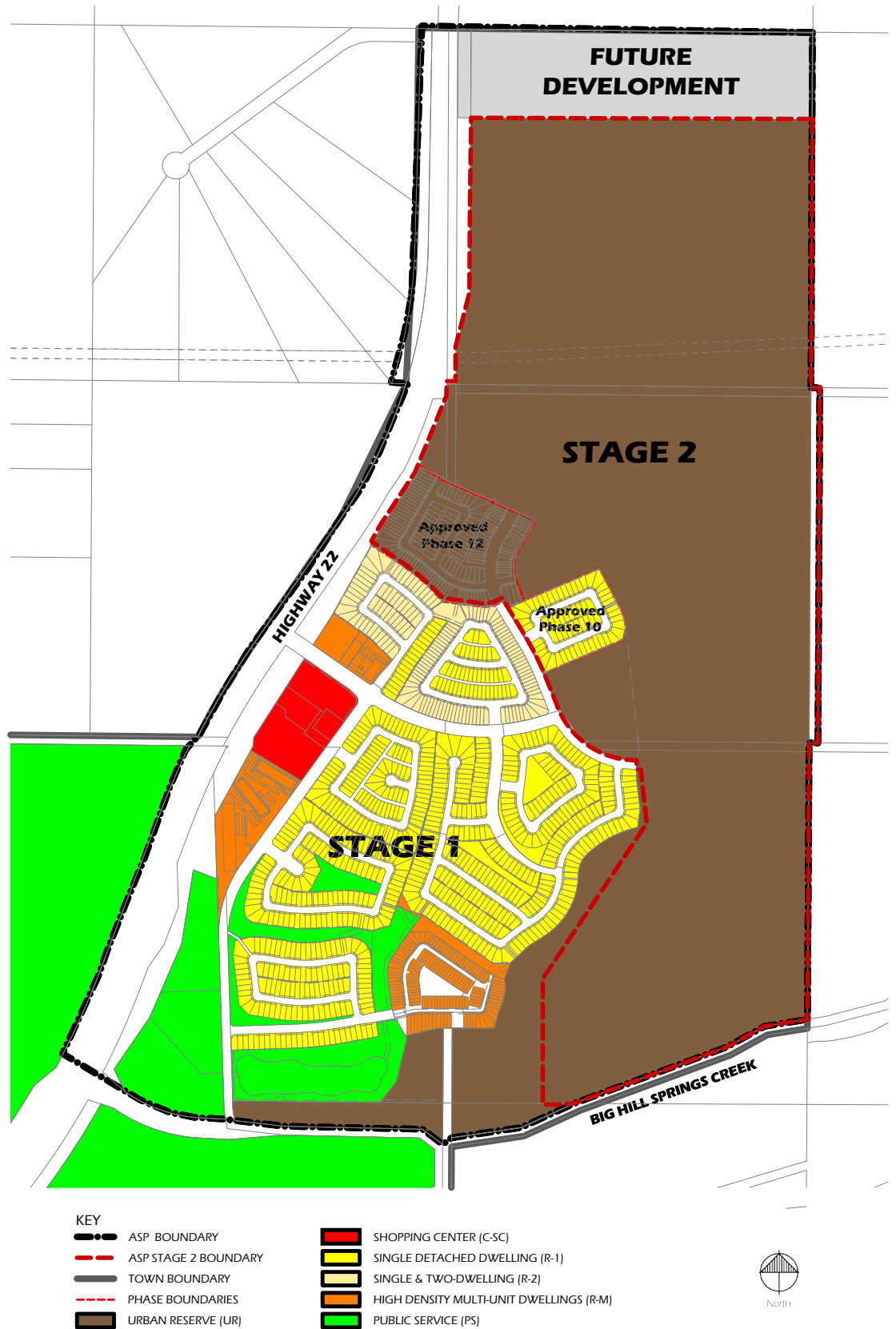


Figure 3 - Current Land Use Concept

2.1.8 STATUTORY PLANS FOR ADJACENT LANDS

One ASP has been approved for the lands abutting the Sunset Ridge Area: Cochrane North Area Structure Plan (2007), approved by Rocky View County Council, and pertaining to lands within Rocky View County. The lands immediately to the north, east and west of Sunset Ridge fall within the Cochrane North Area Structure Plan area. The Plan identifies the lands to the north and east as Future Growth areas, and the lands to the west as a mixture of Cluster Residential & Open Space and Residential Infill. The Plan projects that if the Future Growth Policy Area of the Plan is developed to higher standards and densities, the area could house approximately 10,000 residents. The Cochrane North ASP also shows road connectivity to this Stage 2 ASP area.

2.2 PHYSICAL CONTEXT

2.2.1 TOPOGRAPHY

Most of the land within the Plan area consists of a gently sloping upland on the north side of the Big Hill Creek Valley and its associated escarpment. The steep northern escarpment of the valley provides a strong natural boundary along the south side of the Plan boundary. Slopes within the Plan area range from negligible on the flattest parts of the upland to 50% where the escarpment is at its steepest.

Elevations vary in Sunset Ridge from 1,160 metres (3,888 feet) in the Big Hill Creek valley next to Ranche Road to 1,298 metres (4,258 feet) above sea level in the northeast corner of the Plan area. These elevations and the contours of the Plan area are illustrated on Figure 4.

The lands provide spectacular views of the Rocky Mountains, the foothills, and the Big Hill Creek valley to the south, southwest and southeast.

2.2.2 ENVIRONMENTAL SITE ASSESSMENT

A Level One Environmental Site Assessment (2004) of the soil (Level 1 ESA) has been completed for the majority of the lands within the Plan area by Base Property Consultants Ltd. Based upon the results of site reconnaissance and a review of historical records, the Level 1 ESA report concludes that no significant environmental impairment exists on these lands.

A Level 1 ESA will be required at the Neighbourhood Plan stage for any lands not covered by the previously completed Level 1 ESA.

2.2.3 BIOPHYSICAL IMPACT ASSESSMENT

A Biophysical Impact Assessment (2004) has been completed for the majority of the lands within the Plan area by Sweetgrass Consultants Ltd. The Biophysical Impact Assessment concludes that habitat loss associated with the project will be restricted mainly to non-native and intensively used native grassland habitats. The most productive and significant native habitats, those in the coulee complex, will be protected through the designation of these lands as Environmental Reserve. Consequently, the Land Use Concept will not contribute significantly toward regional habitat fragmentation, loss of wildlife corridor potential or loss of regional biodiversity.



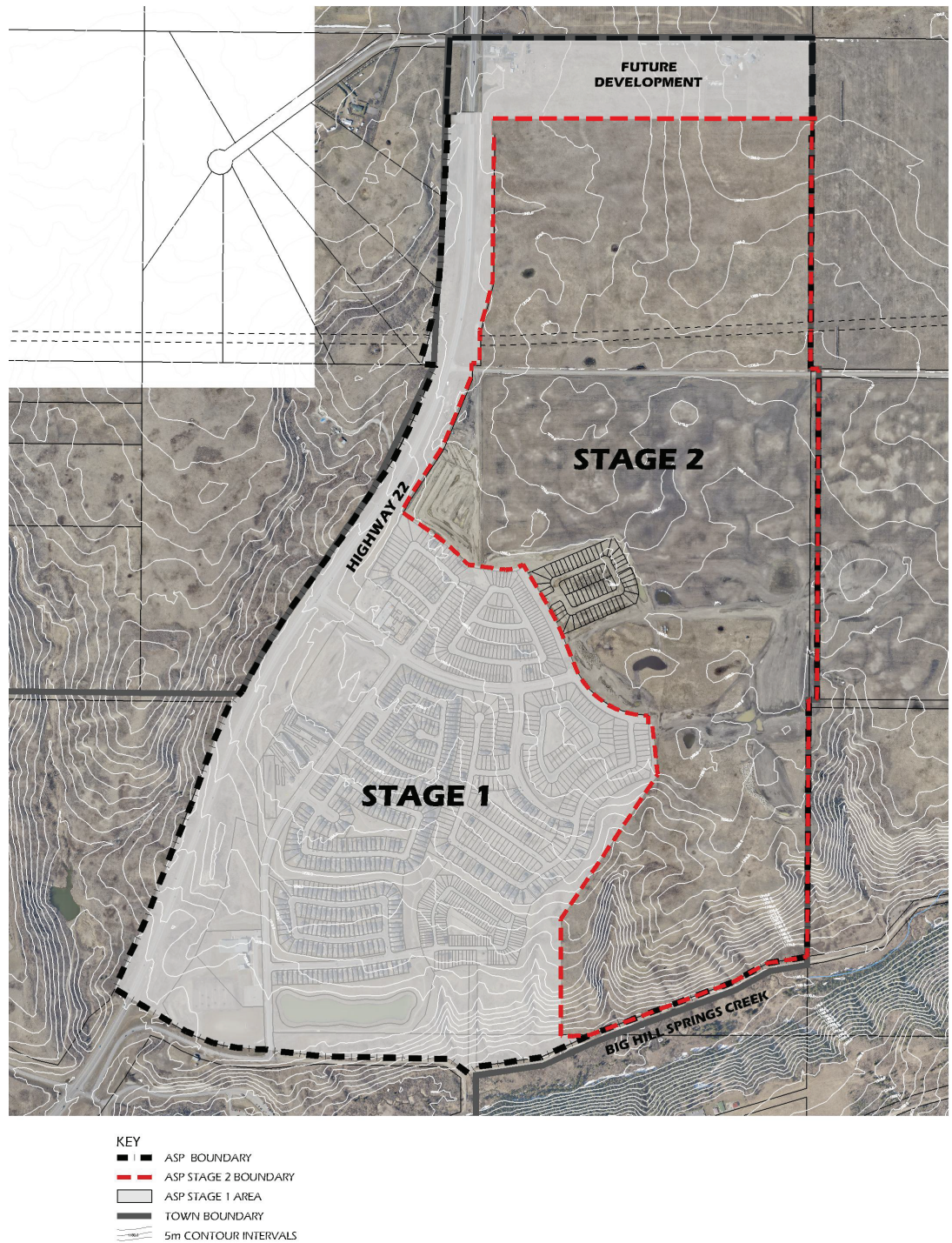


Figure 4 - Topography



2.2.4 SLOPE STABILITY ASSESSMENT

A Slope Stability Assessment (2005) was completed by McIntosh-Lalani Engineering Ltd. that assessed the stability of the slope in the southeastern portion of the Plan area. Fifteen boreholes were drilled to complete the assessment. The assessment established a slope stability setback line (which will be used to restrict building development, (see Figure 5), and established Design and Construction Guidelines to aid in preventing the possibility of slope instability. It is recommended that grading be sufficient enough to disallow concentrated surface water to flow over the slopes, the slope shall remain well vegetated, and weeping tile drains be installed around all residences adjacent to the slope to avoid saturation of the slope.

Based on this information, the development will not negatively affect the slope provided that the recommendations are followed.

2.2.5 GEOTECHNICAL ASSESSMENT

A Geotechnical Assessment (2011) has been conducted for the Stage 2 Plan area by McIntosh-Lalani Engineering Ltd. The purpose of this investigation was to assess the subsurface soil conditions and provide geotechnical construction guidelines. 55 boreholes were drilled throughout the Stage 2 area, to a depth of 9.1 metres or effective auger refusal.

Bedrock was located at depths from 1.5 to 6.7 metres, and was determined to be moderately strong to very strong. The assessment concluded with several recommendations for construction that are to be followed by the developer and builders.

2.2.6 HISTORICAL RESOURCES IMPACT ASSESSMENT

A Historical Resources Overview (2004) was conducted for a portion of the Stage 2 Plan area, followed by a Historical Resources Impact Assessment by FMA Heritage Resources Consultants Inc.

The Historical Resources Impact Assessment identified three sites of historical significance within the Stage 2 Plan area, see Figure 5. Two of the sites, a bison kill site and a single panel of rock art were identified in the southwest portion of the Plan area, and will be preserved as they currently exist, given their locations within the Environmental Reserve area.

The developer has been working with the Government of Alberta's Culture and Community Services to obtain clearance for the third site, a bone scatter along the eastern portion of the Plan area. The site is required to meet the requirements of Culture and Community Services prior to any development occurring in the area.

2.2.7 UTILITY RIGHT-OF-WAY CORRIDORS

Nova Gas Transmissions Limited (NGTL) has a high pressure natural gas line running east-west through the northern portion of the Plan area (see Figure 5). NGTL is regulated by the National Energy Board which, in addition to NGTL, has a number of requirements regulating development in proximity to pipelines. This includes approval requirements for activities on or within 30 metres of the right-of-way such as excavation, blasting and any movement of heavy equipment.



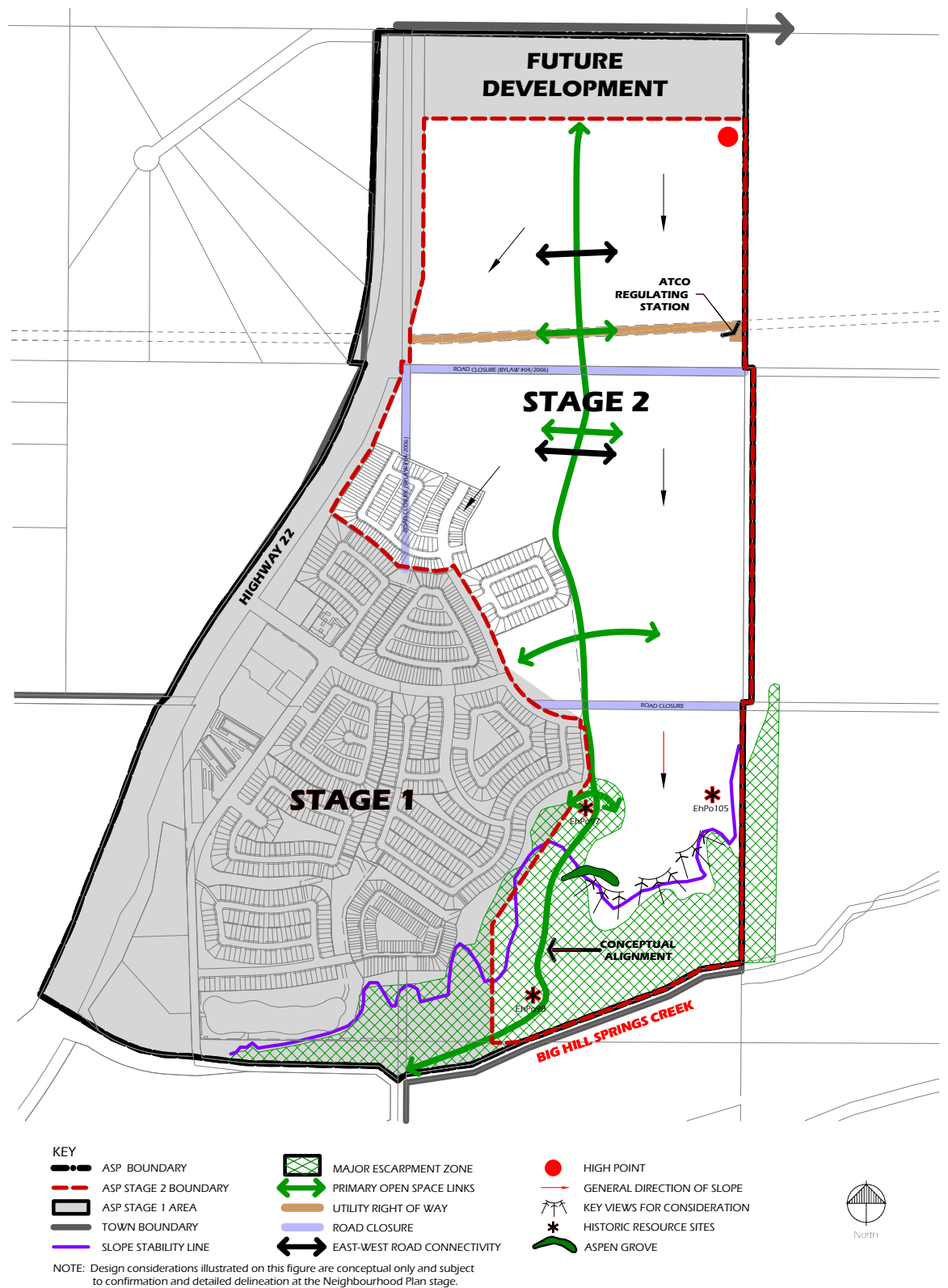


Figure 5 - Design Constraints & Considerations

No permanent building or structure may be located within 7 metres of the pipeline right-of-way. Accessory structures shall have a minimum setback of at least 3 metres from the limit of the right-of-way. No building or structure is permitted within 3 metres of the right-of-way. Roads and utilities may cross the pipeline subject to approval by NGTL.

The pipeline right-of-way shall be seeded with grass. Trees and shrubs no taller than 4 metres may be planted within the right-of-way. Large vegetation shall be at least 3 metres from the pipeline, and a minimum of five metres between planting groups must be established.

In addition, ATCO Gas has a gas pressure regulating station along the pipeline, at the east boundary of the Plan area as well as two gas mains. The facilities are currently covered by a blanket easement. ATCO Gas has requested a 30 metre by 30 metre site for the station, as well as new gas mains and easements to service the Plan area.

2.3 SERVICING

2.3.1 WATER

Similar to many communities in the Calgary region, the Town of Cochrane, and therefore Sunset Ridge, draws its water supply from the Bow River. Current water licenses held by the Town provide the capacity to service a population of approximately 40,000 people, depending on the extent of water conservation measures and future demand. However, the development of Sunset Ridge, in conjunction with that of other growth areas in the Town, may result in a future population that exceeds the current water licensing capacity. Cochrane's membership in the Calgary Regional Partnership provides a likely solution to the need for water supply. Policies within the Calgary Metropolitan Plan confirm that the water licenses held by the City of Calgary can be shared with member communities under the agreement that the development will occur at a minimum density standard of 19.8 units per hectare (8 units per acre).

2.3.2 SANITARY

The Plan area will be serviced by way of extensions from the Town's existing sanitary collection system. The sewage is ultimately collected at the Town's primary pump station, which forwards all Town sewage to the City of Calgary system for treatment and disposal.

2.3.3 STORM DRAINAGE

Stormwater Management Plans will be required in conjunction with the preparation of Neighbourhood Plans and will be subject to Alberta Environment review, as well as Town approval. The Plans will need to assess catchment boundaries, stormwater quality and flows, proposed release rates and pond locations.

It is noted that requirements for stormwater management are continually evolving and subsequent development planning will adhere to all policies and regulations in effect at the time that future Neighbourhood Plans are being prepared and submitted.



2.4 MOBILITY

The Plan area is currently accessed from Sunset Boulevard at the intersection of Highway 22 as well as Sunset Drive via Ranche Road at the intersection of Highway 22. Changes to the existing Ranche Road and Highway 22 intersection will be at the discretion of Alberta Transportation. The existing Sunset Boulevard and Highway 22 intersection will be signalized, and ultimately, a third permanent vehicular connection will be made into the northern portion of Sunset Ridge from Highway 22.

In addition to vehicular mobility, potential transit service was considered in the development of the Plan. As future development beyond Sunset Ridge (e.g. to the north and east) is unplanned at this time, Sunset Ridge would likely be at the terminus of a local route. The internal road network is laid out in a way that would allow transit to loop through the community on the collector road (Sunset Road) and would access Highway 22 via Sunset Boulevard.

Additionally, pedestrian mobility will be enhanced with pathways throughout the Plan area as well as regional pathway connections leading beyond Sunset Ridge.

2.5 OTHER INFRASTRUCTURE

The Town of Cochrane has franchise agreements with the major utility providers within the Calgary region to provide the services necessary for successful urban development. Such services also include the provision of high-speed internet, which the Town views as an essential component for the economic viability of the municipality.



3

Public Consultation

Public consultation plays a very important role in the development of an Area Structure Plan. This has been especially important for the Stage 2 Sunset Ridge ASP given that a portion of Sunset Ridge has already been developed and has residents living there. Additionally, due to the exceptional topography and natural areas within the Plan area, public consultation was important to the process.

Throughout the process of drafting and adopting this Plan, the Town of Cochrane and the developer's representatives have provided public engagement opportunities to supplement the agency circulation and public hearing, required by the *Municipal Government Act*, when developing a statutory plan.

3.1 PUBLIC ENGAGEMENT

Two sessions and one Public Hearing have been held with the public. An Open House to present the draft Land Use Concept was held in January of 2012. This Open House was advertised in the local Town papers for two weeks prior to the event, as well as being advertised on the Town's website. There was a strong neighbourhood (Stage 1 lands) turnout. Input provided at this Open House revealed that the public was in favour of the proposed green and open spaces, pathways and school sites. Some area residents were concerned with the location of the proposed development setback line in the southeast corner of the Plan area. The input provided aided in the development of the draft ASP.

A second Open House was held in March 2012 during the circulation of the draft ASP. The intent of this Open House was to gather further input from the community on the draft ASP. The public's comments at this second Open House were similar to the comments made at the previous Open House.





Development Approach

The overall vision for the Town of Cochrane, expressed in its Municipal Development Plan, is as follows:

The community of Cochrane is committed to enhancing social well-being, environmental stewardship, and economic vitality within a context of responsible growth and community engagement. Cochrane embraces sustainability and innovation while maintaining a strong link to its vibrant western heritage.

The Stage 2 Sunset Ridge Area Structure Plan, in conjunction with Stage 1 lands, aims to create a complete and sustainable community that complies with the Municipal Development Plan and Cochrane Sustainability Plan through its objectives and policies.



4.1 CREATING COMPLETE COMMUNITIES

When the land contained within this ASP planning area was annexed from Rocky View County, it significantly increased the area available for development within the Town of Cochrane. Since that time, the Town of Cochrane has expressed, through its Municipal Development Plan and Sustainability Plan, that it is the intent of this municipality to plan and develop new areas as *complete communities*.

A *complete community* is one that provides for the social, local, recreational, and neighbourhood commercial needs of residents. It should have diverse housing options, opportunities for community interaction (such as community gardens and recreational opportunities), educational opportunities, employment opportunities, transportation options (including public transit), and balanced land uses. Establishing Sunset Ridge as a complete community is one of the primary objectives of this Area Structure Plan.

4.2 SUSTAINABILITY

Cochrane's vision for a sustainable future has influenced the policy direction for all sections of this plan, especially with reference to the design features and land use policies. A Sustainability Matrix letter will be completed in conjunction with the Neighbourhood Plan. The purpose of this letter is to illustrate how the community will meet the sustainability objectives of the Town.

4.3 DESIGN FEATURES

The proposed Area Structure Plan incorporates design features that are summarized below and described in further detail in Section 5. The proposed land use concept is shown in Figure 6.

PARKS, PATHWAYS AND PUBLIC OPEN SPACES

Open space and parks in various sizes and functions are distributed throughout the Plan area to permit a wide range of passive and active recreational opportunities. A central green spine will connect the open spaces, including the playfields on the school sites and the passive open spaces including a primary central park site. The central green spine will link the open spaces to Big Hill Springs Creek via a regional pathway system, providing a non-vehicular transportation network within the Plan area and beyond.

MOBILITY

This Plan emphasizes connectivity, both internally within the community as well as greater connections to the surrounding lands. Multiple accesses to residential streets ensures that vehicular traffic can easily move throughout the Plan area.

EFFICIENT AND EFFECTIVE USE OF TOWN'S LAND BASE

This Plan seeks to optimize the use of development land, incorporate efficient facilities planning, such as school sites, and provide for multiple use open space facilities. Passive and active parks as well as playfields, etc. will provide for various potential activity types in the community.

SUSTAINABILITY

Sustainable practices such as integrated storm water management strategies and optimization of the solar orientation of buildings are encouraged within the Plan area.



INSTITUTIONAL SERVICES

A complete community is one that meets the social needs of its residents and this means including institutional uses within the Plan area. Potential institutional uses such as schools, churches or fire halls may be located in Sunset Ridge to provide services for this area and other developments north of Highway 1A.

TOWN GATEWAY

The northern entrance to Cochrane along Highway 22 is recognized as being significant in many statutory documents, and policies are contained in this Plan to ensure that it remains a landmark area. This may be achieved by integrating welcome signage, landscaping and building design to create an area of visual interest that accurately reflects the diversity of the Town's historic, geographic and development characteristics. This Plan includes the potential for improvements in the Highway 22 right-of-way, at the discretion of Alberta Transportation. In addition, the Town's Western Heritage Design Guidelines will be applied to non-residential development that borders Highway 22.

VARIETY OF HOUSING TYPES AND INTEGRATED DENSITY

Stage 2 Sunset Ridge will be developed with a range of housing types and densities that will provide affordable housing options for all income levels and create a sense of community through its mix and form, as well as its relation to other land uses. This Plan will also integrate density throughout the community rather than creating higher density nodes.

4.4 DEVELOPMENT STATISTICS

The table below (Table 1: Land Use Statistics) summarizes the general land use breakdown of the Land Use Concept:

TABLE 1: LAND USE STATISTICS

	Hectares(ha)	Acres(ac)
Total Plan Area	145	360
Environmental Reserve Area	24	60
Gross Developable Area	121	300

In order to estimate the overall population, the Gross Developable Area is obtained by subtracting the non-developable areas from the overall developable area.

For the purposes of estimating the total population, the Gross Developable area is 121 hectares (or 300 acres). As such, the total estimated population for the Stage 2 Sunset Ridge Plan area is:





TABLE 2: POPULATION ESTIMATE - 8 UNITS PER ACRE

Step 1:	Approximate Gross Residential Developable Area (acres)	+/- 300
Multiply (x)	Units per Gross Developable Residential Acre	8
	Total Dwelling Units	+/- 2,400
Step 2:	Total Dwelling Units	
Multiply (x)	Persons per Dwelling Unit	2.6
	Total Estimated Population	+/- 6,240

TABLE 3: POPULATION ESTIMATE - 10 UNITS PER ACRE

Step 1:	Approximate Gross Residential Developable Area (acres)	+/- 300
Multiply (x)	Units per Gross Developable Residential Acre	10
	Total Dwelling Units	+/- 3,000
Step 2:	Total Dwelling Units	
Multiply (x)	Persons per Dwelling Unit	2.6
	Total Estimated Population	+/- 7,800

It is recognized that the total estimated population will have to be refined as a result of the more detailed planning associated with the preparation of the Neighbourhood Plans. As the Neighbourhood Plans shall achieve a density of no less than 8 Units Per Acre, the population of Stage 2 Sunset Ridge will range between approximately 6323 and 7904 residents. Additionally, during the Neighbourhood Plan stage, the extent of the Protected Areas will be refined, and the developable area may be updated.

The Land Use Concept for the Plan area is shown on the Land Use Concept Map (Figure 6). It is based on the Development Approach set out in Section 4. The Land Use Concept is intended to provide direction for all stakeholders on how Stage 2 of Sunset Ridge will develop, based on the policies set out in the following sections.

5

Land Use Concept

5.1 GENERAL DEVELOPMENT POLICIES

In concert with the development approach articulated in Section 4, it is expected that the specific design features of Stage 2 of Sunset Ridge will be developed in accordance with the following principles.

5.1.1 OBJECTIVES

1. To provide policy direction on specific design features for development within the Plan area.
2. To encourage the standard of development within Stage 2 of Sunset Ridge to incorporate best practices.
3. To encourage development in this area to achieve the sustainability targets set by the Town of Cochrane Sustainability Plan.

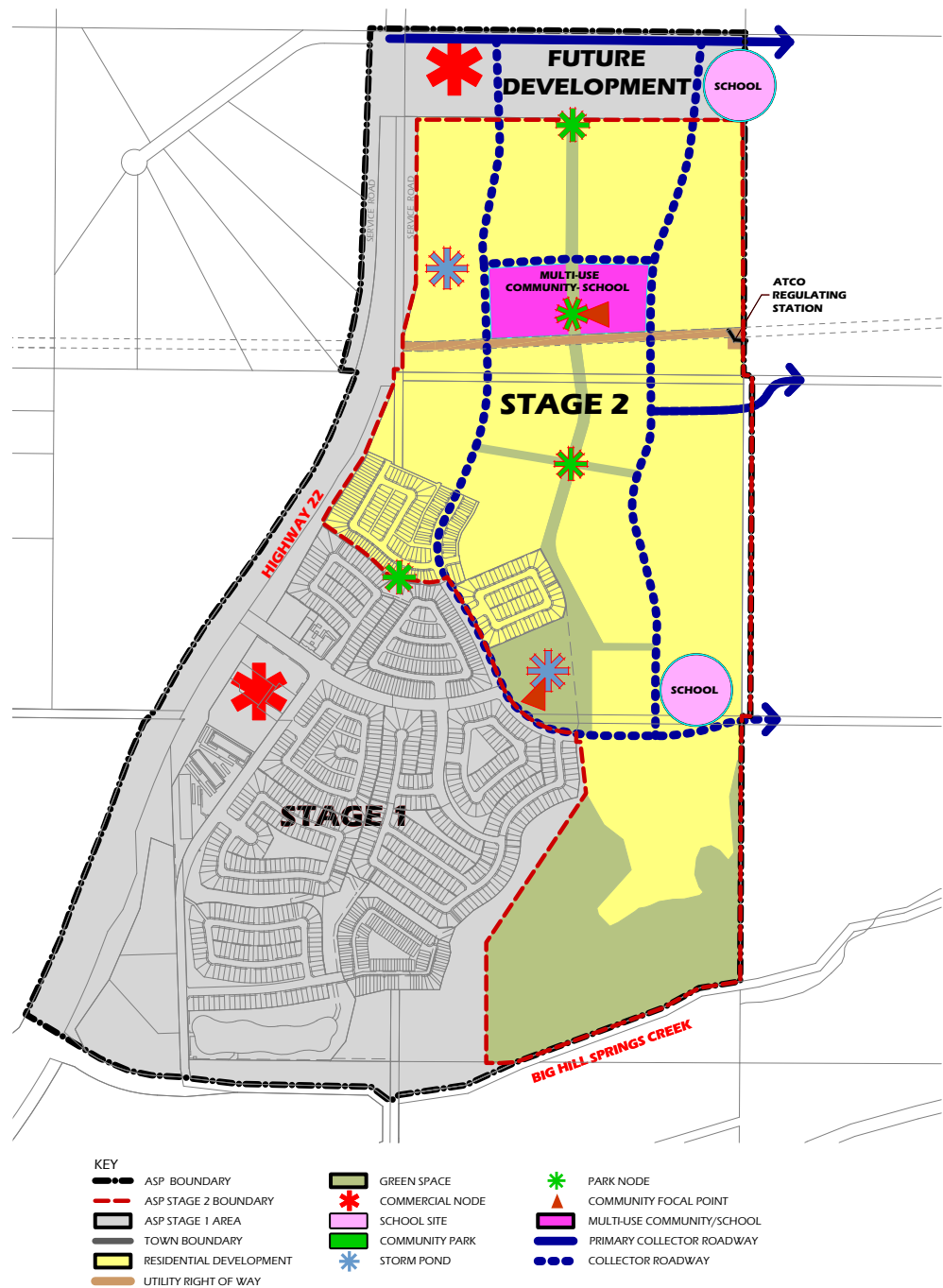


Figure 6 - Land Use Concept



5.1.2 POLICIES

1. Neighbourhood Plan submissions are encouraged to incorporate the principles of the Leadership in Energy and Environmental Design Neighbourhood Design standards (LEED-ND) as part of their community designs.
2. Development Permit and Building Permit submissions for multi-family and non-residential uses are encouraged to incorporate Leadership in Energy and Environmental Design (LEED) building design standards as part of their application.
3. Building orientation should be optimized to facilitate solar potential.
4. All development within the Stage 2 Sunset Ridge Area Structure Plan shall be designed in accordance with Crime Prevention Through Environmental Design (CPTED) principles.
5. Development Permit applications for multi-family residential and other non-residential uses within the Plan area, including schools, shall be required to include a professional CPTED analysis, at the discretion of the Development Authority.
6. Outdoor lighting for all development, including landscaping designs for public spaces, shall have regard to dark sky lighting principles and shall be consistent with the provisions in the Town of Cochrane Land Use Bylaw.
7. Landscaping concepts for public spaces are encouraged to make use of stormwater reuse and naturscaping and xeriscaping designs and techniques to reduce water consumption.
8. Neighbourhood Plan submissions are encouraged to incorporate naturscaping and xeriscaping.
9. When development is proposed adjacent to ecologically significant areas, the developer shall provide a visual impact statement that includes, but is not limited to, a simulation of the development from important viewpoints which shows the impact of the development on the site and scenic resources in the area; at the discretion of the development authority (See "Key Views for Consideration" on Figure 5).
10. Existing vegetation shall be protected when deemed significant. Where the removal of native vegetation is unavoidable, replanting that consists of native species shall be required.
11. All residences in the Plan area shall be located within 400 meters of some form of open space.

5.2 RESIDENTIAL

The residential policies are intended to provide a framework for the establishment of residential neighbourhoods in the Plan area that are pedestrian-oriented, allow for a diversity of housing, and provide the residents with a sense of community. This will be accomplished through the thoughtful location of homes and buildings, the adherence to solid urban design principles, and careful consideration of all aspects that contribute to creating a complete community.

5.2.1 OBJECTIVES

1. To provide a diverse housing mix that caters to all income levels.
2. To achieve an overall density that is consistent with the Town's objectives, as set out in the Municipal Development Plan.
3. To locate the different housing forms as to enhance their relationship with the street frontage, street width, and proximity to parks, schools, recreational amenities, commercial areas and transit.
4. To connect neighbourhoods with all forms of mobility, including vehicular, pedestrian, bike and transit.

5.2.2 POLICIES

1. A range of housing forms and densities shall be included within the Residential area of each Neighbourhood Plan.
2. The minimum residential density shall be 19.8 units per gross developable hectare (8 units per gross developable acre), as specified in the Town of Cochrane Municipal Development Plan.
3. Affordable housing is encouraged throughout the Plan area. Developers are encouraged to liaise with the Cochrane Society for Housing Options.
4. Connectivity between neighbourhoods through the continuity of streets and multiple points of access shall be designed to promote access and support safe pedestrian, bike and vehicular movements.
5. Consideration should be given to reducing block lengths and avoiding cul-de-sacs in order to provide pedestrian connectivity and movement.
6. Multi-family units shall be dispersed (rather than placed in high density nodes) throughout the Plan area and are encouraged to:
 - a) Be adjacent, or in close proximity to, the Plan area's major roadways (e.g. collectors, arterials), and transit routes;
 - b) Be located in areas that would take advantage of views, vistas or other environmental features.
 - c) Provide safe pedestrian and bike access to the adjoining street;
 - d) Be in proximity to the parks and pathway system; and



- e) Provide common amenity areas such as playgrounds and community gardens where feasible.
- 7. Alternative housing forms (e.g. secondary suite, live/work units) may be allowed within Residential areas where deemed appropriate by the Town and in compliance with the Land Use Bylaw
- 8. Figure 5 titled Design Constraints & Considerations identifies a “slope stability line” based on a geotechnical evaluation of the soil conditions associated with the lands sloping down to the Big Hill Springs Creek. This slope stability line establishes the limit for development in this area. In addition to this geotechnical setback and in accordance with the Land Use Bylaw 01-2004, Section 11.13.0, Figure 5 also indicates a “major escarpment zone” in this same area which is based on a contiguous pattern of slope conditions generally greater than 15% which further limits the extent of development. These two development constraints combine to form the “green space” indicated for this area on Figure 6 Land Use Concept. Neighbourhood Plans and Land Use Redesignations for these lands shall be accompanied by engineering drawings and geotechnical engineering support which verifies that the site grading, roads, building sites, and yards associated with the detailed development plan can be safely developed to the satisfaction of the Town.
- 9. Residential development adjacent to Highway 22 should provide adequate screening for visual and noise impact mitigation in order to satisfy the noise attenuation standards of the Town. Noise attenuation analysis may be required to accompany the subdivision plans and engineering plans based on the proposed grading plan for the development.
- 10. To address Section 2.13 of the Intermunicipal Development Plan, that deals with the compatibility of residential development with adjacent uses across municipal boundaries, the following policies shall apply to residential areas adjacent to Rocky View County:
 - a) Neighbourhood Plans adjacent to the municipal boundary shall address compatibility and minimize interface conflicts with existing and future surrounding land uses and these shall be coordinated with the adjacent landowners at the Neighbourhood Plan stage.

5.3 PARKS AND PUBLIC OPEN SPACE

The Stage 2 Sunset Ridge Plan area presents an opportunity to create a park and open space system that contains a wide range of passive and active recreational amenities and form an extension of the extensive Big Hills Spring Creek. The design of the system must ensure overall connectivity, not only within the park and open space system, but also the developed areas. The system shall promote user safety, respect the existing environmental elements and accommodate the needs of the future residents.

The parks and open space system should be planned and developed in conjunction with the school sites that will be developed within Sunset Ridge. Each will contribute to the unique needs of the community and provide both passive and active complementary amenities.

5.3.1 OBJECTIVES

1. To provide a connection to the Big Hills Springs Creek open space corridor.
2. To integrate the parks and open space system with the wider community through pedestrian and bike pathways.
3. To provide the Sunset Ridge community with a variety of recreational opportunities.
4. To provide spaces that create recreational opportunities for varying age groups.
5. To recognize the opportunity to integrate the system with future school sites so that each may provide complementary amenities.

5.3.2 POLICIES

1. Figures 6 and 7 generally illustrate the location of the key components of the parks and open space system, including the location of pathways. The locations shall be refined at the Neighbourhood Plan stage and ultimately be confirmed at the time of subdivision.
2. A central green spine, a community park and smaller green spaces shall be dedicated in the general locations illustrated on Figure 7.
3. The parks and open space system shall provide a variety of passive and active recreational opportunities for residents of all ages.
4. The Subdivision Approving Authority may register a deferred reserve caveat against the title of a parcel in order to defer the provision of Municipal Reserve, pending the future subdivision of a parcel and provided the parcel will retain its potential for future subdivision.
5. Regional trails shall be provided to ensure the Plan area is connected to the regional pathway that runs through the Cochrane Rancho Historic Site and the Big Hill Creek Valley.
6. The location of regional trails, internal pathways, access points and/or viewing access in proximity to environmentally significant areas is encouraged, provided that locating the trail, pathway, access point or viewing area in such proximity does not disturb the area.



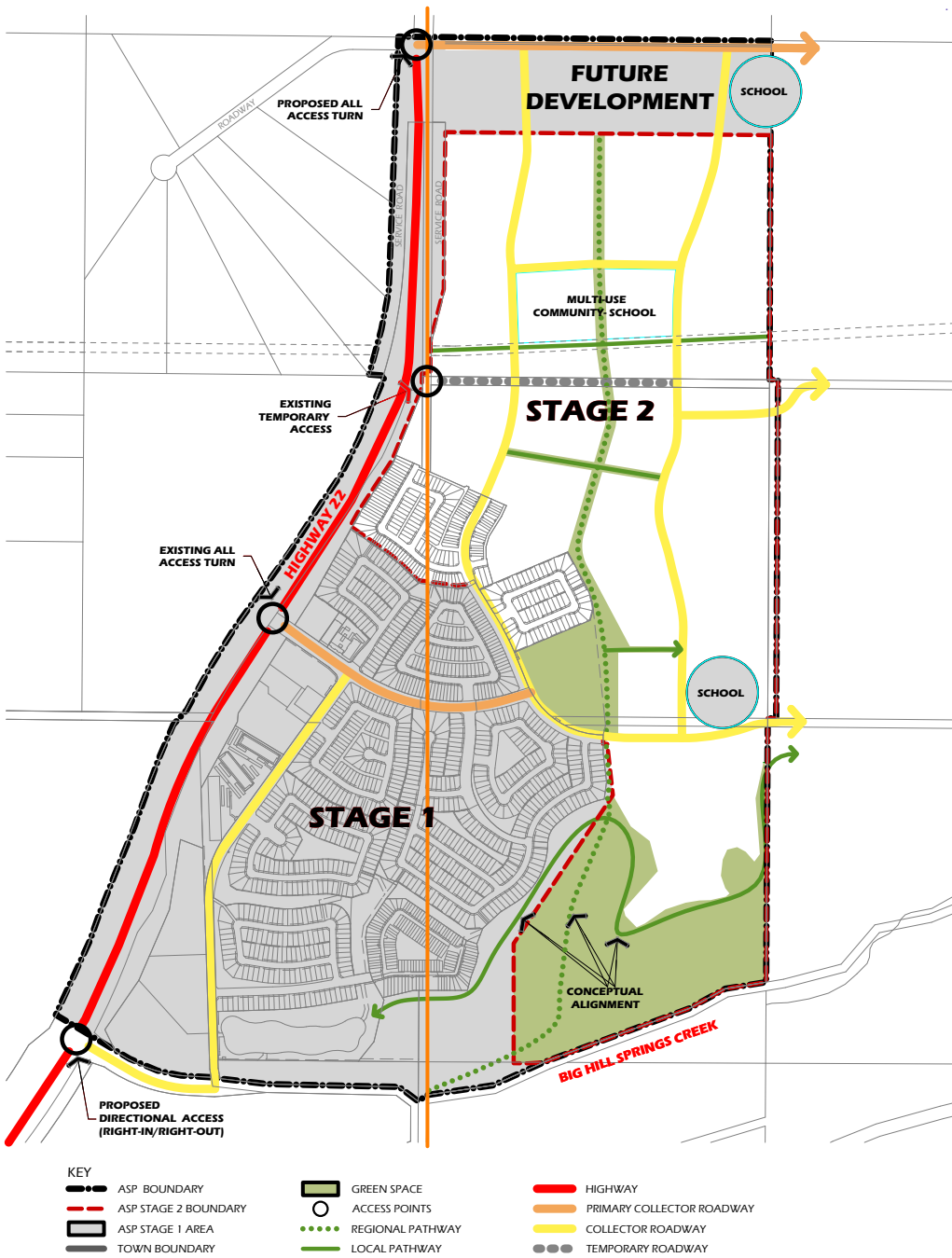
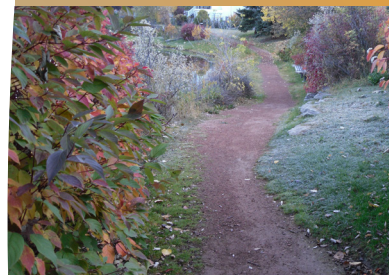


Figure 7 - Green Space and Mobility Network





7. Municipal Reserve may be used to create:

- School sites,
- parks,
- pathways,
- Off leash dog parks,
- Sporting facilities,
- Community amphitheatre;
- Children's play areas, or
- linkages between parks, schools or environmentally sensitive areas.

5.4 SCHOOLS AND JOINT USE SITES

In the preparation of the Plan, Town Administration conducted extensive consultation with the Rocky View, Calgary Catholic Separate, and Catholic Francophone school divisions. As a result, three additional school sites were identified as being required to meet the educational needs of the Sunset Ridge community and adjacent areas. These include two public Kindergarten to Grade Nine schools, and one separate Kindergarten to Grade Nine school. The approximate size of each school site is a typical four acre building envelope plus the associated play field areas.

5.4.1 OBJECTIVES

1. To provide school sites in central locations and of sufficient size that will meet the needs of the community.
2. To locate school sites at key crossroads or intersections in the community to highlight these important public institutions.
3. To encourage the integration of the schools into the community through the provision of uses and services that will benefit all the residents.
4. To encourage schools to be located so they can take advantage of play fields and other infrastructure and reduce the cumulative size of the school sites.

5.4.2 POLICIES

1. Schools should be located generally as illustrated on Figure 6. The size and final location for each school site shall be determined through Neighbourhood Plan submissions and dedication as Municipal Reserve at the time of subdivision.
 2. The predominant use of the land within a school site shall be for educational and recreational uses, including but not limited to: public and separate schools, sports fields, parks and playgrounds.
 3. School buildings and school sites should be designed and encouraged to integrate a variety of uses that benefit the community and reinforce the role of the school as the social, educational and activity centre for the community.
 4. School sites should be centrally located to increase the opportunities for students to walk and cycle to school.
 5. School sites shall be located a safe distance from sour gas lines as well as overhead power lines for purposes of safety and potential use in emergency situations, to the satisfaction of the Development Authority.
 6. The school building shall be located on a collector road and is encouraged to be located at the intersection of collector roads wherever possible.
 7. School sites shall be designed so as to incorporate CPTED principles.
 8. School sites shall remain landscaped (graded, loamed and seeded) until such time as the school site is developed.
 9. Passive recreation uses, such as community gardens, are encouraged to be located on school sites at the discretion of the appropriate school authority.
 10. Bus loading and drop-off zones shall be provided in appropriate locations in order to promote free flow of traffic on the roads adjacent to a school site.
 11. The co-location of multiple school sites will be evaluated on a case-by-case basis by the local school divisions and the Development Authority at the time of Neighbourhood Plan submissions.
-

5.5 COMMERCIAL

The Land Use Concept shows a future Commercial Area in the north portion of the Plan area (north of the current ASP boundary). This is in addition to the existing Commercial Area that is centrally located along Highway 22 in Stage 1 of the Sunset Ridge community. The development of the proposed Commercial Area will depend on future market trends, and future needs of the residents of Sunset Ridge and the surrounding area. The suitability of the Commercial Area will need to be evaluated and determined during the Neighbourhood Plan stage for that area, and should Commercial development not be feasible or desired, alternate, suitable development may be considered instead.

Should Commercial development proceed, the following shall apply:

5.5.1 OBJECTIVES

1. To provide for the local needs of the Sunset Ridge community while creating an area that does not compete with the downtown.
2. To create a commercial area that allows Cochrane residents to work within the community.
3. To establish a commercial area that provides a non-residential tax base that will contribute to the Town's objective of having a more balanced overall assessment.
4. To develop the area such that it remains an attractive entrance to the Town.
5. To develop a commercial area that shall be compatible with adjacent residential areas.

5.5.2 POLICIES

1. Recognizing the commercial area will form part of the entrance to the Town, it shall be developed so that it creates a positive visual appearance through the use of landscaping, attractive signage and architectural features.
2. Where parcels back onto Highway 22, the rear of the building shall be built to the same design and façade treatment as the front of the building.
3. All non-residential buildings shall adhere to the Western Heritage Design Guidelines.

4. Uses located in the commercial area are intended to serve the local needs to the Sunset Ridge community and shall not be designed to compete or have a detrimental effect on the downtown.
5. In the design of the commercial centre, emphasis shall be placed on the relationship between the buildings and the street to ensure a pedestrian-oriented development.
6. Where commercial development abuts residential development, adequate screening and buffering of the development and the parking area shall be provided to the satisfaction of the Development Authority.

5.6 TOWN GATEWAY

Sunset Ridge forms part of the Town's northern gateway and as such, any development that occurs along its northern and western edge will have a direct impact on people's perception of Cochrane. The Town has strived to create positive entrances to the community and it is important to carry this high standard of visual treatment into Sunset Ridge Stage 2.

The Town has adopted the Western Heritage Design Guidelines (WHDG) and they shall be applied to all non-residential buildings along the Highway 22 corridor. This will require a design review of all development along the Highway to ensure they meet the WHDG, as well as all relevant Town policies and regulations with respect to creating aesthetically pleasing entrance ways.

The Town has recently adopted new "welcome signage" with assistance from a representative stakeholder committee for the four major entrances to Cochrane. This signage builds on the theme of Cochrane's western heritage.

5.6.1 OBJECTIVES

1. To create an edge treatment along Highway 22 that, through a combination of landscaping, building design and placement, and the incorporation of existing natural features and topography into any development, creates a positive appearance to the northern entrance to the Town.
2. To provide the Town with the opportunity to review how the land adjacent to Highway 22 is to be developed to ensure it meets the standards the Town has established for its entranceways.

5.6.2 POLICIES

1. Buildings shall be designed so as to present a smaller mass by using measures such as the reduction of the building footprint, offsetting walls, shifting rooflines to vary height, and articulating building elevations. The intention is to reduce building bulk and create visual variety.
2. Highway 22 is designated as a scenic tourism corridor and improvements to protect and enhance its visual quality shall be undertaken.



3. Edge considerations should be incorporated into all forms of future development. Considerations, such as parcel size, site design, functionality, visual separation, sound attenuation, open space alternatives, view corridors, vistas, vegetation, and building materials shall be addressed to create a positive visual appearance.
4. Prior to approval of a Neighbourhood Plan, sketches, plans and illustrations shall be submitted to the Town showing how the Town's objectives, policies and regulations with respect to entrance ways have been addressed.
5. Proposed improvements within the Highway 22 right-of-way shall obtain approval from Alberta Transportation.
6. All non-residential buildings shall adhere to the Western Heritage Design Guidelines.

5.7 WETLAND CONSERVATION

Protection and enhancement of significant wetlands in the planning area represents the preferred option in this ASP. However, where disturbance is unavoidable, appropriate mitigation and/or compensation will be provided to the satisfaction of relevant Provincial approval agencies and in conformance with the Town of Cochrane's policies.

5.7.1 OBJECTIVES

1. To provide a framework and direction on protecting, conserving, restoring and establishing mitigation measures for the Town's wetlands.
2. To recognize that the treatment of wetlands is a multi-jurisdictional responsibility including municipal, provincial and federal departments, as well as non-governmental stakeholders.
3. To provide a framework for development in accordance with the Town's principle of "No Net Loss" and thereby address the possibility that it may not be possible to protect all wetlands in place.

5.7.2 POLICIES

1. Where a wetland exists within a Neighbourhood Plan area, the developer shall, in consultation with Alberta Sustainable Resource Development and the Town, determine whether the wetland is subject to the Public Land Act, whereby the province has claim over the bed and shore of the wetland.
2. During the development of the Neighbourhood Plan, a Biophysical Impact Assessment (BIA) that includes a detailed review of any wetlands and their associated riparian areas in the Plan area shall be prepared by a qualified professional.
3. The BIA shall classify all wetlands according to the Stewart and Kantrud method, recommend which are to be preserved, what mitigation measures need to be taken, and provide rationale on the development of wetlands that are not to be retained.

4. Where a wetland is to be retained, the BIA shall recommend a development setback that incorporates the riparian area.
5. In addition to the BIA, the Development Authority may require a hydrological study or a hydrogeological study or both, in order to determine how and if subsurface or surface water flows affect environmentally significant wetlands.
6. Once all avenues of avoidance and minimization of development have been explored, and an appropriate level of disturbance has been authorized by the Development Authority and appropriate provincial and federal authorities, mitigation for the impact on the wetland shall adhere to the Town's "No Net Loss" principle.
7. Where wetlands qualify as Environmental Reserve (ER) in accordance with the provisions of the *Municipal Government Act*, the wetland may be dedicated as ER through the subdivision process.
8. Where a wetland is designated as ER or otherwise protected, the following shall be permitted:
 - a) Improvements necessary to integrate the area with surrounding development and ensure its sustainability.
 - b) Drainage enhancements necessary to ensure post-development water flows;
 - c) Landscaping that is necessary to restore the wetland and its shoreline, and:
 - d) Amenities such as interpretive areas, pathways, viewing areas, etc. considered by the Town to enhance the public's understanding of the wetland. Such amenities shall obtain a Development Permit when required by the Town's Land Use Bylaw.
9. Where wetlands do not qualify as ER, the lands may be acquired through different means such as land transfer, dedication as Municipal Reserve, registration of a conservation easement, or purchase.
10. Where wetlands are not acquired or protected, they shall be considered developable.
11. Wetlands may be included as part of the stormwater management systems, provided that the Storm Water Management Plan, prepared in support of any Neighbourhood Plan or land use redesignation, addresses the following to the satisfaction of the Development Authority:
 - a) the design of, and management of the wetland;
 - b) how the configuration will support/enhance the natural open space system;
 - c) how the wetland will balance function with the provision of habitat, and:
 - d) through what method the wetland and associated detention ponds, forebays etc. will be protected (e.g. Environmental Reserve designation)



12. Where a wetland is to be part of the stormwater management system, prior to subdivision approval the developer shall demonstrate to the satisfaction of the Province and the Town that the quantity and quality of stormwater entering the wetland will be such that the wetland will continue to function as it did before any development adjacent to the wetland occurred.

5.8 ENVIRONMENTALLY SIGNIFICANT AREAS

The Plan area contains some Environmentally Significant Areas (ESA). These areas will be identified during the Neighbourhood Plan stage. The ESAs may include:

- Native grasslands;
- Escarpments; and
- Slopes in excess of 15%.

These areas play an important role in Cochrane's urban landscape by:

- Reducing soil erosion;
- Providing diverse habitats for native flora and fauna;
- Contributing to an aesthetic urban design, and;
- Providing educational opportunities

The Town, through existing plans and policies (e.g. Sustainability Plan, Municipal Development Plan), provides direction on how it intends to deal with ESAs within the Town as a whole. These plans and policies will be applied to areas identified as environmentally significant, with the following providing additional direction for the Stage 2 Sunset Ridge Plan area.

5.8.1 OBJECTIVES

1. To identify areas within the Plan area that are environmentally significant.
2. To provide guidance on how the environmentally significant areas may be protected by creating policies for the Plan area, but also recognizing that the Town and the Province have additional policies that must be respected.



5.8.2 POLICIES

1. ESAs identified during the Neighbourhood Plan stage are not automatically acquired and/or protected from development unless they qualify as Environmental Reserve (ER) in accordance with the *Municipal Government Act*.
2. In addition to the grasslands, the aspen grove along the escarpment and their boundaries will be subject to review at the Neighbourhood Plan stage and shall be reviewed as part of a BIA that will accompany the Neighbourhood Plan or redesignation application.
3. Environmentally Significant Areas that do not qualify as Environmental Reserve in accordance with the *Municipal Government Act* may be protected through other means, (e.g. conservation easements, voluntary Municipal Reserve) as identified as part of a Neighbourhood Plan submission. However, where these ESAs are not dedicated, acquired or otherwise protected, the lands shall be deemed developable and the policies for the adjacent land use policy area (e.g. Residential) shall apply to those lands without requiring amendment to Figures 5 or 6.
4. Mitigation and creative solutions for development that may potentially impact the ESAs should be explored in the Neighbourhood Plan.







Development Servicing

6.1 SERVICING

The Plan area is able to be serviced through the extension of existing Town infrastructure and new infrastructure that can be designed and constructed to accommodate Stage 2 of Sunset Ridge. Specifically, storm and sanitary sewer systems can be oversized as they pass through the Plan area to provide services to the northern portion. The available water reservoir pump station with upgrades and necessary future infrastructure will be able to meet the demands of the development.

A large amount of servicing information will be determined through the Neighbourhood Plan stage, however servicing graphics that illustrate the servicing options for the Plan area are included as Figures 8-10.

WATER

The Plan area is currently being serviced by an existing reservoir pump house that was constructed to service the existing and future Sunset Ridge community. A detailed report will be required at the Neighbourhood Plan stage showing the location of a future booster station/reservoir that will service the northern portion of Sunset Ridge.

SANITARY

Stage 2 of Sunset Ridge will be serviced through existing sanitary sewer infrastructure constructed in the existing stages of development. Existing gravity trunk sewer infrastructure will extend in the major road ways of the development. In addition, a local network of lateral sanitary sewer infrastructure will be connected to provide service to the development.

There are options for the sanitary services in the southeast corner of the Plan area. These options will be evaluated and considered in detail at the Neighbourhood Plan stage.

STORM DRAINAGE

Stage 2 of Sunset Ridge will be serviced for storm drainage with stormwater management facilities as shown on Figure 6. The number, locations and sizing of the pond(s) will be determined by a Storm Water Management Plan that is to be submitted in support of a Neighbourhood Plan application based on the catchment boundaries identified within the Plan. The stormwater management facilities will be designed to accommodate up to a 1 in 100 year storm event. Controlled runoff will be discharged to the Big Hill Creek via an existing pond and outfall. The Stormwater Management Plan will be based on controlling the runoff to predevelopment flow rates as determined by Operational Solutions in the Master Drainage Plan dated June 2006.

Stormwater management servicing for the southeast corner of the Plan area requires similar consideration as the sanitary sewer. Given the topography of the southeast portion of the Plan area, alternatives for Storm Water exist in this area. The options will be further evaluated during the Neighbourhood Plan stage for this portion of the Plan area.

Approval of any outfalls and stormwater management facilities will need to be obtained from Alberta Environment and the Town of Cochrane.

6.1.1 OBJECTIVES

1. To provide the infrastructure necessary to permit the development as proposed by the Land Use Concept.
2. To phase infrastructure upgrades to be commensurate with the rate of development.
3. To incorporate Low Impact Development techniques and principles into the design of the area's utilities, where possible.
4. To develop servicing schemes that provide for sustainable infrastructure design that minimizes life-cycle costs, negative impacts to the environment, and meets the servicing standards of the Town.

6.1.2 POLICIES

1. Urban development within the Plan area shall be serviced with Town water, sanitary sewer and stormwater systems, as well as gas, cable, telephone and electricity.
2. Neighbourhood Plans shall provide servicing schemes that provide for cost effective life-cycle costs for servicing that minimize negative impacts to the environment and meet the servicing standards of the Town.
3. All cable, telephone and electricity for servicing development shall be underground.
4. Easements and rights of way shall be provided to accommodate Town utilities as necessary.
5. Easements, rights of way, public utility lots and road rights of way may be required, at the discretion of the Development Authority, to be dedicated or registered across undeveloped land to ensure orderly and sequential development.
6. The water, sanitary sewer and stormwater systems shall be designed to serve the ultimate development of the plan area.
7. Water pressure zones shall be determined to ensure fire flow requirements are met.
8. A Stormwater Management Plan shall be prepared prior to, or in conjunction with, a Neighbourhood Plan or a land use redesignation.
9. As part of the preparation of a Stormwater Management Plan "Best Management Practices" and alternatives for stormwater quality and quantity enhancements should be considered with regard to Low Impact Development Techniques and principles and put in places as part of the servicing design where feasible.
10. Stormwater facilities, such as stormwater ponds, are encouraged to be integrated into park and open space areas.



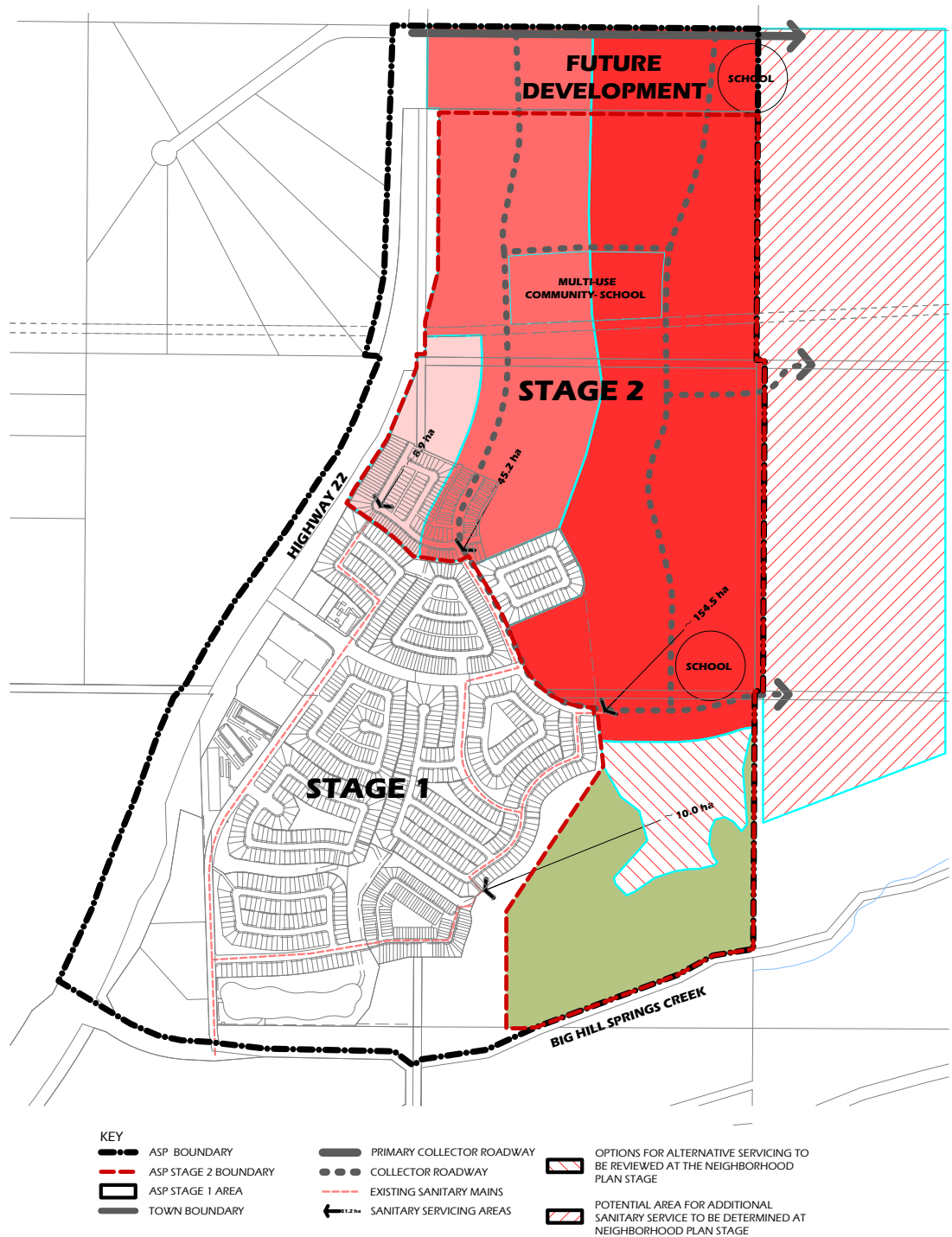


Figure 8 - Sanitary Servicing



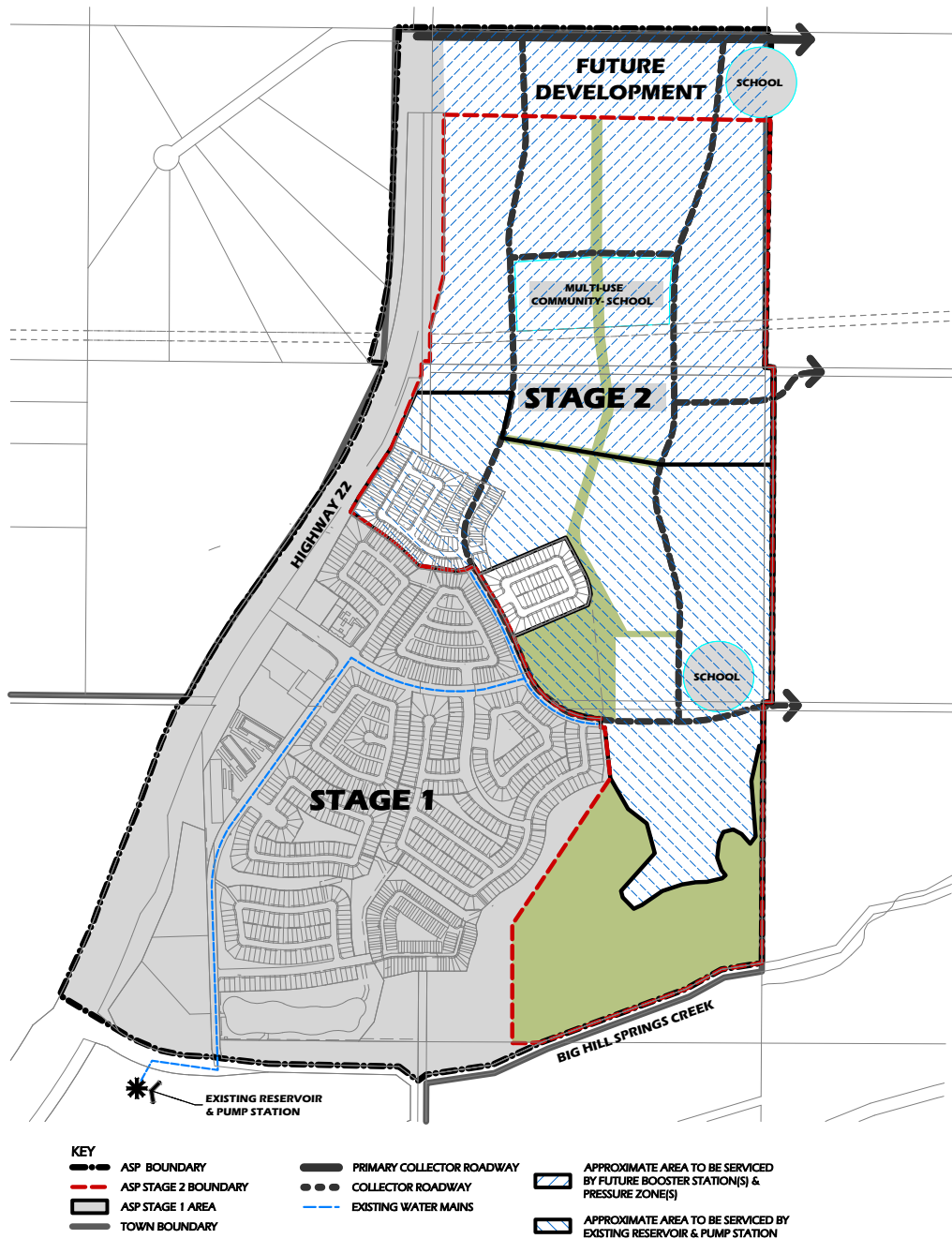


Figure 9 - Water Servicing



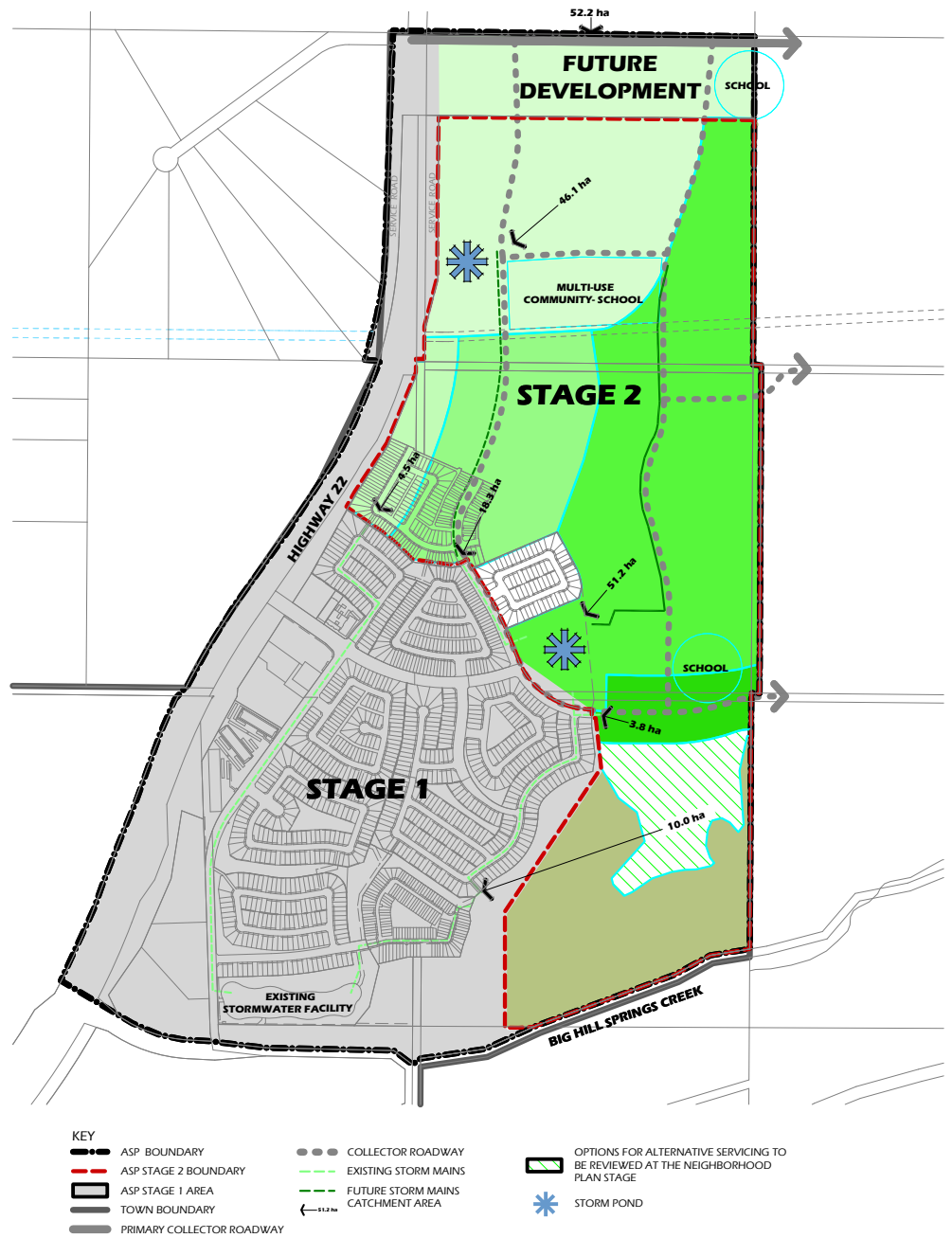


Figure 10 - Stormwater Servicing





7

Mobility

7.1 MOBILITY SYSTEM

Within Sunset Ridge, the opportunity exists to create a multi-modal transportation system that includes vehicular and non-motorized transportation as well as an anticipated local and regional transit system. As such, there is a need to identify how these systems will be constructed and implemented so that together they form an integrated mobility system.

Figure 7 identifies the proposed road network to the Plan area including all existing and future vehicular access points, as well as emergency access locations. The road network includes a proposed grid of collector and arterial roads. The ultimate location of the Plan area road network will generally be as illustrated in Figure 7, particularly the collector roadway. Its alignment was selected based on a number of factors including existing development, walking distance to transit routes, and its ability to provide development cells of reasonable size and connectivity.

Figure 7 also identifies key pathway corridors. The specific alignment of the pathway system shall be determined in the Neighbourhood Plan. A key component to the pathways system is a connection to the Big Hill Springs Creek and associated coulee complex.

7.1.1 OBJECTIVES

1. To provide a safe, functional and efficient road system that accommodates vehicular and non-motorized traffic and meets the travel demands of the Sunset Ridge community both from an external community access perspective as well as movement within the community.
2. To provide road connections to existing land uses and existing residents to the east of Sunset Ridge.
3. To provide for a transit system that links the Sunset Ridge community to the rest of Cochrane as well as providing efficient transit service within the Plan area.
4. To establish a pathway system that complements the road network so that there is an alternative method of travel for non-motorized traffic.

7.1.2 POLICIES

1. Pedestrian and Bicycle Circulation
 - a) The pathway system shall be generally located as illustrated on Figure 7.
 - b) Pathways should be part of an integrated park and natural space system wherever possible. Where this is not possible, pathways may be located within a road right of way.
 - c) Local pathways are not shown on Figure 7 but will be located as part of each Neighbourhood Plan. When locating local pathways, they should provide direct connections to the central green spine, parks, schools, the regional pathway system that links to the Cochrane Rancho Historic Site, and transit stops.
2. Transit
 - a) Transit routes shall be identified as part of a Neighbourhood Plan.
 - b) Transit stops should be located so they serve multi-family developments, commercial areas, and schools and be within 400 metres (e.g. five minute walk) of all dwellings units to encourage transit usage.



3. Road Network

- a) Collector roadways shall be generally located as shown on Figure 7. The sizing and classification of the roads are to be determined by the Traffic Impact Analysis completed during the Neighbourhood Plan stage.
- b) A staged access shall be provided from Highway 22 to the northern portion of Sunset Ridge via the north 40 acres.
- c) Appropriate road linkages are encouraged to optimize building orientation to facilitate solar potential.
- d) East-west minor road linkages shall be established to enhance connectivity within the community and to minimize internal driving distances. The location of minor connections shall be determined at the Neighbourhood Plan stage.
- e) Developments adjacent to a collector road should provide a variety of treatments and design solutions to promote visual breaks and a variety of interfaces between the collector and the adjacent lands. Lots backing onto the collector resulting in a continuous treatment (e.g. fencing) will be strongly discouraged.
- f) Roads should provide connections to a looped transit system.
- g) Local roads are not shown on Figures 6 and 7 but shall be identified as part of each Neighbourhood Plan.
- h) The layout of the local road system should provide direct connections, multiple access points, multiple route choices, provide connectivity between all parts of the community (including residential units), and allow for efficient access to transit routes.





8

Plan Implementation

8.1 AUTHORITY OF THE PLAN

The Stage 2 Sunset Ridge Area Structure Plan ("the Plan" or "ASP") is an area structure plan that Council has adopted through Bylaw in accordance with Section 633 of the *Municipal Government Act* and retains such force as provided by this regulation.

8.2 INTERPRETATION OF THE PLAN

8.2.1 MAP INTERPRETATION

Unless otherwise specified, the boundaries or locations of any symbols or areas shown on a figure or map are approximate only and shall be so interpreted.

8.2.2 POLICY INTERPRETATION

Where an introduction section accompanies the objectives and policies for any development issue, it is provided for information and to enhance the understanding of the objectives and policies. Should an inconsistency arise between the introduction and an objective or policy, the policy shall take precedence for interpretation, followed by the objective, followed by the introduction.

Where “shall” is used in a policy, the policy and the actions that it require are considered mandatory.

Where “should”, “may”, or “is encouraged” are used in a policy, the policy and the action are considered optional, but the general intent is compliance except where unique circumstances, such as an impractical or impossible situation, require a different course of action.

8.3 PLAN AMENDMENTS

The intent of the Stage 2 Sunset Ridge Area Structure Plan is to provide policy direction and a general land use concept for development to occur within this geographic area. Build out of the Stage 2 ASP is anticipated to be over 15 years, therefore a certain degree of flexibility has been incorporated into this plan to provide various options for development that still meet the vision of the Town of Cochrane.

The Town of Cochrane recognizes that circumstances may dictate the need to add, modify or delete certain policies and plan elements in the future. The following objectives and policies help to clarify the procedures for an amendment and the circumstances that would warrant such action.

8.3.1 OBJECTIVES

1. To provide clarity regarding the types of changes that will require an amendment to this Area Structure Plan.

8.3.2 POLICIES

1. An amendment shall be required where a substantive change, as defined by the Development Authority, is proposed to the text or figures of this Plan.
2. An amendment application shall be referred to the Development Authority for its consideration and to Council for ultimate approval, in accordance with the requirements outlined in the *Municipal Government Act*.
3. Where an amendment to this Plan is requested, the applicant shall submit the supporting information deemed necessary by the Development Authority to evaluate and justify this amendment.
4. It shall be the responsibility of the Development Authority to compile and make available a list of any amendments to this Area Structure Plan.

8.4 NEIGHBOURHOOD PLANS

The Stage 2 Sunset Ridge ASP provides principles, objectives and policies that when combined, set out how the area will develop in the future. The preparation and adoption of the ASP is, however, only one step in the planning process. Additional, more detailed work is needed before it will be possible to commence development of the area. The following sets out the next steps in the planning process.

8.4.1 OBJECTIVES

1. To establish a planning process that is clear and allows development to proceed in a timely fashion.
2. To ensure development is consistent with Town policies and regulations.

8.4.2 POLICIES

1. Prior to, or in conjunction with, an application for redesignation, a Neighbourhood Plan shall be prepared for each area.
2. A Neighbourhood Plan shall address:
 - a) a future land use scenario including block design and configuration;
 - b) parcel size and residential density;
 - c) the anticipated commercial/industrial employment ratio per hectare, where applicable;
 - d) proposed open space, including active and passive open areas, natural areas and both pedestrian and bike linkages to other existing or potential adjacent developments;
 - e) Municipal Reserve and Environmental Reserve balance and allocation as well as other appropriate means of protecting environmentally significant areas and open space;
 - f) open space linkages with adjacent lands within and outside the Plan Area;
 - g) development phasing, illustrating full build-out;
 - h) efficient means to provide access and internal road circulation over both the immediate and long term;
 - i) integration of the proposed development with existing and adjacent development in a manner that ensures compatibility with adjacent land uses;
 - j) creation of an appropriate rural-urban interface for Neighbourhood Plan areas bordering Rocky View County.
 - k) mitigation measures such as building design, landscaping, screening, or berming to address any on-site or off-site visual impacts;
 - l) any constraints to development, including but not limited to: geotechnical, environmental, and hydrogeological conditions; archaeological or historically significant features;
 - m) a Stormwater Management Plan which will determine feasible Best Management Practices for stormwater management;
 - n) water and wastewater servicing strategies, including identification of rights-of-way required for connection to Town systems;

- o) Traffic Impact Assessment (TIA) that addresses the location of existing and future transportation networks, identifies the internal road classifications, details traffic generation and its cumulative impacts on the road network, including necessary improvements based upon traffic volume and engineering advice;
 - p) Biophysical Impact Assessment (BIA) that includes field assessments which maps the habitats, describes the wildlife and vegetation, identifies and ranks wetlands according to significance, analyzes habitats and potential for species at risk, evaluates the regional ecosystems, habitat connectivity and potential for wildlife corridors, and provides recommendations for management and mitigation of the lands subject to its review;
 - q) Transit plan showing future routing and transit stops;
 - r) an overall landscaping concept for all public spaces, including, but not limited to: municipal reserves (including school sites), road right-of-ways, pathways and storm water features;
 - s) road names in accordance with approved Town policy;
 - t) proposed school sites;
 - u) recreational lands and facilities;
 - v) input from affected community stakeholders, including community organizations, and social service agencies; and
 - w) any other matter the Municipality deems necessary.
3. Land Use approval shall not be granted unless a Neighbourhood Plan has been approved by Council.
 4. In order to implement the policies and Figures of the Plan, the land will require redesignation by Council, subdivision approval by the Cochrane Planning Commission and approval of appropriate Development Permits by the appropriate development authority.
 5. At the discretion of the Development Authority, Neighbourhood Plan boundaries may be modified without the requirement for an amendment to this Area Structure Plan where it can be proved that better and more cohesive planning can be achieved.
 6. Neighbourhood Plans partially or fully contained within the Notification Area of the Intermunicipal Development Plan (IDP) shall be circulated to Rocky View County in accordance with the terms of the IDP as part of the plan review to be conducted by the Development Authority. Applicants for these plan areas are encouraged to coordinate with Rocky View County administration prior to submitting a Neighbourhood Plan application to the Development Authority.

8.5 DEVELOPMENT PHASING

Generally, the build out of the Stage 2 ASP lands will occur from south to north as indicated on Figure 11. Development phasing is a necessary part of the planning process to enable the Town to coordinate infrastructure and roadways over the long term.

8.5.1 OBJECTIVES

1. To efficiently plan for Town services and roadways.
2. To define the future development directions of Sunset Ridge.

8.5.2 POLICIES

1. The phasing shall provide for a logical extension of Town services.
2. The phasing shall proceed in such a fashion that a school site be provided in the first phase, and park facilities be provided accordingly through the future phases.
3. Development phasing may proceed according to the servicing boundaries that are determined to exist (e.g. water pressure zones).

8.6 NORTH LANDS

The 40 acre parcel directly north of the ASP boundary has been annexed by the Town of Cochrane for the purpose of vehicular access to the northern portion of Sunset Ridge. The potential for future urban development also exists on this parcel.

8.6.1 OBJECTIVES

1. To provide appropriate vehicular access to all areas of Sunset Ridge.
2. To ensure adequate emergency access points to Sunset Ridge.

8.6.2 POLICIES

1. A portion of the north access road right-of-way will be constructed as required to service the remainder of the ASP development area. The developer of the north 40 acres shall be responsible for the completion of the north access to the ultimate standard.
2. Front-ended costs associated with the stormwater infrastructure benefitting the north 40 acres shall be subject to cost recoveries. The Town and landowners will enter into an agreement that provides details of infrastructure responsibilities and recoveries.

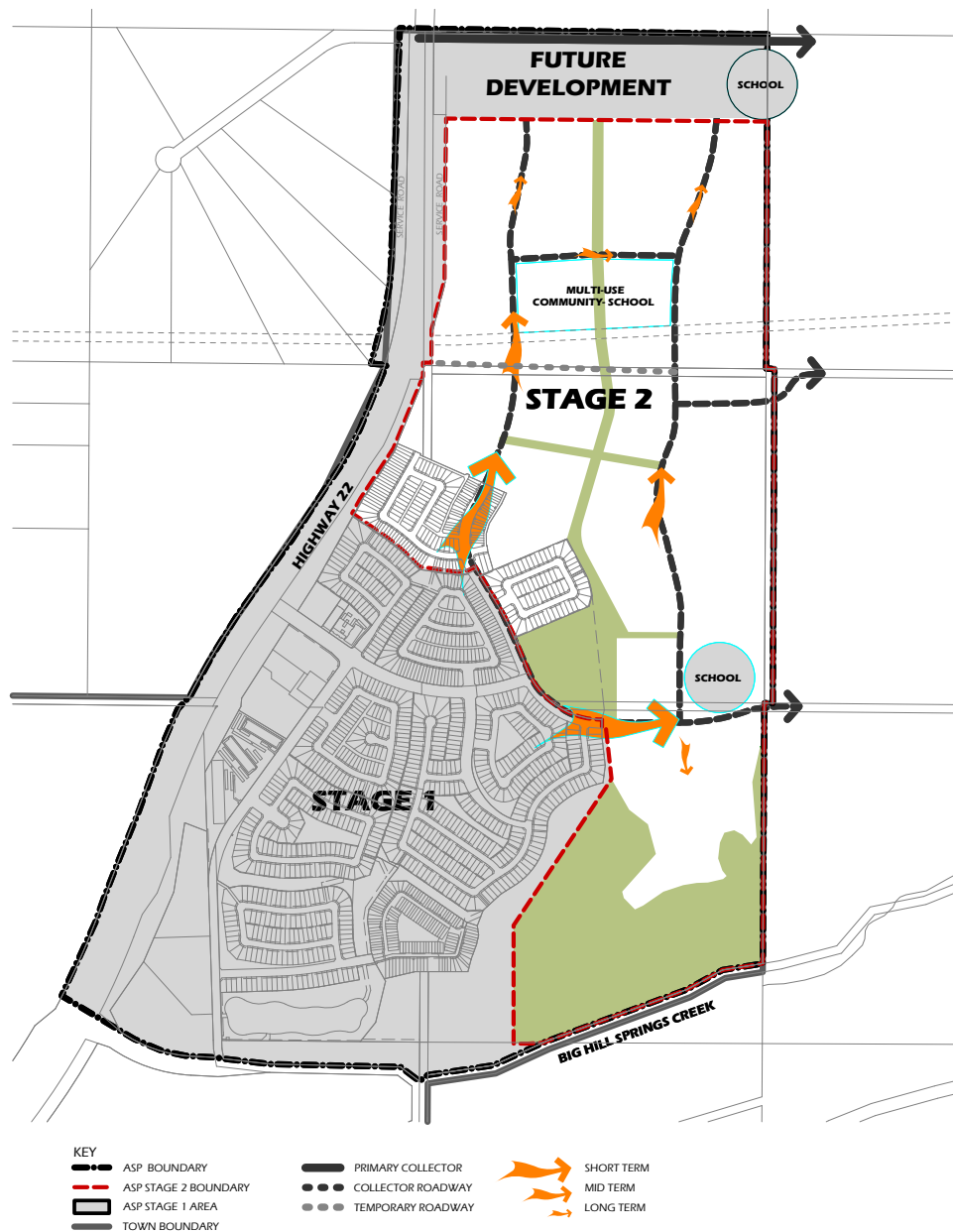


Figure 11 - Phasing Plan





cochrane
HOW THE WEST IS NOW

9

Interpretations & Definitions

9.1 GLOSSARY OF TERMS

Affordable Housing means the definition for this term provided by the Canada Mortgage and Housing Corporation, as may be amended from time to time.

Amendment means a change that alters the purpose, intent, policies or Figures of the Plan.

Council means the duly elected Council of the Town of Cochrane.

Crime Prevention Through Environmental Design (CPTED) means a multi-disciplinary approach to deterring criminal behaviour through environmental design.

Development Authority means the definition for this term provided in the Town of Cochrane Land Use Bylaw, as may be amended from time to time.

Gross Developable Area means the area of a site being subdivided, excluding Environmental Reserve and arterial roadways.

Gross Residential Area means an area of a site designated by a plan or bylaw to accommodate residential uses, excluding arterial roadways, environmental reserves, high school or other school sites intended to provide educational services to an area outside the plan or bylaw area, and any regional institution or public uses.

Hydrological Study means a study that addresses the distribution and circulation of water on the surface of the land and how any alterations of the land will affect the natural surface water flow and the potential impact on wetlands.

Hydrogeological Study means a study that addresses the distribution and movement of groundwater in subsurface soils and rocks (i.e; aquifers) and how the distribution and circulation of groundwater may be affected by alterations to the land, in particular potential impacts on wetlands.

Leadership in Energy and Environmental Design (LEED) means the third-party certification program and internationally accepted benchmark for the design, construction and operation of high performance green buildings, as accepted and may be amended from time to time by the Canada Green Building Council.

Leadership in Energy and Environmental Design – Neighbourhood Design (LEED-ND) means the rating system to guide and assess sustainable community development, as may be prepared and defined by the Canada Green Building Council.

Low Impact Development means a comprehensive approach to land planning and engineering design with a goal of maintaining the pre-development hydrologic regime of urban and developing watersheds.

Multi-Use Community-School Facility means a facility that combines a school with community uses which may include recreational or social uses, such as community gym access, community centre facilities, public libraries, daycares, etc.

Municipal Government Act means Chapter M-26 of the Revised Statutes of Alberta 2000, as amended from time to time.

Naturscaping means the modification and enhancement of a lot or development area through the use of natural indigenous vegetation, such as trees, shrubs, hedges, grasses, and other ground cover, in conjunction with permeable or pervious surfacing material, such as brick, stones, wood and similar indigenous landscaping materials.

Neighbourhood Plan means a plan adopted by resolution pursuant to the provisions of the Municipal Development Plan for the Town of Cochrane and this Area Structure Plan.

No Net Loss means the definition for this term provided in the Town of Cochrane Policy 1502-01, or similar, as may be amended from time to time.

The Plan means the Stage 2 Sunset Ridge Area Structure Plan.

The Plan Area means the geographic area contained within the Stage 2 Sunset Ridge Area Structure Plan.

The Province means the Province of Alberta.

Public Lands Act means Chapter P-40 of the Revised Statutes of Alberta 2000.

The Town or Town of Cochrane means the Town of Cochrane, a municipal corporation in the Province of Alberta, and where the content so requires, the area contained within the corporate boundaries of said municipality.

Subdivision Authority means the definition provided for this term in the Town of Cochrane Land Use Bylaw (Bylaw 01/2004), as may be amended from time to time.

Xeriscaping means landscaping or gardening practices that reduce or eliminate the need for supplemental water from irrigation.



