

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



HEARTLAND

STAGE 2

COCHRANE, ALBERTA
MARCH 2015



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Introduction

1.1 BACKGROUND

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

The Cochrane West ASP was prepared for the subject lands – then known as Cochrane West – in 2007 to guide development. Approximately 1/3 of the plan area was or is in the process of being developed under the original plan. New ownership, evolving assumptions about the needs for commercial land in the study area, and innovations in subdivision design have prompted a review to the original plan.

This Heartland Stage 2 ASP replaces portions of the original Cochrane West ASP, where no development has occurred to date, as shown in maps 1 and 2. The existing developed area will now be contained within the Heartland Stage 1 ASP.

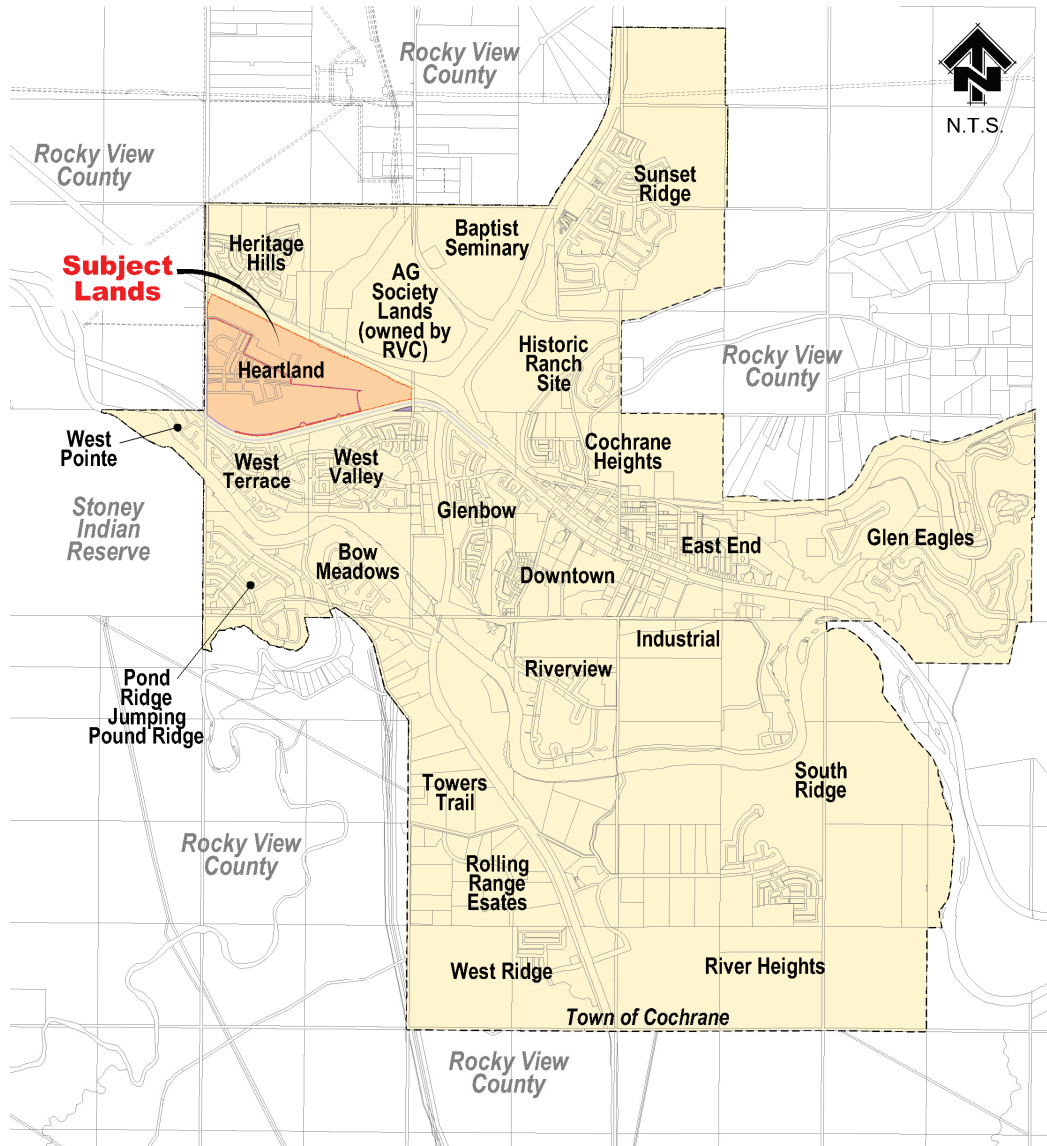
1.2 PURPOSE

An Area Structure Plan (ASP) is the highest level planning document for a community and identifies suitable land uses, park/ open space concepts, transportation networks, and other key elements for a community. Where possible, the ASP policies shall be



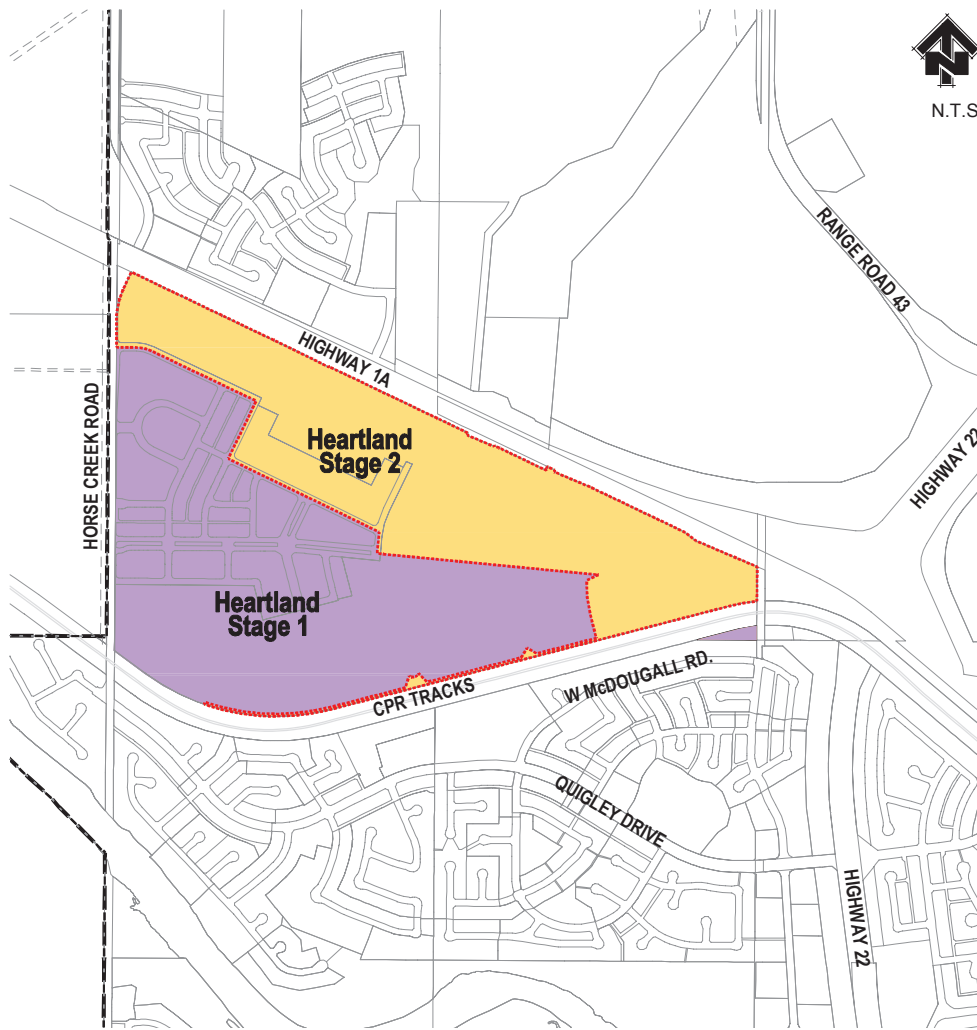
aligned with the recent Municipal Development Plan (2008), Cochrane Sustainability Plan (2009) and the Open Space Master Plan (2012).

In order to guide the development of the remaining portion of Heartland in compliance with these higher-order municipal planning documents, as well as support the landowners' vision for the community, the Town of Cochrane has prepared this Area Structure Plan (referred to as Heartland Stage 2 ASP).



LEGEND: - - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
 - - - - TOWN BOUNDARY
 [Orange Box] HEARTLAND COMMUNITY

MAP 1: LOCATION MAP



LEGEND: - - - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY MAP 2: PLANNING AREA
 - - - - - TOWN BOUNDARY

1.3 INTERPRETATION OF THE PLAN

1.3.1 MAP INTERPRETATION

Unless otherwise specified within the Plan, the boundaries or locations of any symbols or areas shown on a map are approximate only and shall be interpreted as such. They are not intended to define exact locations except where they coincide with clearly recognizable physical features or fixed boundaries, such as property lines or roads and utility rights-of-way.

1.3.2 POLICY INTERPRETATION

Where “shall” is used in a policy, the policy is considered mandatory. However, where actual quantities or numerical standards are contained within a mandatory policy, the quantities or standards may be deviated from provided that the deviation is necessary

to address unique circumstances that will otherwise render compliance impractical or impossible, and the intent of the policy is still achieved.

Where “should” is used in a policy, the intent is that the policy is strongly encouraged and can be deviated from where unique circumstances, such as an impractical or impossible situation, dictate a different course of action. However, the general intent is compliance, wherever possible.

Where a policy requires submission of studies, analysis or information, the exact requirements and timing of the studies, analysis or information shall be determined at the Land Use Amendment / Subdivision stage.



Plan Area

2.1 APPLICATION OF THE PLAN

The Area Structure Plan applies to 7 parcels of land comprising Heartland Stage 2, as shown on the location and planning area maps 1 and 2. Heartland is located within the west sector of the Town and contains approximately 44.25 hectares/109.34 acres of land. The ASP area is bound by:

- Horse Creek Road and the Town boundary on the west,
- Highway 1A on the north,
- The Canadian Pacific Railway (CPR) right-of-way and Heartland Stage 1 boundary on the south.

Heartland Stage 2 is comprised of portions of NW ¼ 9-26-4-W5M, SE ¼ 9-26-4-W5M, and SW ¼ 9-26-4-W5M:

Parcel	Legal Description	Plan	Block	Lot
1	5;4;26;9 S and 5;4;26;9 NW	0713944	50	6
2	5;4;26;9 SW	0913725	7	1
3	5;4;29;9 SW	0913725	7	2
4	5;4;26;9 SW	0913725	7	3
5	Pt. of 5;4;26;9 S and 5;4;26;9 NW	0713944	50	9
6	Pt. of 5;4;26;9 S and 5;4;26;9 NW	0713944	50	10
7	Pt. of 5;4;26;9 S and 5;4;26;9 NW	0713944	50	8

The Stage 2 planning area comprises the northern half of the parcel adjacent to Highway 1A. The exception is a narrow strip of land along the southern boundary of the site adjacent to the CPR tracks. All remaining lands have been undergoing servicing and subdivision and will remain under the existing Heartland Stage 1 ASP.

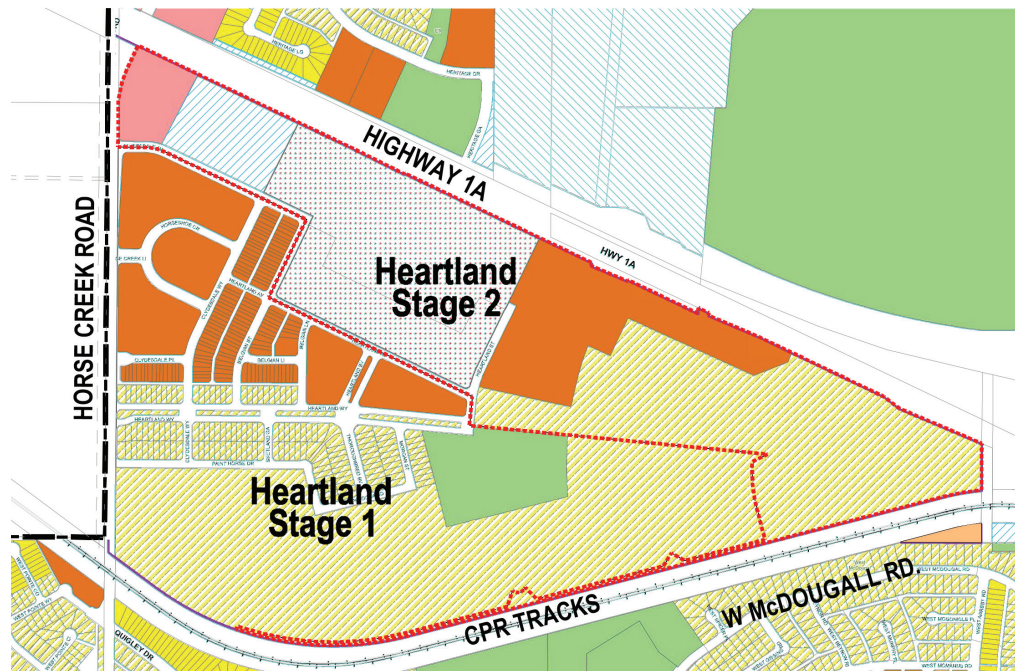
2.2 ADJACENT LAND USES

Highway 1A forms the northern boundary of the ASP area. As growth in Cochrane continues and regional traffic on Highway 1A increases, a number of improvements will be required along this highway. Ultimately, Highway 1A through the Cochrane area will require an increase in the number of travel lanes. During the future development of Heartland Stage 2, access into and out of the Plan area will be coordinated between Alberta Transportation, the Town of Cochrane, and the area developers.

Further to the north of the ASP area is Heritage Hills and the Cochrane and District Agricultural Land Society lands. Please see Map 3: Existing Land Use.

Land to the west of the ASP area, which is owned by Rocky View County (RVC), supports agricultural uses.

Located to the south of the ASP area is the CPR right-of-way and further south lie the communities of West Valley, West Terrace, and West Pointe, primarily consisting of residential and open space uses.



LEGEND:

ZONING CODES

- C - Local Commercial
- C-R - Commercial-Residential
- PS - Public Service
- R-1 - Single Detached Dwelling
- R-M - High Density Multi-Unit Dwellings
- UR - Urban Reserve
- Neighborhood
- Town Boundary
- Railway Line
- Special Parking Zone

MAP 3: EXISTING LAND USE

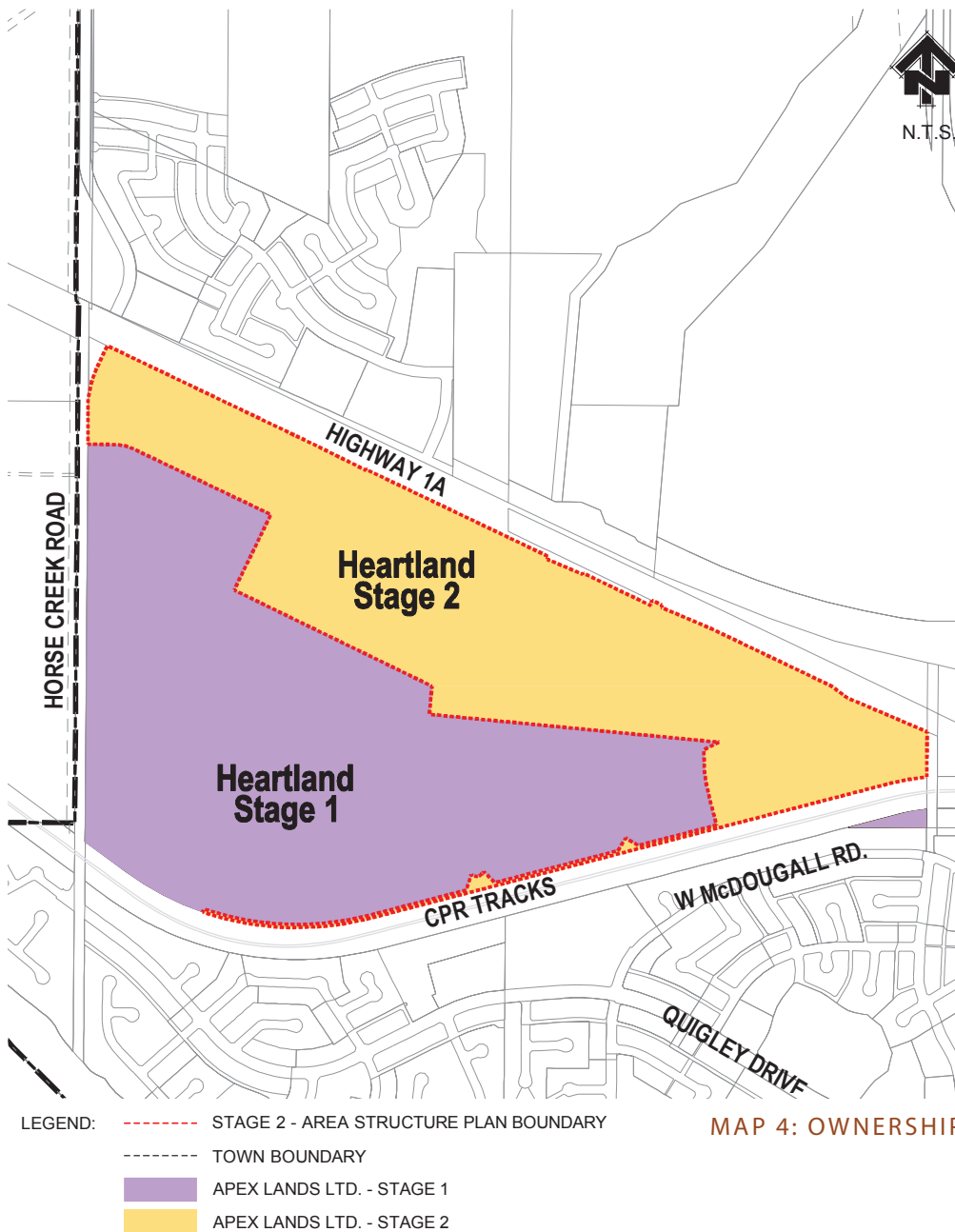
- STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
- TOWN BOUNDARY

2.3 CURRENT LAND USE AND OWNERSHIP

A portion of the original Heartland Stage 1 ASP area has already been developed. Existing land uses include single-family and townhouse residential uses, as well as public service lands (for active parks, green spaces, pathways, and stormwater facilities).

The Plan area that applies to Heartland Stage 2 ASP has been designated in the Land Use Bylaw for a mix of residential, public service, and commercial uses. The land is currently kept in a natural state.

Heartland Stage 2 is currently owned by Apex Heartland L.P. Please see Map 4: Ownership.







Site Analysis & Development Constraints

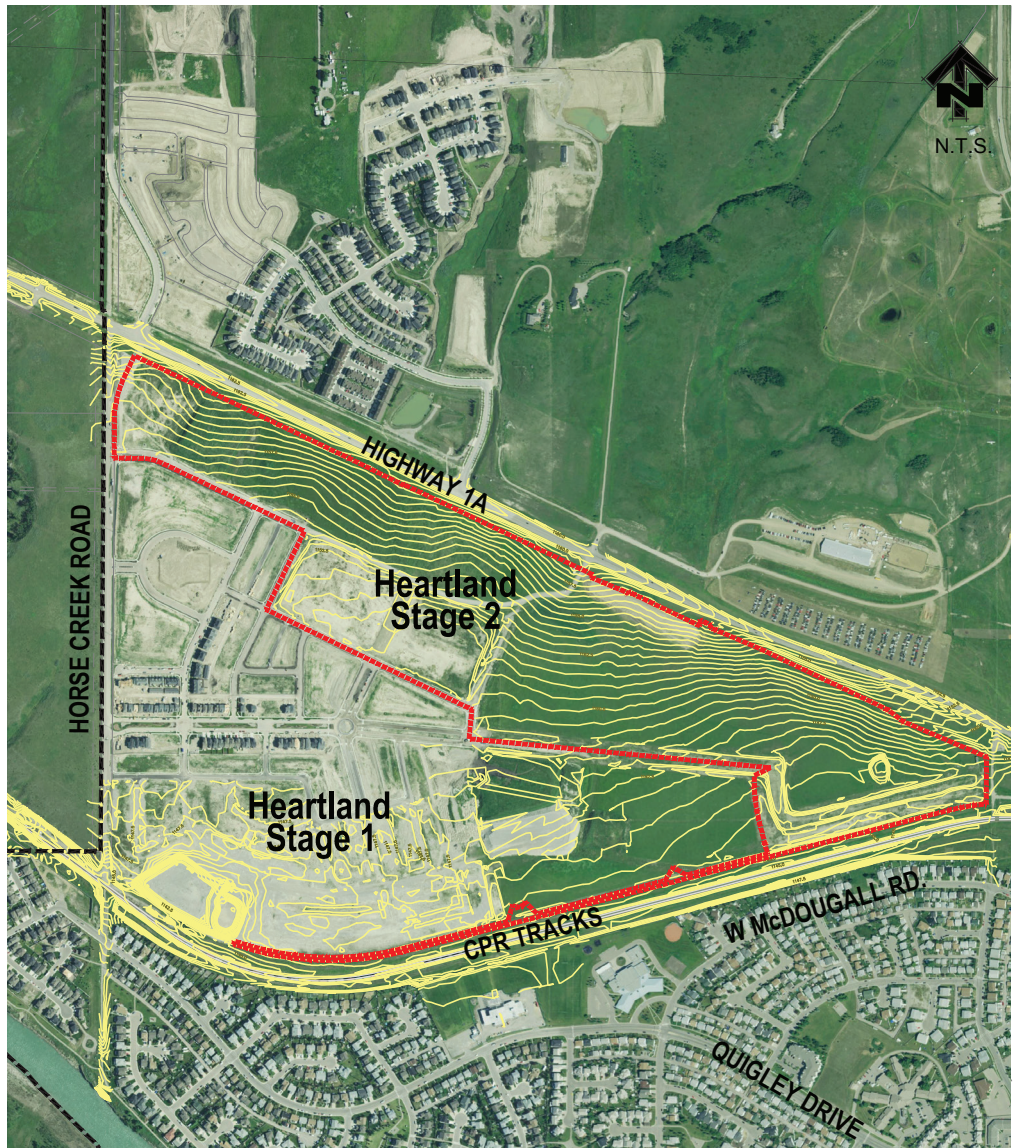
3.1 EXISTING LAND USES

The ASP lands have been used predominantly for agricultural crop production for many years. There is evidence that a farmstead may have been situated in the southwest portion of the property. During the early years of the Town's development, brickyards were located throughout the area and one was situated on this land, near the CPR property.

The land is currently designated as a mix of residential and commercial lands in the form of Single Detached Dwelling (R-1), High Density Multi-Unit Dwellings (R-M), Local Commercial (C), Commercial-Residential Mixed Use (C-R), and Public Service (PS). The Land Use Concept is revised in the Stage 2 plan to reflect current market conditions and needs within the Town.

3.2 TERRAIN AND VIEWS

The Heartland Stage 2 area consists of a gently sloping upland on the north side of the Bow River valley. Elevations vary from 1145 metres in the southeast corner to 1160 metres above sea level along Highway 1A in the northwest. Slopes range up to 4%, with the maximum located in the north-central portion of the ASP area. These elevations and contours are illustrated on Map 4. The orientation of these slopes provides views to the west and the Bow River valley to the south. Please see Map 5: Topography.



LEGEND: - - - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
 - - - - - TOWN BOUNDARY
 CONTOUR INTERVAL 0.5m

MAP 5: TOPOGRAPHY

3.3 SOILS, SLOPE STABILITY, AND THE BOW RIVER VALLEY

The firm of Jacques Whitford undertook a geotechnical investigation that culminated in a report dated December 6, 2006. Fifty-eight boreholes were completed based on a 150-metre grid. The report summarized the following:

- topsoil averaged 350mm, ranging from 230mm and 900mm,
- no groundwater seepage was observed in any of the boreholes,
- no bedrock was found through the geotechnical analysis,
- no slopes greater than 7% were identified.

Based on the findings of the report, the site soil and groundwater conditions are considered suitable for the proposed development, provided that recommendations in the report are respected.

3.4 CULTURAL AND ARCHAEOLOGICAL RESOURCES

Aresco Ltd. prepared a Cultural and Archeological Overview Report for the ASP area. The overview indicates that no further investigative measures are required.

3.5 BIOPHYSICAL RESOURCES

The Town of Cochrane undertook a Wetland Inventory in 2011, this identified 3 Class I wetlands within the Heartland community. Two are identified within the boundaries of the Heartland Stage 2 plan area. A professional biologist visited the site on September 6, 2014 to comment on the occurrence or absence of these two wetlands in two locations: 1) in the NW portion of the property near the intersect of Highway 1A and Range Road 44 (Horse Creek Road); and, 2) in the southeast part of the lands near a notable bend in the existing offsite utilities right of way. No wetland vegetation or basins were observed during the site visit.

3.6 ENVIRONMENTAL SITE ASSESSMENT

Base Property Consultants Ltd. prepared a Level One Environmental Site Assessment of the soil (Level 1 ESA) within the ASP area in July 2006. Based upon the results of site reconnaissance and a review of historical records, the Level 1 ESA report concluded that no significant environmental impairments exist on the land and that further environmental investigation is not required prior to development.

3.7 CRUDE OIL PIPELINE

Inter Pipeline Fund has a 15-metre wide crude oil pipeline right-of-way running north-south, immediately west of Horse Creek Road, in Rocky View County (RVC). The required setback from this type of pipeline does not impede development east of Horse Creek Road, within this ASP area.



4

Stakeholder & Public Consultation

The Landowner within the ASP area has worked together with the Town of Cochrane to facilitate the preparation of the Land Use Concept. Throughout the process of drafting and adopting this Plan, the Town and the developer's representatives have provided the following public engagement opportunities to supplement the required agency circulation and public hearing: Two sessions and one Public Hearing have been held with the public:

- An Open House to present the Land Use Concept was held on June 26th 2014.
 - There was a strong turnout of approximately 25 existing community and area residents.
 - Feedback received was focused on:
 - Connectivity: some participants identified support for the extra entrances in the new concept as well as additional walking paths. However, others identified the lack of connections to Mitford School and West Pointe/West Terrace.
 - CPR crossing: there were some questions about the status of rail crossings as identified in the old Cochrane West plan.
 - Aesthetics: suggestion that the view of the community from the Highway could be enhanced.
- An Open House was held on October 29, 2014 during the circulation of the draft ASP.
 - There was a strong turnout of approximately 40 existing community and area residents.



- Feedback received was focused on:
 - Support for the Heartland Stage 2 plan, in particular the pathway along the south of the site adjacent to the CPR tracks, reduced commercial area and a mix of low density residential units.
 - Connectivity: identified the need for pedestrian pathways to connect across CPR crossing to the Town's river pathways.
 - Traffic: there were some concerns raised over the traffic impacts of the new development on Highway 1 and Highway 22. As well, a few participants noted concern over speed limits throughout the subdivision and on the adjacent portion of Highway 1A.

As the community of Heartland borders the Town's boundary with Rocky View County, Town Administration took the draft ASP to the Town of Cochrane and to Rocky View County's Inter-Municipal Committee, which is made up of Town and County elected officials. The purpose of this was to allow for comments from both Councils prior to taking the ASP forward for final adoption.

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5

Goals

The goals of the ASP are divided into separate categories to provide a framework for the promotion and establishment of a comprehensively-designed neighbourhood:

5.1 RESIDENTIAL GOALS

1. Provide a wide variety of housing options in a range of affordability to be developed in the neighbourhood.
2. Locate the varied housing forms to optimize their relationship with the streetscape, street width, and proximity to parks, schools, recreational amenities, commercial areas, and transit.
3. Achieve an overall density that is consistent with the Town's objectives.
4. Connect neighbourhoods with all forms of mobility, including vehicular, pedestrian, bicycle, and transit.

5.2 PARKS AND PUBLIC OPEN SPACE GOALS

1. Integrate the parks and open space system with the wider community through pedestrian and bicycle pathways.

2. Provide the Heartland community with a variety of recreational opportunities.
3. Provide spaces that create recreational opportunities for varying age groups.
4. Recognize the opportunity to integrate the open space system with the existing school site and stormwater ponds to ensure optimal connectivity and accessibility to amenities throughout the community.

5.3 COMMERCIAL GOALS

1. Provide for the local needs of the Heartland community while creating an area that does not compete with the downtown.
2. Create a commercial area that allows Cochrane residents to work within the community.
3. Develop a commercial area that shall be compatible with adjacent residential areas.
4. Provide pedestrian linkages to commercial areas within the community



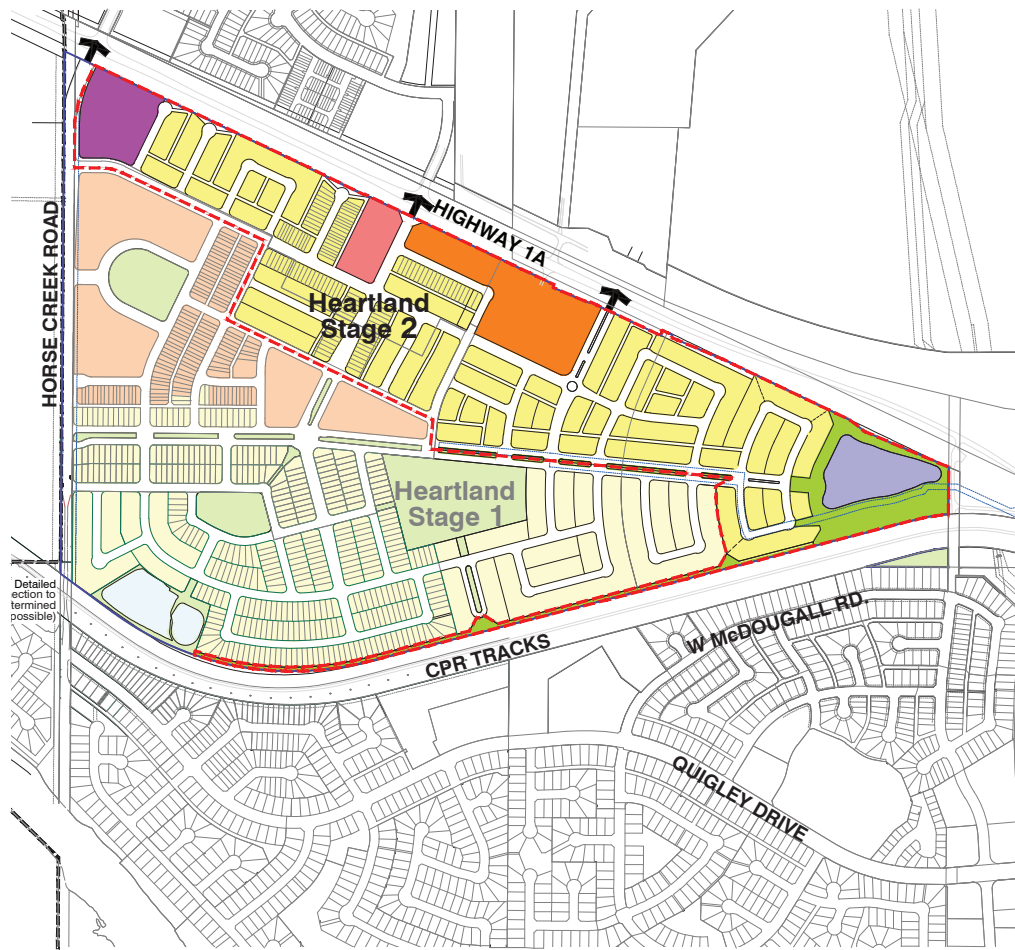
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Land Use Concept

6.1 LAND USE CONCEPT MAP









Map 6, Land Use Concept, shows the future land use pattern for the Plan area through a series of areas and symbols. The approximate areas of these land uses are tabulated below.

	Hectares (+/-)		Acres (+/-)
Gross Developable Area	44.11		109.00
General Land Use	Hectares	Acres	Percentages
Public Service	6.98	17.25	16%
MR	3.38	8.35	8%
Public Facility	1.89	4.67	4%
Storm Pond	1.71	4.23	4%
Residential	24.19	59.77	55%
Low Density	20.47	50.58	46%
High Density	3.72	9.19	8%
Commercial	1.04	2.57	2%
Development Roadways	11.90	29.40	27%
Gross Developable Area	44.11		109.00
Minimum Density	21.4 units/gross developable hectare		8.6 units/gross developable acre



LEGEND:

MAP 6: CONCEPT PLAN

 STAGE 2 - AREA STRUCTURE PLAN BOUNDARY	 PUBLIC SERVICE
 TOWN BOUNDARY	 STORMPOND FACILITY
 LOW DENSITY RESIDENTIAL	 PUBLIC FACILITY
 MEDIUM-HIGH DENSITY RESIDENTIAL DWELLINGS	 LOCAL COMMERCIAL

Note that while the Heartland Stage 2 ASP has about 7 per cent municipal reserve dedication, the entire area including both the Heartland Stage 1 and Stage 2 ASPs has a total MR dedication of about 10.4 percent. This is due to a future school site being designated in the Heartland Stage 1 plan area that will service both areas.

Key neighbourhood design elements are included throughout Stage 2 to ensure a complete and balanced community, and include retaining the natural character of the region, viewshed preservation, incorporating stormwater design into the open space system, building a relationship between the street and built form, and providing for mixed land uses within the same block.

Multi-family housing is generally located along collector roads or at the entrance to the community, near commercial areas. This will place more residents in close proximity to shopping, services, parks, and potential future transit. In addition, the majority of the traffic generated from the multi-family sites will be accommodated by the collector road network.



Land Use Policy Areas

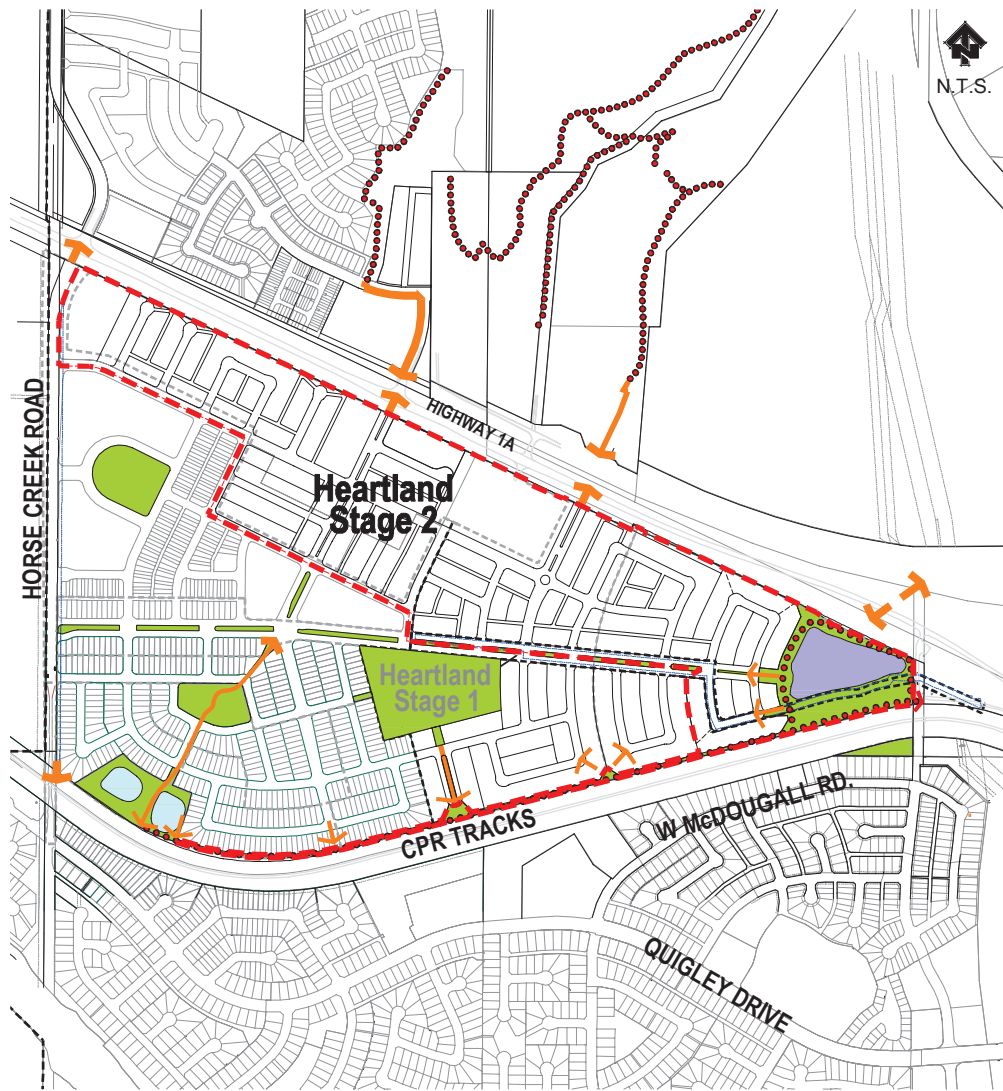
7.1 RESIDENTIAL AREA

7.1.1 PURPOSE

The purpose of the residential area is to provide for a range of housing options, from single detached to high density residential, in a comprehensively designed neighbourhood. In addition, compatible and complementary institutional and recreational development cells and a comprehensively designed community commercial area will be allowed within this ASP. Public parks will be interspersed throughout the residential area to serve the recreational needs of residents. The residential area comprises the majority of lands within the community. The design of the residential area should present opportunities for all residents to a choice of movement via multi-access roadways, pedestrian connectivity, and bicycle routes within the community.

Heartland Stage 2 offers design that integrates a number of different housing types on the same block to ensure diversity and an interesting streetscape. Further, the east west thoroughfare through the community will be accented by houses fronting onto the street. Throughout the community there is a mix of laned and front drive garage product to ensure variety.





- LEGEND:
- TOWN BOUNDARY
 - OPEN SPACE
 - WET POND
 - INFILTRATION POND
 - LOCAL PATHWAY / PEDESTRIAN CONNECTION
 - REGIONAL PATHWAY

MAP 7: OPEN SPACE
CONCEPT

7.1.2 POLICIES

1. Composition of Residential Area

- a. Subject to the policies of this Plan,
 - i. Single detached, semi-detached, and street oriented townhome residential uses shall be the predominant use of land within the residential area;
 - ii. Affordable housing is encouraged throughout the ASP area. Developers are encouraged to liaise with the Cochrane Society for Housing Options.

- iii. To ensure a comprehensively planned community, multi-unit dwellings, and dwelling groups, where determined to be compatible and appropriate, shall be developed within the residential area; and
 - iv. Open space shall be provided throughout the residential area to meet the active and passive recreational needs of residents and to ensure that the neighbourhood is connected internally and to other areas within Cochrane.
- b. The general categories of uses identified under subsection (1)(a) shall be refined through the Land Use Districts applied within the residential area.

2. Design of Residential Area

- a. The design for the Residential Area shall:
- i. Generally be consistent with the land use concept, Map 6, recognizing that this plan is intended to show the general nature of subdivision and is subject to change at the Tentative Plan stage without the need for Council to amend Map 6 to accommodate refinements;
 - ii. Be determined through the Tentative Subdivision Plan or Land Use Bylaw Amendment process; and
 - iii. Emphasize opportunities for distinct neighbourhoods that comprise unifying elements to create a cohesive community.
- b. The developer should prepare and implement Design Guidelines and Architectural Controls on all residential and commercial developments in order to ensure an aesthetically coordinated streetscape appearance as well as an attractive appearance from all publicly accessible areas.
- c. Grading shall recognize the natural topography of the land and shall occur only where overall subdivision design considerations warrant.
- d. Building orientation should be optimized to facilitate solar potential.
- e. Development within the Heartland Stage 2 ASP shall be designed in accordance with Crime Prevention Through Environmental Design (CPTED) principles.
- f. All residences in the plan area should be located within 400 metres radius of some form of open space.
- g. Connectivity within Heartland shall be designed through the continuity of streets and multiple points of access to promote access and support safe pedestrian, bike and vehicular movements.
- h. Consideration should be given to reducing block lengths and avoiding cul-de-sacs in order to provide pedestrian connectivity and movement.

3. Density and Population of Residential Area

- a. In order to support the efficient provision of infrastructure, amenities and services and to use the land resource more efficiently, a minimum residential



density of 8.6 units per gross developable acre (upa) (21.4 units per gross developable hectare) shall be achieved in the ASP area, corresponding to a minimum of 942 units with a corresponding population of approximately 2,336 people, based on 2.48 persons per unit. Development of individual parcels and cells can occur at higher and lower density levels.

4. Residential Area Adjacent to Highway 1A and CPR Right-of-Way

- a. Development shall demonstrate regard for the Guidelines for New Development in proximity to Railway Operations (2013) as well as the Town's Noise Bylaw. The first Tentative Plan Stage shall reflect the visual screening, sound attenuation, and noise impact measures for residential development adjacent to the CPR right of way as agreed upon during the ASP by the Town of Cochrane and the Developer; no further study is required unless these measures are not being adhered to. Noise attenuation analyses for development adjacent to Highway 1A shall accompany the tentative subdivision plans and engineering plans, and should be based on the proposed grading plan for the development.

5. Residential Area Adjacent to Commercial Sites

- a. Where residential uses are located adjacent to commercial sites, both the residential lots and the commercial development shall be designed to mitigate visual and noise conflicts. The design shall identify mitigative measures that will be acceptable to the Town.

6. Residential Area Adjacent to Rocky View County (RVC)

- a. The Town of Cochrane is surrounded by Rocky View County. The two municipalities have maintained a good working relationship and jointly prepared the Inter-municipal Development Plan (adopted in 2001) and the RancheHouse Accord (signed in 2010) to maintain and enhance this relationship. Several key policies in this ASP address issues of paramount importance for both municipalities, including the mobility network, land use transition, and other connectivity issues.
 - i. Subdivision Plans for lands adjacent to the municipal boundary shall address compatibility and minimize interface conflicts with existing surrounding land uses;
 - ii. Measures addressing development adjacent to the municipal boundary shall be coordinated with the adjacent landowners and the County at the Subdivision Plan stage.



7.2 COMMERCIAL AREA

7.2.1 PURPOSE

The Land Use Concept shows a neighbourhood commercial area in the northern portion of the ASP area along the Highway 1A corridor. The intent of the commercial area is to strategically locate neighbourhood commercial uses at the entrance to the community without negatively impacting the downtown commercial area.

7.2.2 POLICIES

1. Design of Commercial Area

- a. 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.
- b. Commercial development shall be physically compatible with planned adjacent residential areas.
- c. Commercial building façades, setbacks and landscaping shall be sensitively treated on all sides, including that which is facing Highway 1A.
- d. Commercial loading and servicing areas should not be directly visible from any residential development. Such facilities shall be screened from adjacent development, parking and roads through the use of landscaping, fencing, or building partitions.
- e. A mix of deciduous and evergreen trees in clusters with shrubs shall be used within and around commercial parking lots in order to provide some all-season visual relief from paved areas.
- f. All buildings within the commercial area shall have a coordinated architectural style. Long continuous building walls or façades shall be broken up by architectural detailing, such as windows and/or roofline articulation. Rooftop mechanical devices shall be screened.
- g. Buildings adjacent to Highway 1A and forming part of the Gateway to the Town shall be designed to present a smaller mass by using measures such as the reduction of the building footprint, off-setting walls, shifting rooflines to vary height, and articulating building elevations. The intention is to reduce building bulk and create visual variety. Considerations shall also be given to the orientation of buildings abutting Highway 1A.
- h. The Western Heritage Design Guidelines shall be adhered to.
- i. Appropriate waste and recycling for individual businesses shall be provided within the commercial area.
- j. In the design of the commercial area, emphasis shall be placed on the relationship between the buildings and the street to ensure a pedestrian-oriented development.

- k. Edge consideration 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, landscaping, and building materials shall be addressed to create a positive visual appearance.

7.3 PARKS AND PUBLIC OPEN SPACE

7.3.1 PURPOSE

The Heartland Stage 2 ASP presents an opportunity to create a neighbourhood that features a wide range of passive and active recreational amenities. The design of the parks system is intended to ensure overall connectivity by facilitating a future pedestrian access to the downtown and providing a pathway along the south of the ASP area adjacent to the CPR right-of-way. Internally, within the community a series of pathway connections, sidewalks and greenspaces will encourage a walkable, connected community. Please see Map 7: Open Space Concept.

The ASP promotes a pedestrian and bicycle pathway system that will be achieved through a series of pathways within linear parks and separate sidewalks along public roadways. This pathway system will be integrated with the Town's regional pathway system through intersection crossings of Highway 1A in the north, Horse Creek Road and the CP Rail Tracks to the south and the Highway 1A and Highway 22 intersection to the east..

To this end, municipal reserve will be provided to meet the recreational needs of the community. Municipal reserves will be used to create pathways, and a variety of parks. Specific decisions on reserve dedication will be made at the Land Use Amendment/Tentative Plan stage.

A school site is approved and will be provided within the original Heartland Stage 1 ASP area located to the south of Heartland Stage 2.

7.3.2 POLICIES

1. Municipal Reserve Dedication

- a. Municipal reserve shall be dedicated through the subdivision process as reserve land in the full amount owing, as opposed to the payment of money in lieu of reserve land.
- b. The Subdivision Authority may register a deferral of municipal reserve in accordance with the Municipal Government Act.
- c. Local neighborhood parks of sufficient size shall be established throughout the Plan area.
- d. The park and open space system shall provide a variety of passive and active recreational opportunities for residents of all ages.
- e. The Town is reviewing its connections from this community to downtown which might include rail crossings. Opportunities will be evaluated with all stakeholders.

- f. A pedestrian/cyclist pathway system shall link parks, the school site, public facilities, and residential and commercial areas within the community.
- g. Community Parks are encouraged to contain a range of four season elements such as:
 - i. Children's play structure;
 - ii. Informal play areas;
 - iii. Pathways and seating; and
 - iv. Winter season activities.
- h. Connectivity of the Heartland community to the remainder of Cochrane is a high priority for the Town.



REGIONAL PATHWAY CROSS SECTION





8

Public Service Area

8.1 POLICIES

1. Recognizing the public service 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. Public service development shall be physically compatible with planned adjacent residential areas.
3. Building façades, setbacks and landscaping shall be sensitively treated on all sides, including that which is facing Highway 1A.
4. A mix of deciduous and evergreen trees in clusters with shrubs shall be used within and around public service parking lots in order to provide some all-season visual relief from paved areas.
5. All buildings within the public service area shall have a coordinated architectural style. Long continuous building walls or façades shall be broken up by architectural detailing, such as windows and/or roofline articulation. Rooftop mechanical devices shall be screened.
6. Buildings adjacent to Highway 1A and forming part of the Gateway to the Town shall be designed to present a smaller mass by using measures such as the reduction of the building footprint, off-setting walls, shifting rooflines to vary height, and

articulating building elevations. The intention is to reduce building bulk and create visual variety. Considerations shall also be given to the orientation of buildings abutting Highway 1A.

7. Elements of the Western Heritage Design Guidelines, including but not limited to architectural detailing, lighting and signage, shall be applied.
8. In the design of the public service area, emphasis shall be placed on the relationship between the buildings and the street to ensure a pedestrian-oriented development.
9. Edge consideration 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, landscaping, and building materials shall be addressed to create a positive visual appearance.





9

Transportation Policies

9.1. PURPOSE

Within Heartland, 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 in the future. 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.

Bunt and Associates Engineering Ltd. completed a Traffic Impact Assessment for the ASP area. The study was based on the projected built-out population of the entire community, as well as consideration for surrounding areas that may impact the traffic through the ASP area.

The ASP area is bounded by significant regional road corridors; Highway 1A; Highway 22 and Horse Creek Road. Highway 1A will carry the majority of the traffic from the ASP area to the rest of the Town and the region beyond.

The potential exists to design the Highway 1A access to the centre of the ASP area to establish a unique feeling of arrival and entrance that will contribute to the character of the Heartland community.

Map 8 identifies the proposed road network in the ASP area, including all existing and future vehicular access points. Heartland Stage 2 is accessed by three intersections from Highway 1A. At the far west end, the area is accessed by Horse Creek Road. Two new access points to the east align with roads accessing Heritage Hills neighbourhood to the north. Both roads will provide access to the residential and commercial areas.

The internal road network is characterized by short, interconnected blocks. The main east-west thoroughfare includes a landscaped boulevard and is contained by a majority of street facing residential units.

9.1.1 POLICIES

1. Design

- a. Access to the ASP area shall be provided in accordance with Plans agreed by the Town of Cochrane and Alberta Transportation.
- b. The design of any intersections with Highway 1A providing access to the ASP area shall be approved by both the Province of Alberta and the Town of Cochrane.
- c. Transportation Impact Assessments (TIA) associated with the development will be required in conjunction with subdivision at the developer's cost and to the Town's, and where applicable, Alberta Transportation's satisfaction. The TIA shall ensure that the roadways are appropriately designed to accommodate the projected traffic volumes and movements.
- d. A potential access point to the south of Heartland across the CPR tracks at Horse Creek Road will be assessed as part of the Town's wider transportation and multi-modal plan.

2. Highway 1A Right-of-Way

- a. The Highway 1A right-of-way shown on the Land Use Concept map may be subject to refinement, and any surplus highway lands should, where possible, be incorporated into the community design.

3. Adjacent Residential Development

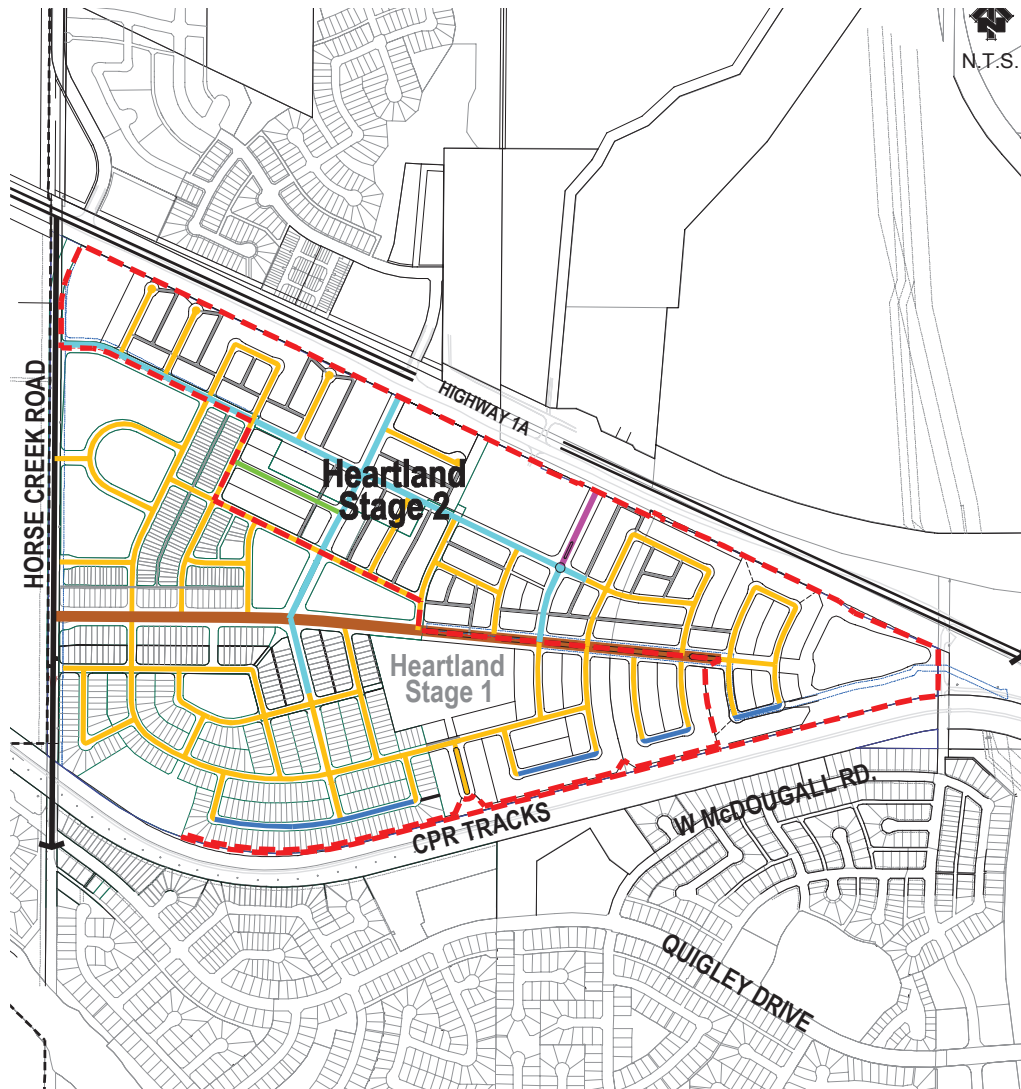
- a. Mitigative measures for visual screening and sound attenuation for residential development adjacent to Highway 1A shall be required.

4. Phasing of Development

- a. Construction of ingress/egress points to Highway 1A will be developed as traffic counts warrant and as determined by the Town of Cochrane and Alberta Transportation.



cochrane
HOW THE WEST IS NOW



* Concept only. Road design to be finalized at detail design stage.

LEGEND:

- - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
- - - - TOWN BOUNDARY
- MODIFIED COLLECTOR (34.0m)
- COLLECTOR (27.0m)
- COLLECTOR (21.0m)
- RESIDENTIAL (15.5m)
- MODIFIED RESIDENTIAL (15.0m)
- MODIFIED RESIDENTIAL (14.0m)
- LANE (6.0m)

MAP 8: ROAD NETWORK



9.2 INTERNAL ROAD NETWORK

9.2.1 PURPOSE

The purpose of these policies is to provide for an internal road network within the community that accommodates vehicular and pedestrian traffic in a safe, efficient and balanced manner. In this regard, the internal road network will need to meet design criteria which address vehicular, transit and pedestrian circulation within the community. Notwithstanding this provision, unique approaches to traffic calming features such as roundabouts and medians are to be examined throughout the ASP area on a detailed plan basis. The detailed alignment of the road network within the community will be determined through the Tentative Plan/Land Use Amendment process.

9.2.2 POLICIES

1. Preliminary Road Network

- a. The internal road network shown on the Land Use Concept map is preliminary only and shall be refined at the Land Use Amendment stage.

2. Road Network Design

- a. The design of the internal road network shall provide the following:
 - i. multiple roadway access points to/from Horse Creek Road;
 - ii. multiple roadway access points to/from Highway 1A
 - iii. a minimum of one centralized east-west, higher category roadway to collect vehicular traffic from the eastern portion of the ASP area;
 - iv. multiple private roadway access points from the Commercial Area in order to disperse traffic through the community;
 - v. provision for a future transit route that is effective and efficient; and
 - vi. interconnected pedestrian systems through pathways in the linear parks and separate sidewalks in the road rights-of-way.
- b. Lanes for rear lot access are encouraged where residential frontage occurs on large volume roadways.
- c. The developer shall submit with each subdivision a traffic assessment on the road design and traffic volumes. A traffic impact assessment update may be permitted where an accepted traffic impact assessment has been previously provided to the satisfaction of the Town of Cochrane. The modified street referred to on Map 8 may be substituted for a standard road right of way (15.5 metres), with a reduction in the front yard setbacks (and front driveway setbacks as appropriate). Any reduction in front yard and/or front driveway setbacks would require a development permit and would have to adhere to the requirements of the Town of Cochrane Land Use Bylaw. The Town of Cochrane would prefer a variance to the front yard setbacks of dwellings rather than accepting modified street standards, because these would generate a different aesthetic and design.



Servicing Policies

10.1 UTILITY INFRASTRUCTURE

10.1.1 PURPOSE

The purpose of these policies is to ensure that adequate municipal utility infrastructure is provided to serve urban development throughout the community. Any development within the area shall be fully serviced with piped municipal utilities (water, sanitary sewer, and stormwater) as well as shallow utilities (gas, electrical, telecommunications). Utilities will need to be constructed prior to or in conjunction with the first phase of development, and rights-of-way and easements will need to be provided to accommodate the extension of utility services through the development. Utility alignments will be identified at the Subdivision Plan stage and confirmed prior to or during the Tentative Plan/ Construction Drawing Approval stage.

10.1.2 POLICIES

1. Municipal Utilities

- a. Urban development within the ASP area shall be serviced with piped municipal water, sanitary sewer and stormwater utilities.
- b. The alignment and capacity of water distribution and feeder mains, sanitary sewer feeder mains and trunks, and stormwater feeder mains and trunks shall be to the satisfaction of the Town, based upon utility servicing studies and analyses.

- c. Utility rights-of-way and easements shall be provided to accommodate municipal utilities, as the Town determines.
2. Shallow Utilities
 - a. Urban development within the ASP area shall be serviced with shallow utilities (e.g., gas, electricity, and telecommunications).
 - b. The location of shallow utilities and the provision of rights-of-way and easements and related line assignments should be addressed to the mutual satisfaction of the Town, the landowner and the utility companies.
 - c. Utility rights-of-way and easements shall be provided to accommodate shallow utilities, as the Town and utility companies determine.

10.2 WATER DISTRIBUTION

10.2.1 PURPOSE

The purpose of these policies is to provide for a suitable water distribution system designed to serve the urban development needs throughout the ASP area.

10.2.2 POLICIES

1. The water distribution system for the ASP area shall be designed generally as shown on Map 9 and to adequately and efficiently serve the ultimate development of the Plan area.
2. Details of the water supply infrastructure shall be determined in conjunction with the engineering plans and the tentative plans of subdivision.
3. The Town may request oversizing of the water mains for servicing lands outside the ASP area. Cost recoveries for oversizing shall apply.

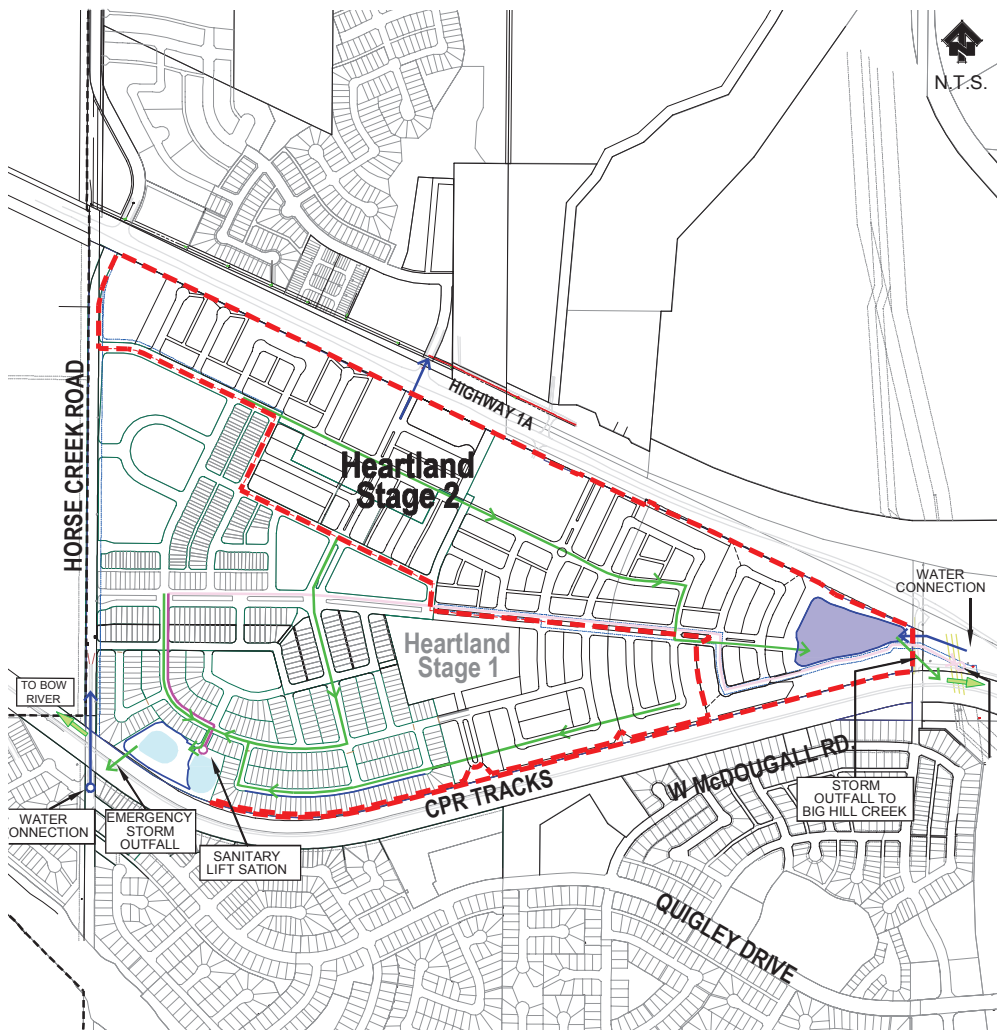
10.3 SANITARY SEWER

10.3.1 PURPOSE

The purpose of these policies is to provide for a suitably designed sanitary sewer to service the Heartland development.

10.3.2 POLICIES

1. The sanitary sewage system for the ASP area shall be designed generally as shown on Map 9 and to adequately and efficiently serve the ultimate development of the area.
2. Details of the sanitary servicing system shall be determined in conjunction with the engineering plans and the tentative plans of subdivision.
3. The Town may request oversizing of the sanitary sewer mains for servicing lands outside the Plan Area. Cost recoveries for oversizing shall apply.



- LEGEND:
- - - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
 - - - - - TOWN BOUNDARY
 - WATER LINES
 - SEWER FORCEMAIN
 - SANITARY SEWER GRAVITY
 - STORM SEWER GRAVITY
 - ➔ OVERLAND STORM ROUTE
 - WET POND
 - INFILTRATION POND

MAP 9: SERVICING

10.4 STORMWATER MANAGEMENT

10.4.1 PURPOSE

The purpose of these policies is to provide an overview of the stormwater management system that will serve the ASP area.

10.4.2 POLICIES

1. The stormwater management system shall be designed generally as shown on Map 9 and to adequately and efficiently serve the ultimate development in terms of public safety and environmental protection.
2. Stormwater from the Plan area shall be treated using Best Management Practices (BMPs), stormwater ponds, and other minor and major drainage system components, as the Town and the Province of Alberta advocate.
3. The stormwater system will be designed in accordance to the City of Calgary Stormwater Management & Design Guidelines (2011) and Alberta Environment Standards and Guidelines (2006)..
4. The stormwater systems shall be designed to serve the ultimate development of the plan area as well as any required external connections.
5. Stormwater facilities, such as stormwater ponds, are encouraged to be integrated into park and open space areas.





Phasing Policy

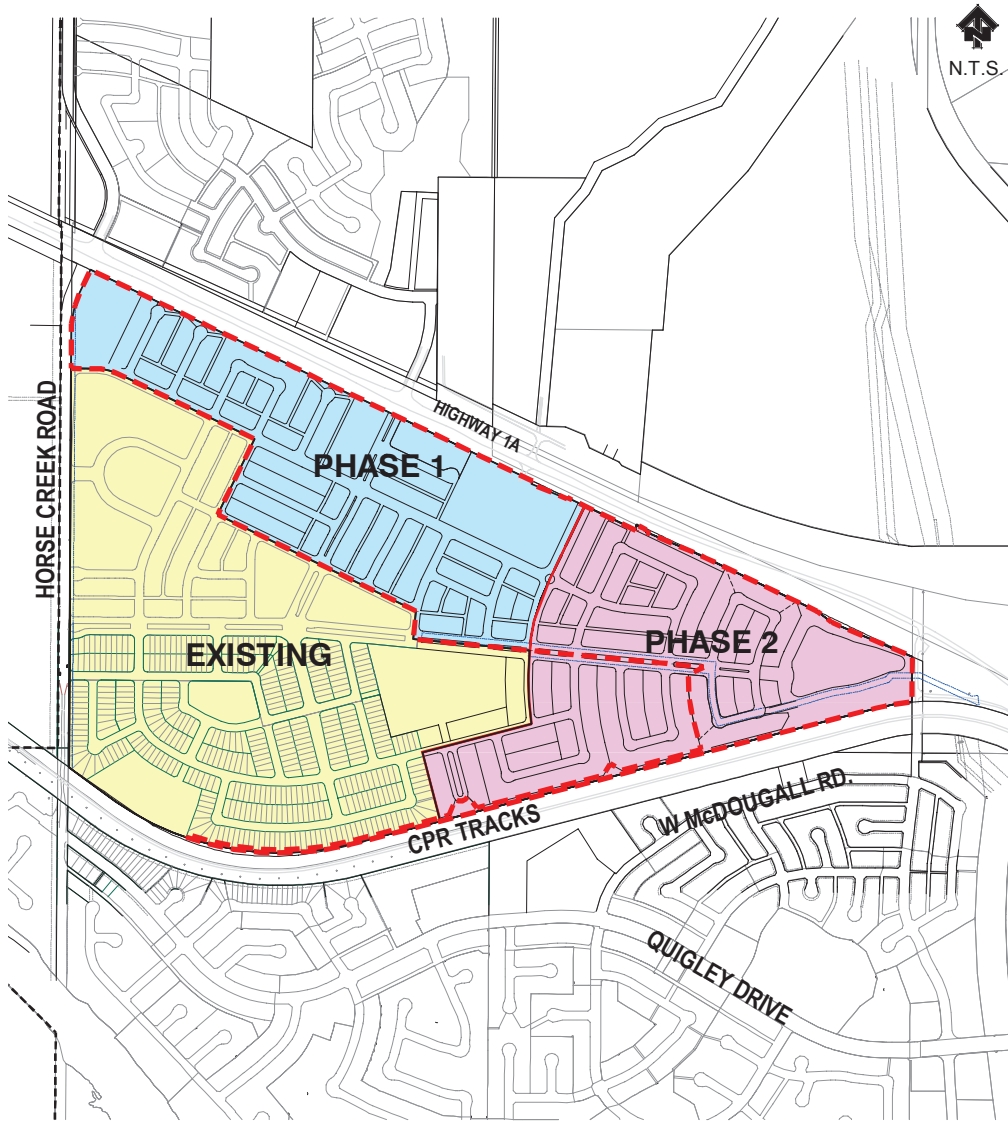
11.1 PHASING

11.1.1 PURPOSE

The purpose of these policies is to provide for the phasing of development in a logical manner in order to minimize infrastructure costs.

11.1.2 POLICIES

1. The first phase of development will access Highway 1A by means of the realigned Horse Creek Road intersection and a new intersection into the commercial area. The location of this phase is conceptually indicated on Map 9.
2. The development of the remaining phases will commence in the general direction provided in Map 10.



LEGEND: - - - - - STAGE 2 - AREA STRUCTURE PLAN BOUNDARY
 - - - - - TOWN BOUNDARY

MAP 10: PHASING PLAN



12

Implementation Policy

12.1 APPROVAL PROCESS

12.1.1 PURPOSE

The purpose of these policies is to provide for the implementation of the policies within the Plan. While the implementation of the Plan will be achieved through various planning initiatives, the principal means of implementation will occur through the Land Use Bylaw Amendment process where Council will redesignate lands to the applicable residential, commercial, recreational, or other land use districts.

12.1.2 ROLES AND RESPONSIBILITIES

1. Town Council will:
 - a. Adhere to the objectives and policies of the plan when making decisions on Land Use Bylaw amendments within the Plan Area; and
 - b. Consider possible amendments to this Plan from time to time to respond appropriately to changing or unforeseen circumstances.
2. Town administrative staff will be responsible for implementing planning and policy statements contained within this Plan.

3. The Planning Department will take the primary responsibility for the review of all land use, subdivision and development proposals and ensure the participation of relevant government agencies, private groups, businesses, and municipal departments during the review process.

12.1.3 POLICIES

1. Land Use Approval

- a. The Concept Plan, Map 6, illustrates the anticipated general nature of subdivision. These plans are conceptual only. The timing and direction of development within the Plan area shall be determined primarily through the or Land Use Amendment or Tentative Subdivision Plan process, which establishes the design and land use pattern for the subject site and enables subdivision and development to proceed.
- b. The land use designations in effect at the time of approval of this Plan shall:
 - i. continue to apply in accordance with the provisions of the Municipal Government Act, and
 - ii. remain in effect until redesignation of the lands to appropriate districts in accordance with the policies of this Plan occurs.

2. Tentative Subdivision Plans

- a. The Concept Plan, Map 6, illustrates the anticipated general nature of subdivision. This plan is conceptual only and subject to refinement at the Tentative Subdivision Plan stage.
- b. When an amendment to Map 6, Concept Plan, in this Area Structure Plan is warranted, such amendment should occur concurrently with the Land Use Bylaw Amendment.
- c. The following studies, all of which shall be to the satisfaction of the Town of Cochrane, shall accompany a Tentative Subdivision Plan:
 - i. A transportation assessment or Transportation Impact Assessment (TIA) update (as applicable) on the size and classification of the roadways and the intersection spacing by a professional transportation engineer;
 - ii. A geotechnical assessment on the slope stability with recommended setbacks for the property lines and buildings by a professional geotechnical engineer;
 - iii. A stormwater assessment on the management of stormwater by a professional stormwater engineer to clarify the stormwater management for the latest stage of development.
 - iv. Stormwater pond reports
 - v. Noise attenuation details (as applicable)



13

Interpretation

13.1 GENERAL DEFINITIONS

The following general definitions shall apply:

1. Approving Authority means the Subdivision Authority, Development Authority or Subdivision and Development Appeal Board of The Town of Cochrane, as the case may be.
2. Community means a comprehensively designed physical and social planning area which is predominantly residential in character defined by significant natural or man-made features and containing an adequate population base to support schools, parks and community facilities necessary to serve the residents.
3. Council means the Council of the Town of Cochrane.
4. Gross Area means the total area of land contained within the property lines of a site.
5. Gross Developable Area for the purpose of calculating density means the gross area of the Plan area, excluding requirements for the Highway 1A right-of-way.

