

## Sirocco Area Structure Plan

*United Communities / Duffin-Walter Families*

*Adopted by MD of Foothills Council on May 14, 2009  
Bylaw 109/2007*



May 2009



## **EXECUTIVE SUMMARY**

The Sirocco Area Structure Plan has been submitted to the MD of Foothills No. 31 to set the foundation for future residential development surrounding the existing Sirocco Golf Course. The plan covers an area of approximately 388 hectares (959 acres) that have been owned by the Duffin and Walter families since 1956. An 18-hole golf course and temporary clubhouse facility was opened in the fall of 2004 and now the family, in partnership with United Communities, wishes to develop the balance of the land for residential and recreational uses.

The ASP proposes four planning cells that provide a housing product of both single family homes and villa-type developments. Densities will be higher at the northeast corner to complement the future City development on the border, then transition to lower densities towards the west and south portions of the ASP area. Final yields and densities can be achieved through land use districts and subdivision approvals to the satisfaction of Council. Open spaces are provided throughout the ASP area in the forms of walking trails, neighbourhood parks, community parks, and a school site.

The Plan Area will be accessed from the three existing roads on the west, north and east boundaries. The internal road network has been designed to calm traffic, provide easy access for residents and provide connectivity between cells where possible. The development will be fully serviced with water and sanitary sewers with final connections to be determined with the finalization of subsequent land use amendment applications.

The Duffin and Walter families, with United Communities, have assembled a development team to prepare this ASP document. Urban Systems has been involved in the planning, transportation and civil engineering elements. Other sub-consultants have contributed in the geotechnical, environmental and historical studies. Information gathered from this work is reflected in the ASP application.

**We respectfully request Council's approval of the ASP document.**



## **TABLE OF CONTENTS**

1.0	INTRODUCTION .....	1
1.1	Area Structure Plan Purpose .....	1
1.2	Background of the ASP .....	1
1.3	The Approval Process .....	2
1.4	Plan Implementation and Amendment .....	2
1.5	Legislative Framework .....	2
1.6	Interpretation .....	4
2.0	PLAN AREA.....	5
2.1	Regional/Municipal Location.....	5
2.2	Definition of the Plan Area .....	5
2.3	Legal Land Ownership .....	7
2.4	Topography and Drainage .....	7
2.5	Subsurface Soil Conditions .....	8
2.6	Natural Environment Features.....	9
2.7	Existing Land Uses and Development .....	9
2.8	Existing Area Structure Plans .....	10
2.9	Existing Transportation Network .....	11
2.10	Existing Infrastructure .....	11
2.11	Summary of Opportunities and Constraints.....	12
3.0	PLAN OBJECTIVE AND GUIDING PRINCIPLES .....	14
3.1	Objective .....	14
3.2	Principles of Development .....	14
4.0	PLAN POLICIES.....	17
4.1	The Plan Concept.....	17
4.2	Land Use Components.....	17
4.3	Environmental Considerations .....	23
4.4	Reserve Lands .....	24
4.5	Transportation .....	26
4.6	Servicing .....	30
4.7	Protective Services .....	33
4.8	Public Consultation .....	33
4.9	Implementation .....	33
	Area Structure Plan .....	Map Pocket



## **1.0 INTRODUCTION**

### **1.1 Area Structure Plan Purpose**

The Sirocco Area Structure Plan (ASP) was prepared pursuant to the provisions of Section 633 of the Municipal Government Act and amendments thereto. The purpose of the Area Structure Plan is to act as a guide to future subdivision and development on Section 9-22-1-5 and the north half of Section 4-22-1-5. It is intended to provide a more specific municipal policy framework to guide subsequent land use redesignation, subdivision and development approvals within the Plan Area. The location of Section 9-22-1-5 and the north half of Section 4-22-1-5, located within the Municipal District of Foothills No. 31, is identified in Figure 1.0 Location Plan on Page 6.

The Council of a Municipality may, by bylaw, adopt the plan as a statutory document in accordance with Part 17 of the Municipal Government Act (MGA).

### **1.2 Background of the ASP**

The Sirocco ASP is submitted to the MD of Foothills on behalf of the Duffin-Walter families and United Communities. The Duffin and Walter families have owned the lands since 1956. They have lived on the land and raised two generations within the community. An 18 hole golf course and clubhouse facility was opened in the fall of 2004 and now the family, in partnership with United Communities,

wishes to develop the balance of the land for residential, recreational and open space uses.



Through the evolution of the ASP, the family and developer have undertaken an extensive planning exercise to understand the land, its opportunities and constraints, and development parameters. A team involving the landowners, developers, consultants, sub-consultants, and the MD of Foothills administration have all contributed to the creation of this ASP. This work has taken approximately 18 months and has resulted in an ASP that:

- guides the orderly redesignation, subdivision and development of lands within the ASP policy boundary;
- sets the direction for the theme, character, quality, and location of specific developments and activities;



- provides the policy framework for future planning applications; and
- specifies requirements for future infrastructure to service the development.

### **1.3 The Approval Process**

The MD of Foothills No. 31 requires Municipal Council approval of an Area Structure Plan (ASP) as a prerequisite to residential development. Preparation of the Sirocco Area Structure Plan has included a thorough review of relevant studies and existing site conditions. After the Sirocco Area Structure Plan is formally submitted, a public hearing is scheduled to allow the developer and/or agent to formally present the Area Structure Plan to Council. Should Council have the opinion that the Area Structure Plan is in compliance with the provisions of the Municipal Government Act, the MD of Foothills No. 31 Municipal Development Plan, and the Land Use Bylaw, the document may receive first reading. Once the Area Structure Plan meets the satisfaction of Council in terms of any possible amendments or conditions, the document will be adopted by bylaw. Subsequent application(s) to redesignate all or portions of the lands may follow and then the subject lands may be subdivided subject to Municipal approval.

### **1.4 Plan Implementation and Amendment**

The Sirocco Area Structure Plan, adopted by bylaw in accordance with Part 633 of the Municipal Government Act, will become a statutory document of the Municipal District of Foothills No. 31. The

Area Structure Plan does not supersede, repeal, replace, regulate, or otherwise diminish the MD of Foothills Municipal Development Plan or other statutory plans in effect in the Plan Area.

To be fully implemented, the Area Structure Plan may have to be considered with other municipal planning documents. These could include the MD of Foothills Municipal Development Plan and the MD of Foothills Land Use Bylaw.

The Sirocco Area Structure Plan should be considered a constantly evolving document. Changes in political, environmental, social, or economic considerations may require periodic review and amendment of the Plan. Through the monitoring of subdivision and development approvals, Council may initiate the amendment of this Area Structure Plan in accordance with Part 17 of the Municipal Government Act. In addition, the landowner(s) or their agents may request, by application, an amendment of the Area Structure Plan in accordance with the requirements and procedures of the same Section.

### **1.5 Legislative Framework**

#### **1.5.1 The Municipal Government Act**

An Area Structure Plan is identified in the Municipal Government Act as a Statutory Plan. Section 633 of the Act reads as follows:



## *Area Structure Plans*

633 (1) For the purpose of providing a framework for subsequent subdivision and development of an area, of land, a council may, by bylaw, adopt an area structure plan.

### *(2) An area structure plan*

#### *(a) must describe:*

- i. the sequence of development proposed for the area,*
- ii. the land uses proposed for the area, either generally or with respect to specific parts of the area,*
- iii. the density of population proposed for the area either generally or with respect to specific parts of the area, and*
- iv. the general location of major transportation routes and public utilities, and*

*(b) may contain any other matters the Council consider necessary.*

In the process of preparing and adopting this Plan, the Council must comply with the provisions of Sections 636, 637 and 638 of the Municipal Government Act, which are quoted as follows for easy reference.

636 *While preparing a statutory plan a municipality must*

- a. provide opportunities to any person who may be affected by it to make suggestions and representations,*

- b. notify the public of the details of the plan preparation process and of the means to make suggestions and representations referred to in clause (a),*
- c. notify the school authorities with jurisdiction in the area to which the plan preparation applies and provide opportunities to those authorities to make suggestions and representations,*
- d. in case of a municipal development plan, notify adjacent municipalities of the plan preparation and provide opportunities to those municipalities to make suggestions and representations, and*
- e. in the case of an area structure plan, where the land that is the subject of the plan is adjacent to another municipality, notify that municipality of the plan preparation and provide opportunities to the municipality to make suggestions and representations.*

637 *The adoption by council of a statutory plan does not require the municipality to undertake any of the projects referred to in it.*

638 *All statutory plans adopted by a municipality must be consistent with each other.*

### **1.5.2 The Municipal Development Plan (MDP)**

An Area Structure Plan is defined in the Municipal Development Plan of the Municipal District of Foothills No. 31 as a statutory plan, adopted by bylaw, which provides a land use strategy for



subsequent redesignation, subdivision and development of a specific area of land in the Municipality. Municipal support for an Area Structure Plan is found in Section 5.3.5 of the MDP, which reads as follows:

*5.3.5 An Area Structure Plan drafted in accordance with the guidelines adopted by the Municipality shall be required as part of a Country Residential proposal that would create 8 new lots or more, and for proposals of less than 8 new lots, an Area Structure Plan may be required if in the opinion of Council one is necessary, due to:*

- a) *the impact the proposal may have on adjoining lands;*
- b) *the need to review, in greater detail, the infrastructure requirements of this proposal;*
- c) *the proposal being a continuation of an existing subdivision and leads to a density greater than 8 lots per quarter section;*
- d) *the proposal, in the opinion of Council being phase 1 of a development that will create 8 new lots or more.*

## 1.6 Interpretation

In this Plan:

- a) **"Act"** means the Municipal Government Act 1995 and amendments thereto.
- b) **"ASP" or "Plan"** means the Sirocco Area Structure Plan.

- c) **"Council"** means the Council of the Municipal District of Foothills No. 31.
- d) **"Developer"** means the landowners, Duffin-Walter and United as listed on the Certificate of Title.
- e) **"Land Use Bylaw"** means a Bylaw of the MD of Foothills No. 31 passed by Council pursuant to the provisions of the Municipal Government Act and intended to prohibit, regulate and control the use and development of land and buildings within the MD of Foothills No. 31.
- f) **"MGA"** means the Municipal Government Act as amended.
- g) **"Municipal Development Plan"** means the MD of Foothills No. 31 Municipal Development Plan (MDP).
- h) **"MD"** means the Municipal District of Foothills No. 31.
- i) **"Municipality"** means the area bounded and incorporated by the MD of Foothills No. 31.
- j) **"Plan Area"** refers specifically to the lands within the Section 9-22-1-5 and the North Half of Section 4-22-1-5 as shown in Exhibit 1.0 Location Plan.
- k) **"Subdivision Approving Authority"** means the Council of the MD of Foothills No. 31.

All other words and expressions have the meanings respectively assigned to them in the Municipal Development Plan, Land Use Bylaw or the Municipal Government Act.



## **2.0 PLAN AREA**

## **2.1 Regional/Municipal Location**

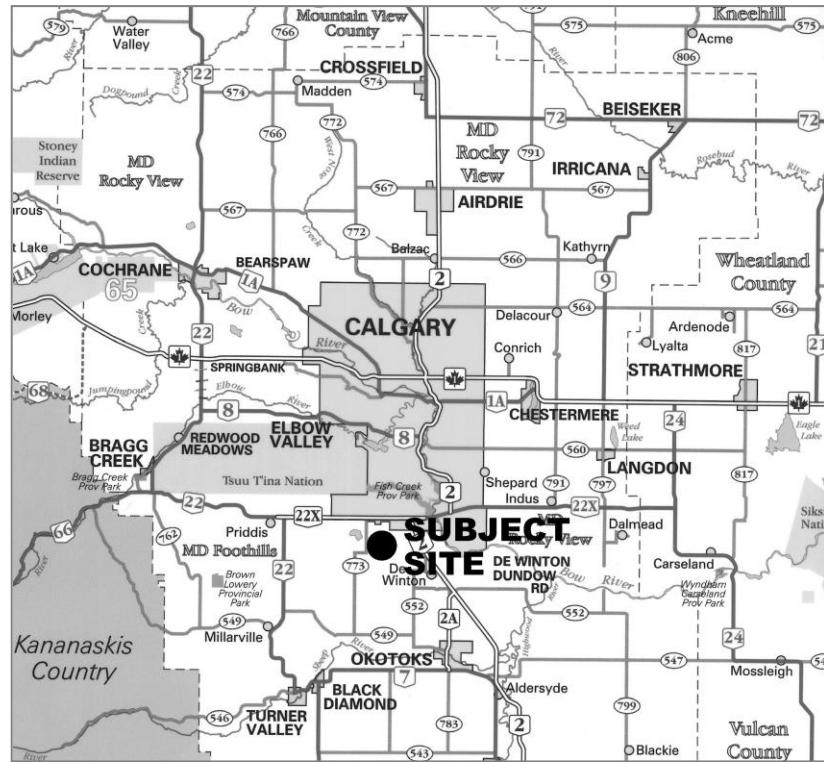
The Plan Area is located within the Municipal District of Foothills No. 31. The entire north boundary of the lands is bounded by the southerly limits of the City of Calgary, and a northern portion of the **site's easterly boundary is also** bound by the westerly limits of the City of Calgary, and is approximately 7 miles northwest of Okotoks (see Figure 1). The land is owned by the Duffin and Walter families. The surrounding lands are undeveloped and currently used for mainly agricultural purposes, as well as grazing and farming.

Section 3.4.1 of the MD of Foothills/City of Calgary Intermunicipal Development Plan (IDP) recognizes that a portion of the plan area is identified as an “urban growth corridor” and will be located in a future area defined by the policy document.

## **2.2 Definition of the Plan Area**

### **2.2.1 *Boundaries of the Plan Area***

The subject lands of this Area Structure Plan are located within Sections 9 and 4, Township 22, Range 1, West of the 5<sup>th</sup> Meridian. The site is bounded by 210<sup>th</sup> Avenue on the north, 48<sup>th</sup> Street W. on the east and 64<sup>th</sup> Street W. on the west. The total net area under consideration is approximately 388 hectares (959 acres) including the Sirocco Golf Course which contains ±75 hectares (185 acres).



*Figure 1 - Regional Context Map*

Referring to the Land Use Map 2204 of the MD Municipal Plan, it will be noted that the majority of the land in the Plan Area is currently zoned (A) Agricultural. The upper portion of the SW $\frac{1}{4}$  of 9-22-1-W5M is designated (INN) Industrial Natural Resources where there is a gravel quarry in the process of being reclaimed, and two parcels in the northeast quarter of the NE $\frac{1}{4}$  of 4-22-1-W5M are designated (CR) Country Residential. The land use designations and the



boundaries of the plan are noted in Figure 2 adopted from the Land Use bylaw maps.

Policies contained in this Plan apply only to those lands within the boundaries of this area.

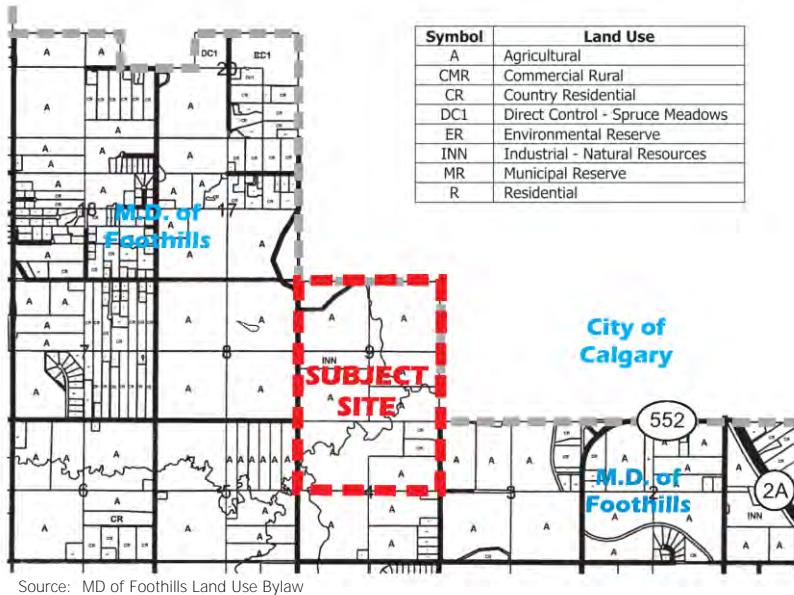


Figure 2 - Land Use Map

## 2.2.2 General Physical Description

The Sirocco Golf Course, which is  $\pm 75$  hectares (185 acres), is located generally through the centre of the Plan Area in the Pine Creek Valley. The 18 hole course opened in the fall of 2004 and

continued development is planned with the addition of a driving range, full service clubhouse and spa facilities. These revisions will be under separate application and are not part of this ASP application. Porcupine Creek runs down from the northern border of the site and joins Pine Creek at the centre. Vegetation in these riparian areas is generally native since the golf course, as well as the proposed development, intends to respect the natural landscape.

The lands intended for development have been used for grazing and farming in the past. There are six occupied homes that are on-site and intended to be incorporated into the future community. The lands are typified by native grasslands, low lying shrubs and a rolling topography.

Also present on the site is a gravel pit operation that will be reclaimed by the end of 2006. The manmade pond (approximately  $\pm 9$  acres) is currently used for irrigation purposes and will be relocated with the new development. At this time, it is proposed to relocate this pond within the development as a stormwater utility and designed as an attractive community amenity. The second fairway would be slightly reconfigured and would be subject to separate development approvals through the MD.



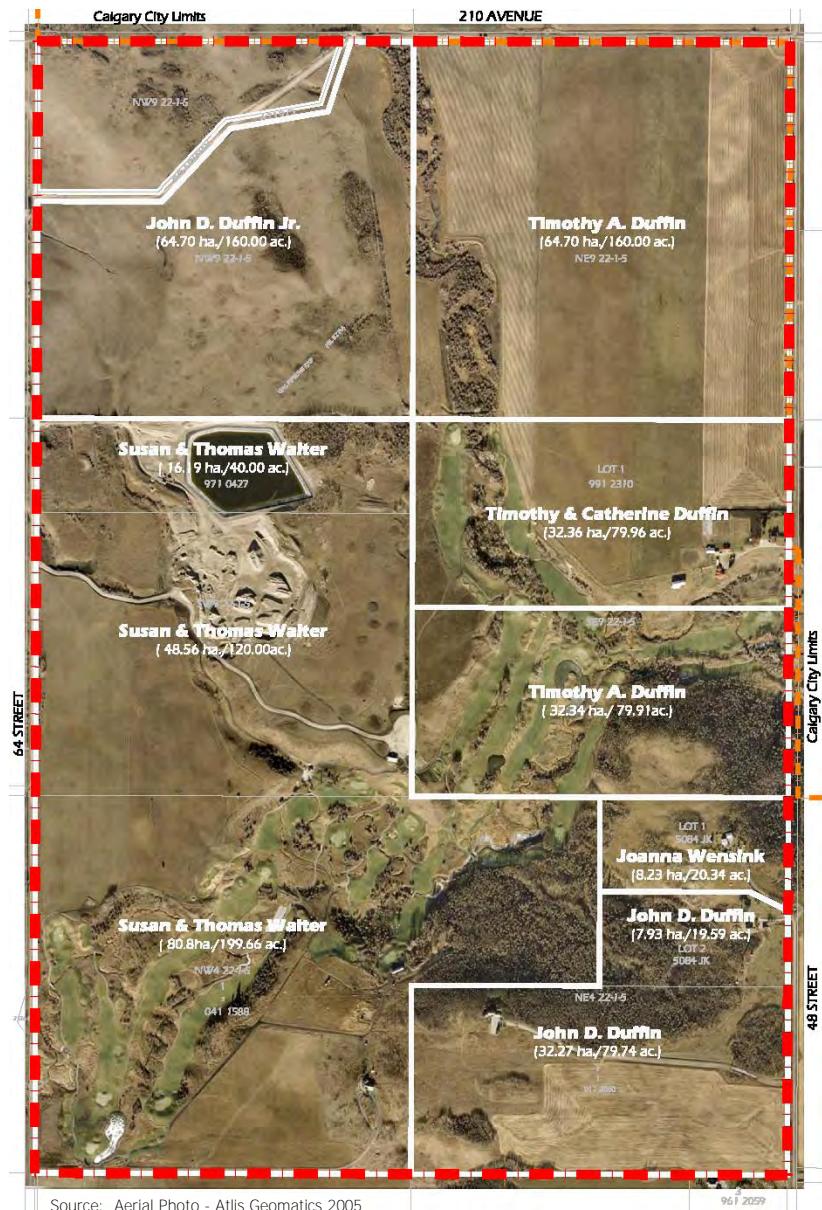


Figure 3 - Ownership Plan

## 2.3 Legal Land Ownership

The Plan Area encompasses lands owned by members of the Duffin and Walter families, as well as Joanna Wensink. Copies of the relevant Certificates of Title are included in Appendix A. Figure 3 denotes the ownership areas and boundaries.

## 2.4 Topography and Drainage

The topography of the site is mostly defined by the Pine Creek Valley, which cuts across the site from the southwest corner to the mid-east. The creek valley is approximately 10-15 m lower in elevation than the remainder of the site. The creek flows northeast out of the Plan Area and eventually joins with the Bow River south of Calgary. Additionally, Porcupine Creek, a tributary to Pine Creek, flows from the north edge of the site and merges with Pine Creek at the centre. Surrounding the valley is mainly flat to rolling agricultural lands used for both grazing and farming.

The lowest part of the site is  $\pm 1065$  m elevation along the creek areas, while the highest elevation is  $\pm 1155$  m at both the southeast and northwest corners of the Plan Area. Along the south side of the golf course, the lands steeply rise to form a steep north facing slope.

Surface drainage generally flows to the golf course area. Development of the golf course and its irrigation pond have been able to utilize this drainage for irrigation purposes when it is later returned to the creeks.

Figure 4 shows the contour interval ranges for the Plan Area.



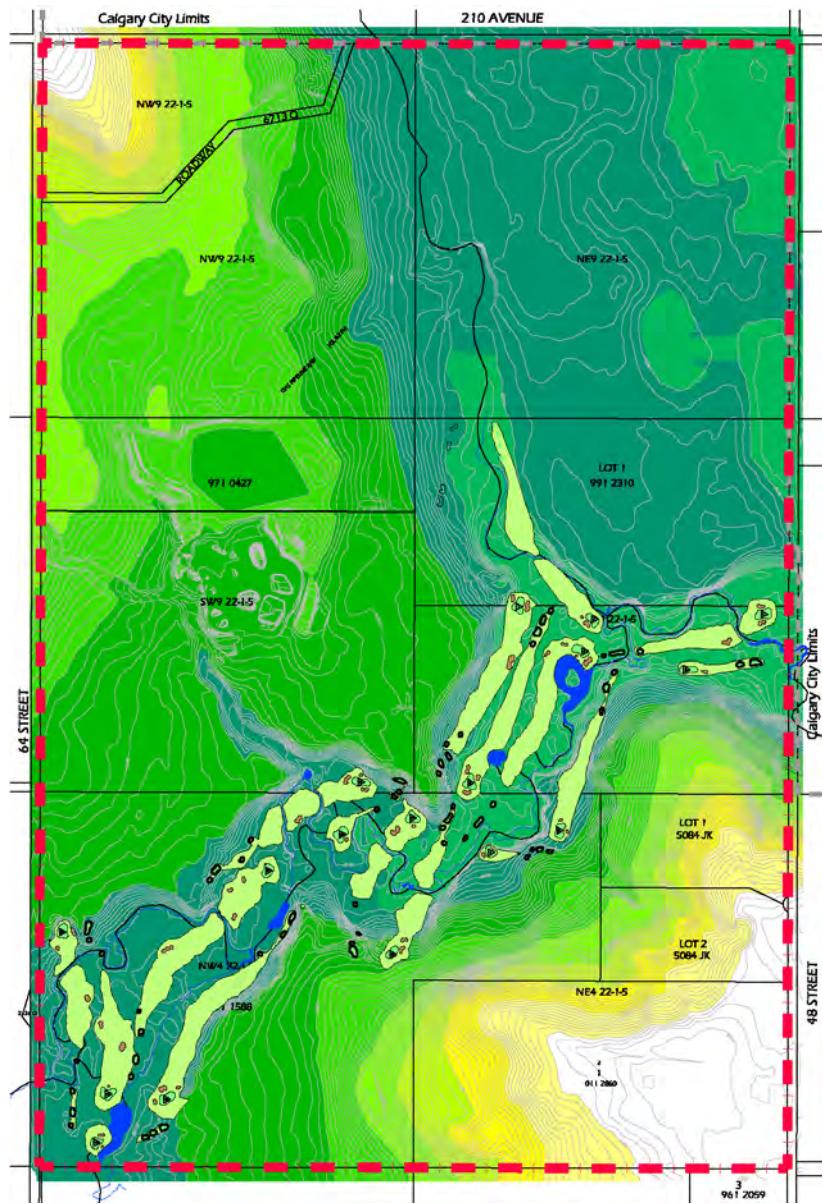
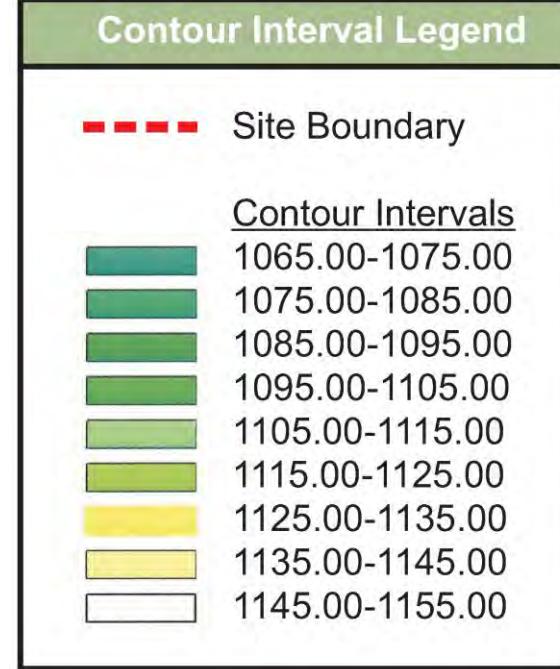


Figure 4 - Contour Interval Plan



## 2.5 Subsurface Soil Conditions

A geotechnical investigation was undertaken by McIntosh Lalani Engineering Ltd in October 2005. They drilled a series of boreholes and undertook laboratory testing of the results to produce a geotechnical report, included in Appendix D. They noted that the soil stratigraphy consisted of surficial topsoil and organic silts overlaying glacial tills and/or gravel deposits atop sedimentary bedrock. The groundwater levels ranged from 0.52 m to 14.5 m below existing grade.



## **2.6 Natural Environment Features**

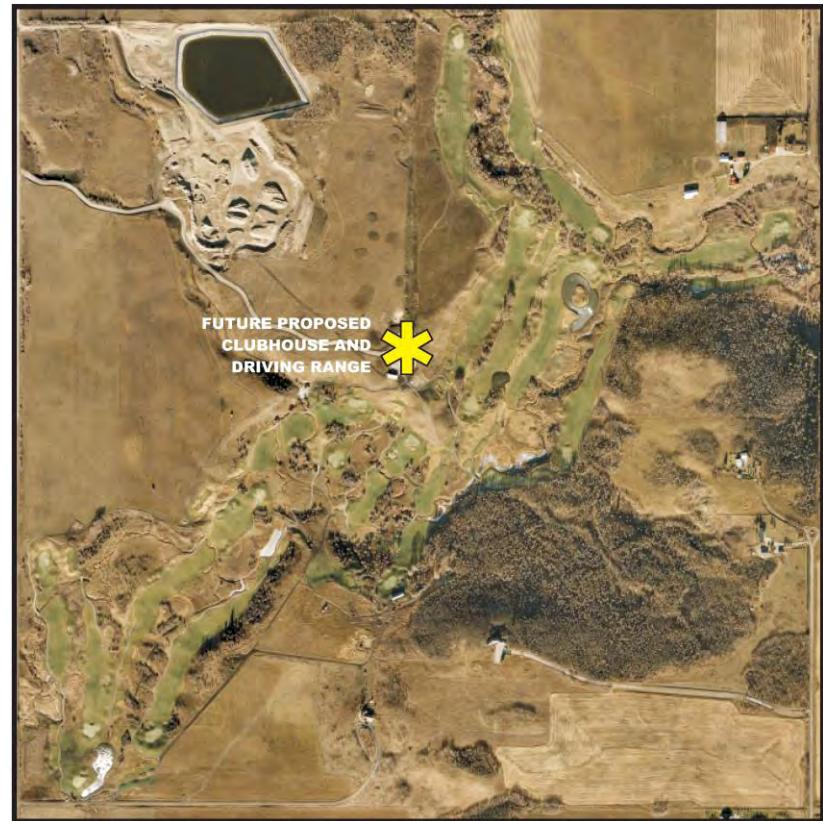
The predominant features are Pine Creek and Porcupine Creek located within the Sirocco Golf Course development and extending into the residential areas. Future residential development within the ASP area will see development backing onto Porcupine Creek along the north central portion of the Plan Area. Details pertaining to this interface are described in later sections of this ASP.

Other natural features that enhance the Plan Area are the rolling topography. Coincidentally, the elevations at the southeast corner and the northwest corner are the same and both represent the high points with the Plan Area. There is a large treed north facing slope along the south portion of the Plan Area and an abrupt slope in the northwest corner on the north side of 210<sup>th</sup> Avenue.

## **2.7 Existing Land Uses and Development**

The existing Sirocco Golf Course is located within the Plan Area as shown in Figure 5 and is approximately  $\pm 75$  hectares (185 acres). The course has 18 holes and a planned clubhouse facility. The course is semi-private and was opened in the spring of 2005.

An application to subdivide the golf course will be submitted to the MD of Foothills under separate cover. The purpose of the subdivision will be to maintain the golf course as a separate legal entity from the planned residential developments.



Source: Aerial Photo - Atlis Geomatics 2005

*Figure 5 - Golf Course Plan*

There are also six existing residences and a farmstead. Some of the land is still currently being used as rangeland, or for agriculture (grazing and crop uses).



Lastly, there is a gravel pit (that is being reclaimed as of the date of the ASP submission) on the west central portion of the Plan Area. This reclamation will be completed by the end of 2006. Upon completion, the lands will be properly reclaimed and are intended to be consolidated into the development as future residential lots and open spaces.



## 2.8 Existing Area Structure Plans

### 2.8.1 Adjacent Regional ASPs

Within the general vicinity, there are two approved Area Structure Plans for country residential development. The first is the Heritage Pointe ASP approved by Council in 1993. This ASP was approved for a golf course and residential development. The second is the Sulky Ridge ASP that was approved by Council in January 2001 for country residential development.

### 2.8.2 City of Calgary Development

The nearest ASP within the City of Calgary limits is called the **Southwest Community 'A' and Employment Centre/Mixed Use Area Structure Plan** (City of Calgary Bylaw IP2004, adopted by City Council March 22, 2004). The community has since been named Silverado and is shown on Figure 6. Residential densities in this community are set at 6 to 8 units per gross developable acre and it is also to include a mixed use commercial centre, as well as a future LRT stop. Development is underway on the lands starting in Section 22 and moving in a south and west direction.



Source: Aerial Photo - The Orthoshop 2003 and Atlis Geomatics 2005

Figure 6 - Regional Development



### **2.8.3 Intermunicipal Development Plan (Bylaw 35A/98 approved by MD of Foothills Council April 9, 1998)**

The MD of Foothills/City of Calgary Intermunicipal Development Plan outlines planning issues of common concern affecting approximately ±47 sections of land. Lands contained within this ASP are within this Intermunicipal Development Plan Area. Following the development of the "Silverado" area, the IDP identifies the east half of Section 9 as a primary urban growth corridor. Future sections of this ASP support this in the proposed density for this cell and the planned residential layout.

The IDP identifies the ASP lands as being within an "Agricultural Policy Area" which is guided by "premature development of existing agricultural lands within the MD of Foothills should be avoided and such land should continue to be used for agricultural purposes". Since the date of approval of the IDP by both municipalities in 1998, the Calgary City limits have extended southward and westward such that they now border the northern and portion of the eastern limits of the ASP area. As well, the City of Calgary has approved policy plans that reach further south to 194<sup>th</sup> Avenue S. From an intermunicipal perspective, both of these support the IDP directive that land be brought forward in a timely manner.

In terms of open space dedications, the IDP sets out municipal reserve principles that "*Municipal and/or school reserves should only be taken by direct dedication of land or registration on title of deferred reserve caveat. Cash should only be taken in lieu of reserve after consultation with and agreement by the City of Calgary.*

*In the event that two or more acres can be dedicated as municipal and/or school reserve, neither deferred reserve nor cash-in-lieu of reserve may be taken; such reserve must be taken by direct dedication of land".* The design of this ASP has deliberately laid out meaningful municipal reserve sites for both passive and active recreational uses. As well, a municipal school reserve site is located in the west central area. A future section of this ASP describes the open spaces and a proposed maintenance strategy for the future public open spaces.

### **2.9 Existing Transportation Network**

The development is bounded by 210<sup>th</sup> Avenue to the north, 48<sup>th</sup> Street W. to the east, 64<sup>th</sup> Street to the west, and agricultural lands to the south. See Figure 7 for a contextual transportation map showing existing and future planned roads, interchanges, and LRT stops (within City of Calgary boundaries).

Currently, access to the Golf Course is via 64<sup>th</sup> Street W. Regional access to the site is via 210<sup>th</sup> Avenue which is a gravel road to Highway 2A which is a six-lane provincial highway that connects Calgary to Okotoks. Highway 22X is accessed via 48<sup>th</sup> Street W. or 64<sup>th</sup> Street W. within the MD limits.

### **2.10 Existing Infrastructure**

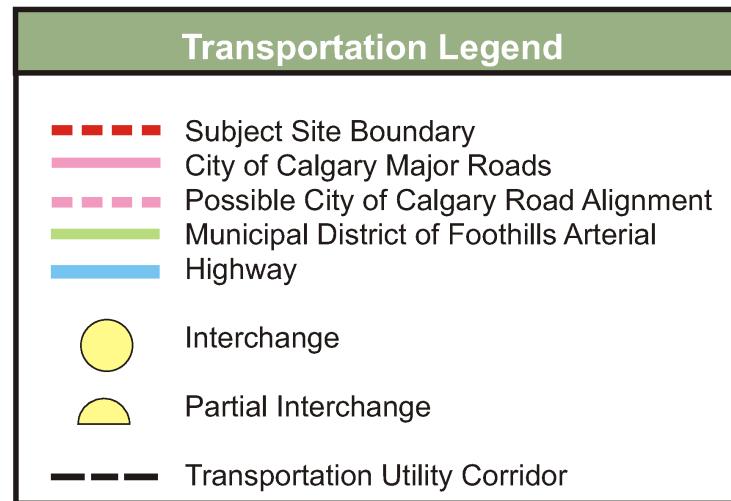
The six existing houses on the site are serviced by independent septic systems and private wells. Electricity is provided by above-ground poles and some underground wiring.





Source: Aerial Photo - The Orthophoto 2003 and Atlis Geomatics 2005

Figure 7 - Transportation Map



## 2.11 Summary of Opportunities and Constraints

The opportunities of this project are:

- The Duffin and Walter families are long standing members of the community and are partnered with an experienced developer, United Communities.
- A comprehensively designed community that incorporates the existing features of the landscape and vegetation to create a unique place to live.
- The design complements the natural setting of the golf course and eases the transition from rural and country residential development to the urban setting of Calgary.
- Provides a regional connection through a proposed equestrian trail.



- Green space and walking trails are a prominent feature of the development.
- A local school site will be provided to serve the needs of the community and those around it.
- Architectural controls will be established to ensure consistent development quality.
- Provision of additional choices of housing product within the MD.
- A smooth transportation system that focuses traffic away from the residences and the golf course, and onto the peripheral roadway network.
- Extension of services into the community.

The constraints of this project are:

- All servicing aspects will be finalized with the signing of the development agreement with the MD of Foothills.
- The interface with the City of Calgary may constrain the supply of infrastructure services.
- Master planned development does not easily allow for further subdivision or redevelopment.



## **3.0 PLAN OBJECTIVE AND GUIDING PRINCIPLES**

### **3.1 Objective**

The objective of the Sirocco ASP is to provide the policy foundation, which is consistent with existing and other statutory planning documents, for the future development of a residential community surrounding the existing Sirocco Golf Course. The development is intended to provide a variety of housing forms at varying densities within a country residential framework. There are specific guiding principles which support this objective and each are listed below.

### **3.2 Principles of Development**

#### ***3.2.1 Residential Development***

- To create a variety of housing forms and density that transition from the urban interface to the country residential interface. Finalization of densities will be through subsequent Council approvals at the land use designation approvals and subdivision plans.
- To offer a choice of housing form and community design that is not found elsewhere within the MD.

- To enhance an opportunity to develop a relationship with the Sirocco Golf Course for a lifestyle option.

#### ***3.2.2 Open Spaces***

- Open spaces will be provided at various levels; active spaces with play equipment, passive and/or naturalized open spaces including trail/pathway networks and a school site.
- Community design will respect the natural landscape and provide numerous opportunities for the public to access pathways and parks.
- An adequate amount of land be provided to balance active and passive users through dedication of municipal reserves, and the development and maintenance of private (non-credit) open spaces through a homeowners association.

#### ***3.2.3 Development Form***

- All development shall be in accordance with statutory policy and municipal standards in effect at the time of approval.
- Clustered development of varying densities is encouraged to minimize site disturbance and provide efficient servicing.
- Development along the Sirocco Golf Course and Pine Creek and Porcupine Creek to be appropriately designed for interface, building heights and open space connections.
- Areas that qualify as environmental reserve be preserved and left in their natural state when possible.



### **3.2.4 Infrastructure and Servicing**

- Servicing and infrastructure will be provided in a timely manner on a phase by phase basis to service the development.
- All housing units will be appropriately serviced.
- Opportunities for developments (existing or proposed) outside of the ASP boundary to tie-in to infrastructure should be considered.

### **3.2.5 Golf Course Interface and Natural Areas Preservation**

- Development adjacent to the Sirocco Golf Course should be attractive and appropriately set back.
- Open spaces between the golf course and residential development should be provided in appropriate locations.
- Existing natural areas along the creeks and steep slopes should be preserved where possible. Where preservation is not possible, measures to rehabilitate after disturbance shall be undertaken.
- Development should contribute to the overall enhancement of the environment and create a positive balance between the ASP area and the golf course, Pine Creek, and Porcupine Creek.



- Steep slopes and existing drainage areas should be protected from non-recreational uses.
- Public access to open spaces and natural features should be accommodated, where possible, with pathways, trails, community parks, school site, and environmental reserves.
- Areas suitable for wildlife should be preserved from non-recreational development.

### **3.2.6 Community Identity**

- An overall community theme to guide development should be introduced with future architectural controls.
- The ASP should foster a positive image for the MD by enhancing the natural features, complementing the Sirocco Golf Course, and maintaining the country residential character.

### **3.2.7 Development Phasing and Timing**

- Development phasing will be determined through availability of servicing connections.
- Phasing will be undertaken in a manner that is logical, efficient and attractive.
- Development activities will provide the least amount of disruption possible to existing local residents.
- More than one phase for housing product types may be underway at the same given time.



### **3.2.8 Homeowners Association**

The developer (United Communities) will establish a Homeowners Association (HOA) comprised of resident homeowners within the ASP area. The purchaser of a lot will be required to become a member of the Sirocco HOA. A restrictive covenant will be registered on each lot to describe the operation and responsibilities of the HOA and the landowners within the ASP area. An example of responsibilities are maintenance of private open spaces and community signage.

The HOA will be managed by an elected Board of Directors. At least one member of the Board of Directors will be a representative of the Sirocco Golf Course to ensure representation of the course.

### **3.2.9 Architectural Design Guidelines**

Architectural control guidelines will be prepared by the developer (United Communities) and will address requirements for the exterior design and appearance of the homes within the ASP area. The architectural guidelines will also determine landscaping requirements (species, coverage, areas) for each lot, as well as the building envelopes for builders. As the overseer of the architectural control guidelines, United Communities will review applications, grant lot approvals and follow-up.

### **3.2.10 Restrictive Covenants**

Every residential title within the Sirocco ASP area will have a restrictive covenant registered. The purpose is to provide controls and performance guidelines pertaining to items such as limiting the number of animals permitted on each lot, landscaping requirements, water conservation measures, and restricting motorized vehicles, such as snowmobiles and ATVs. The restrictive covenant will also bind each landowner to tie-in to the water and sewage systems in order to prevent independent water wells and septic fields from being created.



## **4.0 PLAN POLICIES**

### **4.1 The Plan Concept**

The Sirocco ASP is the planning policy that sets the framework for development of this residential community. It will serve to guide all future decisions regarding development by either the MD of Foothills Council or Administration.

The Sirocco development will provide single family and villa homes within a natural landscape. Many homes will back onto the golf course and all will be connected through a series of walkway paths and trails. The design of the community respects the natural elements to integrate it into the landscape.

All homes will be guided by architectural controls to ensure consistent and quality construction, and an attractive appearance. Development will proceed on a phase-by-phase basis with recreational amenities provided to suit active and passive users.

There will be various forms and densities of housing proposed to enhance the sense of community. Villas may be located close to the golf course clubhouse and single family homes will be to the west, north and east of the golf course. Smaller acreages will be on the south side of the golf course and will enjoy tremendous views to the north and west.

### **4.2 Land Use Components**

The Sirocco ASP proposes three main land use areas: residential, commercial and recreational. Each will be discussed in more detail in the following sections of this report. The general planning cells are shown in Figure 8 on the following page.

The residential areas are divided into four general cell areas, each defined by a density range that relates to its interface conditions, topography and access. Densities will range from  $\pm 0.9 - 3.7$  upa on a development cell basis. The overall gross density for the ASP area will average approximately  $\pm 1.5 - 1.75$  upa based on developing  $\pm 1,400 - 1,675$  housing units. The statistics for the residential area of the ASP are shown below and explained in more detail in the following section. Final decisions regarding densities will be made by Council with the approvals of future land use redesignation(s) and subdivision applications.

<b>Cell #</b>	<b>Housing Type</b>	<b>Approximate # of Units</b>	<b>Proposed Approximate Density Range</b>
1	Urban interface (single family and villa)	$\pm 590 - 670$	$\pm 3.3 - 3.7$ upa
2	Rural interface (large lot single family and villa)	$\pm 520 - 655$	$\pm 1.8 - 2.3$ upa
3	Urban interface (single family and villa)	$\pm 30 - 40$	$\pm 0.9 - 1.1$ upa
4	Country residential interface (large lot single family and villa)	$\pm 268 - 310$	$\pm 1.2 - 1.4$ upa
Total	Various	$\pm 1,400 - 1,675$	$\pm 1.5 - 1.75$ upa



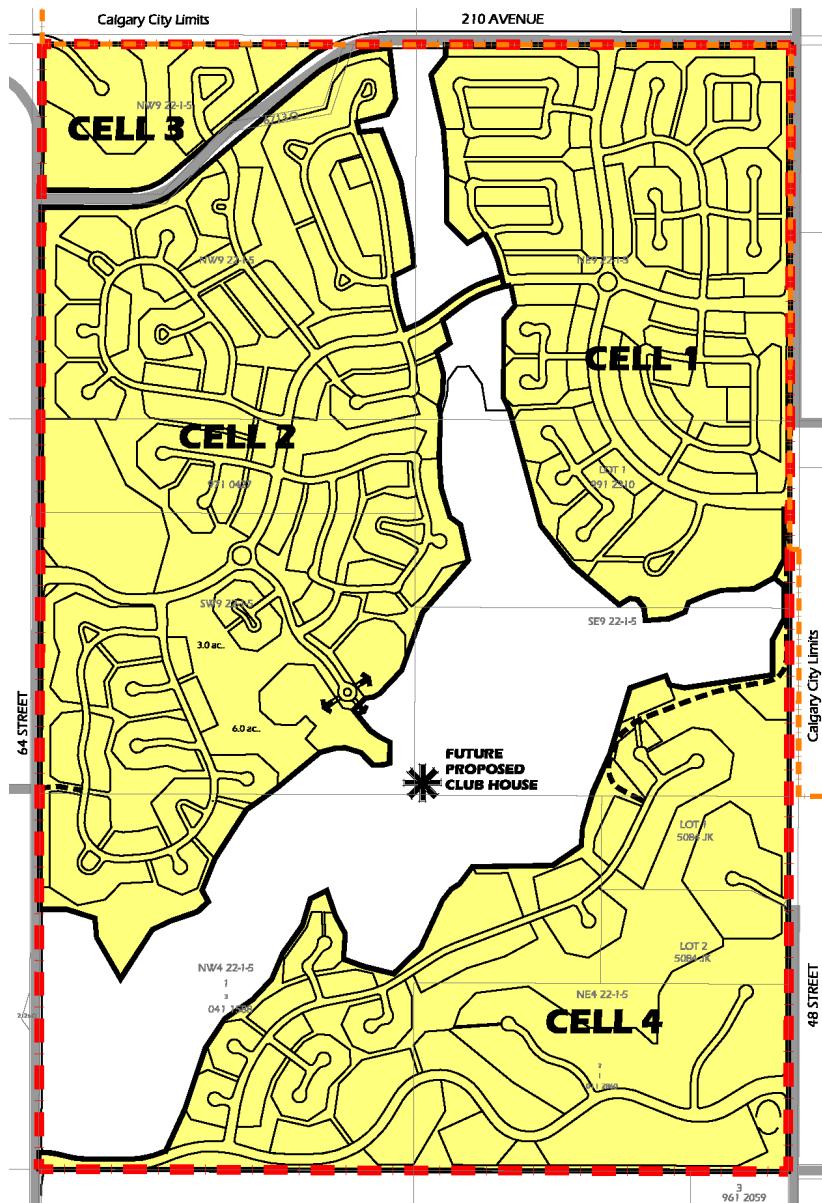


Figure 8 - Planning Cells

#### **4.2.1 Residential**

The location of the various housing forms and densities have been deliberately placed within the ASP area.

Cell 1:

As the north boundary and a portion of the east boundary of this cell are beside the Calgary city limits, it is logical to place the higher density (urban-type character) development along those borders. It is proposed that Cell 1 will have a density range of  $\pm 3.3 - 3.9$  upa, but this density could be revised by Council. The location of this cell will serve to transition the development from the northeast to the west and south to a more rural, country residential character. This cell will contain single family and villa housing styles. Also, a group of larger lot acreage units are proposed to be clustered around the existing homestead in the southeast portion of the cell. Close to the existing homestead is an original barn structure which, given its appearance and location, could provide a redevelopment opportunity. It is envisioned that possibly the structure could be renovated into a unique single family dwelling or renovated for use as a "light industrial building" such as an artist's studio, craft centre, micro-brewery, etc. Specific details about this redevelopment opportunity will be addressed with a future land use amendment application.





#### Cell 2:

Cell 2 at the western area of the ASP is for the single family and villa residential lots and will form the largest transitional area to buffer the uses for lower density lands to the west. It is proposed that Cell 2 will have approximately ±520 - 655 units. This cell will have a proposed density range of ±1.8 - 2.3 upa with average lot sizes of 0.18 - 0.40 acres (but could be revised by Council) and this cell will also include the access road to the golf course. Also, the developer is proposing to introduce a villa-type project within this cell near the Sirocco clubhouse. The concept of this villa lifestyle concept was very popular at the two open houses hosted by the developer. Urban design principles applied to this cell have respected the natural landscape and view corridors to the north and west. All lots

are designed such that there is open space behind it - either the golf course, a neighbourhood park or the internal trail system; no residential lot will back onto another residential lot.

#### Cell 3:

Cell 3 is the smallest cell located in the NW corner of the ASP area. It is somewhat distinct from the other three cells in that it is physically separated by 210<sup>th</sup> Avenue which may be a future major roadway. As well, this cell is characterized by very steep slopes and thus a significant portion of it will remain undeveloped. It is proposed that this cell be a clustered development of single family and villas with a total of ±30 - 40 units with a density range of ±0.9 - 1.1 upa (but could be revised by Council). Development of this cell will be reviewed in cooperation with the MD of Foothills and the City of Calgary in order to facilitate access management and the development of this hillside within both jurisdictions. As well, the developer may wish to add some assisted living form of uses. Details pertaining to this type of development will be addressed with the future land use amendment application.

#### Cell 4:

The last cell is located on the south side of the Sirocco Golf Course and is the most heavily treed and sloped cell within the ASP area. This cell also has tremendous views to the north and west, and is designed with those viewsheds in mind. Cell 4 will have a blend of larger lot development for single family of ±0.2 - 1.25 acres in size and villa development. This is the lowest density cell which will



range between  $\pm 1.2$  - 1.4 upa with a range of approximately  $\pm 260$  - 310 units (but could be revised by Council).

In the above paragraphs, it is noted that the cell numbers assigned are for planning purposes only and are not intended to imply development phasing. Furthermore, the numbers provided are estimated ranges only and will be confirmed with subsequent, specific land use redesignation application(s) and subdivision application(s). Information regarding general cell locations, product types and unit/density ranges will apply to the Area Structure Plan for guidance at the land use amendment stage.

Overall, the combination of the four cells identified within the Sirocco ASP will have estimated densities ranging from  $\pm 1.3$  - 1.6 upa including the Sirocco golf course and creek drainage systems. This will accommodate approximately  $\pm 1,400$  - 1,675 housing units. Both density and number of units are subject to final approval by Council.

The proposed residential lots shall be compatible and consistent with the provisions of the Municipal District of Foothills No. 31 Land Use Bylaw and Municipal Development Plan. General land use policies for the residential designations are as follows:

- all subdivision and development shall be in conformity with the provisions of the Municipal Government Act, the Subdivision and Development Regulations and the Condominium Property Act;
- where possible, the natural landscape should be maintained and homes be integrated into the natural landscape;
- the land use designation approved by Council for each cell shall address lot widths, setbacks and building guidelines which meet or exceed the requirements of the Land Use Bylaw;
- a building form should be provided which, when viewed from the street, emphasizes the residential elements of the building and reduces the visual impact of garages on the streetscape;
- a system for garbage collection will be established by the developer, to be assumed by the homeowners association once it is established;
- geotechnical testing will be completed pursuant to the Municipal District of Foothills No. 31 Municipal Development Plan;
- a Historical Resources Impact Assessment for the undisturbed margins of Pine Creek and the undisturbed drainage in Section 9 and the undisturbed land in the uplands of the NE Section of 4 be completed pursuant to the Municipal Development Plan and Alberta Community Development;
- if requested, all other environmental testing will be completed (i.e. high water, slope stability testing) to the satisfaction of the Municipality as a condition of redesignation approval;
- individual water wells and septic systems will not be permitted within the residential component;
- the intended source of water will be from either the City of Calgary with a tie-in to their mains or Corix Utilities by extension of their services to the ASP boundary; and



- a sewage treatment facility is proposed for the residential development subject to Alberta Environment and Municipal approvals.

Policies specific to each development cell are as follows and are subject to final approval by Council at the land use redesignation and subdivision stages whereby Council has the discretion to increase densities should it be desired:

- All Cells - density calculations are based on gross area of development cell
- Cell 1 - minimum lot size shall be 0.15 acres
  - maximum lot size shall be 0.4 acres
  - minimum lot width shall be 13.72 m (45 feet)
  - maximum number of residential units shall be 670 units
  - for villa product, the average lot width shall be 9.8 m (32 feet) per unit
  - the redevelopment potential of the existing barn will be addressed with a future land use amendment application
- Cell 2 - minimum lot size for single family product shall be 0.18 acres
  - maximum lot size for single family product shall be 0.40 acres
  - for villa product, the average lot width shall be 9.8 m (32 feet) per unit
  - for single family product, the minimum lot width shall be 18.3 m (60 feet)

- Cell 3 - maximum number of all residential lots shall be 655 units
- Cell 4 - minimum lot size shall be 0.15 acres
  - maximum lot size shall be 0.25 acres
  - maximum number of residential units shall be 40 units
  - for villa product, the average lot width shall be 9.8 m (32 feet) per unit
- Cell 4 - minimum lot size shall be 0.2 acres
  - maximum lot size shall be 1.25 acres
  - maximum number of residential units shall be 310 units
  - for villa product, the average lot width shall be 9.8 m (32 feet) per unit

#### **4.2.2 Commercial**

There may be opportunity(s) to provide local commercial services within the Plan Area. Given the size of the ASP area and the surrounding developments, it is envisioned that a small facility to provide local conveniences could be viable. Two sites have been identified within the ASP area as being suitable and they are in Cell 1 at the entrance to the cell from 210<sup>th</sup> Avenue, and/or in Cell 2 near the proposed Sirocco Golf Clubhouse, accessed from 64<sup>th</sup> Street.

Policies specific to commercial development within the ASP area are as follows:



- if found viable, a commercial site of no larger than 1.5 acres may locate in Cell 1 and/or Cell 2;
- land use approvals for the commercial site(s) must be granted by the MD of Foothills Council; and
- the appearance of the commercial development(s) must be complementary to the residential area and subject to architectural review by the developer.

#### **4.2.3 Non-Credit Open spaces**

Throughout the Sirocco ASP area, the developer proposes to provide additional open spaces (beyond the 10% required under the MGA). These voluntary open spaces are primarily in the form of internal trails and walkways linking the development. Figure 9 compares voluntary open space areas with open spaces provided as (credit) municipal reserve. These voluntary open spaces will be maintained by the developer until the HOA is established. At such time, the maintenance will be handed over to the HOA. There will be no obligation upon the MD for the maintenance of the voluntary open spaces.

Future land use applications pertaining to these lands do not intend to designate the lands as "P" (Public Open Space). Rather, the lands are anticipated to carry the same designation as the adjacent residential district and upon subdivision, title will be transferred to the homeowners association for ownership. This is to accommodate the maintenance of the non-credit open spaces under the homeowners association.

Open Space Legend	
	(MR) Municipal Reserve
	(ER) Environmental Reserve
	Golf Course



Figure 9 - Open Space Plan



Policies specific to the voluntary open spaces are as follows:

- the developer will construct and maintain the voluntary open spaces until they are transferred to the Sirocco homeowners association. The homeowners association will maintain the voluntary open spaces in perpetuity;
- the Sirocco homeowners association will be responsible for the public liability for the voluntary open spaces;
- voluntary open spaces are not calculated within the required 10% municipal reserve dedication under the MGA;
- golf carts may be permitted on selected, signed pathways only;
- all terrain vehicles (ATVs) and/or any other motorized vehicles will not be permitted within the voluntary open spaces, except for golf carts on permitted pathways as per the above policy and vehicles required for emergencies, maintenance, construction ,etc.; and
- the width, grade and alignment of pathways in the voluntary open spaces will be dependent upon their use, location and purposes.

### **4.3 Environmental Considerations**

The Sirocco ASP is located in a picturesque location typified by many natural features. The ASP has been sensitive in addressing the environmental considerations to deal with Pine Creek and its shores, topography and treed areas. These areas will be defined overall under a future Environmental Reserve (ER) dedication.



Areas identified for ER include the bed and shores of Pine Creek and specifically identified sloped lands within Cell 4 in the south central ASP area (south of the Sirocco Golf Course). Details pertaining to the ER lands and associated policies are contained in a future section of this report.

The Sirocco ASP recognizes the balance required between the proposed residential development, the existing Sirocco Golf Course and environmental areas. Policies specific to the environmental areas are as follows:

- to contribute to sediment and erosion control, preservation and enhancement of the natural vegetation is suggested;
- grading of the residential development should be designed to eliminate direct runoff into Pine Creek. Using Best Management Practices for proper grading will direct runoff to stormwater ponds and will properly contain runoff to control discharge rates; and
- pathways, open space and potential golf course expansion could locate within the sloped areas.



## **4.4 Reserve Lands**

The Sirocco ASP proposes to provide public open spaces under three dedication categories: municipal reserve, municipal school reserve and environmental reserve. Actual acquisition of reserve land by the Municipality occurs at the time of subdivision.

### ***4.4.1 Environmental Reserve***

Lands that are considered to be environmentally significant within the ASP area will be dedicated as Environmental Reserve. Specifically, this then applies to the bed and shores of Pine Creek and the sloped area south of the Sirocco Golf Course. The application of an ER designation will serve to protect the natural integrity of these areas and to provide public access.

The following policies apply to the environmental reserve lands.

- all terrain vehicles (ATVs) and/or any other motorized vehicles will not be permitted within the ER areas, except for vehicles required for emergencies, maintenance or construction;
- final boundaries for the ER lands will be defined at the subdivision stage; and
- the ER lands are to remain in a natural state.

### ***4.4.2 Municipal / School Reserve***

The Municipal Government Act (MGA) requires that 10% of developable land be provided to a Municipality in either the form of land or a cash-in-lieu of land payment. The MD of Foothills **Municipal Development Plan (MDP)** states that "for a redesignation or subdivision application, when the reserves to be provided are more than 1.98 acres, a separate lot must be shown on the site plan". As this requirement applies to this ASP area, the proposed MR lots are shown on the land use concept map. The location of these MR parcels has been carefully considered in the ASP design to address equitable distribution of open space among residential cells, availability of public access, trail/pathway connections and interface conditions with residences. It must be noted that the MDP also states that "it will be the discretion of Council at the time of the decision as to whether land will be taken or cash-in-lieu". Thus, pending Council's decision, it may be necessary to amend this ASP prior to second and third readings of the ASP bylaw.

The total net developable area of the ASP is 313.16 ha (773.81 ac) resulting in a 10% MR owing of 31.31 ha (77.38 ac). The MR areas are highlighted on the ASP map to show the allocation, size and distribution of these public park areas. MR parcels will take the form of neighbourhood/ community parks, pathway/trail connectors or a portion of a regional, north-south equestrian trail. Open spaces shown on the plan that are not provided as credit MR are voluntary open spaces provided by the developer and were addressed in a previous section of this ASP.



The Sirocco ASP will provide land for a school building and associated playfields along the west boundary of the ASP area. The school building envelope and the playfields will comprise a total school site size of 7.10 ha (17.54 ac). Until such time as the school district is prepared to build a school on the sites, the land can be used in the interim for community playfield facilities.

A breakdown of the public open spaces is as follows:

Total Developable Area	313.16 ha (773.81 ac)
10% of Developable Area for MR Owing	31.31 ha (77.38 ac)
- MR (possible school site)	7.10 ha (17.54 ac)
- MR	23.63 ha (58.39 ac)
Total MR Provided	30.73 ha (75.93 ac)
MR Owing	0.58 ha (1.43 ac)

The following policies relate to the municipal reserve lands:

- at the time of subdivision, the MR lands will be dedicated to the MD of Foothills by the developer for use as public park land;
- MR lands are to be functional in design and to provide a balance of both active and passive uses within the ASP area;
- the MD of Foothills will be liable for the MR parcels;
- municipal reserve lands will be constructed by the developer in accordance with MD development standards in effect at the time; and

- maintenance of the MR lands will be the obligation of the MD of Foothills. They will remain and be maintained in a natural undeveloped state until utilized by the MD.

#### **4.4.3 Open Space Network (Pathways, Parks, Recreation, Buffers and Open Space)**

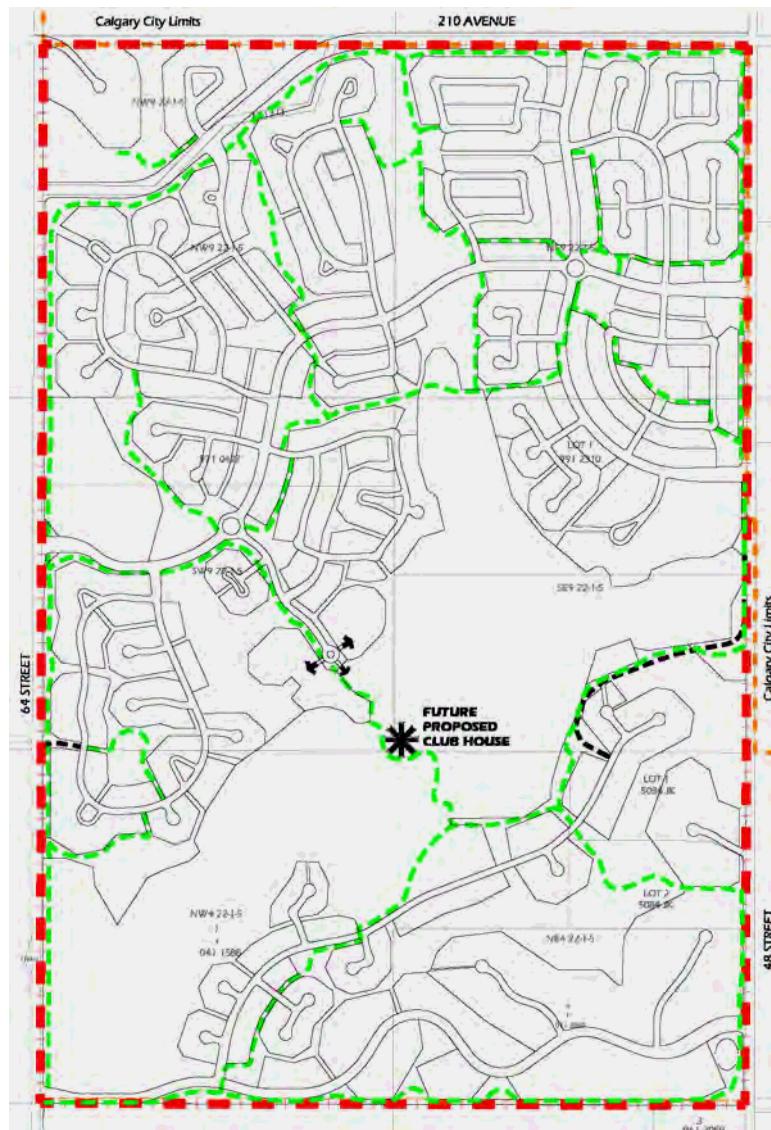
The open space network in the form of either MR, MSR, ER, or voluntary open spaces serves to provide both active and passive recreational opportunities to both Sirocco residents and citizens of the MD of Foothills.

A connected pathway and trail system is proposed to provide pedestrian linkages between the cells north of the golf course. This **system is kept “off-street” as much as possible** to decrease the potential for pedestrian-vehicle conflicts and to maintain the country feel when walking through the community. These linkages are shown graphically in Figure 10.

In the majority of residential development areas, the pathways and trails are located at the back of lots to provide a buffer and separation between the homes.

The entire north-south length of the western boundary is devoted to an equestrian trail. This alignment is already a popular route among local horse enthusiasts, so by putting the trail in a designated off-street area, it provides a safer environment for both horse and rider. Additionally, this trail serves as a separation buffer between the residential lots and the country residential development to the west.





*Figure 10 - Trail Connections*

## Regional Trail System Legend



## Regional Trail

## 4.5 Transportation



#### **4.5.1 Transportation Objectives**

The Sirocco ASP layout is designed so traffic will move freely and efficiently within the plan area. Intersections with perimeter roads are placed to ensure traffic can easily distribute onto the regional roadways from the site.



#### **4.5.2 Proposed Regional Transportation Network**

The majority of traffic to the Sirocco ASP area will be from 210<sup>th</sup> Avenue to the north, 64<sup>th</sup> Street to the west and 48<sup>th</sup> Street to the east. The larger regional transportation network is defined by Macleod Trail/Highway 2A to the east and Highway 552 which intersects with it as an all turns intersection. To the south is 242<sup>nd</sup> Avenue which also intersects with Highway 2A as a right in/out condition only.

#### **4.5.3 Plan Area Access and Adjacent Roadways**

The ASP proposes several access points to the residential development (as shown in Figure 11) which will meet the MD of Foothills' transportation design criteria regarding intersection spacing and design specifications. There are three intersections proposed on 64<sup>th</sup> Street and one emergency vehicle access entry, two intersections proposed on 210<sup>th</sup> Avenue, and four intersections proposed on 48<sup>th</sup> Street. In terms of jurisdictions and road allowance ownership, the MD of Foothills will control all of the accesses on 64<sup>th</sup> Street, the westerly access on 210<sup>th</sup> Avenue and the three southerly accesses on 48<sup>th</sup> Street. The City of Calgary will control the easterly access on 210<sup>th</sup> Avenue and the northerly access on 48<sup>th</sup> Street.

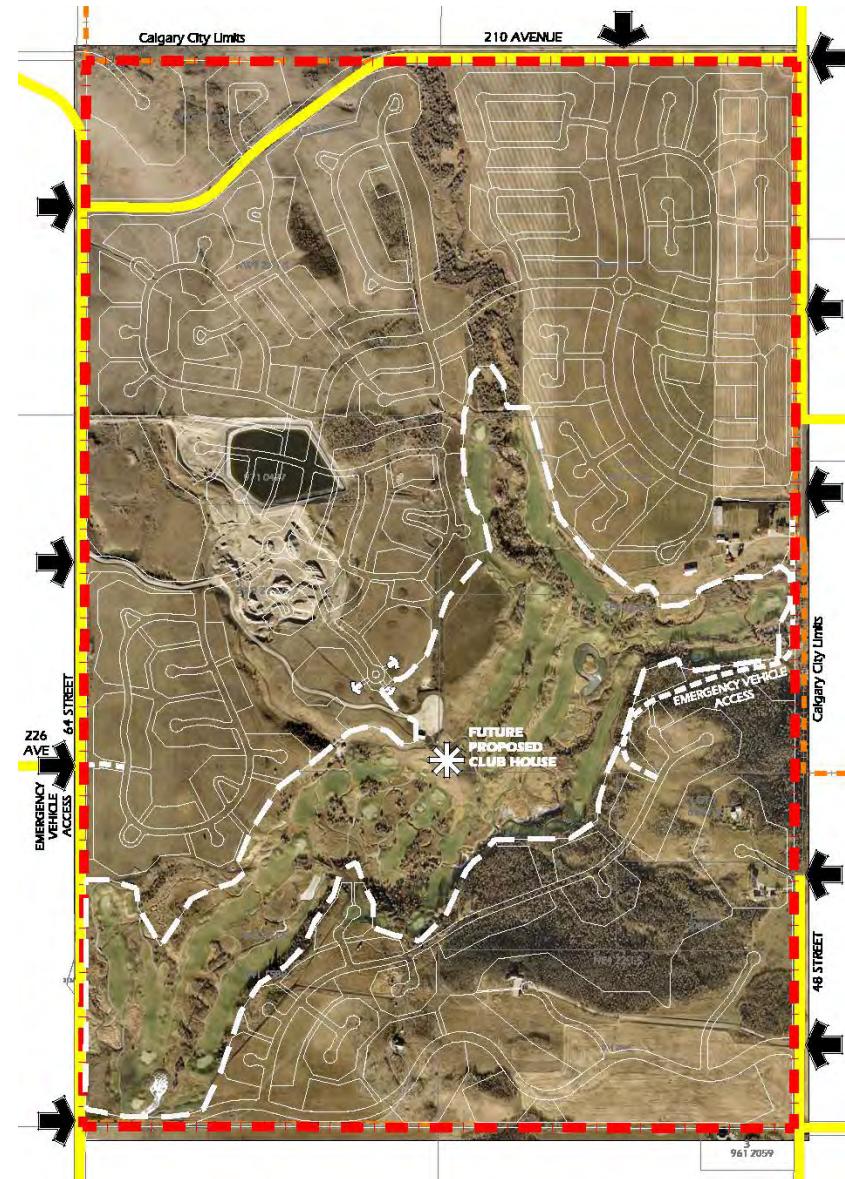


Figure 11 - Site Access and Adjacent Roadways



The following policies apply to the access conditions for the ASP:

- All accesses onto Municipal District of Foothills rights-of-way are to be designed to the satisfaction of the MD and to current standards.
- All accesses onto City of Calgary rights-of-way are to be approved by the City of Calgary.
- Access(es) onto external roads are to be phased in a manner so as not to cause additional congestion either within the Sirocco ASP boundary or outside.

A Traffic Impact Study was undertaken for this project to analyze the internal and external road network. Key intersections bordering the study area were reviewed to determine what, if any, improvements are required to accommodate existing and future background traffic volumes, as well as existing and future combined traffic volumes. These key intersections are expected to accommodate higher traffic volumes than other nearby intersections and are those that exit the ASP area onto either MD of Foothills or City of Calgary rights-of-way. Consequently, signage controls and lane configuration requirements represent the utmost intersection controls and configurations that will be required at the other existing and planned intersections bordering the Sirocco ASP development.

The operational analysis conducted for the report indicated that the study intersections will operate at very good Levels of Service for all study horizons if stop controls are installed at minor road approaches to the intersections. Dedicated turn lanes are not required at any of the intersection approaches.

To ensure that all study intersections and all other existing or planned intersections that border the Sirocco ASP lands operate safely and at good Levels of Service, the following is recommended to accommodate the Sirocco ASP development:

- Installation of minor road stop controls at the study intersections and at the other existing and planned intersections bordering the subject development lands. Note that minor road stop controls may be installed at the study intersections prior to the Sirocco ASP development to help clarify traffic right-of-way.
- Review of sight lines at the design stages of the Sirocco ASP development to ensure that the minimum 180 metre sight distance is available at the study intersections and at the other existing and planned intersections bordering the subject development lands.
- Work in cooperation with the MD of Foothills and the City of Calgary to facilitate the construction of a road network that meets design standards and with access to lands within both municipalities.

Recommended improvements and controls for the bordering roads are described below and determine the policy direction for the external roadways:

- **48<sup>th</sup> Street W:** The sections of this gravel road that border the Sirocco ASP lands are approximately 8.7 metres wide (depending where measurements are taken). This road should be upgraded to the satisfaction of Council. This will



be completed at the expense of the developer. As this roadway is under the jurisdiction of two municipalities (MD of Foothills and the City of Calgary), agreements will be required to be in place for both for the construction improvements.

- **64<sup>th</sup> Street W:** The section of this road that borders the Sirocco ASP lands should be upgraded to the satisfaction of Council. Upgrades to this road will be at the expense of the developer with appropriate recoveries to apply upon future development of the bordering lands to the west.
- **210<sup>th</sup> Avenue:** The section of this road that borders the Sirocco ASP lands is gravel and should be upgraded to the satisfaction of Council. Appropriate road widenings will be required on both the south and north sides upon development. Upgrades, with appropriate cost recoveries applied, will be at the expense of the developer.
- **Approaches:** Current MD of Foothills Approach Standards should be met for all existing and planned approaches to the Sirocco ASP development. These standards indicate a minimum sight distance of 180 metres is required and that there should be minimum 50 metre spacing between the approaches and intersections.

#### **4.5.4 Internal Roadways**

The internal development roads shown in the Sirocco ASP plan are expected to be used to access more than 15 dwellings and will be constructed to handle traffic capacities. The rights-of-way within the Plan Area are proposed to be narrower than the MD standard of

30 m and will range between 15 m and 21 m. Details pertaining to approvals of these revised road standards will be to the satisfaction of the MD of Foothills.

The responsibility for the construction of the roads will be the **developer's**. Following a two year maintenance period at the cost of the developer, the roads will be dedicated to the MD of Foothills to assume maintenance and liability for the rights-of-way. The following policies will apply to the internal roadways within the ASP area:

- construction of all internal roadways shall be the responsibility of the developer, to standards acceptable to the MD of Foothills No. 31 Public Works Department at the time of subdivision approval;
- maintenance and liability of internal roadways shall be the responsibility of the MD of Foothills No. 31 Public Works Department;
- all residential lots will have direct access to an internal public road right-of-way via approaches built to standards acceptable to the MD of Foothills No. 31 Public Works Department subsequent to a two year maintenance period at the cost of the developer;
- the maximum speed limit posted for all internal roadways shall be 50 kilometres per hour; and
- development of internal roads shall be undertaken in a logical phased manner so as not to create inconvenient interim travel patterns or confusion to navigate the community.



The MD of Foothills Council has adopted a policy which allows the MD to charge a road improvement fee at an amount determined by Council for specific access improvements. These costs would be borne by the developer and will be defined by Council following the first reading of an affected land use redesignation bylaw.

#### **4.5.5 Road Naming**

Road names internal to the ASP area will be finalized at the subdivision stage.

#### **4.6 Servicing**

Development of this area is dependent upon the provision of water and sanitary sewer services, as well as proper stormwater management. All appropriate approvals from either the MD of Foothills or Alberta Environment will be required before development can commence.

The following general policies will apply to the site servicing:

- the developer will provide all required rights-of-way and easements for servicing and utilities; and
- the developer will establish the responsibility for maintenance and liability of the services and utilities to the satisfaction of MD Council.

##### **4.6.1 Proposed Water Supply and Distribution**

All development within the Sirocco ASP will be serviced with water. Any independent water wells for individual homes will be prohibited. Water supply will be provided either from connections to the City of Calgary to the north or connections to the Corix Utility Services system to the east at Heritage Pointe. Agreements with the utility provider and all aspects of water licensing, as well as ownership, maintenance and liability of the water system and related infrastructure will be determined to the satisfaction of Council in advance of third reading of a future land use bylaw for each development phase.

The following policies relating to water servicing will apply:

- the developer or the utility provider will be responsible for the design and construction of a water supply, distribution and storage system to the satisfaction of MD Council;
- a water servicing report will be prepared by a qualified consultant as a condition of redesignation approval for each phase of development. The report will address servicing capacity and updates, location of the system facilities, required supportive infrastructure, and (if necessary) further subdivision requirements. An amendment to the Sirocco ASP will not be required to redesignate and subdivide a parcel(s) for the water storage and related facilities;
- the design and location of any water storage facility(s) and related infrastructure should follow logical phasing boundaries;



- at the subdivision stage of each phase, the developer will register the necessary rights-of-way and easements for the water storage facility and related infrastructure; and
- all utility rights-of-way will be provided to the satisfaction of Council.

#### **4.6.2 Proposed Sanitary Servicing**

A sewage collection and pumping facility will be constructed by the developer to accommodate the sewage for the development areas within the Sirocco ASP. Individual septic systems for the residential lots will be prohibited. Wastewater treatment will be provided either from connections to the City of Calgary to the north or to a connection to the Corix Utility Services system that services Heritage Pointe to the east. Agreements with the utility provider and all aspects of wastewater licensing, as well as ownership, maintenance and liability of the wastewater system and related infrastructure will be determined to the satisfaction of Council in advance of third reading of a future land use bylaw for each development phase.

The following policies regarding sanitary sewer services will apply:

- the developer or the utility provider will be responsible for the design and construction of sanitary sewers, lift stations and related infrastructure to the satisfaction of MD Council;
- the design and location of the sewage collection system and related infrastructure should follow logical planning boundaries;

- all utility rights-of-way will be provided to the satisfaction of Council;
- at the request of Council, access to the sewage collection facilities infrastructure, easements, and rights-of-way can be granted for emergency purposes; and
- a sanitary sewer servicing report will be prepared by a qualified consultant as a condition of redesignation approval for each phase of development. The report will address servicing capacity and updates, location of the off-site sewage treatment facility, required supporting infrastructure, and (if necessary) further subdivision requirements. An amendment to the Sirocco ASP will not be required to redesignate or subdivide a parcel(s) for the sewage pump station and related facilities.

#### **4.6.3 Proposed Stormwater Management**

The Sirocco ASP will provide several stormwater management ponds throughout the residential development. Upon a storm occurrence, rainwater will drain towards the streets then will be channelled to the nearest storm pond. These ponds are designed to accommodate a 1:100 year storm event with controlled discharge rates. Some of the water from the storm ponds will ultimately be directed into the irrigation water holding pond for the Sirocco Golf Course and to Pine Creek and used to irrigate the course. Figure 12 denotes the general location and number of storm pond facilities proposed within the ASP area located within either future MR, PUL or homeowners association owned parcels.





Figure 12 - Proposed Ponds

The following policies will apply to the stormwater management practices:

- post-development flow rates leaving the ASP area must match those of pre-development flow rates;
- where possible, natural drainage patterns will be maintained;
- stormwater runoff from roofs, driveways and roads shall be conveyed to the roadways and/or ditches to ultimately be stored in an established stormwater pond, or towards natural drainage channels; and
- stormwater ponds are to be designed, managed and maintained by the developer, until a homeowners association is established; at such time it will be turned over to them.

#### **4.6.4 Shallow Utilities**

Logical extensions from existing telephone, power and natural gas facilities will service the ASP area.

The following policies will apply regarding shallow utilities:

- all residential parcels within the ASP area will be provided with telephone, power and natural gas services at the developer's expense; and
- all utility easements and agreements required will be provided by the developer at their expense to the



satisfaction of the affected utility company(s) and the MD of Foothills.

## **4.7 Protective Services**

### ***4.7.1 Fire Protection***

Fire protective services will be provided from the Town of Okotoks using tanker trucks to provide water for fire fighting. If necessary, water from reservoirs within the ASP area could be available.

### ***4.7.2 Police Protection***

Police protective services will be provided by the RCMP detachment located in the Town of Okotoks.

## **4.8 Public Consultation**

Two open houses were held on March 6<sup>th</sup> and 7<sup>th</sup>, 2006. The first was offered by individual invitation to members of the Sirocco Golf Club and 57 members attended. Comments were generally positive and there were requests for information updates. The second open house was open to all members of the public and 104 invitation envelopes were sent out by the Municipality to surrounding landowners. As well, an advertisement was placed in the Western Wheel newspaper on Wednesday, March 1, 2006. Twenty-two guests attended the meeting mostly from areas directly to the east, northwest and southwest. Again, comments were generally positive

with some concerns about traffic volumes. A summary of open house comments is included in Appendix G.

## **4.9 Implementation**

Phasing and development of the Sirocco ASP community will be undertaken by the developer in a deliberate and efficient manner. Phasing will be determined primarily through the location and availability of water services. Other items that will influence the phasing decisions will be the market, access locations, development costs and upgrade charges, current MD Planning Policy, growth patterns, and annexation areas from the City of Calgary and on-site utility capacities.

Each phase of development will require approvals from the MD of Foothills for land use redesignation and subdivision. Other development approvals will be required by MD of Foothills administration and certain provincial departments.

### ***4.9.1 Development Cells***

Earlier sections of this ASP described four residential development cells within the ASP area, but noted that the cell descriptions were not intended to denote phasing sequences. It is possible that the phasing could include areas from portions of various cells in order to provide different product types and prices to buyers. However, these phasing decisions will be made by the developer and subject to the influences described above.

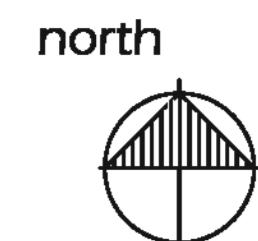


#### **4.9.2 Development Timing and Phasing**

Development of the Sirocco ASP will be undertaken on a phased basis. The location and size of each phase will be determined by market and servicing ability. Given the large size of the ASP area, it is estimated that the community would have a build-out of 10-15 years.

Each phase will be contingent upon gaining land use redesignation approval and subdivision by the MD of Foothills Council.

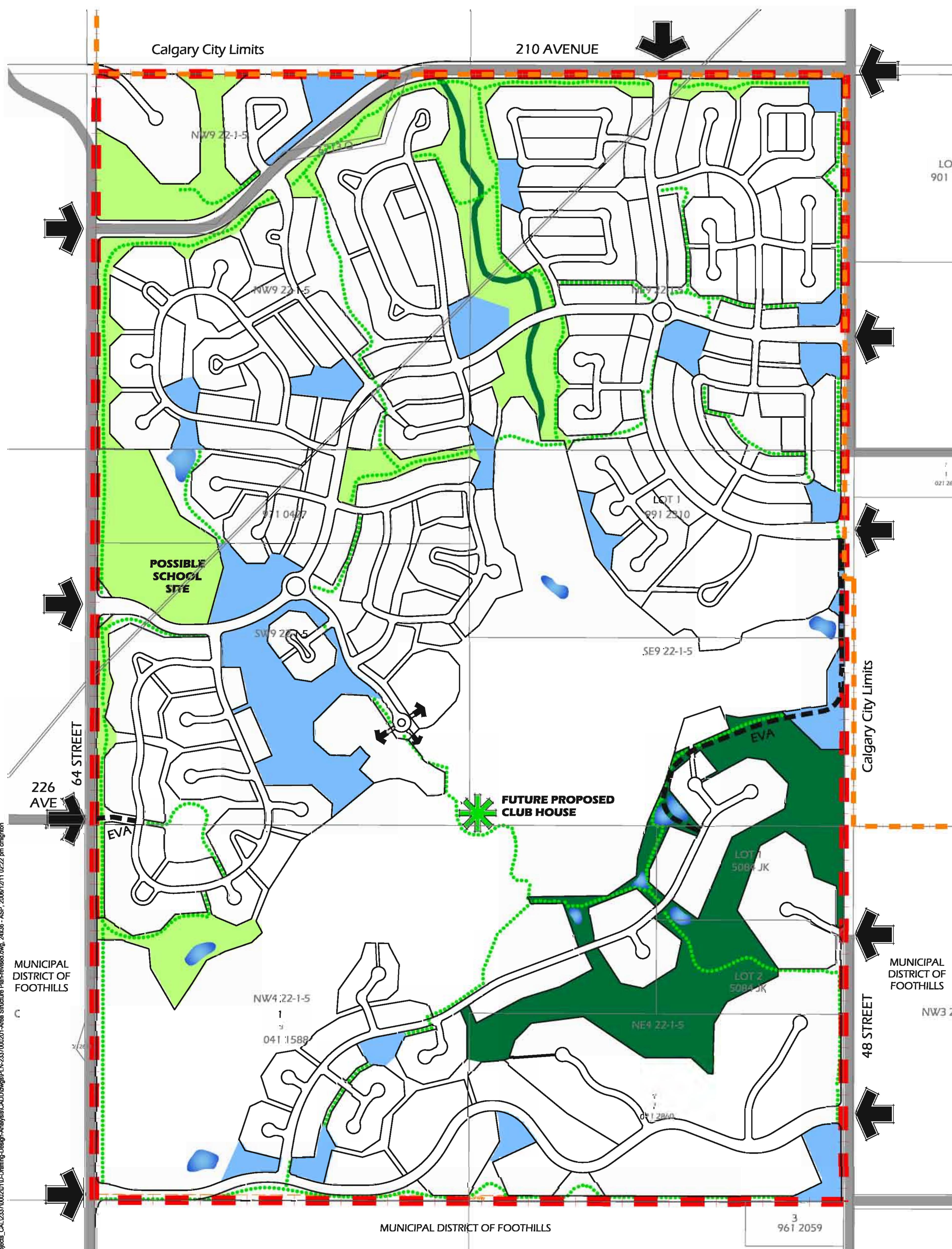


LEGEND

- SUBJECT SITE
- CALGARY CITY LIMITS
- (MR) MUNICIPAL RESERVE
- (ER) ENVIRONMENTAL RESERVE
- > SITE ACCESS
- REGIONAL PATHWAY

LAND USE COMPONENTS

Cell #	Housing Type	Approximate # of Units	Approximate Density Range
1	Urban interface (single family and villa)	±590- 670	±3.3 - 3.7 upa
2	Single family and villa)	±520- 655	±1.8 - 2.3 upa
3	Urban interface (single family and villa)	±30- 40	±0.9 - 1.1 upa
4	Country residential interface (large lot single family and villa)	±268- 310	±1.2 - 1.4 upa
Total	Various	±1,400 - 1,675	±1.5 - 1.75 upa



concept plan

FIGURE  
1