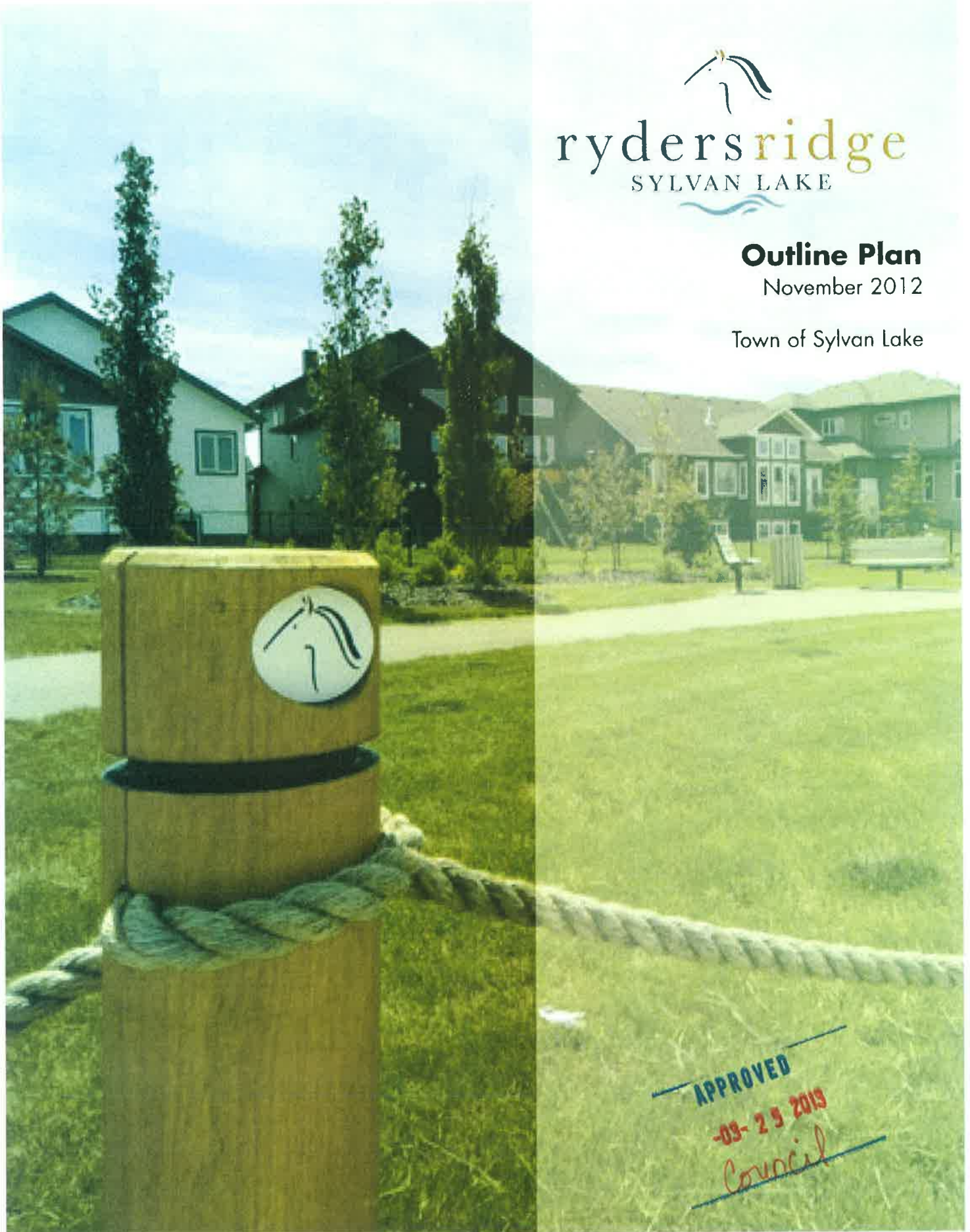




## Outline Plan

November 2012

Town of Sylvan Lake



APPROVED  
-03-29-2013  
Council



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# 1.0 INTRODUCTION

## 1.1 PURPOSE

The purpose of this Outline Plan Report is to provide a detailed planning framework for the development of NE, and part of the SE, ¼ Sec. 28, Twp. 38, Rge. 1, West of the 5th Meridian in the Town of Sylvan Lake. The South Area Structure Plan identifies the land suitable for development and recognizes the need for a more detailed Outline Plan. This report describes the site context, identifies development issues and objectives, and proposes a development concept describing land uses and servicing for the Plan Area.

Stantec Consulting Ltd. has prepared this report on behalf of Ryders Ridge Inc. The developer is committed to creating a balanced community of residential, commercial and recreational opportunities through the use of effective planning principles and policies as described in this report.

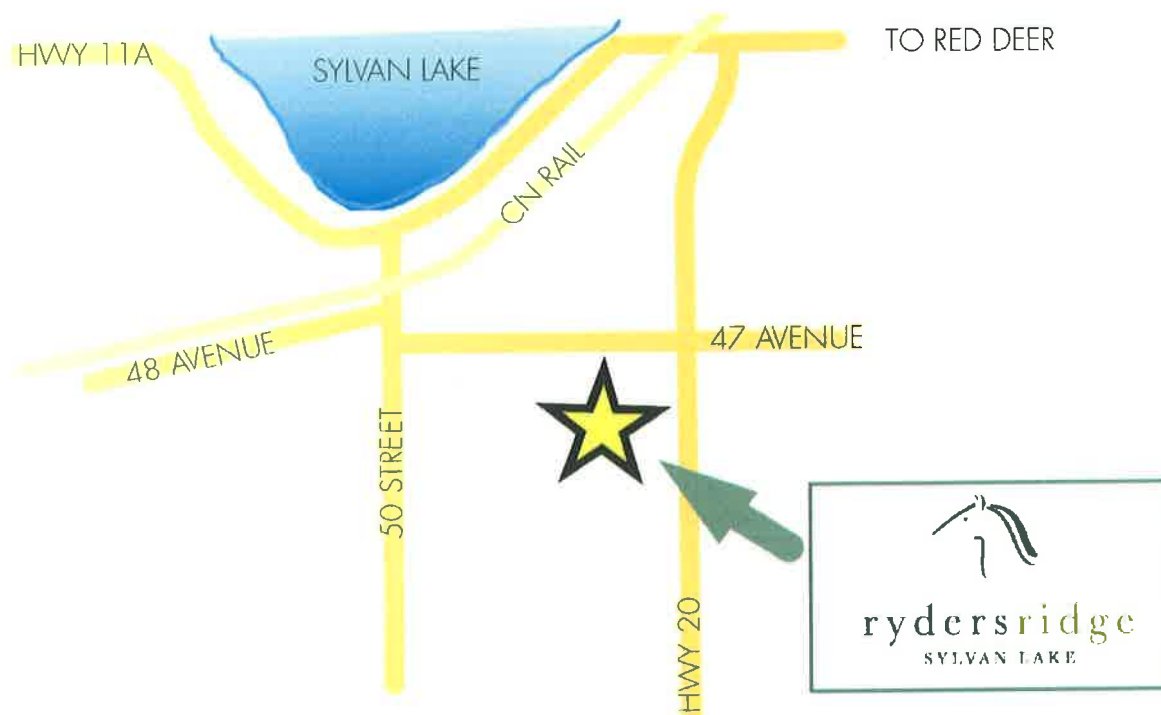
## 1.2 PLAN AREA

The Outline Plan Area, shown in Map 1.0 – Location Plan, is located in the southeast area of the Town of Sylvan Lake within the Town boundary. The Plan Area is comprised of the NE ¼ 28-38-1-W5M, and part of the SE ¼ 28-38-2-W5M lying north of the abandoned railway right-of-way. The Plan Area contains approximately 64.93 Ha. Refer to Table 1.0 for a more detailed analysis of the lands included within the Plan Area.

Table 1.0— Land Ownership

OWNER	AREA
Ryders Ridge Inc. and Existing Residential Lots	60.34 Ha
Abandoned Railway Right-of-way	0.97 Ha
Harold Spies	3.62 Ha

## MAP 1.0 LOCATION PLAN





The Plan Area is bounded on the north by 47th Avenue, a major collector road in the Town, and primary Highway 20 to the east. To the south is agricultural land which has been identified for future development according to the SASP. Along the west boundary is 43rd Street and a lane which services the existing residential development.

The northwest boundary, features a sports and recreation area along with residential development. To the northeast, across from 47th Avenue, is an existing major commercial development, Hewlett Park Landing.

In the southeast corner is an existing acreage. A small treed area in the southwest is separated from the larger property by an abandoned railway right-of-way that is the property of the Town of Sylvan Lake.

The Plan Area, as identified in the SASP, is one of the next logical areas for development in the Town of Sylvan Lake. This area will encompass the residential and commercial demand anticipated for

the Town of Sylvan Lake's future growth.

In 2006, development on this property started. Since then, Phases 1, 2, 3 and 4 have been subdivided and serviced with much of Phase 1 to 4 already completed. Included as part of Phase 1, the school was built in 2007 and includes the Stormwater Management Pond. The remaining portions of Phase 1, 2, 3, and 4, have been developed as outlined in the Concept Plan. The constructed phases of development contain the land uses of Low Density Residential (R1), Medium Lot Residential (R1A), High Density Residential (R3), Narrow Lot General Residential (R5), Highway Commercial (CH) and Municipal Reserve.

The remainder of the land is currently zoned as Agriculture District 'A' and is used primarily as storage for loam piles gathered during the development of the existing Phases.



### 1.3 RELEVANT PLANNING DOCUMENTS AND SOURCES:

The following documents have been reviewed and form the basis for the preparation of this Outline plan report:

- Town of Sylvan Lake Municipal Development Plan (MDP)
- Town of Sylvan Lake South Area Structure Plan (SASP)
- Town of Sylvan Lake Land Use Bylaw (LUB)

The South Area Structure Plan incorporates the relevant principles and policies of the Town's MDP, LUB, and other plans and studies as they apply to the Plan Area. It is the intention of this Outline plan report to be generally consistent with the guidelines and intentions of the SASP. A significant amount of additional information and guidance used in this Outline Plan has been provided primarily by representatives of the Town of Sylvan Lake, Alberta Transportation and Parkland Community Planning Services.

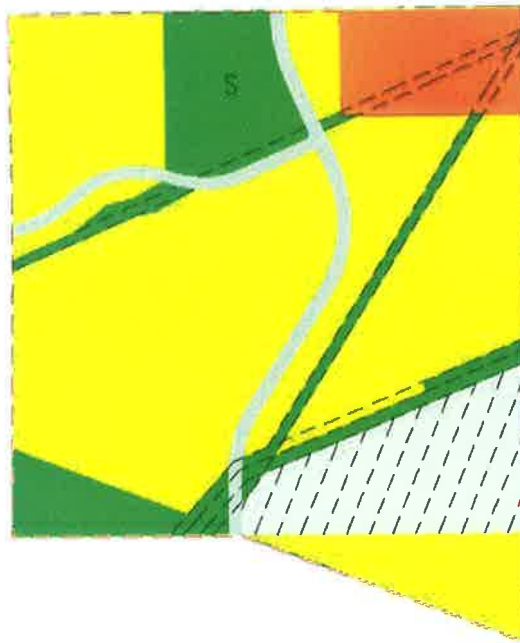
### 1.4 SOUTH AREA STRUCTURE PLAN AMENDMENTS

As a result of the preparation of this Outline Plan, amendments will be required to the South Area Structure Plan as shown on Figure 2.0—South Area Structure Plan Amendments. Three items that have been identified for amendments:

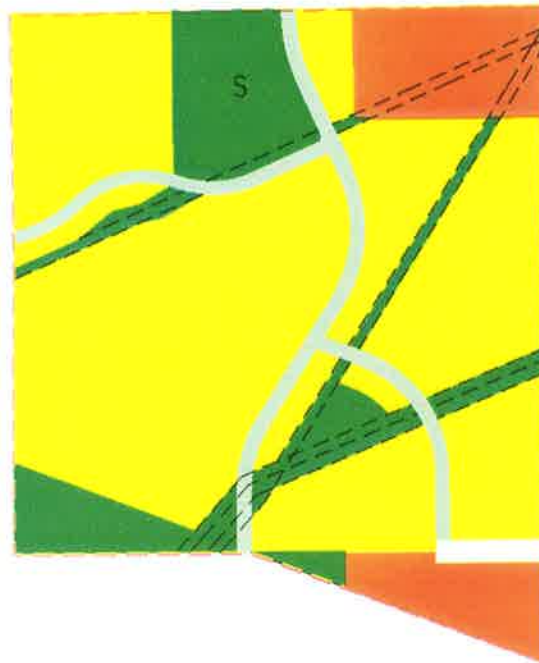
- An increase to the commercial area adjacent to Highway 20 due to the inclusion of an arterial road connection to Highway 20.
- Re-designation of Future Study Area to residential.
- Addition of an arterial stub roadway connecting to Highway 20.
- Addition of a new commercial area within the southeast portion of the Plan Area.
- Addition of a green space in southeast portion of Plan Area.



# MAP 2.0 SOUTH AREA STRUCTURE PLAN AMENDMENTS

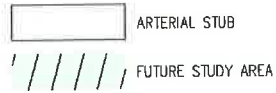
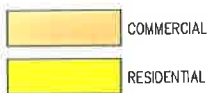


Existing South Area Structure Plan Land Use



Proposed South Area Structure Plan Land Use

## Legend



PLAN AREA



## 2.0 SITE CONTEXT & DEVELOPMENT

### 2.1 TOPOGRAPHY, SOILS & VEGETATION

As shown in Map 3.0 – Existing Conditions, prior to development, the site topography showed a moderate slope from the southwest to the northeast with seasonally wet low areas which were cultivated during farming operations. Elevations range from 963m to 943m for a total relief of 20m.

As the majority of the Plan Area was used for agricultural production (prior to initial development) there are no identifiable watercourses, gullies, natural grasslands, or other features that could be classified as naturally significant. There are intermittent narrow bands of trees along the south boundary, with small stands of predominantly deciduous trees within and to the south of the abandoned railway ROW.

The Canada Land Inventory describes the soils in the Plan Area as Class 2 & 3, described as having moderate to moderately severe limitations to agricultural production.

### 2.2 EXISTING DEVELOPMENT

In addition to Phase 1, 2, 3, and 4 having been developed, there is an existing residential homestead within the southeast corner of the Plan Area. This area is located on SE ¼ 28-38-2-W5M. This home, and associated buildings, will be preserved until removal is required.

### 2.3 SURFACE DRAINAGE

Prior to development of this quarter section, the existing drainage within the Plan Area was good with moderate sloping from the southwest to the northeast. Since commencement of development, surface drainage has been developed to ensure that no increase in stormwater run-off occurs. The stormwater system has been designed to continue its discharge into a ditch located along Highway 20.

Historically, Stormwater discharges from the site through ditches along 47<sup>th</sup> Avenue and Highway 20,

continuing north along the highway.

### 2.4 SURROUNDING DEVELOPMENT

To the north of the Plan Area is the existing major commercial district shopping centre of Hewlett Park Landing and Four Seasons Park, a recreation and sports field complex which is divided from the commercial centre by residential use along Herder Drive. Along the entire west boundary, is a existing residential development. East of the Plan Area and adjacent to Highway 20 is undeveloped agricultural land.

### 2.5 ABANDONED RAILWAY

Intersecting the southwest corner of the Plan Area is an abandoned Railway Right-Of-Way that has grown over with trees and shrubs and is currently used as an undesignated trail. Remaining lands to the south are agricultural.

### 2.6 PIPELINE RIGHTS-OF-WAY

There are four gas transmission pipelines that cross the Plan Area within right-of-ways and surface leases registered to the property. These pipeline right-of-ways are registered to Arc Resources, Trans Canada Pipelines, Alta Gas Services, and ATCO Gas.

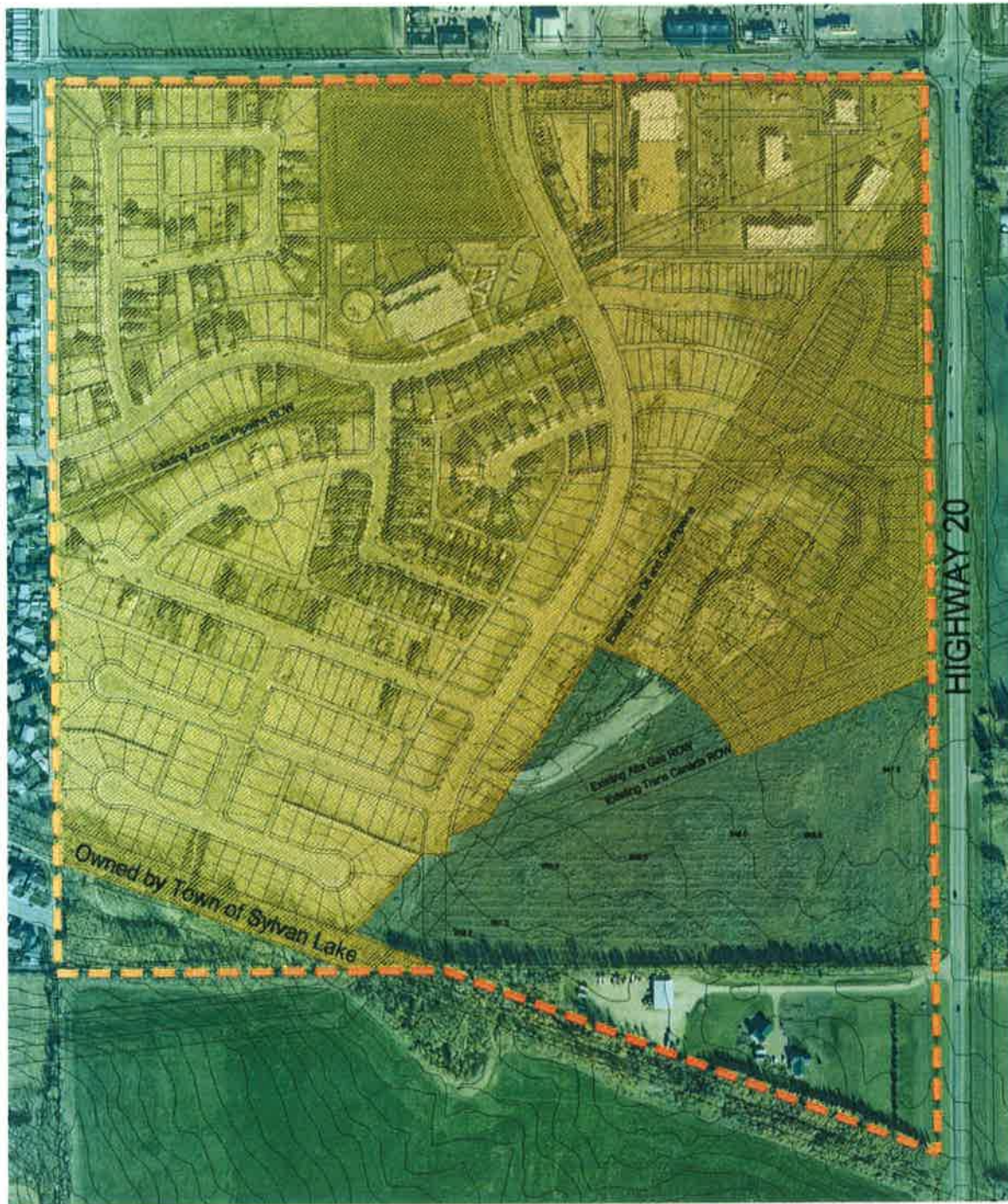
### 2.7 EXISTING INFRASTRUCTURE

The SASP has indicated general service routing for utilities, as well as preliminary sizing. Future services in the quarters located to the south will be routed through the Plan Area. Within the surrounding residential development, the existing water, sanitary, storm service utilities and major connections are to the north of the property in the 47<sup>th</sup> Avenue and Herder Drive right-of-ways, with some minor connections along the west boundary.

Phases 1, 2, 3, and 4 infrastructure has been constructed as per the conceptual servicing Maps 5.0, 5.1 and 5.2.

# MAP 3.0 EXISTING CONDITIONS

Prepared by: Slantec Consulting, Ltd. Red Deer - February 2013



## Legend

- OUTLINE PLAN BOUNDARY
- ORIGINAL GROUND CONTOUR
- DEVELOPED AREA





## 3.0 DEVELOPMENT OBJECTIVES & PRINCIPLES

### 3.1 DEVELOPMENT OBJECTIVES

The Ryders Ridge Outline Plan Report has been prepared as a comprehensively planned neighborhood effectively mixing residential and commercial uses while taking advantage of the natural topography, the existing gas line utilities and characteristics of the land. The main objectives of the Plan are:

- To develop a plan consistent with the general intent and purpose of the Sylvan Lake Municipal Development Plan and the South Area Structure Plan;
- To provide a framework that delivers high quality, comprehensively planned residential and commercial areas by defining the general pattern and composition of land uses, link ages, servicing designs and development staging;
- To address and accommodate existing uses (i.e. the utility corridor and surrounding transportation routes) affecting the plan;
- To ensure the implementation of the plan takes place in an orderly, economical and efficient phased basis;
- Provide integrated trail linkages and

greenways between various community amenities;

- Allow for the provision of dispersed park space within the neighborhood to provide open space and opportunities for recreation for residents through the dedication of Municipal Reserves; and
- Provide a park space to service the active and passive recreational needs for this community as well as for adjacent neighborhoods;

### 3.2 DEVELOPMENT PRINCIPLES

Development of the various land uses within the Ryders Ridge Outline Plan are defined through the following general principles:

#### RESIDENTIAL

- Encourage a variety of housing types, including single detached housing, duplexes, row housing and apartments. All housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies set forth by the Town of Sylvan Lake.
- Encourage pedestrian-friendly streetscapes by encouraging accessibility and street lighting.



- Provide direct and safe pedestrian linkages to the community nodes such as commercial, open space, and recreational facilities.
- Locate residential development to take advantage of features such as natural topography, storm water management facilities, linear parks, utility corridors and other open spaces.
- Provide transition between lower density housing and higher density housing types.
- Locate concentrations of medium density and high density housing adjacent to commercial sites and green spaces.
- Create residential development that compliments and provides continuity to adjacent existing residential development.
- Provide a variety of lot types and housing forms

## COMMERCIAL

- Provide for high standard commercial development opportunities to serve the area and surrounding residents in the interest of the community as a whole.
- Locate and orient commercial sites along arterial and/or collector roadways to ensure high visibility and to provide convenient access opportunities.
- Provide convenient pedestrian linkages to commercial areas.

## OPEN SPACES AND RECREATIONAL FACILITIES

- Allow for the provision of park space dispersed throughout the neighborhood to provide open space and opportunities for recreation by residents
- Where possible and economically viable and sustainable, utilize the existing gas line right-of-way corridors, abandoned railway corridor, and future Storm Water Management Facilities to provide pedestrian linkages, trail connection nodes and open space for recreational opportunities.
- Create open space linkages, which will be an amenity for passive recreation.
- Provide a location suitable for the school site, allowing for proper access and for the efficient use of land by combining sports fields with stormwater management facilities.

## TRANSPORTATION

- Provide a logical, safe and efficient transportation system within the Plan Area to accommodate pedestrian, bicycle, other multi-use modes, and vehicular transportation moving to, from and within the residential and commercial areas of the development as well as adjacent areas.
- Ensure suitable access to the commercial site to minimize impacts to surrounding residential areas.
- Minimize walking distances by creating an inter connected street network and providing walkways where roadway connections are not feasible.

## ECOLOGICAL STEWARDSHIP

- Develop land in an efficient manner and encourage intensive urban development by including a variety of housing types and achieving a maximum gross density of **14** units per hectare.
- Incorporate open spaces into compatible land uses such as the dry Storm Water Management Facilities which functions as a major recreation facility and the gas line utility corridor which has been designed to become a connection within the Town of Sylvan Lake trail connection.
- Encourage low maintenance landscaping on public and private lands to the extent acceptable to the Town of Sylvan Lake to

minimize environmental and economic costs associated with their maintenance.

- Encourage energy efficient construction and other innovative building and infrastructure techniques.





## 4.0 DEVELOPMENT CONCEPT

The development concept for the Ryders Ridge Outline Plan has been prepared in response to current and anticipated residential and commercial market trends within The Town of Sylvan Lake and the central Alberta region. An analysis of these trends and an assessment of their implications assist in shaping the Plan with respect to the type, size and location of various land uses. The Plan was also designed with consideration for this strategic, highly visible area in the context of the desire for sustainable growth for the Town of Sylvan Lake.

Some of the primary factors considered in the evolution of this development is the creation of a sustainable urban environment, the major roadway boundaries to the north and east and the pipeline ROWs within the property. Other factors include the placement of the commercial area along the major roadways and maintaining the pipeline ROWs as open space for pedestrian and trail linkages as proposed in the SASP.

### 4.1 RESIDENTIAL

Within the Plan Area, approximately 85% of the land has been subdivided and serviced. Of the land that has been developed, the majority has been developed as single family residential lots with a mix of low, medium and high density residential dwelling units based on market conditions and consumer preferences at the time of development.

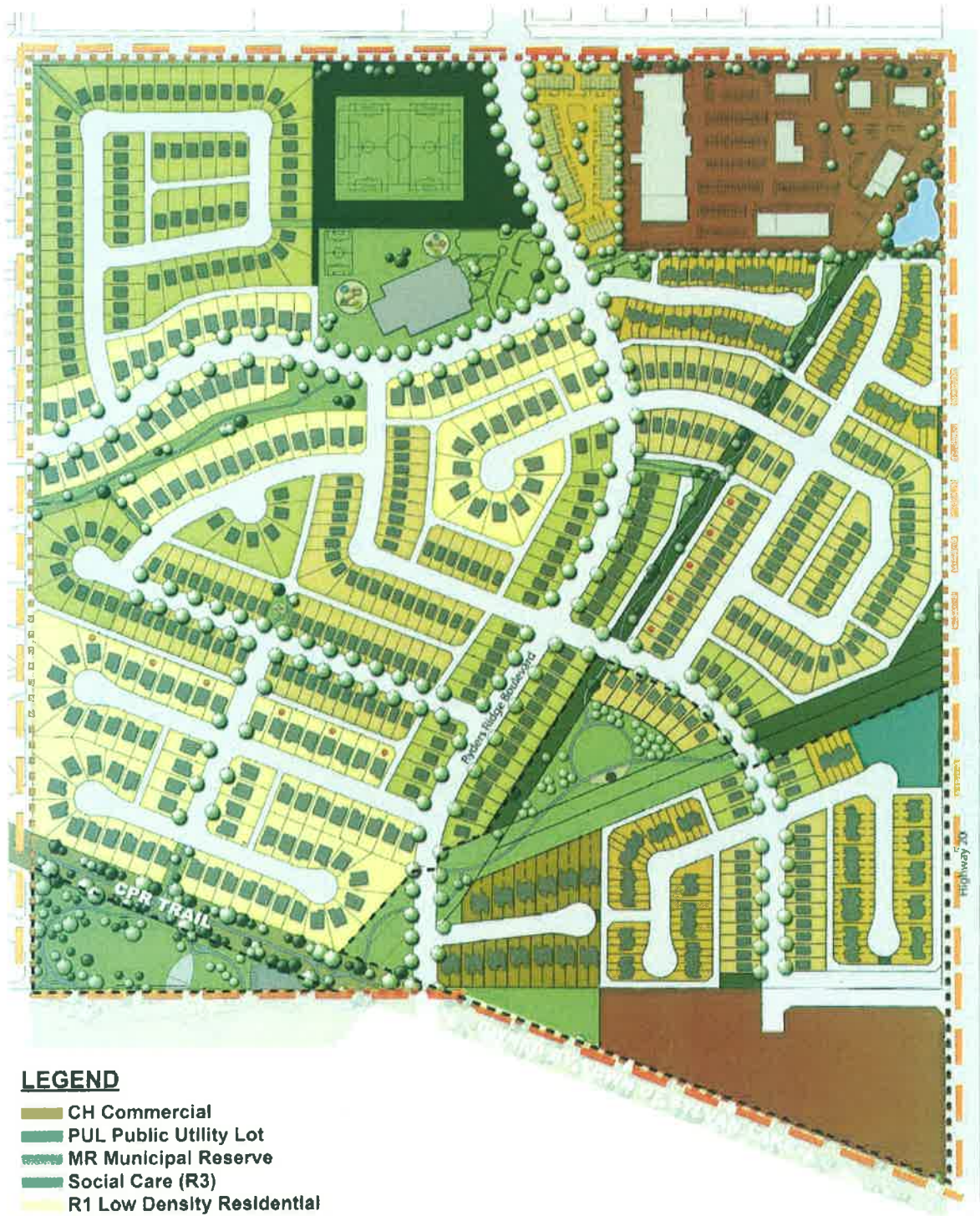
#### SINGLE FAMILY RESIDENTIAL

The developer has provided a wide variety of lot sizes and zoning types to respond to current market conditions and provide a suitable density for the area.

A portion of the single family lots located in the southwest corner of the Plan Area have been designed to accommodate walkout basement homes because of the topography of the area. The layout of the residential blocks take advantage of the natural slope of the land and generate views predominantly in the northeast direction.



# MAP 4.1 CONCEPT PLAN



## LEGEND

- CH Commercial
- PUL Public Utility Lot
- MR Municipal Reserve
- Social Care (R3)
- R1 Low Density Residential
- R1A Medium Lot Residential
- R2 Medium Density Residential
- R3 High Density Residential
- R5 Narrow Lot General Residential
- Development Boundary
- Area Affected
- Trail
- Secondary Suites



Table 2.0—Land Use Allocation: Concept Plan

Land Use Category	Area (ha)	% Of Existing Development Area	Number of Dwelling Units
Gross Area	64.93		
Area Owned by Sylvan Lake	0.97		
<b>NET DEVELOPABLE AREA</b>	<b>63.96</b>	<b>100%</b>	
<b>RESIDENTIAL DEVELOPMENT</b>	<b>31.24</b>	<b>48.8%</b>	<b>693</b>
R1 Low Density Residential	8.74	13.7	135
R1A Medium Lot Residential	7.97	12.4	112
R2 Medium Density Residential	1.16	1.8	26
R3 High Density Residential	4.89	7.6	198
R5 Narrow Lot General Residential	8.04	12.6	198
Social Care	0.44	0.7	
* Social Care Developed as R3			24
<b>COMMERCIAL</b>	<b>7.44</b>	<b>11.6%</b>	
CH Highway Commercial	7.44	11.6%	N/A
<b>OPEN SPACE</b>	<b>10.75</b>	<b>16.8%</b>	
Municipal Reserve	7.81	12.2	N/A
MR Granted to PUL	0.98	1.5	N/A
Public Utility Lot	1.96	3.1	N/A
<b>ROADS AND LANES</b>	<b>14.53</b>	<b>22.7%</b>	
Collector Roadways	3.78	5.9	N/A
Local Roadways	7.65	12.0	N/A
Lanes	3.10	4.8	N/A

Table 3.0—Residential Units and Density

Land Use	Area (Ha)	Dwelling Units
Net Residential Developable Area	55.90	669
Net Density		11.97 Units Per Ha
Net Residential Developable Area With Social Care as R3*	55.90	693
Net Density With Social Care as R3		12.40 Units Per Ha

The remaining portion of this development will contain a combination of Medium Lot Residential (R1A), Narrow Lot General Residential (R5) single family development, Medium Density Residential (R2), and High Density Residential (R3).

As shown on the Concept Plan, the development of Ryders Ridge is anticipated to increase the Town's population by an estimated 1855 people in 693 units.

### MULTI FAMILY RESIDENTIAL

A majority of the Multi-family will be developed on the east side of the Plan Area. The portion of the Plan Area that has been developed contains 4.27 ha and the undeveloped portion contains approximately 10.62 ha of High Density Residential.

The Multi-family within the developed portion of the Plan Area includes a 32 unit condominium site, located west of the northern commercial site, and row homes located south of the northern commercial site.

Another higher density residential area has been identified within the southeast portion of the Plan Area.. This area is envisioned to be developed with row home products to be accessed via public roadways.

The area and number of dwelling units of medium density residential development are shown as part of the Concept Plan.

#### 4.2 HIGHWAY COMMERCIAL

A 4.44 Ha Highway Commercial (CH) area was developed and is located adjacent to Highway 20 and 47<sup>th</sup> Avenue. This property contains commercial developments such as Sobeys®, Shoppers Drug Mart®, Alberta Treasury Branch®, Royal Bank®, M&M Meats®, a Vietnamese restaurant and many more services. These businesses were developed in 2008/09. This location ensures high visibility and provides access opportunities. The site has been integrated into the Plan Area in a manner that minimizes the impact on surrounding residential areas by reducing traffic volumes on the collector, especially near the school and 47<sup>th</sup> Avenue intersection, accesses are available from 47<sup>th</sup> Avenue.

An additional site has been identified for highway commercial development at the corner of Highway 20 and Reynolds Road. This commercial site has been located to provide commercial opportunities to traffic along Highway 20.

As recommended by the SASP, the commercial area is being developed under a comprehensive site design incorporating high standards for architecture, hard surfacing and landscaping.

#### 4.3 OPEN SPACE, PUBLIC FACILITIES AND TRAILS

##### SCHOOL AND RECREATION SITE

Prior to development of Ryders Ridge, a need for a 4 ha (10ac) school site and major recreation facility was identified for the Plan Area by the SASP and the local school district. A 4.29 ha. school site was designated, and in 2007 the school was built and opened. The Town and the Developer agreed that the school site would be credited as Municipal Reserve, that the land would be zoned as Public Facility and that the land the school was built on would be zoned as School Reserve.

Located in the north central portion of the Plan Area, the school has collector roads on two sides and within close proximity 47<sup>th</sup> Avenue and Ryder's Ridge Boulevard. This site also provides pedestrian linkages to 47<sup>th</sup> Avenue and the residential areas to the south and west.

During the construction of the school, a recreation area was developed just north of the school. In order to use the recreation area to its full potential, a dry Stormwater Management Facility was incorporated into the recreation area. A Soccer field was incorporated into the bottom part of the SWMF to further enhance this area. As per the SASP policy 5.5.6, the Town in its discretion granted the usable portion of the storm pond up to the maximum 1 ha credit towards MR dedication. Of the 2.41 ha of total land area within the SWMF, 0.97 ha of PUL received Municipal Reserve Credit.

In total, Ryders Ridge has provided 12.2% of Net Development Area as Municipal Reserve. It is understood that the over-dedicated of MR, above the required 10%, will be donated to the Town without charge.



## TRAIL NETWORK AND MAJOR NODE

The SASP indicates the abandoned railway and existing pipeline ROWs as a suitable and desirable location for extending the Town's trail network. The development concept has identified the railway and a portion of the pipelines to be connected with a major trail node at the existing intersection of these rights-of-way in the south central portion of the Plan Area. This node would be suitable as a feature location for the trail system as it incorporates active and passive uses beyond being simply a rest stop for trail users.

As shown in the SASP, a major regional trail has been incorporated into this Outline Plan. This major trail has been developed along the primary north/south collector roadway to Rolston Place at which point it diverts east to connect to the north/south pipeline right-of-way. From here, the trail will continue south, ultimately connecting back to Ryders Ridge Boulevard near the south boundary of the Plan Area.

Local trails will be connected to this regional trail. The trails within Ryder' Ridge will provide multiple options for trail looping within the larger Town system as well as a convenient non-vehicle access to the commercial site for residents as shown in Map 6.0—Pedestrian Network and Map 7.0—Trails Cross Section.

An open space and trail alignment in the northern portion of the Plan is part of a continuous trail link between the newly constructed school site and the Steffie Woima School to the west. Further to this, a link from this trail along 43<sup>rd</sup> Street to the north connects to the community center and existing trail system along 47<sup>th</sup> Avenue. As this was developed to a park standard, credit as reserve was received.

## 4.4 SOCIAL CARE SITES

The Concept Plan identifies one location for the potential development of a social care facility in the southeast portion of the Plan Area. The social care site will be 0.437 ha.



The timeline for development of this site will be in accordance with Policy 7.2. of the SASP.

In the event that there is no formal interest in the sites for suitable development within the land use, the site shall be developed as Multi Family Residential.

Within the initial approved Ryders Ridge Outline Plan, a site had been identified for a potential church site, located within the southeast portion of the Plan Area. This site was advertised for one year; no parties expressed interest in developing the site. Due to lack of interest, this site has been reverted back to a residential land use.

#### 4.5 TRANSPORTATION

The system of roads proposed provides residents, commercial area users, and the surrounding public with safe and efficient access for this area of Sylvan Lake. The proposed road system is consistent with the SASP.

#### 47<sup>TH</sup> AVENUE

As one of the principal access points for the proposed development, 47<sup>th</sup> Avenue required upgrading to meet increased capacity generated from the proposed development. 47<sup>th</sup> Avenue was upgraded from 43<sup>rd</sup> Street to Herder Drive including the installation of traffic signals at the Herder Drive

intersection. A small roadway dedication has been provided along the south side of 47<sup>th</sup> Avenue to permit these improvements.

#### HIGHWAY 20

The Town of Sylvan Lake indicated that the intersection of 47<sup>th</sup> Avenue and Highway 20 requires upgrade and signalization resulting from this and future developments to the east. These upgrades have been implemented by the Town with an equitable contribution from the developer.

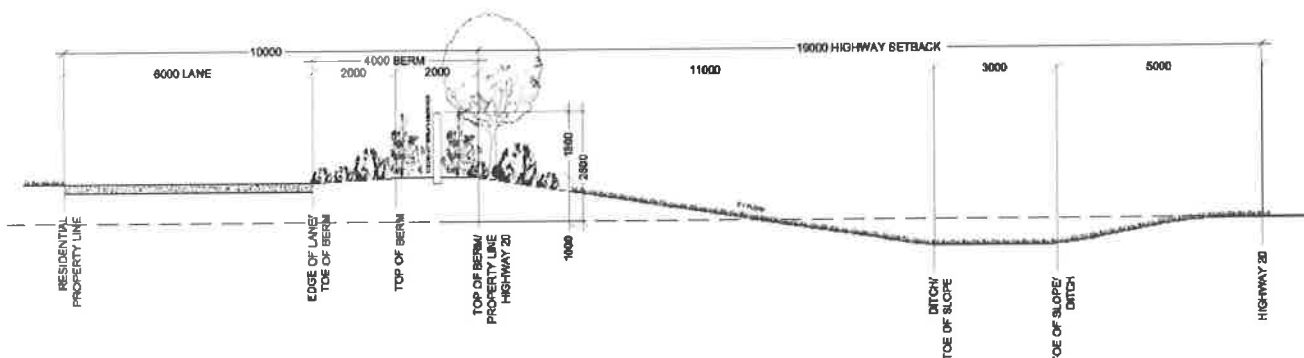
Access has been provided directly from Highway 20 to provide access to Ryders Ridge and the highway commercial area.

A buffer will be created between Highway 20 and Ryders Ridge to minimize the impact of the Highway on the Community. This buffer will include the development of a berm, screen/fence and landscaping. Figure 5.0 depicts the minimum 10.0m wide ROW to be constructed as a residential buffer adjacent to Highway 20.

#### COLLECTOR ROADWAYS

The Concept Plan provides collector roadways linking 47<sup>th</sup> Avenue to existing and future areas

**FIGURE 5.0: HIGHWAY 20 CROSS-SECTION**



west and south of the Plan Area as proposed by the SASP. The first, Ryders Ridge Boulevard, is an extension of Herder Drive. This collector runs through the Plan Area in a north south manner and will eventually connect to future developments to the south. The second collector is an extension from the existing 45<sup>th</sup> Avenue, this collector will travel east into Ryders Ridge Boulevard. The third collector roadway connects Highway 20 and Ryders Ridge Boulevard.

Collector roads were constructed within 20.0 m wide right-of-ways and designed to the Town of Sylvan Lake's Standards with the exception of the section of roadway between Highway 20 and Reynolds road which will be a 30.0 m right of way.

#### LOCAL ROADS

The system of local roads has been planned to provide access to individual development cells while discouraging outside traffic from short cutting through local roads. Local roads will be designed to meet the current 17.0 m right-of-ways.

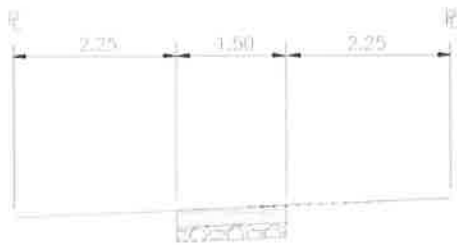
#### LANEWAYS

Most of the development has been designed with the lots backing on to laneways or green spaces. All lanes adjacent to multi family sites shall be paved. Rear laneways will to constructed with a 6.0 meters wide right-of-way and to Town of Sylvan Lake Standards as shown on Map 8.0- Laneway Cross Sections.

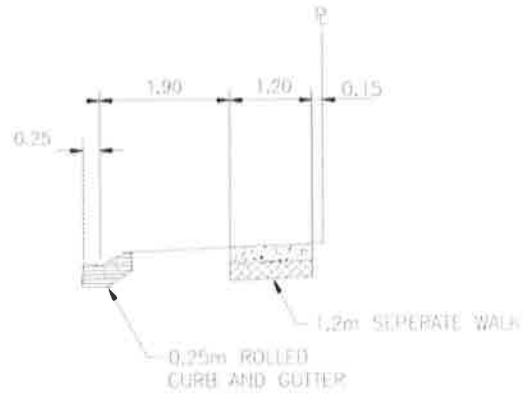
# MAP 6.0 PEDESTRIAN NETWORK



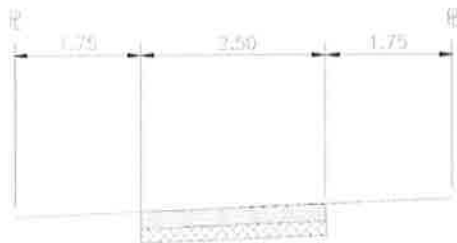
# MAP 7.0 TRAILS CROSS SECTIONS



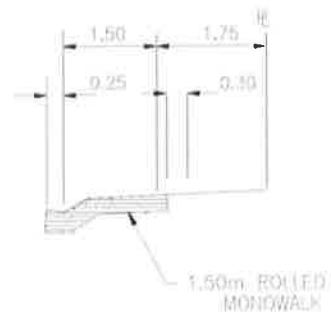
1.50m ASPHALT WALK  
N.T.S.



1.50m SEPARATE WALK  
N.T.S.

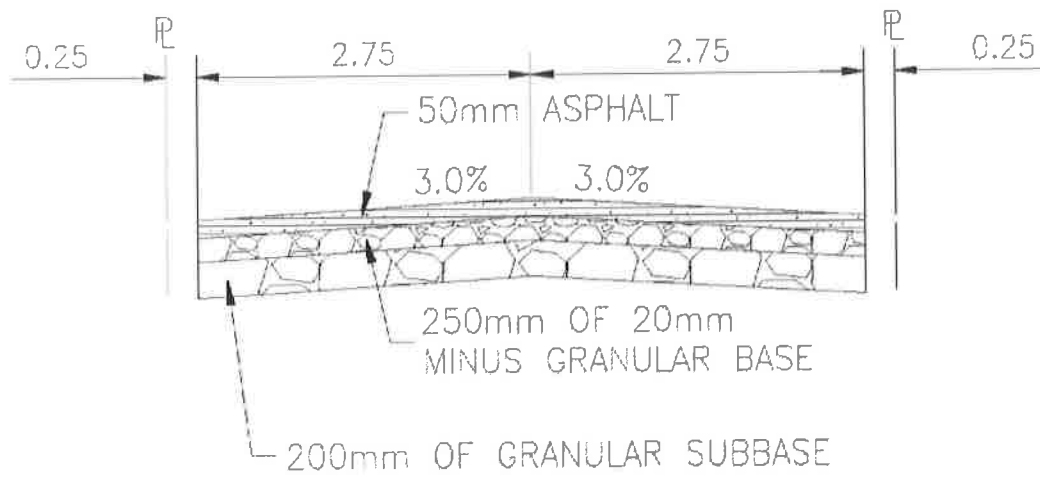


2.50m ASPHALT WALK  
N.T.S.

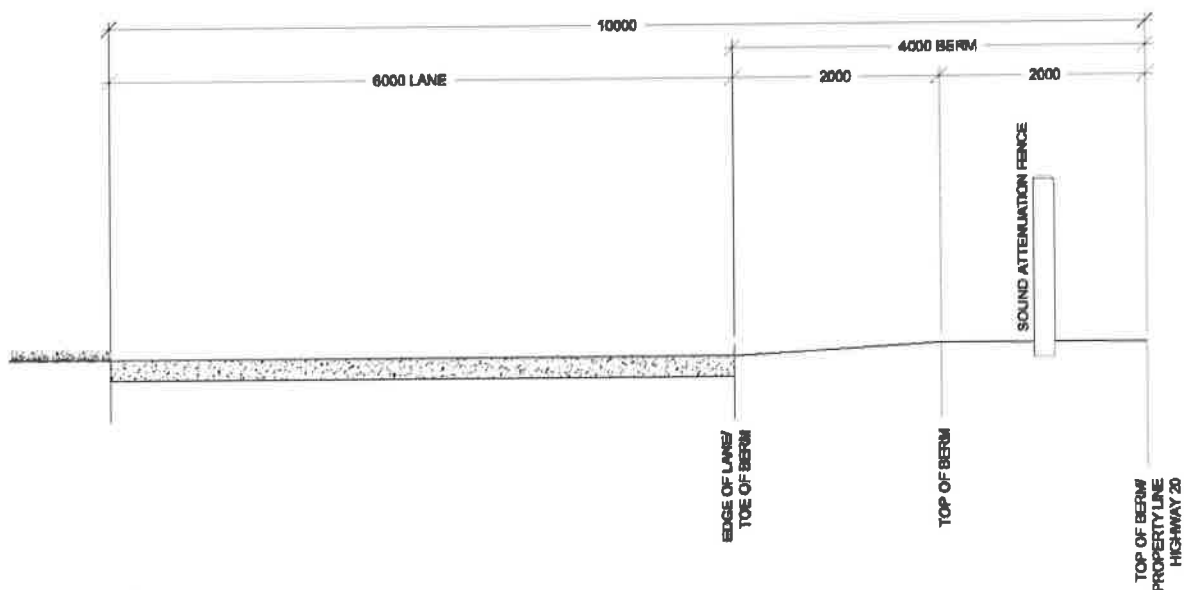


1.50m MONOWALK  
N.T.S.

# MAP 8.0 LANEWAY CROSS SECTIONS



6m LANE  
N.T.S.



10.00m LANE  
N.T.S.



## 5.0 SERVICING CONCEPT

### 5.1 STORMWATER DRAINAGE

A Storm Water Management Facility (SWMF) is incorporated into the development concept to properly manage and control major storm events. This facility is located in the north central area of the development within the school site and provides storage for the majority of the development with exception to the commercial site and multi-family sites. The commercial site and multi family site, which are located in the north east corner of the development, will be responsible for providing their own SWMF. The SWMF's will be designed to accommodate 1:100 year storm water flows and restrict flows to predevelopment rates from this site. This SWMF system has been analyzed in a detailed stormwater Management Plan which has been approved by the Town.

A underground storm pipe system has been constructed to convey minor storm events, less than

1 in 5 year intensity, from this development. This system directs stormwater flows into the SWMF. From the SWMF, it is discharged at a controlled rate eastward into a pipe along 47<sup>th</sup> Avenue. This pipe connects to an existing pipe crossing under 47<sup>th</sup> Avenue, whereby stormwater outfalls into the Highway 20 west ditch and continue northward. This new pipe system is oversized to accommodate predevelopment flows from future development areas to the south. The proposed/existing pipe system is shown on Map 9.0—Stormwater Concept Plan.

### 5.2 SANITARY SERVICING

The sanitary servicing system for this development uses a gravity system to direct flows northward to a pipe located under Herder Drive. The main trunk has been upgraded downstream from this location to accommodate not only the flows from this development but also from 2 additional quarters to the south as shown on Map 10.0—Sanitary



Concept Plan. This upgrade north of the subject properties was undertaken by the developer in 2007 on behalf of the Town of Sylvan Lake. The cost associated with the upgrades will be recovered through offsites.

The Town of Sylvan Lake has requested that due to capacity issues of the existing sanitary system west of 43<sup>rd</sup> Street, flows from the intersection of 47<sup>th</sup> Avenue and 43<sup>rd</sup> Street have been redirected east along 47<sup>th</sup> Avenue and routed through the proposed development. The Town will contribute to the cost of this improvement as outlined in the Development Agreement. This has been completed in 2007 with the first phase of development. Other components of the remainder of the pipe system will be oversized to accommodate flows from future development areas to the south.

### 5.3 WATER SERVICING

The overall water distribution system needed to service the Plan Area is shown on Map 11.0—Water Concept Plan. This system is an extension of the existing system with 2 connections to the residential area west as well as a connection in Herder Drive near the proposed sanitary connection. Water stubs will be provided to service future development areas to the south and east.

### 5.4 SHALLOW UTILITIES

There are no major servicing concerns regarding shallow utilities (gas, power, telephone and cable). All shallow utilities are extensions of those already in place in the existing surrounding development. This development will be serviced with streetlights that comply with Town of Sylvan Lake standards.

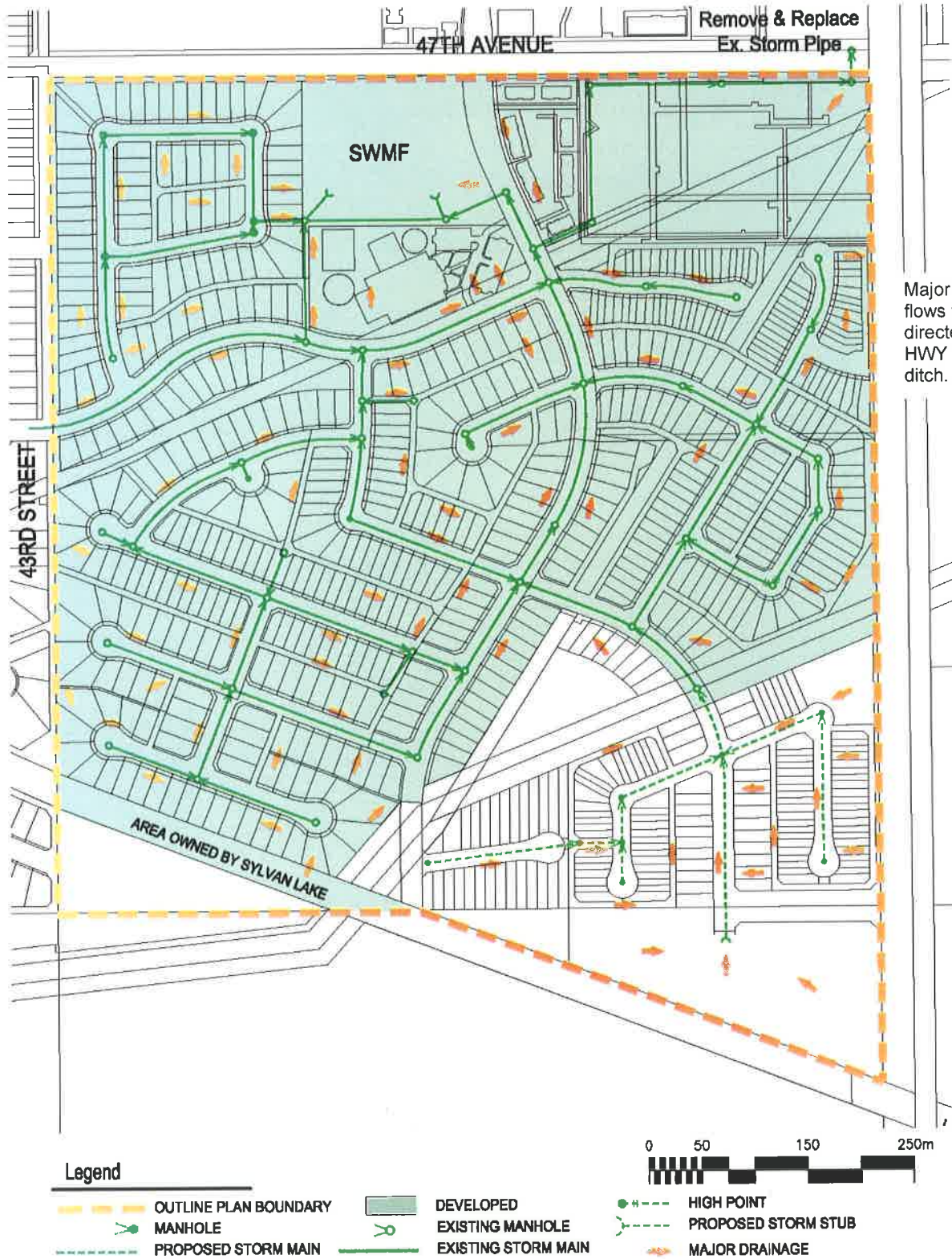




# MAP 9.0

## STORMWATER CONCEPT PLAN

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# MAP 10.0

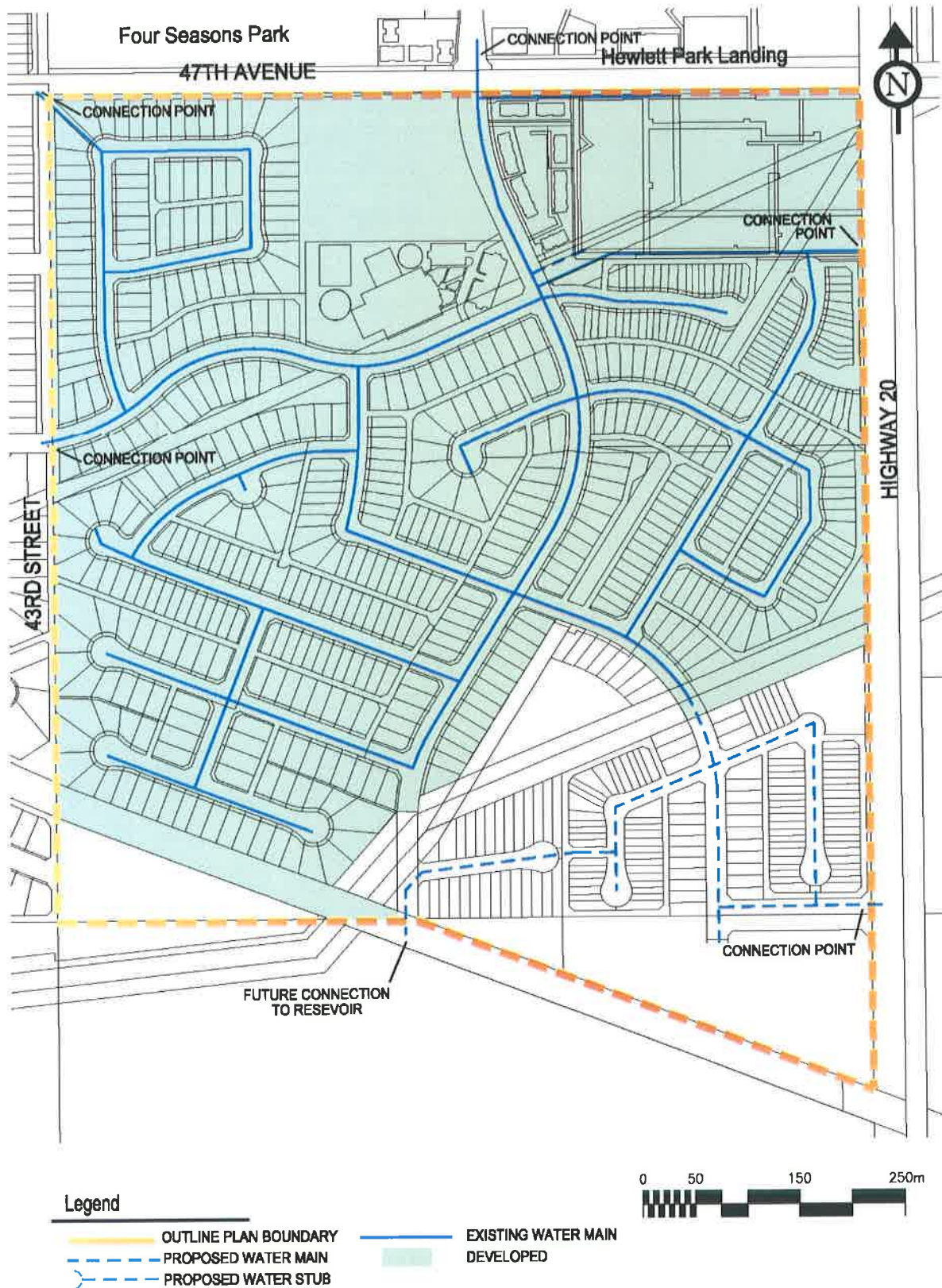
## SANITARY CONCEPT PLAN





# MAP 11.0 WATER CONCEPT PLAN

Prepared by: Stantec Consulting, Ltd. Red Deer - February 2013





## 6.0 IMPLEMENTATION

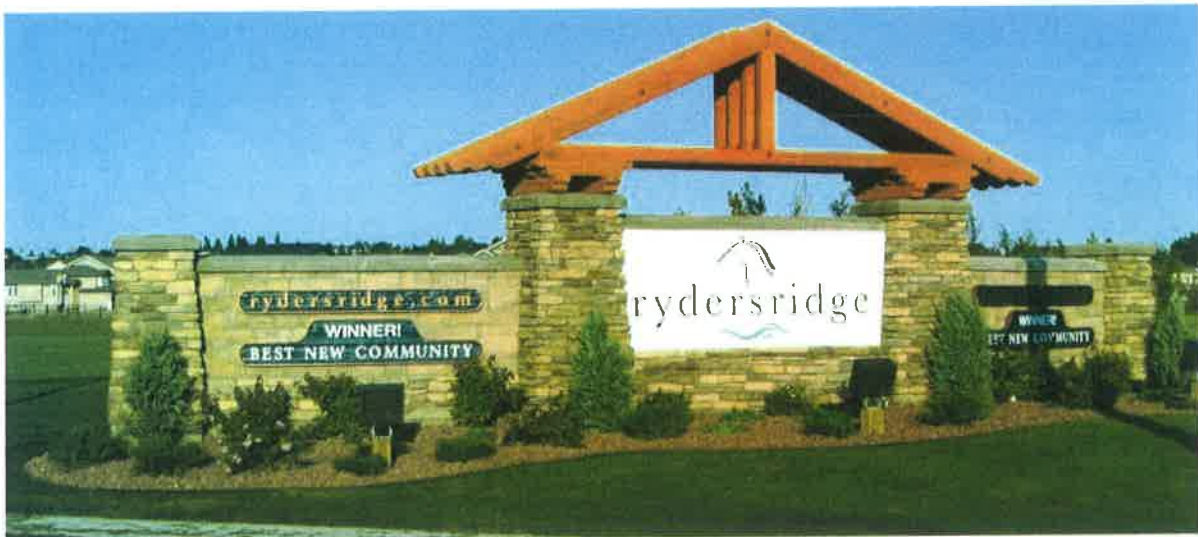
### 6.1 DEVELOPMENT STAGING

Phases 1, 2 and 3 has been subdivided and serviced with the majority of construction occurring in phases 1 and 3. Infrastructure to service the development was extended into the neighborhood in the north and continues south. Each successive stage will be developed with the logical and economical extension of these municipal services with the intent of meeting the needs of the regional and local housing market. See Figure 12.0—Staging Plan

The staging boundaries are shown conceptually and may vary from those of actual redistricting and subdivision applications. As well, portions or all of separate stages may be developed concurrently if there is sufficient demand and / or if the engineering design is made more efficient as a result.

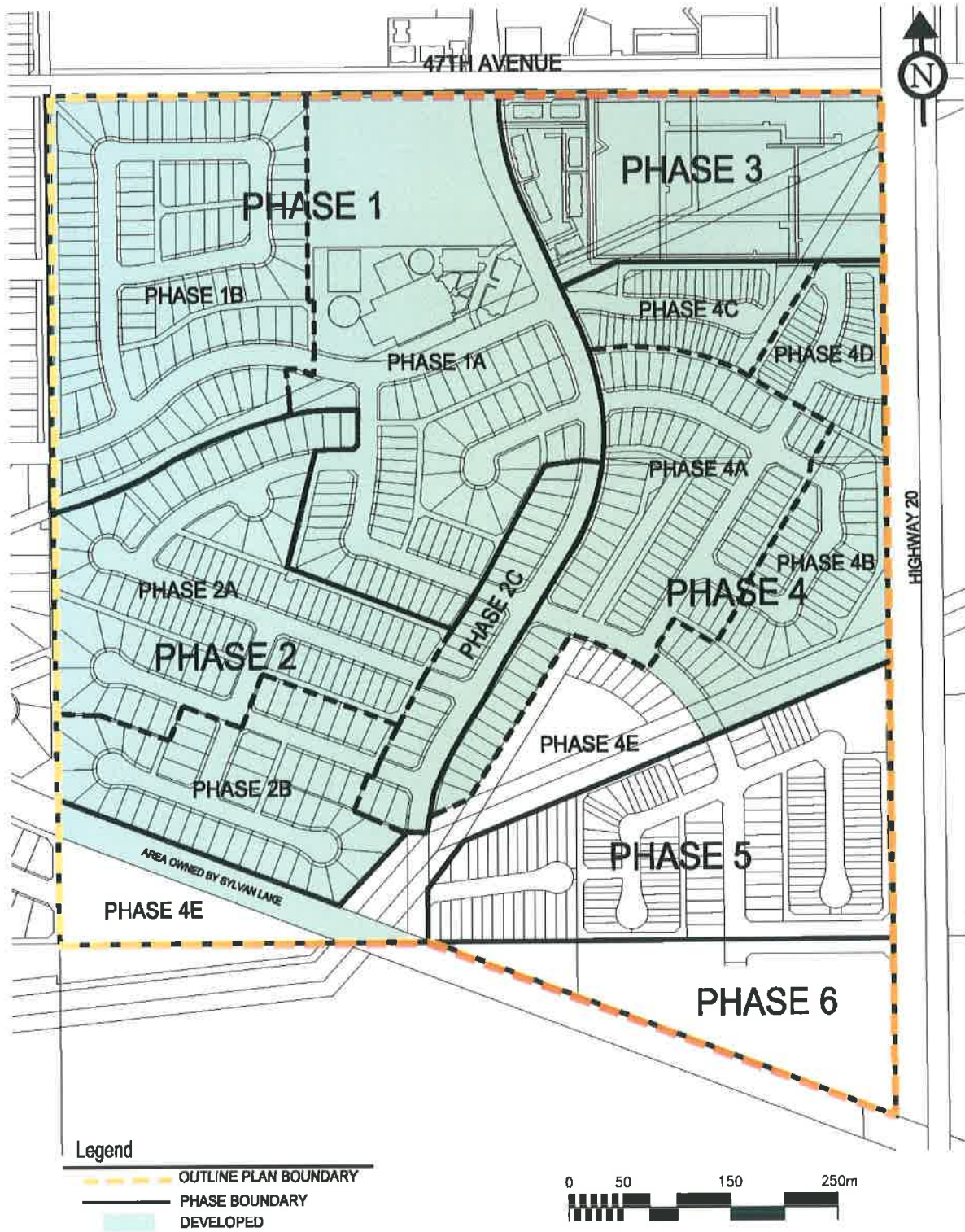
### 6.2 REDISTRICTING & SUBDIVISION

Redistricting and subdivision applications will be made for each phase of development. This document will assist in guiding these applications.



# MAP 12.0 STAGING PLAN

Prepared by: Stantec Consulting, Ltd. Red Deer - February 2013







rydersridge  
SYLVAN LAKE