



## Final Concept Plan

January 2013

Prepared for Wheatland County

Adopted in Principle by Council, April 9, 2013

## **Table of Contents**

1. Introduction	1
1.1. Background	1
1.2. Subject Lands	2
1.3. Hamlet Servicing	5
1.4. Physical Characteristics	6
1.5. Community Context	6
2. Statutory regulations	7
2.1. Wheatland Municipal Government Act	7
2.2. Hamlet of Rosebud Area Structure Plan	8
3. Background	11
3.1. Soils	11
3.2. Slopes	11
3.3. Traffic Impact Assessment	14
3.4. Historic Resources Impact Assessment	15
3.5. Phase 1 Environmental Site Assessment	15
4. Land Use Plan and Policies	17
4.1. Proposed Land Use Plan	17
4.2. Residential	17
4.3. Commercial	20
4.4. Municipal and Environmental Reserves	22
4.5. Municipal Servicing	25
4.6. Roads	29
5. Plan Implementation	33
5.1. Process	33
5.2. Architectural Guidelines	35
5.3. Commercial Guidelines	38

## **List of Figures**

1 Hamlet of Rosebud Area Structure Plan	3
2 Rosebud River Ridge Concept Plan Study Area	4
3A Slope Analysis	12
3B Slope Assessment Development Zones	13
4 Rosebud River Ridge Proposed Land Use Concept	18
5 Building Envelopes	21
6 Proposed Open Space Strategy	23
7 Proposed Land Exchange	30
8 Proposed Phasing Strategy	34
9 Examples of Residential Development	36

# 1. Introduction

Rosebud is a hamlet in the northern area of Wheatland County. It has a long history of culture and community spirit.



In 1973, the Rosebud Camp of the Arts was started as a summer outreach program for Calgary youth and the Rosebud Fine Arts High School was formed in 1977. In the summer of 1983 the drama students staged a comedy show with a dinner buffet to raise money. This was very successful and since then the dinner theatre program draws over 40,000 visitors a year.

The visitors generated by the Theatre contribute to the local economy and support several galleries, bed and breakfast establishments, art galleries and support businesses for the Rosebud Theatre.

The estimated hamlet population for 2010 is 108. There has been demand for housing for students, employees and owners and staff of support businesses.

The vision for Rosebud River Ridge is to develop primarily single family residential development, with some consideration for affordable multi-family (duplexes and triplexes) to accommodate the staff and actors for the Rosebud Theatre.

## 1.1. Background

The Rosebud Theatre has been growing since its inception in 1973. The number of students, actors and production personnel have been increasing and housing has been in demand. Many residents of the hamlet have opened their homes to boarders and some have created suites in their homes to rent to students. Housing has been in short supply and as such the owners of the Rosebud River Ridge development believe that they will be relieving the shortage by providing sound housing alternatives.

The landowners considered applying for development on these lands in 2010, but were asked by the County not to submit an application until the County had finished the Growth Management Plan and the Rosebud Area Structure Plan.



The Growth Management Plan has identified Rosebud as a growth node and the Hamlet of Rosebud Area Structure Plan has identified the subject lands for growth and development. Therefore, this plan has been prepared and submitted in conformity with the statutory planning documents of Wheatland County.

## 1.2. Subject lands

The subject lands are located within the Hamlet of Rosebud as defined in the Hamlet of Rosebud Area Structure Plan (See Figure 1). Since an Area Structure Plan exists and the lands were identified for future development in the ASP, there is no need to prepare an additional Area Structure Plan. The format for proposing future development is to prepare a Concept Plan. This concept plan provides more detail on the proposed development and creates the detailed policies for the redesignation and subdivision applications. Detailed engineering will be provided at the subdivision stage.

The Municipal Government Act allows for the preparation of "conceptual schemes". These plans are not considered statutory plans but are adopted by the Municipality and,



- i. Relates a subdivision application to the future subdivision and development of adjacent areas, and
- ii. Has been referred to the persons to whom the subdivision authority must send a copy of the complete application for subdivision pursuant to the subdivision and development regulations<sup>1</sup>

This Concept Plan relates to the following lands illustrated on Figure 2.

<sup>1</sup> Municipal Government Act Section 653(4.4(b))

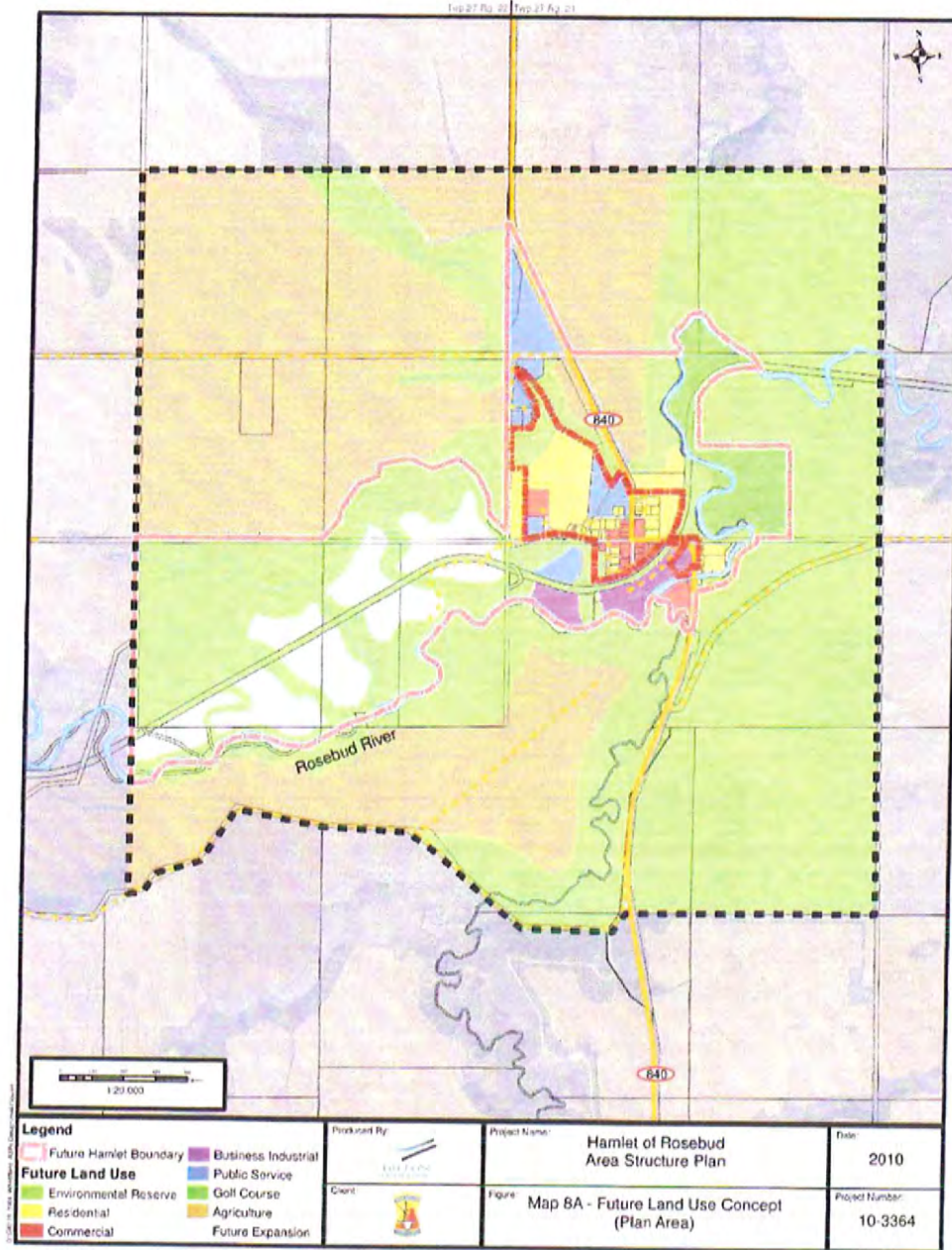


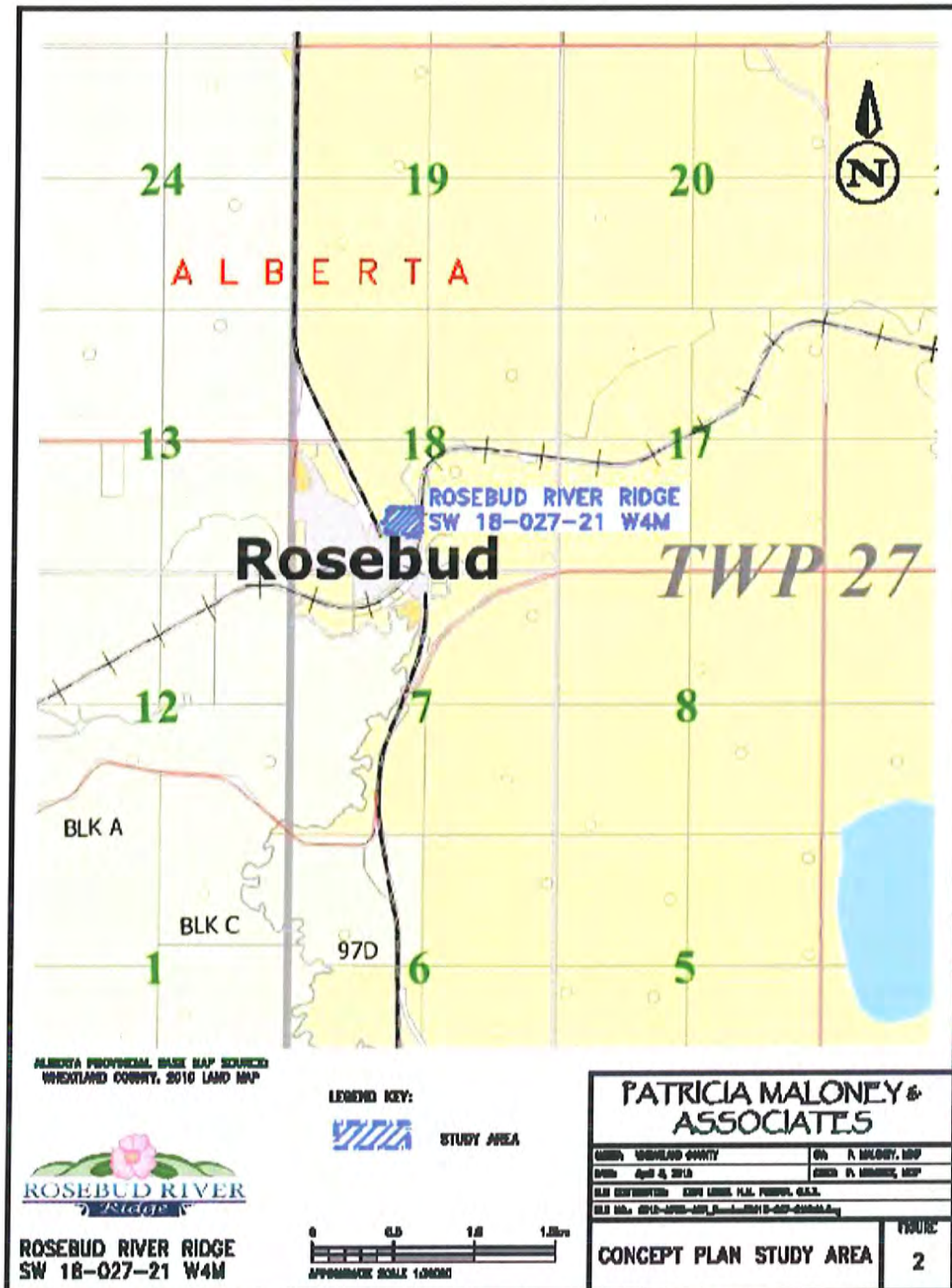
Figure 1 – Hamlet of Rosebud Area Structure Plan

Hamlet of Rosebud Area Structure Plan



Map 8A: Future Land Use Concept (Plan Area)







### 1.3 Hamlet Servicing

Rosebud is an established hamlet with a traditional grid system of roads with Highway 840 running through the community.

Potable water and sanitary sewer services are provided by Wheatland County. Potable water is provided by two wells with a central holding tank. The County recently drilled an additional well increasing the capacity of the system to accommodate 150 people. In addition, the County is in discussions with other water providers to find a new source of water for the hamlet.

The wastewater is treated by a communal waste water treatment system with cells of septic fields. This was originally constructed by a private developer and was constructed with three septic fields to be used in rotation. The capacity of this system is in excess of 200 people if the rotating field system is utilized. The County has recently acquired the sewer system and is in the process of confirming capacity and considering future expansion.

Storm water is managed by a series of subsurface pipes and surface ditches. This system provides a preliminary settling and control for the discharge into the Rosebud River, under controls and restrictions established by Alberta Environment.

Solid waste disposal is provided by a transfer station, operated by the Drumheller and District Solid Waste Management Association. Residents take their waste and recyclables to the site.

Fire response is provided by the Rosebud Rural Fire Association out of the newly developed Rosebud Firehall.

EMS is provided by the Wheatland and District Emergency Services Association.

RCMP services are provided by the Drumheller detachment.



## 1.4 Physical Characteristics



The land is located in adjacent to the Rosebud River Valley. The development is proposed on land that slopes towards the river. A slope analysis was conducted and while there are steep slopes in some areas, the development is proposed on lands where building sites are proposed on lands with less than 15% slope. Roads will maintain a slope under 12%. Development on any land with a slope over 15% will require a geotechnical

study to identify the top or toe of slope, stability and required setbacks. The slope analysis is illustrated on Figure 3.

## 1.5 Community Context

The main form of existing housing in the hamlet is single family dwellings. The proposed use for Rosebud River Ridge Estates is residential with one commercial site as a transition between Highway 840 and the residential development.

The economic base of the Hamlet is the Rosebud School and Dinner Theatre and tourism related businesses as well as servicing the surrounding rural/agricultural community.





## 2.0 Statutory Regulations

The preparation of any land use plan is guided by the statutory planning documents adopted by the municipality. In the case of Wheatland County, there is an adopted Municipal Development Plan and an (approved) Area Structure Plan for the Hamlet of Rosebud. The preparation of a concept plan (or conceptual scheme) is a process for determining the detailed development proposed on a specific parcel of land and must conform to any existing Area Structure Plans or Municipal Development Plans<sup>2</sup>.

### 2.1 Wheatland Municipal Development Plan

Rosebud is recognized in the Wheatland County Municipal Development Plan as a growth centre. In addition Rosebud is recognized by Alberta Municipal Affairs and Alberta Transportation as a hamlet for funding for municipal grant programs.

The Municipal Development Plan lists the following objectives and policies relating to hamlets:

#### 10.02 Objectives:

- 10.02.01 *To promote development potential within existing Hamlet boundaries. This will apply to all forms of development, not just residential.*
- 10.02.02 *To promote the implementation or upgrade of servicing within Hamlet boundaries through any development proposals.*
- 10.02.03 *To increase the viability of Hamlets.*

#### 10.03 Policies:

- 10.03.01 *It is policy to be favourable to development within the boundaries of an existing Hamlet.*
- 10.03.02 *It is policy that any application for development within a Hamlet must provide an adequate plan for servicing, to the satisfaction of Wheatland County. In addition the plan will include the method of implementation and it will consider its self servicing in relation to the Hamlet as a whole.*
- 10.03.03 *It is policy that any application for development within a Hamlet must provide for an adequate transportation network, including as needed: vehicle, pedestrian, land, water, air.*

The proposed development meets the three objectives by assisting with the upgrade of services, and contributes to the viability of the hamlet.

While the subject lands are not currently within the Hamlet of Rosebud boundaries, the Rosebud ASP recommends that hamlet boundary be expanded. The recommended hamlet

---

<sup>2</sup> Municipal Government Act Section 638.

boundary includes the subject lands. Therefore, a hamlet boundary expansion application will be submitted to accompany the application for the concept plan.

The proposal includes a plan for servicing and demonstrates how the development provides an adequate transportation connection for both vehicles and pedestrian traffic.



## 2.2 Hamlet of Rosebud ASP

The Rosebud Area Structure Plan identifies several areas within and beyond the current hamlet boundary for future residential lands. The subject lands, Rosebud Slopes Estates, are identified for future residential development. The ASP projects the future population of the hamlet at 289 in 2051.

The vision for the hamlet is:

*Rosebud is a charming, authentic, cultural and artistic Hamlet, where the economy has grown to revolve around a blossoming Theatre School and Theatre. In the future, Rosebud will remain a safe and welcoming place for residents and visitors, and will have added capacity through new B&B's, and other small scale lodging operations. Growth will be important, but not at the detriment of current scenic and quaint valley community. Future growth will be well managed and limited to specific areas of the Hamlet, and new buildings will need to conform to architectural standards and design guidelines to protect the small town scale and feeling of Rosebud. Economic growth will be balanced with preserving the local ecosystems, by protecting trees and limiting development in sensitive areas.*



The proposed land use concept for the Hamlet (illustrated on Figure 1) divides the policies into three components: the Hamlet Centre; the Hamlet Established Area and the Hamlet Expansion Area. While infill development in the Established and Central areas are the first priority, the document also recognizes the need for Greenfield development in the Expansion area to create a balance of infill and Greenfield development. "To this end, new residential development is also proposed to the northwest and west..."<sup>3</sup>

The ASP lists 12 principles of development to be achieved by all new development. These include:

- A. Provide a high quality of design and development for all components of the Plan Area including residential and recreational uses and method of servicing.
- B. Address standards of servicing that, in the long term, are environmentally sustainable.
- C. Provide, where appropriate, recreational and residential uses within the Plan Area.
- D. Encourage recreational development that is compatible with the surrounding development and takes advantage of natural physical features and large areas of land.
- E. Protect any significant historic sites in the Plan Area.
- F. Ensure provision of Municipal Reserves.
- G. Establish future highway requirements that will provide for safe and efficient movement of traffic in accordance with the long term goals of Alberta Transportation.
- H. Develop an efficient internal roadway system.
- I. Address future development in a logical and efficient manner.
- J. Ensure that environmental reserve dedication is provided on lands that qualify in accordance with the County and MGA.
- K. Notwithstanding the distribution of future land use identified in Map 8 (illustrated here as Figure 3), site conditions, municipal policies and impair or enhance the development potential of any lands within the Plan Area for the use identified by the Future Land Use Concept.
- L. Where an amendment to this Plan is proposed, the amendment shall be undertaken in accordance with Part C, Section 13 (Implementation) of this Plan.

The proposed Rosebud River Ridge meets these principles by providing a high quality design, demonstrates environmental sustainability, provides residential uses, provides opportunities for both municipal and environmental reserves, proposes an efficient internal road system, and demonstrates logical growth.

Section 2.6 of the ASP outlines the policies for the Hamlet Expansion Area. The policies outline need for pedestrian connections to the Hamlet Centre, the ability to use on site services if municipal services are not available,

---

<sup>3</sup> Hamlet of Rosebud Area Structure Plan, Section 2.0 Land Use Concept, pg. 48.



The ASP suggests that the Expansion Area should not develop until the existing hamlet lands are fully built out. However, the build out of the existing hamlet depends on the willingness of landowners in the existing hamlet to develop their lands. The demand for residential development must be market driven to ensure the demand is met and housing prices are not artificially inflated.

Section 3.3 of the ASP outlines further policies for residential development in the Hamlet Expansion Area. These policies include the need for a Conceptual Scheme, requires that residential be the dominant land use, recommends a minimum density of 8 units per gross acre. In addition, in Section 3.0, the general residential policies include the need for "development in new and infill areas shall demonstrate an acceptable transition to adjacent residential development..." and "secondary suites are encouraged in all residential areas of the Plan Area".

The Rosebud River Ridge Concept Plan conforms to all of these policies.

## 3 Background Studies

Although the Hamlet of Rosebud Area Structure Plan looked at a lot of secondary background information, it did not conduct any specific detailed studies illustrating the capacity of the roads or the existence of any historical features or slope analysis. Therefore, to meet the requirements of Wheatland County, the developer conducted several additional studies geared to ensuring the developability of this site, and in fact, the reports all demonstrate that the site is appropriate for the residential and commercial development.

### 3.1 Soils

Almor Testing Services Ltd. conducted a soils assessment of the lands for the Slope Stability Study. They found that the predominant surficial material in the general area comprises glacial till, a heterogeneous mixture of clay to gravel sizes, forming ice-thrust moraine, which is mantled locally by fine grained glaciolacustrine sediments. Bedrock is encountered at a relatively shallow depth. A ten-hole geotechnical investigation was carried out by Almor in May 2011. A variety of conditions were identified and engineering will be required for building sites on slopes greater than 11 degrees.

Groundwater conditions at the site were assessed at time of test hole drilling. During the drilling, moist to wet conditions were noted below a depth of 0.3 metres in test hole #1. At completion, the water level was 5.4 m below the surface of Test Hole #1, ultimately rising to 1.68 m below the surface. The ground water was at a depth of 5.8 meters in test hole # 2, while the remainder of the test holes were dry.

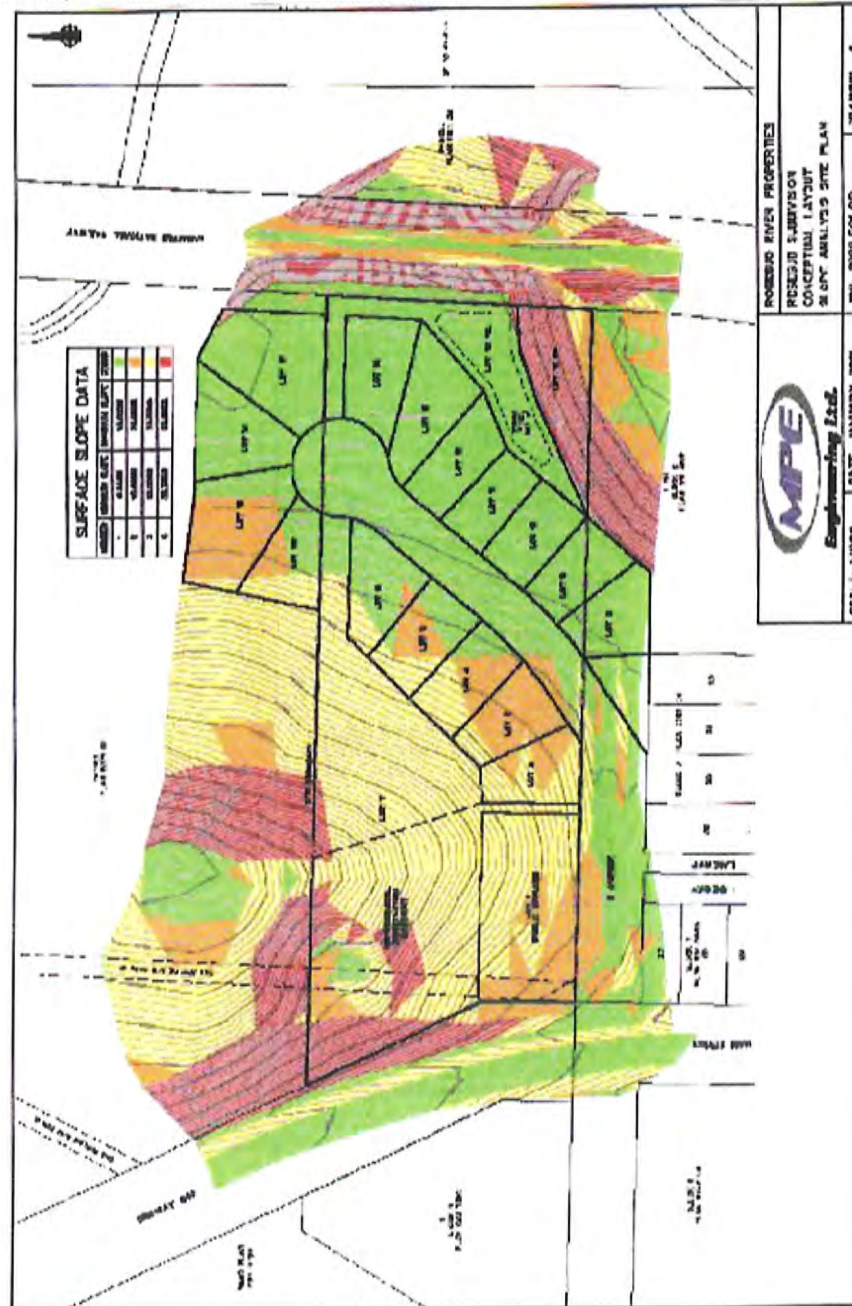
### 3.2 Slopes

Although the majority of terrain within the area is very gently to moderately sloping, there are portions which are much steeper, such as the northwestern and southeastern corners. The deep-seated analysis indicates that the overall stability of the slopes in the southeastern corner of the area of interest is less than the current standard. With the possible exception of the slopes in the northwestern corner, it is not believe that there are any other deep seated stability concerns in the area. The area was divided into four zones. Zone 1 has no development restrictions. Zone 1A have sloped gradients greater than 11 degrees and development may occur with development plans reviewed and approved by a geotechnical engineer. There are small pods of Zone 2 land which have a gradient of over 18.5 degrees and habitable structures should be set back 4 metres from the Zone 2 lands. Finally, Zone 3 includes lands with gradients between 20 and 30 degrees and it is recommended that there be no development on these lands. Figure 3A and 3B illustrate the slopes and the zones.

Figure 3A

Figure 3  
Slope Analysis

Note: lot lines may differ from the final lot layout illustrated on Figure 4.





#### DEVELOPMENT CONDITIONS

**Zone 1 Land:** Includes all lands which have slope gradients of 11 degrees (5H:1V) or less. These lands have Factors of Safety against shallow sliding of equal to or greater than 1.5. Excepting provisions under Zone 1A, Zone 2 and Zone 3 lands (see below), there are no development restrictions from a slope stability point of view. However, environmental or other considerations may preclude development in some areas.

**Zone 1A Land:** Includes all lands which have slope gradients of greater than 11 degrees (5H:1V) and equal to or less than 18.5 degrees (3H:1V). Although these lands have Factors of Safety against shallow sliding (under the highest anticipated groundwater conditions) of less than 1.5, some areas may be developed providing selective measures, i.e. terrain grading (to less than 11 degrees), installation of small grade-separation structures, etc., are considered. Proposed plans should be reviewed and approved by a qualified geotechnical engineer. Similar to Zone 1, environmental or other considerations may preclude development in some areas.

Where development on Zone 1 lands is planned adjacent to Zone 1A lands which will not be developed, it is recommended that all permanent habitable structures be set back a minimum of 3 m from the Zone 1A lands.

**Zone 2 Land:** Includes small pods of land within the western portion of the area of interest which have slope gradients of greater than 18.5 degrees (3H:1V). No development of these lands is recommended from a slope stability point of view.

For development of Zone 1 or Zone 1A lands adjacent to Zone 2 lands, all permanent habitable structures should be set back a minimum of 4 m from the Zone 2 lands.

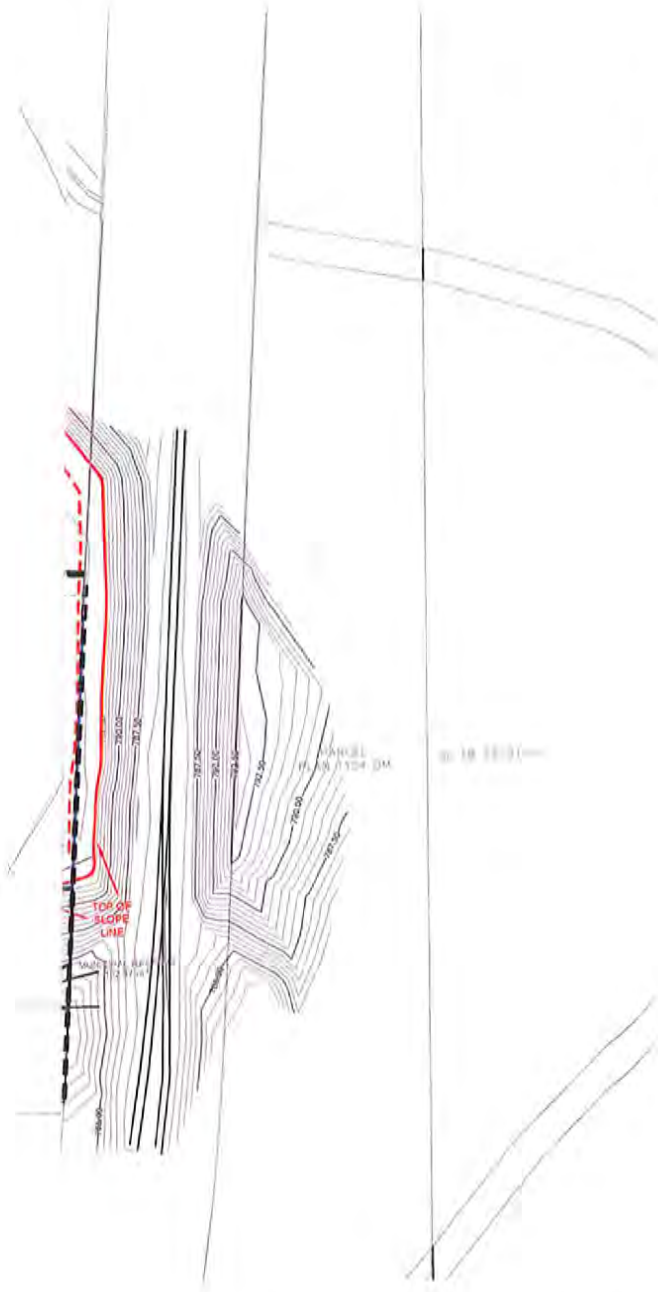
**Zone 3 Land:** Includes sloping lands forming the southeast-facing Rosebud River valley wall. These lands have Factors of Safety against deep-seated sliding of less than 1.5. No development of Zone 3 land is recommended from a slope stability point of view. For residential development adjacent to Zone 3 land, setbacks of 5 to 7.5 m, as shown, apply.

This drawing accompanies:  
Design Report No. 11-3098  
Dated: October 2012

Survey Information provided by:  
MPE ENGINEERING LTD.



PERMIT TO PRACTICE  
Rangeland Conservation Service Ltd.  
Signature: *[Signature]*  
Date: OCTOBER 20, 2012  
PERMIT NUMBER: P11142  
The Association of Professional Engineers,  
Geologists and Geophysicists of Alberta



#### LEGEND

- TH1 Almor Test Hole (location approximate)
- Section Line
- Zone Boundary Line

#### ROSEBUD RIVER PROPERTIES

DETAILED SITE PLAN OF  
SOUTHERN PORTION OF  
PROPOSED ROSEBUD SUBDIVISION  
WITHIN  
N.W. 1/4 Sec. 18 Twp. 27 Rge. 21 W4M

Rangeland Conservation  
Service Ltd.

DATE: OCTOBER 2012  
PROJECT NO.: 11-3098  
DRAWING NO.: 3098-1

### 3.3 Traffic Impact Assessment

In November 2012, Bunt and Associates completed a Traffic Impact Assessment for the Rosebud River Ridge Estates project. The rationale for the study was the proximity to Provincial Highway 840, the need to access the site through an established community and to ensure the new development was serviced properly.

The study was completed on the proposed 17 residential lots and one commercial lot of a storage facility. As per Alberta Transportation requirements, the analysis in the report was undertaken for opening day and long term (20 year) planning horizons. For the purpose of this analysis, the proposed development was assumed to be fully built out on opening day – there are no future phases for this development.

The fundamental key findings and conclusions of the Bunt report are as follows:

#### Existing and Background Traffic Conditions

- Under opening day and long term (20 year) background traffic conditions, all study area intersections are operating within acceptable capacity parameters and, as such, no improvements are required at these horizons.
- The opening day and long term (20 year) background daily traffic volumes fall within their associated environmental capacity limits and therefore, no improvements to upgrade or widen the roadways are required at these horizons. That said based on the on-site investigation, 1<sup>st</sup> Street appears to not meet current Wheatland County Road Standards.

#### Post Development Traffic Conditions

- Under opening day and long term (20 year) post-development traffic conditions, all study area intersections are operating within acceptable capacity parameters and, as such no improvements are required at these horizons.
- The opening day and long term (20 year) post-development daily traffic volumes fall within their associated environmental capacity limits, however, improvements to 1<sup>st</sup> Street will be required to meet Wheatland County Road Standards. ***It is noted that this improvement is required with or without the inclusion of the proposed development traffic.***

The Bunt report also states that the construction of 3<sup>rd</sup> Avenue to access and serve the development should be constructed to Wheatland County Road Standards.



### 3.4 Historic Resources Impact Assessment

In September 2012, Lifeways Canada Ltd. were commissioned to obtain historical clearance on the site. During the site visit, there was a discovery of a previously unrecorded Precontact campsite (EhPf-28 to be referred to as "the site"). On the basis of this discovery, it was recommended that a Historic Resource Impact Assessment be completed. Alberta Culture agreed and issued a permit on October 18, 2012.

Field studies were undertaken in November 2012. The focus of the field studies was the identified site. The balance of the property is moderately to steeply sloped with little potential to intersect significant historic resources.

The site was encountered in one area of the subject property considered to have good potential to intersect historic resources. A judgemental shovel testing program was undertaken with shovel tests initially placed near to the surface finds and then expanded from there in an effort to determine the extent of the site. The excavation of 19 test holes, including six positive shovel tests, revealed a disturbed soil profile impacted by cultivation.

Given the nature of the topography and sediments, there is only one area considered to have high potential to intersect historic resources: the EhPf-28 site was discovered in this area. The site is a small disturbed campsite defined mainly by the recovery of scattered fire-broken rock and limited lithic debitage. Cultivation has disturbed the artifact-bearing strata and not cultural material was observed beneath the plow zone. No diagnostic artifacts or dateable bone was recovered. As a result Site EhPf-28 is considered to have low significance with little potential to contribute to our understanding of local or regional archaeology and not further work is recommended on this site. Therefore, *Historical Resources Act* Clearance is recommended for the Rosebud River Ridge Subdivision project.

### 3.5 Phase 1 Environmental

In August 2012, Rangeland Conservation Service Ltd. was hired to complete a Phase 1 Environmental Site Assessment. Their findings and conclusions were based on the information gathered and the observations made during the site investigations completed in August 2012.

There were no obvious signs of contamination observed on neighbouring properties during the site visit. While the railway and the golf course pose potential contamination threats, the report states that "due to landscape location (significant elevation difference) in relation to the subject property, neither of these potential contamination risks poses a risk for the property."

The report goes on to conclude "based on information collected through historical records search, interviews and site reconnaissance visit, no evidence was found suggesting the





subject property poses an environmental concern. No sources of contamination from surrounding properties are likely to pose a risk to the property either. As such, no further EAS's are suggested."

## 4 Land Use Plan and Policies

The proposal for the Rosebud River Ridge is for predominantly residential lots with a single commercial site for storage. The following sections and policies direct the growth and development of these lands.

### 4.1 Proposed Land Use Plan

Figure 4 illustrates the proposed land use plan for the Rosebud River Ridge.

- |                     |  |
|---------------------|--|
| <i>Policy 4.1.1</i> | <i>All development within the Rosebud River Ridge area will generally follow the land uses outlined in Figure 4.</i>   |
| <i>Policy 4.1.2</i> | <i>The lands proposed for development by Rosebud River Ridge will be included within the boundaries of the Hamlet of Rosebud.</i>  |
| <i>Policy 4.1.3</i> | <i>All development in the Rosebud River Ridge development will follow the recommendations of qualified engineers, Wheatland County and all appropriate provincial government agencies.</i> |

### 4.2 Residential

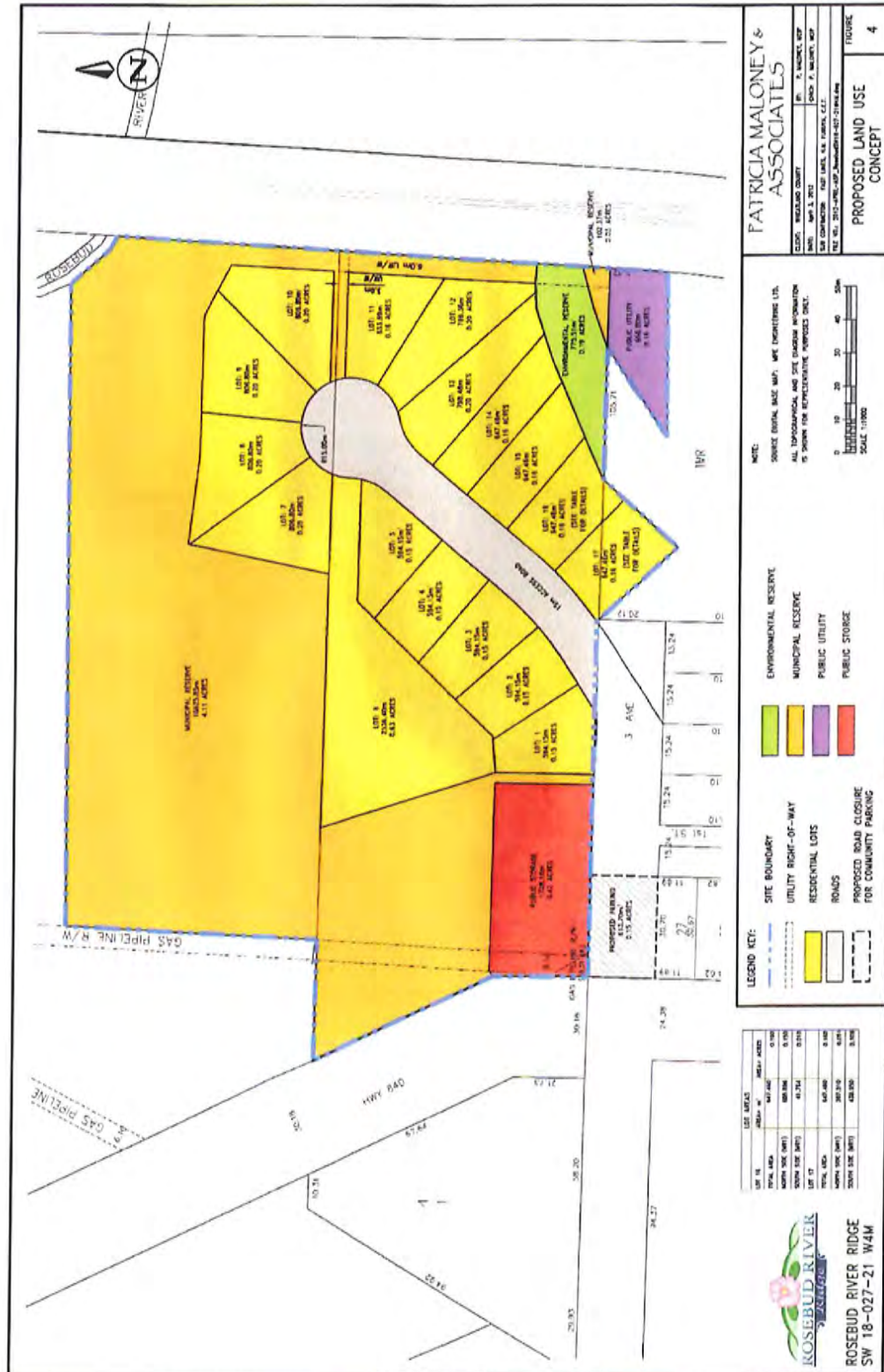
The proposed development includes a total of 17 residential lots. One of the lots (Lot 6) is oversized to accommodate the access and the slope conditions. These lots will be front access with no rear lane, requiring front drives and garages.

The creation of Lots 16 and 17 will requires a land exchange or purchase with the County. This land exchange is provided for in the implementation section of this Concept Plan.

While the predominant use is single family residential units, there is the potential for duplex and multi-family residential development and amalgamation of lots to create larger lots for multi-family housing. The final determination of lot size and configuration will be determined at subdivision.

All lots are oriented to the street with opportunities for views and vistas of the Rosebud River Valley.

- |                     |  |
|---------------------|--|
| <i>Policy 4.2.1</i> | <i>Residential development will be predominantly single family dwellings, with the ability to develop duplex and multi-family dwellings as per the Hamlet Residential and Hamlet Multiple Unit Residential District land use designations.</i> |
|---------------------|--|





- Policy 4.2.2      Lots 1 through 5 are considered appropriate for duplex or triplex dwelling development, or for consolidation into a larger lot for purpose of multi-family dwellings.*
- Policy 4.2.3      All development will follow the recommendations of the Rangeland Conservation/Almor Slope Assessment Report, including:*
- Zone 1 has no development restrictions.*
  - Zone 1A have sloped gradients greater than 11 degrees and development may occur with development plans reviewed and approved by a geotechnical engineer.*
  - Zone 2 land, which have a gradient of over 18.5 degrees and habitable structures should be set back 4 metres from the Zone 2 lands, or as approved by a qualified engineer.*
  - Zone 3 includes lands with gradients between 20 and 30 degrees and it is recommended that there be no development on these lands.*
- Policy 4.2.4      No unauthorized fill should be dumped on the slopes, without the prior review and approval of a qualified engineer.*
- Policy 4.2.5      No cuts should be made on, or at the toe of the slopes, without the prior review and approval of a qualified engineer.*
- Policy 4.2.6      All residential development will be permitted to include a secondary suite (either attached, detached or internal<sup>4</sup>) and/or a home office.*
- Policy 4.2.7      Orientation of all homes will be towards the street and garage frontage shall not total more than 50% of the façade of the structure and shall not project more than 2 metres beyond the façade of the residential unit, as illustrated in the Architectural Guidelines Policy 4.2.3.3.*
- Policy 4.2.8      Front verandas and porches are encouraged.*
- Policy 4.2.9      Lots 16 and 17 requires the Developer and Wheatland County to enter into a land exchange whereby the Developer dedicates a total of 4,130.11 sq.m. of municipal reserve in exchange for 1,144.39 sq.m. of municipal reserve. Section 4.1 of this Concept Plan provides the details of the proposed land exchange. Figures are not exact until a plan of survey is prepared at time of subdivision.*

---

<sup>4</sup> Attached is defined is a suite with a separate dedicated entrance including a suite above an attached garage, detached is a suite that is separate from the primary residence but on the same lot and may be a stand alone cottage no more than 650 sq.ft. or a suite above a detached garage and an internal suite is one that is self contained but accessed through the main entrance of the primary residence.

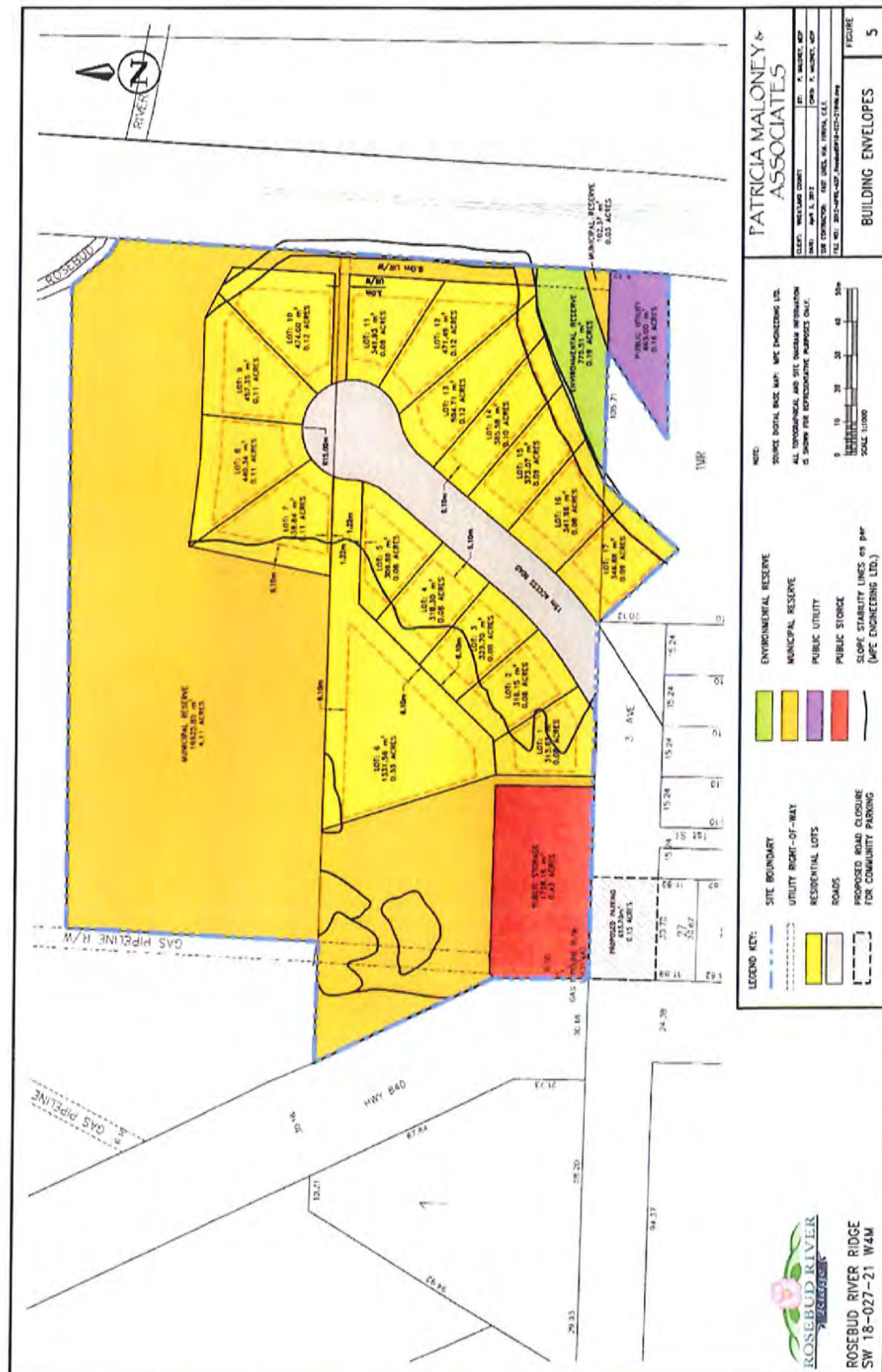
- Policy 4.2.10 Residential development will maintain a 3 metre setback from the slope stability lines, as illustrated on Figure 3B and Figure 5 as calculated by Rangeland Conservation Services Ltd.*
- Policy 4.2.11 The building envelopes illustrated on Figure 5 provide guidance for future development. Any structures proposed within the slope stability lines should be reviewed and approved by a qualified geotechnical engineer.*
- Policy 4.2.12 No development should occur in Zone 3, as outlined on Figures 3B and 5.*

### **4.3 Commercial**

The proposed public storage /site west of lot 1 fronting onto 3<sup>rd</sup> Ave and immediately adjacent to the gas line and Highway 840 will be classified as Business Storage Commercial and will require an amendment to the Land Use Bylaw to include a new land use district. This use provides a transition between the Provincial highway, the proposed residential development and the ATCO facility located on 3<sup>rd</sup> Avenue. The facility will be screened, landscaped and separated by a municipal reserve strip that provides access to the large municipal reserve parcel north of the public storage site.

- Policy 4.3.1 The proposed business storage commercial site will allow indoor and outdoor storage.*
- Policy 4.3.2 Prior to the development of any commercial uses, the lands must be zoned appropriately.*
- Policy 4.3.3 The site shall be screened by fencing and/or landscaping to minimize the visual impact on the surrounding residential development.*
- Policy 4.3.4 The access to the site shall be off 3<sup>rd</sup> Avenue.*
- Policy 4.3.5 Public storage shall be developed in conformance with the Architectural Guidelines provided in Section 5.3 of this Concept Plan.*
- Policy 4.3.6 Development on the commercial site will require approval by a qualified engineer.*





#### 4.4 Municipal and Environmental Reserves

Wheatland County has indicated that they will accept Municipal Reserve and Environmental Reserve because hamlet development is considered an urban-type situation and they recognize that open spaces are critical to the social and physical well being of a community. Taking of Municipal Reserve as land rather than cash in lieu was recommended in the adopted Rosebud Area Structure Plan. This land is dedicated by the developer and held in title by the municipality.

Municipal Reserve land is taken for the public use, trails and paths, open space and park land. It may be improved and upgraded including pathway construction, parks, recreation areas, play equipment etc.

Environmental Reserve lands are defined in the Municipal Government Act<sup>5</sup> but may not be developed or constructed and must be kept in their natural state. They are defined as:

- (a) A swamp, gully, ravine, coulee or natural drainage course*
- (b) Land that is subject to flooding or is, in the opinion of the Subdivision Authority, unstable, or*
- (c) A strip of land, not less than 6 metres in width, abutting the edge and shore of any lake, river, stream or other body of water for the purpose of*
  - (i) Preventing pollution, or*
  - (j) Providing public access to and beside the bed and shore.*

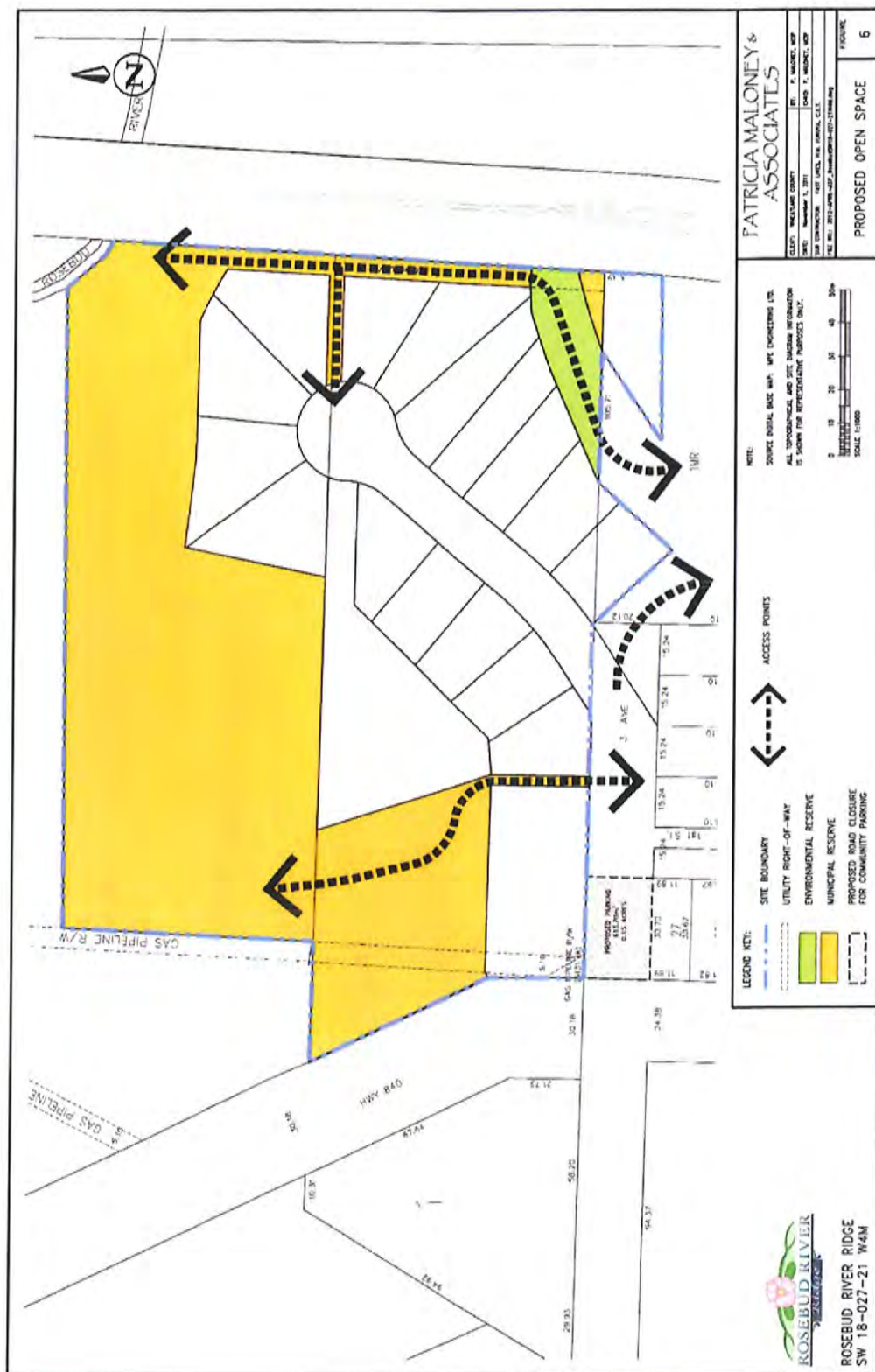
There is a small area of land (772.51 sq. m.) of slope that is proposed for Environmental Reserve. The slope assessment completed by Rangeland Conservation Services Ltd. has identified these lands as being potentially unstable.

The owner of the lands proposed for Lots 7, 8, 9 and 10 wishes to dedicate additional lands for environmental protection. This may be accomplished by over dedication of Municipal Reserve and/or Environmental Conservation Easement. Environmental Conservation Easement lands are lands that are dedicated by the owner, but retained in title to the owner. The conservation easement is registered on the title. This ensures that the land is kept in its natural state and not developed. However, as the land remains privately owned, this protects the land but does not generally allow public access due to liability issues.

---

<sup>5</sup> Section 644(1) of the Alberta Municipal Government Act.





The landowners/developers of Rosebud River Ridge are very supportive of protecting lands, river valley and providing as much public access as possible.

The lands proposed for Municipal and Environmental Reserve are illustrated on Figure 6.

The proposed development is located at the toe of a hill and does not proposed any destruction of the toe that would see any slumping or undermining of the hill unless support structures are constructed and approved by a professional engineer. The steep slopes are included in the environmental area or the large lot (Lot 6) with the building footprint for a house determined by geotechnical analysis.



- Policy 4.4.1            The overall open space concept is illustrated on Figure 6.*
- Policy 4.4.2            Municipal Reserve shall be taken as land, for the benefit of the community, in the form of trails and parks, as recommended in the Rosebud Hamlet Area Structure Plan adopted by Wheatland Council.*
- Policy 4.4.3            Over dedication of Municipal Reserve land does not qualify for any bonusing, however an over dedication of Municipal Reserve land will be considered in the request for land exchange.*
- Policy 4.4.4            The top of the hill and any slope over 20% may be dedicated as either Municipal Reserve or Environmental Reserve.*
- Policy 4.4.5            If environmental lands are dedicated as Environmental Reserve Easement, the lands will be registered on the land in favour of Wheatland County, as per the Municipal Government Act.<sup>6</sup>*
- Policy 4.4.6            The Municipal Reserve land being requested by the developer for land exchange is being replaced with almost twice as much land, and the*

<sup>6</sup> Municipal Government Act Section 664(2) states Environmental Reserve Easement may be registered against the land in favour of the municipality and that the land must remain in its natural state.



*replacement lands provide improved access and linkage to the river valley and to the higher lands with significant views.*

**Policy 4.4.7** *If cash in lieu is required for municipal reserve lands, it will be assessed based on a market value appraisal of the land, minus the land dedicated for Environmental Reserve or Environmental Reserve Easement.*

#### 4.5 Municipal Servicing

This section outlines the proposed servicing for the development and provides the policies to be followed to service the lands to comply with the Rosebud Area Structure Plan and Wheatland County standards.

##### Potable Water

The development will be serviced by a looped potable water distribution system connected to the existing hamlet of Rosebud water system. Wheatland County will continue to be responsible for the operation and maintenance of the water distribution system. The developer will be responsible for the construction of the distribution system to the new development, connection to the County system and possible booster station. The distribution system piping would be located within the new development road right of way.

Currently, the municipally treated drinking water is not used for yard watering. Rosebud has operated an irrigation coop for many years drawing water from the Rosebud River for summer landscape watering throughout the hamlet. It is proposed that this practice continue.

Based on water consumption records for 2009 to 2011 the annual consumption for the Hamlet averaged approximately 11,000m<sup>3</sup>/year. For a hamlet population of 88 people (2011 census) this consumption equates to a demand of approximately 330 liter/capita/day (lpcd). The water demands for the proposed subdivision are as follows:

Land Use	Demand	Average Daily Demand	
		(m <sup>3</sup> /day)	(l/s)
Residential	18lot@ 3.5 residents/lot @330 liters/capita/day (lpcd)	20.8	0.24
Public Storage	.17ha @ 0.1875 l/s/ha	2.8	0.03
<b>Total Projected Water Demand</b>		<b>23.6</b>	<b>0.27</b>

The development will be implementing water conservation practices to further reduce water demands. Ideas under discussion include:

1. Individual site rainwater harvesting for irrigation use.
2. Low flow plumbing fixtures including point of use water heaters.
3. Implementing mandatory low water use landscaping.
4. No exterior hose bibs.
5. Implementing policies of no potable water use for irrigation.

The existing hamlet water system consists of groundwater obtained from two water wells located approximately 3 kilometers northwest of Rosebud which supply water to a treated water reservoir located approximately 500 meters northwest of the proposed development. The water is chlorinated at the treated water reservoir and flows by gravity through a 200 mm diameter water main to Rosebud.

The existing treated water reservoir has a capacity of 726 m<sup>3</sup> (159,700 IG) which is adequate to service the development. The distribution system is a gravity system fed from the reservoir. Alberta Environment (AE) guideline requires a minimum distribution pressure of 350KPa (50psi) to 550KPa (80psi). Currently the distribution pressure with the Hamlet is approximately 40psi to 45psi. Relying on the existing water reservoir, would result in a static pressure in the development of approximately 25psi which is below the AE requirement. To increase pressure, the developer would install a new pump within the reservoir to increase pressure by approximately 25psi. This would also improve water pressures within the entire Hamlet.

Fire coverage will be provided from hydrants, spaced on site in accordance with Wheatland County and related code requirements. Due to the low density nature of the community, spacing will be a maximum of 300 meters between hydrants.

### **Wastewater Servicing**

The development will be serviced by a wastewater collection system connected to the existing hamlet of Rosebud wastewater system. The hamlet's current wastewater system consists of individual septic tanks which are pumped out into a gravity sanitary main which conveys wastewater to a sanitary sewage disposal field located just southwest of Rosebud. The treatment facility consists of a two chamber central septic tank (capacity 40.8 m<sup>3</sup> or 9,000 imperial gallons) which clarifies the wastewater and provides pre-anaerobic treatment, and a low pressure gravity flow piping distribution system (approximately 3 km of piping) which discharges the wastewater to three separate disposal fields.

The treatment septic fields were designed in 1988 with an average daily design capacity of 40.6 m<sup>3</sup> which was adequate to service a population of 120 people. The system has been successfully operated for at least 15 years by applying the total load to one field at a time, while the other two fields rested. The fields were alternated monthly, thus each field received sewage for 4 months out of a year. The load that was being generated during this period was approximately 34 m<sup>3</sup>/day from a population of 100. On this basis, the wastewater treatment system has potential capacity for 68 m<sup>3</sup>/day, if operated as originally designed with two fields being used at any one time.

The wastewater generation for the development is provided below. Based on the existing wastewater infrastructure capacity is adequate to accommodate the proposed development. The wastewater system would continue to be maintained and operated by the County.



Land Use	Load Generated	Average Daily Load	
		(m <sup>3</sup> /day)	(l/s)
New Development	63 people @ 330 liters/capita/day (lpcd)	20.7	0.24
Existing Rosebud	100 people @ 330 liters/capita/day (lpcd)	33.0	0.38
<b>Total Projected Waste Water Load</b>		<b>53.7</b>	<b>0.62</b>

### Storm Water Management

Site runoff will be collected from roadways and individual lots by means of an underground storm sewer system and conveyed to a proposed stormwater retention facility located in the south east corner of the site. A land exchange would be undertaken between the County and the applicant to obtain a public utility lot (PUL) for the storm pond in exchange for MR/ER subdivision dedication. The stormwater facility would be designed as a vegetated natural area that could also service as a site amenity.

Release from the facility would be via an existing culvert under the railway tracks and then overland ditches to the Rosebud River. Stormwater release would be limited to predevelopment release rates. Low impact development practices would be implemented to reduce volume runoff and improve runoff water quality. As a part of the detailed design, a Stormwater Management Report would be submitted to the County for approval.



### Shallow Utilities

The development will be serviced with an internal underground power and telecommunications system. There is adequate capacity within shallow utilities systems presently servicing Rosebud to accommodate this proposed development.



- Policy 4.5.1      Figure 7 illustrates the proposed Municipal Servicing Strategy*
- Policy 4.5.2      The developer is responsible for the design and construction to County standards of the tie-ins to the County municipal services.*
- Policy 4.5.3      This development will be serviced by the Hamlet of Rosebud municipal services for potable water and sanitary sewer. Capacity for the proposed development will be determined at time of subdivision.*
- Policy 4.5.4      Detailed engineering drawings will be provided at time of subdivision, in conformance with the Wheatland County servicing standards.*
- Policy 4.5.5      The potable water will be provided through the Wheatland County municipal servicing strategy.*
- Policy 4.5.6      Deep services will be installed in the road right of way.*
- Policy 4.5.7      To increase pressure, the developer would install a new pump within the reservoir to increase pressure by approximately 25psi, to the satisfaction of Wheatland County.*
- Policy 4.5.8      Water conservation methods will be installed in all of the homes and rain water catchment for garden watering is recommended.*
- Policy 4.5.9      Detailed design of deep services will be provided at time of subdivision.*
- Policy 4.5.10      The development will be tied into the existing hamlet sanitary sewage collection system. Capacity for the proposed development will be determined at time of subdivision.*
- Policy 4.5.11      Surface runoff shall be conveyed either through the local storm sewer system, or collected and discharged in a controlled manner (ie: a lined channel) down the slopes.*
- Policy 4.5.12      Figure 7 illustrates the Proposed Storm Water Management Plan. The storm water will be collected and drained into the stormwater pond to be located immediately south east of the development in a public utility lot.*
- Policy 4.5.13      As a part of the detailed design and subdivision, a Stormwater Management Report shall be submitted to the County for approval.*

- Policy 4.5.14      The storm water pond will be dedicated to the County and designated a Public Utility Lot<sup>7</sup>.*
- Policy 4.5.15      Shallow utilities will be installed by the developer in coordination with the local service providers for natural gas, telephone, cable and power.*
- Policy 4.5.16      The rights of way for shallow utilities will be determined at time of subdivision.*
- Policy 4.5.15      The developer will establish an access agreement with Albert Environment for the monitoring wells.*

#### **4.6 Roads**

Community access will be via 1<sup>st</sup> Street and 3<sup>rd</sup> Avenue and an extension of 3<sup>rd</sup> Avenue to the northeast. Over the years, 1<sup>st</sup> Street has not been developed to the full traditional road right of way and as such residents have located their yards and gardens within the road right of way. The developer has already collaborated with the County to develop off street parking on 2<sup>nd</sup> Avenue and is proposing that a portion of the 3<sup>rd</sup> Avenue road right of way be closed (at the point where it “dead ends” at Highway 840) and that the developer creates additional off street parking here to provide for local residents who may lose on street parking on 1<sup>st</sup> Street. First Street is currently at an interim paved standard and will be upgraded appropriately as required.

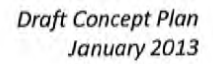
All new lots will access off of the extension of 3<sup>rd</sup> Avenue. The development accesses from 3<sup>rd</sup> Avenue, via 1<sup>st</sup> Street, and extends 3<sup>rd</sup> Avenue to service the rear lots. Currently, residential development encroaches on the road right of way of 1<sup>st</sup> Street. This historical development has narrowed the road and driving lane. The developer of Rosebud River Ridge cannot change this current situation that has developed. However, the developer has already created off-street parking on 2<sup>nd</sup> Avenue to allow the on-street parking on 1<sup>st</sup> Street to be eliminated, thereby improving the driving lane.

A Traffic Impact Assessment was completed by Bunt & Associates (November 2012). As per Alberta Transportation requirements, the analysis in this study was undertaken for the opening day and long-term (20 year) planning horizons. For the purpose of this analysis, the proposed development was assumed to be fully built out on opening day (only one phase of development).

---

<sup>7</sup> Municipal Government Act Section 655(2)(b)





The fundamental key findings were that under opening day and long-term background traffic conditions, all study area intersections are operating within acceptable capacity parameters and, as such, no improvements are required at these horizons. In addition, the Bunt report stated “the opening day and long-term background daily traffic volumes all fall within their associated environmental capacity limits and, therefore, no improvements to upgrade or widen the roadways are required at these horizons. That said, based on the on-site investigation, 1<sup>st</sup> Street appears to not meet current Wheatland County road standards.

The report states that “with the inclusion of the proposed development 3<sup>rd</sup> Avenue should be developed to meet the Wheatland County road standards.



View of 1<sup>st</sup> Street looking south from the intersection with 3<sup>rd</sup> Avenue.



1<sup>st</sup> Street looking south to the intersection with 2<sup>nd</sup> Avenue.



Location of the off street parking on the south side of 2<sup>nd</sup> Avenue immediately west of the intersection with 1<sup>st</sup> Street.

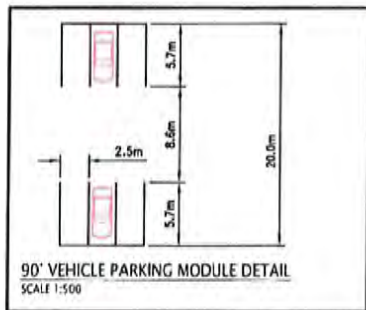
- |                     |  |
|---------------------|--|
| <i>Policy 4.6.1</i> | <i>Off Street parking has been created by the developer, in collaboration between the developer and the County, on 2<sup>nd</sup> Avenue to compensate for loss of on street parking on 1<sup>st</sup> Street.</i> |
| <i>Policy 4.6.2</i> | <i>All vehicular traffic will access onto existing Hamlet roads as there will be no direct access onto the Provincial Highway 840.</i>   |
| <i>Policy 4.6.3</i> | <i>The developer of Phase 1 will construct and upgrade 3<sup>rd</sup> Avenue to Wheatland County road standards.</i>   |
| <i>Policy 4.6.4</i> | <i>The developer will work with Wheatland County to widen and upgrade 1<sup>st</sup> Street to meet Wheatland County road standard .</i>   |
| <i>Policy 4.6.4</i> | <i>The developer will request the road right of way for 3<sup>rd</sup> Avenue to be closed and developed for additional off street community parking.</i>  |
| <i>Policy 4.6.5</i> | <i>A portion of the road right of way for 3<sup>rd</sup> Avenue is utilized for two Alberta Environment monitoring water wells. At such time as the</i>  |



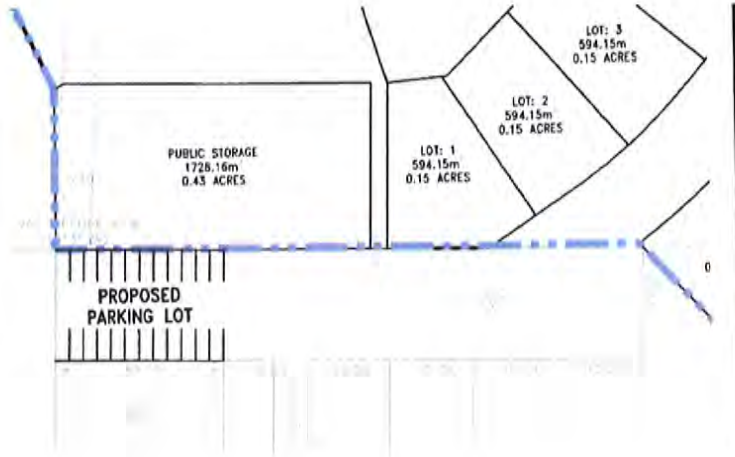
monitoring wells are no longer required, the developer may apply for road closure and use of the land.

**Policy 4.6.6**

All internal roads will be developed to County of Wheatland Standards, including a 17 metre radius cul de sac.



PROPOSED PARKING LOT STALL COUNT
NUMBER OF STALLS: 25



## 5. Plan Implementation

The following policies guide the implementation of the Rosebud River Ridge Concept Plan.

### 5.1 Process

- Policy 5.1.1 The developer may apply for redesignation of the land to residential, multi-family dwellings and business storage commercial.*
- Policy 5.1.2 The developer may apply for subdivision of up to seventeen (17) residential lots and one (1) business storage commercial lot.*
- Policy 5.1.3 The developer will cover all costs related for redesignation, subdivision, hamlet boundary expansion and Development Agreement.*
- Policy 5.1.4 Upon adoption of this Concept Plan, the County will enter into the process to facilitate a land exchange with the developer to remove 1,144.39 sq.m. from the existing municipal reserve parcel in exchange for a total of 4,130.11 sq. metres of new municipal reserve land (representing an over dedication of Municipal Reserve land of 1,121.82 sq.m.).*
- Policy 5.1.5 It is recognized that areas are approximate until such time as the registered subdivision plan is completed. The land exchange will generally follow the calculations of the chart below and the land areas shown on Figure 9.*
- Policy 5.1.6 This Concept Plan is proposing a significant over dedication of open space. Negotiations on the process and the titles for this open space will be determined at time of subdivision for Phase 2.*

<b>Description</b>	<b>Area</b>
Total Area	19,412.57 sq.m. <sup>8</sup>
Environmental Reserve	773.51 sq.m.
Net Total area (total area minus environmental reserve lands)	18,639.06 sq. m.
Net Total for Municipal Reserve dedication	1,863.90 sq. m.
Proposed Municipal Reserve Dedication	4,130.11 sq. m.
Area of Land Exchange (current municipal reserve land to be converted to public utility and/or residential uses)	1,144.39 sq. m.
Dedication in excess of required and land exchange	1,121.82 sq. m.

<sup>8</sup> Areas to be confirmed at time of registered plan of subdivision.





## 5.2 Residential Architectural Guidelines

The purpose of developing architectural guidelines is to ensure that the development will suit the existing hamlet development and provide direction for all development to continue the western small-town feel of the development. The following architectural guidelines will be registered on title and enforced by the developer and the landowners in the subdivision.

*Policy 5.2.1 Accepted house styles include: western, colonial, craftsman style homes, as illustrated on Figure 9.*

*Policy 5.2.2 Duplex or Multi Unit housing is appropriate for the development, specifically Lots 1 to 5.*

*Policy 5.2.3 Each residential unit in duplex or triplex dwellings shall ensure that each individual front door has a street orientation.*

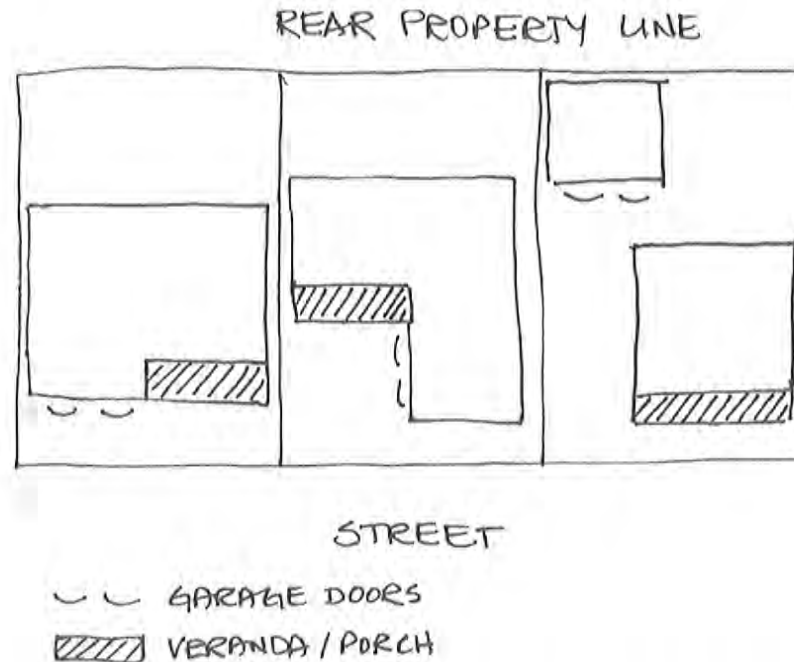
*Policy 5.2.4 Due to the unavailability of rear lane access, all residential lots will have garage access off the street, however, the garage must be provided in one of three manners, described here and illustrated on the sketch below:*

*5.2.4.1 Attached with front access but the garage may not protrude beyond the front elevation of the home.*

*5.2.4.2 Attached with front access but the garage may protrude beyond the front elevation of the home if the access is at 90 degrees to the home and the front of the garage is treated as a front elevation of a house with windows, awnings, landscaping etc.*

*5.2.4.3 Detached garage with a front access drive, where the garage is located in the rear of the house and the driveway parallels a side yard of the home.*





- 5.2.6 The materials and colours for the home include neutral shades for the main colours of the home, with the exception of white which can be the main colour of the home with brighter colour accents. Hardy board and wood grain vinyl siding are acceptable.
- 5.2.7 Accent material for the homes should be brick, wood and river rock.
- 5.2.8 Second floors of two storey homes should be integrated and include rooms over garages, gabled windows, and decks and balconies.
- 5.2.9 All homes should have verandas and/or porches in the front yard.
- 5.2.10 All homes must have their architectural drawings, including a rendering and examples of building materials and colour palate presented for review, comment and approval to the developer and/or homeowners association prior to application to the County.
- 5.2.11 All landscaping should be designed on the xeriscaping philosophy with drought tolerant and indigenous vegetation. A landscaping plan must be presented to the developer and/or homeowners association for review prior to application for development permit to the County.
- 5.2.12 The business storage commercial will be screened by fencing and/or landscaping.

5.2.13 *The proposed business storage commercial uses will provide both private and public storage and all buildings will match the styles of the residential guidelines in terms of materials and roof pitch.*

5.2.14 *Surfaces of the business storage commercial area shall be hard surfaced but will accept permeable surface options.*

Figure 9

Examples of Residential Development Suited to Rosebud River Ridge Development





### 5.3 Commercial Architectural Guidelines

The proposed commercial storage facility is geared to local residents who have recreational vehicles, boats or household articles that they need to store. The following are the proposed architectural guidelines to ensure that the development is attractive, fits with the community and provides a functional site for the patrons.

- 5.3.1 *Architectural guidelines will be registered on title and enforced by the land owners, they will not be enforced by Wheatland County.*
- 5.3.2 *All development will be designed to fit within the rural western architectural theme of the Hamlet of Rosebud.*
- 5.3.3 *Pitched roof lines are preferred over flat roofs. While the roof may be flat for function, a "false front" will provide the façade for the west facing and south facing facades of structures.*
- 5.3.4 *Fencing will provide the dual purpose of security and screening. Fencing may be solid wood or vinyl or may be chain link fencing combined with landscaping to provide visual screening.*
- 5.3.5 *Screening may include fencing, landscaping, berms or retaining walls.*
- 5.3.6 *Landscaping may be hard (concrete, brick or stone) or soft (grass and planting).*
- 5.3.7 *Low impact development will be included to minimize the storm water runoff from the site and will include permeable surfaces where ever possible and aeration of storm water to improve storm water quality. Use of stormwater may be used for on-site irrigation of landscaping.*
- 5.3.8 *Where retaining walls are utilized, they must be attractive and include some surface articulation (not be a solid concrete wall).*
- 5.3.9 *On-site parking will utilize permeable materials, other than gravel, where ever possible.*

Examples of Suitable Structures



Examples of Acceptable Fencing





Examples of Permeable Paving Materials



Examples of Aeration Fountains

