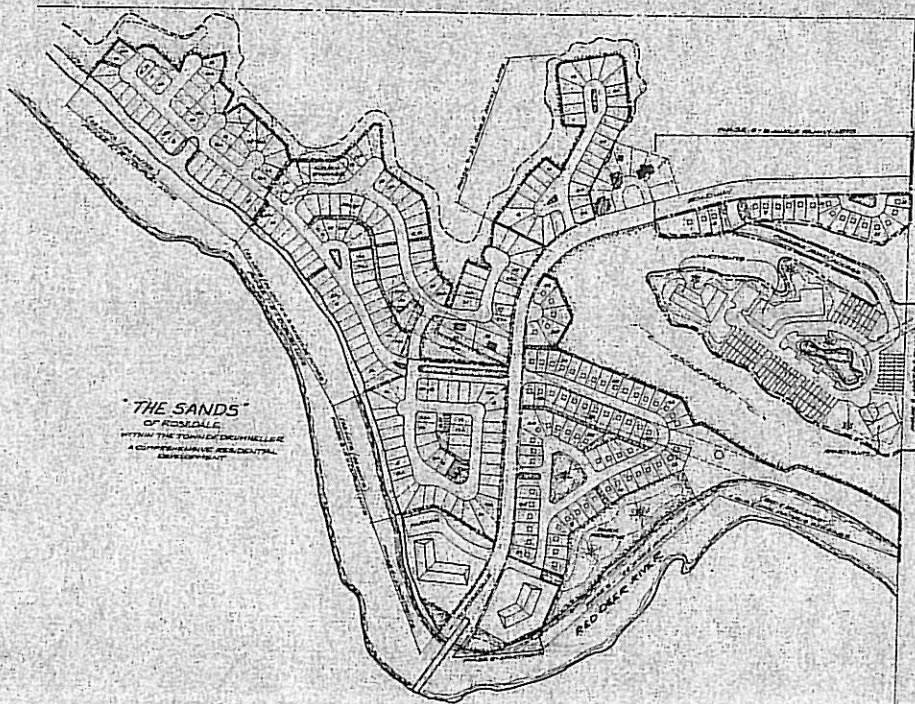


THE SANDS OF ROSEDALE, AB
AREA STRUCTURE PLAN
LOCATED WITHIN
THE TOWN OF DRUMHELLER



PREPARED FOR
DALE AND SUZANNE SANDS, ROSEDALE, AB

PREPARED BY
PAL DEVELOPMENT LTD.

AND
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1.0 INTRODUCTION

This Area Structure Plan has been prepared to provide a future planning direction to lands located across the Red Deer River from the community of Rosedale in the Town of Drumheller. These lands are herein referred to as “The Sands of Rosedale, Alberta”. The lands have not, in the past, been considered for a comprehensive residential development, primarily due to it having been an active sand and gravel operation.

This Plan is intended to address ownership, floodplain, multiple land uses and to provide planning direction and guidelines that will result in an orderly growth on a phased basis to the areas.

1.1 Purpose

The purpose of this Plan is to provide future planning direction for lands which are located north of Rosedale and the Red Deer River and up to the escarpment condition. A portion of the development on the east side includes a plateau condition.

There are several different land owners within the subject property. The plans objective is to provide overall direction for all parties both initially and as relates to long range objectives and phasing of development. This phasing will be tied to marketing and the long term objectives of the prime landowner.

2.0 STUDY AREA

2.1 Site Location

The area is outlined on the air photo below (Drawing one –“The Sands” of Rosedale – Location Plan)

2.2. Ownership

The following table lists landowners and their respective holdings. Dale and Suzanne Sands own the majority of the lands in the study area. (See table one and Figure 2)

Table One – Land Ownership

Parcel	Land Owner	Legal	Total Area in Ha +/- and Acres +/-
4.	Dale and Suzanne Sands		
5.	Pauline Doel	Lot 3	
6.	Janice Hardy	Lot 4	
<i>Note: Parcels 1, 2 & 3 are located west and north of the existing 30-m wide through road.</i>			
4	Gus & June Mattheis	CPR R.O.W.	
7.	Dale and Suzanne Sands		
Total.....			87.3-HA (215.9-Acres)

2.3. Site Constraints

The site contains several distinct areas which are defined by natural constraints.

To the south of the site lies the Red Deer River which clearly defines the developments limits. River banks further define limits of development.

To the east of north/south existing the road within Phase 6 of “The Sands” is a flood plain condition which has been identified as park reserve.

The C.P.R. R.O.W. (now abandoned), has provided an additional constraint due to 3 separate ownerships, (other then the Sands). These ownerships and how they have been incorporated into the overall design are defined within this document.

Escarpment conditions to the north clearly provide a barrier to development and have been addressed in the overall design.

A plateau condition under the Sands ownership exists in the S.E. portion of the site. This plateau offers both a constraint via surrounding slopes and an opportunity for development based on its flat plateau.

2.4. Soil Conditions

The site is underlain by the Edmonton Formation of Upper Cretaceous Geological Period. This formation consists mainly of stratified deposits of fine-grained sand stones silt stones and mudstones. Coal seams may also be present. Local experience indicates that the upper layers of rock tend to be rotten and provide few problems for excavation. Very little bentonite is normally found in the sandy surface soils. However, basements may extend into bentonite soils, therefore, weeping tile and good surface drainage need to be considered at the construction stage.

2.5. Slope Stability

Prior to construction of any residential development which follows the toe of any of the escarpment conditions or the top of a bank for the plateau (upper) condition, a preliminary slope stability assessment should be conducted. A danger of slumping is not anticipated based on other Drumheller subdivisions with similar hill formation conditions.

Notwithstanding it is recommended that all buildings be setback a minimum of 22.8-meters from the edge of the escarpment in the upper plateau area (As per L.U.B.). It is recommended that this area is maintained as an easement in favour of the Town of Drumheller to allow access and maintenance. This strip should not be developed with trees or fences, but may include roads, parking lots and landscaped with grass, shrubs and flower beds. Native grass should be maintained along the edge of escarpments; therefore extra care must be exercised at the construction stage.

At the toe of all slope conditions west of the existing north south through road, it is recommended that a 22.8-meters wide easement to backs of lots be provided to intercept drainage from the escarpment condition (as per L.U.B.). This drainage easement should be developed with a drainage swale which will be maintained by the Town of Drumheller.

At the subdivision application stage, it is recommended that a Geotechnical study be conducted by a qualified professional engineering consultant to confirm the stability of the slopes and the appropriate setback with regard to each specific phase of development. (NOTE: This investigation should be conducted in concert with the Storm Water Management study.)

3.0 DEVELOPMENT CONCEPT

3.1 Plan Objectives

The principal objectives of this plan are:

- A) To develop a plan to guide future development of this area.
- B) To establish appropriate development guidelines for this area.
- C) To establish a servicing concept for the area.

3.2 Development Concept

The development concept for this site establishes several enclaves of residential uses. It is anticipated that housing mixes will range from conventional single family homes to town housing to apartments and to a significant area of villas designed specifically for families with large R.V. motor homes and fifth wheels. The first area of development lies west of the north/south road allowance, north of the Red Deer River and south of the escarpment.

- A) R.V. Villa Lots – These lots are duplex lots with homes designed to accept the large R.V. motor homes or fifth wheels in a separate attached garage. The area would be developed in three distinct phases, creating a total of 87 lots or 174 1/2 duplex units. Interspersed with these villa lots will be a number of lots and areas for guest parking for visitors with large R.V. units.

The area is defined by a median divided entrance road affording a privacy and exclusive feel to this neighborhood. Several open space crossings to the River have been established to aid in storm water management related to the drainage swale proposed at the toe of the escarpment.

There are three existing areas (ponds), that hold or held water from runoff. Two of these areas have been filled with the third being filled at time of writing. Depending on compaction these areas will be used for R.V. storage and or villas if engineering (Geotechnical) investigation at time of construction prove the sites viable for villa development.

Immediately north of the median divided access road is a significant open space feature which adds to the park feel upon entry. It also recognizes the old C.P.R. R.O.W. a portion of which contains two existing homes which have been designed into the subdivision. The R.V. villa lots are located in phases 1, 2 and 3.

- B) Apartments – are located in three separate areas. Phases 4 and 5 are on opposite sides of the bridge crossing of the Red Deer River and function as the “Gateway” to the Sands of Rosedale Development. These apartments are noted as phases 4 and 5.
- C) Single Family Residential – located on the east side of the north/south through road and extending from the Red Deer River, north to the escarpment and abandoned CPR rail R.O.W. These lots average 18-m x 36-m (59' x 118') and are shown as 68 lots within phase 6. There are three points of access egress to phase 6 with the southerly access also serving the apartment site. A central island park and a significant park along the river (flood plain), compliment this residential community.
- D) Bed and Breakfast Acreage – This site shown as a linear acreage north of the river and east of phase 6 is a remnant of the abandoned CPR rail R.O.W. owned by Gus and June Mattheis. This site will ultimately form part of a “land trade” with the Sands property. The Mattheis property extends west to the north/south through road. A significant entrance has been shown into the acreage lot.
- E) Plateau Mixed Residential - Located at the east side of “The Sands” and north of the escarpment. This cluster enclave contains 3 apartment sites and 4 separate town house complex's. A central ring road with a park and pond feature add to the uniqueness of this site and its panoramic views. A Geotechnical investigation at time of subdivision will determine exact setback requirements from slope conditions.
- F) Single Family Residential – Lots are located in phase 8 along the existing north/south through road and contain +/-18-lots. These lots are average 18-m x 36-m (59' x 118') and may vary in size based on market conditions at time of construction.
- G) Single Family Residential – Phase 9 located on the north side of the north/south through road is a single family elongated cul-de-sac containing 32 lots. This would likely be the last phase of development. Immediately adjacent to this phase (east), are a grouping of existing structures which were part of the gravel mining operation. These buildings will remain in place, but may in the distant future be removed. A dashed cluster grouping shows how an urban overlay could happen on this site.

NOTE:

As identified in Section 2.4 – “Slope Stability”, a Geotechnical investigation will be required along with the subdivision application for any portion of the above described development concept to insure the site is suitable.

3.2.1 Plan Statistics

The following table shows the statistics as relates to all 9 phases of The Sands of Rosedale Development. All acreages, road lengths and lot parcel sizes are approximate only and subject to clarification by survey at time of subdivision development.

STATISTICS

	<u>Acres(±)</u>	<u>Hectares(±)</u>
GROSS AREA	215.9	87.3
Less Environmental Reserve (ER)	86.6	35.0
NET AREA	129.3	52.3
RV Villas Site (R2)	27.9	11.3
Residential (R1)	21.9	8.9
Apartments (R4)	11.5	4.7
Town Houses (R4)	10.2	4.1
ROADS		
– RV Villas Site	11.7	4.7
– Local	8.0	3.2
– Existing North/South Road	9.4	3.8
Municipal Reserve (MR)	20.6	8.3
Possible Future Development	8.1	3.4
Total Area	129.3	52.3
Total No. Single Family Lots	118	
Total No. Duplex Villa Lots.....	87 or 174 units	
Total No. Town House Units.....	41	
Total No. Apartment Blocks.....	5	
Total No. Apartment Units, based on +/- 50 Units per Block.....	<u>250</u>	
 Total No. Units	 <u>588</u>	

4.0 SERVICING

The Study Area will be connected to the Rosedale Community existing servicing lines which are located immediately south of the Red Deer River. This servicing lines will be suspended (sewer and water), under the bridge in utilidors, (in accordance with Alberta Environment). The design of the above mentioned will be done as requirement with Alberta Environment.

4.1 Road Network

The Sands of Rosedale subdivision has been designed to accommodate 9 distinct phases of development. The phases have varying access needs based on the type of residential to be provided. To the west of the north/south through road lie the villas specifically intended for R.V. oriented residents. All internal roads will be built as 11.5-meter roadways with curb and gutter within a 19-meter R.O.W. These roads will allow the passage of two large R.V. motor homes and still accommodate parking on one side.

All other roads to the west and north will be accommodating conventional single family residential, town houses or apartment structures. These residential roads will be 9-m paved surfaces with curb and gutter within a 15-meter wide R.O.W., As development proceeds detailed engineering design to construction will dictate the need to limit or restrict on street parking.

On both sides of the north/south through road, divided median entrance points have been shown.. These feature access points are based on 30-meter wide R.O.W.'s. From the edge of the R.O.W. on both sides will be a 4-meter setback, a 6.5-meter lane and a 9-meter planted median strip down the middle.

4.2. Utility Servicing

4.2.1. Sanitary Sewer

Sanitary from this area will flow from some of the phases via gravity to a force main and lift station, hence across the bridge to tie into Rosedale's existing services. This approach will require the construction of a utilidor winterized and heat taped line under the bridge up against the bridge apron and protected by the side girders from spring ice flows. This approach will have to be engineered to the satisfaction of the approving agencies.

4.2.2. Water

Water provision to the site presents the same engineering issues in crossing the Red Deer River. The same utilidor approach will be used to resolve this issue. To ensure adequate water is available for fire protection, lines will be looped with some areas of higher density envisioned, it is recommended that fire hydrants be installed at 150-m spacing. Buildings (apartments), shall be restricted to a maximum 3-storey height to eliminate the need for separate booster pumps for fire flows. Water services will be designed in detail at time of development to the satisfaction of the approving agencies.

4.2.3. Storm Water Management

As identified in 2.4 – “Slope Stability” which relates to the toe and the top of slope set back requirements, as well as increase in run-off and Storm Water drainage from impermeable surfaces (i.e. roadways, driveways and structures), the following is recommended. A Storm Water Management study shall be undertaken by a professional Storm Water Management consultant.

Generally post-development flow rates off of the site are not to be higher than pre-development flow rates (as contained in the “Storm Water Management Guidelines for the Province of Alberta, 1999”).

4.2.4. Shallow Utilities

All shallow utilities are to be located underground. These are to be installed by the various franchise companies and will be co-coordinated through a service agreement. These companies will need to investigate site soils conditions such as rock excavation.

5.0 IMPLEMENTATION

5.1 Land Use Classification

The majority of the subject property is currently classified “A” (Agricultural for the most part) in the Town of Drumheller land use by-law, which also includes the cluster grouping of buildings east of phase 9. These structures are zoned “A” District. All of the buildings are related to the former sand and gravel operation conducted on these lands.

The 2 existing lots Hardy and Doel located on the abandoned Rail R.O.W (in part), are zoned “CR” or, Country Residential District.

The Land Use By-law requires an Area Structure Plan to be prepared prior to the site, being reclassified to a more appropriate land use district (s).

Since there have not been any previous planning documents prepared for this site this document has been created in sufficient detail to analyze the various land uses and locations. Therefore the mix of single family, R.V. Villas, Town Housing and Apartment Sites related to an economic overview of servicing opportunities and constraints make this concept valid at this time.

It is recommended in order to facilitate this development, that the following land use districts be applied:

- Phases 6, 8 and 9 are all R1-single family residential district. This would include the proposed bed and breakfast home occupation site.
- Phases 1, 2 and 3 are all R2-Duplex lots which will accommodate the proposed unique R.V. Villa lots.
- Phases 4, 5 and 7 are all R4-Multiple Family Districts and allow for the 5 proposed 3 story walk-up apartment structures, as well as the 5 cluster Town Housing groups on the upper plateau.

It is also recommended that the site containing the buildings which were part of the previous sand and gravel operation be left in its current classification of "A" (Agricultural). These structures would then become a "legal non-conforming use", which would be terminated to prior residential development in this area.

5.2 Municipal Reserve

In concert with this proposed subdivision the undeveloped hillsides or escarpment lands should be taken as reserve. If the lands are such that they can never be developed and will likely be left in their natural state. These lands should be considered as environmental reserve. Top plateau areas would be left for future urban development.

Given the magnitude of the development consideration has been given to the provision of Municipal Reserves. Within the R.V. Villa Development a 20-m (66') strip along the toe of the escarpment can function as Municipal Reserve, and a drainage course. In addition a significant park area has been designed upon entry to the R.V. Villas site.

Two park areas of note are located in Phase 6 with an extensive park adjacent to the Red Deer River and a central "island" park within the subdivision.

A central island park is also located on the upper plateau in Phase 7. Depending on Geotechnical conditions this park would also provide a pond amenity.

5.3 Trail Connections

Phases 1, 2 and 3 provide for the creation of an interconnected trail system. This system can be developed with a shale trail pathway system for the enjoyment of the local residents. Green connections are also shown north to south in several locations. These connections can function as cross-drainage areas as well as for pedestrian movement.

Phase 6 also boasts a significant trail system which will pick up on the views from the Red Deer River.

5.4 Phasing

Development of the Sands of Rosedale will be undertaken on a sequential basis beginning from the west (villas), hence east to the residential and north to the plateau's mixed use multiple family development. As previously noted it is recommended that no buildings be constructed over three stories in height.

Parking requirements need to be carefully considered at time of development. On-street parking (one-side) has been considered and applies to all areas. Adequate parking for owners, tenants and visitors must be considered. It is recommended that the following standards be considered for the Sands of Rosedale at the time of subdivision approval and construction.

- Apartments: 1 stall per dwelling unit, plus one stall per 4 units for visitor parking.
- Town Houses: 2 stalls per dwelling unit plus one stall per 5 units for visitor parking.
- Duplexes: 2 stalls per dwelling unit
- Single Family House: 2 stalls per dwelling unit.

Portions of this property provide for some panoramic views of the River Valley and surrounding hill formations. Coupled with the fact that unique housing forms such as the villa, town houses and apartments are being proposed, then the developer proposes upscale or provide high quality developments throughout the Sands of Rosedale.

5.5 Development Guidelines

The Sands of Rosedale are currently owned by several separate parties. The greatest portion of lands within the site are wholly owned by Dale and Suzanne Sands.

A portion of the abandoned CPR rail R.O.W., has been purchased by Gus and June Mattheis of Hanna, Alberta. This land will ultimately be designed out to the configuration shown on this A.S.P. Concept Plan. This entails a land swap which would occur at time of construction.

Immediately west of the main north/south through road are two existing single family lots owned by Hardy and Doel respectfully. These lots have been recently consolidated by the

Town of Drumheller to increase the rear yards of the lots. Again care has been given to acknowledge their existence and to incorporate them into the concept plan.

The Sands have their existing homestead within this area plus one or two other existing homes. These have been designed out through the concept development and structures will be moved or raised at time of subdivision and their lots consolidated into the development.

All land exchanges will not form part of this Area Structure Plan and will have to be negotiated with the Town and the various land owners at time of Subdivision.

NOTE:

To date discussion have occurred between the Town of Drumheller, owners of the abandoned rail line and the recent owners of the easterly portion of the abandoned railway as relates to servicing and a land exchange. This ASP will as part of the approval processing have a public participation program undertaken. This will insure resolution of concerns of all parties prior to subdivision application.