

**WOOD VALLEY ESTATES  
AREA STRUCTURE PLAN**

April 24, 2001

**BYLAW 1/2001**

**BEING A BYLAW OF THE MUNICIPAL DISTRICT OF FOOTHILLS NO. 31 TO ADOPT AN AREA STRUCTURE PLAN**

**WHEREAS** the Council of the Municipal District of Foothills No. 31 (hereinafter called the "Council") is empowered by Section 633(1) of the Municipal Government Act, being Chapter M-26.1, to adopt an Area Structure Plan which provides a framework for subsequent subdivision and development of an area of land within the Municipality's boundaries; and

**WHEREAS** the Council did direct the preparation of an Area Structure Plan for the the following lands:

*Plan 7810781 Block 3 in NW 36-21-2 W5 (55.43 acres); Plan 7810781 Block 4 in NW 36-21-2 W5 (60.25 acres); Block 1 in SW 36-21-2 W5 (23.72 acres); Block 2 in SW 36-21-2 W5 (23.72 acres) and Plan 7410925 Parcel 5 Block 3 in SW 36-21-2 W5 (28.57 acres)*

**WHEREAS** the Area Structure Plan has been prepared under the direction of Council;

**NOW THEREFORE** the Council of the Municipal District of Foothills No. 31 in the Province of Alberta, hereby enacts as follows:

1. This Bylaw may be cited as the "*Wood Valley Estates Area Structure Plan*".
2. The *Wood Valley Estates Area Structure Plan* being Schedule "A" attached hereto and forming part of this Bylaw.
3. That the *Wood Valley Estates Area Structure Plan* may be amended by Bylaw from time to time in accordance with the Municipal Government Act, by the Municipal District of Foothills No. 31.
4. This Bylaw comes into full force and effect upon the third and final reading.

FIRST READING: January 4, 2001

*Roy R. McLean*  
\_\_\_\_\_  
Reeve  
*[Signature]*  
\_\_\_\_\_  
Municipal Manager

SECOND READING: May 10, 2001

*Roy R. McLean*  
\_\_\_\_\_  
Reeve  
*[Signature]*  
\_\_\_\_\_  
Municipal Manager

THIRD READING: May 10, 2001

*Roy R. McLean*  
\_\_\_\_\_  
Reeve  
*[Signature]*  
\_\_\_\_\_  
Municipal Manager

PASSED IN OPEN COUNCIL assembled at the Town of High River in the Province of Alberta this 10<sup>th</sup> day of May, 2001.

**WOOD VALLEY ESTATES  
AREA STRUCTURE PLAN**

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Prepared pursuant to the provision of the  
Municipal Government Act amended

**July 27, 2000**

**Revised February 8, 2001  
Revised April 23, 2001**

**WOOD VALLEY ESTATES  
AREA STRUCTURE PLAN**

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**APPENDIX**

- Appendix 1 Wood Valley Estates Revised Area Concept Plan as approved by Council, June 1999
- Appendix 2 Wood Valley Estates Newsletter and Questionnaire, January 2000
- Appendix 3 Wood Valley Estates Area Structure Plan - Notice of First Reading, Bylaw 001/2001, January 2001.
- Appendix 4 Groundwater Exploration and Research Ltd. Report on groundwater - June 30, 1998
- Appendix 5 Large scale plan of Revised Wood Valley Estates Area Structure Plan, April 2001.

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## **1.0 Introduction**

## **1. INTRODUCTION**

### **1.1 Purpose of the Plan**

The Wood Valley Estates Area Structure Plan has been prepared pursuant to Section 633 (1) of the Municipal Government Act and is in accordance with the requirements of the "Guidelines for the preparation of Area Structure Plans" as adopted by the Municipal District of Foothills by resolution of Council.

The Plan has a level of detail greater than the Foothills Municipal Development Plan and is intended to act as a guide to future subdivision and development within the Plan area. In accordance with Section 633 (1) of the Municipal Government Act, a Council of Municipality may, by By-Law, adopt the Plan as a Statutory Plan.

Direction for the Plan was provided by the Municipal Development Plan, Municipal District of Foothills No. 31, as adopted by Bylaw 139/98, third and final reading October 1, 1998. The Plan indicated that documents such as this should examine and address the following issues:

- 1.1 the proposed land use
- 1.2 the sequence of development
- 1.3 the location of proposed and existing roads and public utilities
- 1.4 the location of reserves
- 1.5 water supply and public sewage provisions
- 1.6 the developability of the land
- 1.7 impacts on surrounding land uses

In addition, this Area Structure Plan is to bring closure to an on-going debate regarding the development of the northern portion of the plan area and to facilitate the meaningful development of the south portion of the plan area in order to provide a "win-win" framework for current and future residents.

### **1.2 Background to the Area Structure Plan**

Development proposals for the northern portion of the plan area began over twenty years ago with the development of White Post Lane in 1978. Since that time, various developments within the parcel have been approved on an ad-hoc basis. This has led to an on-going mistrust between the residents of White Post Lane ( hereafter WPL) and some of the owners of the land, who initially developed WPL. When a recent proposal for further development on the north west corner of the plan area was considered by Council, they requested that an Area Concept Plan be prepared to outline an overall development strategy for the area under consideration and the lands immediately to the east and south of the parcel.

The Area Concept Plan was prepared pursuant to a public hearing, April 16, 1997 and a motion of Council respecting By-Law 48/97, Holden Re-designation plan 7810781 Block 3 N.W. 36-21-02-W5. The plan was prepared in accordance with the requirements of the Foothills General Municipal Plan and Land Use By-Law and followed recommendations contained within the June 17, 1998 Draft Copy of the Municipal Development Plan. The Plan was prepared with a level of detail greater than that generally required by the Foothills Municipal Development Plan for Area Concept Plans.

The Area Concept Plan was reviewed by Council on January 21, 1999. At that time Council passed a resolution noting seven amendments. A revised plan incorporating the amendments was considered and approved by Council on June 28, 1999 when it accepted the plan of redesignation for PTN: N.W. 36-21-01-W5M - the Des Holden component of the concept plan. A copy of the approved Area Concept Plan is included in the Appendix. The Approved Area Concept Plan underpins this Area Structure Plan.

On January 4, 2001 Council gave First Reading to Bylaw 001/2001 authorizing the adoption of the Area Structure Plan subject to certain revisions. These revisions have been incorporated in this revised Area Structure Plan.

### **1.3 The Approval Process**

The M.D. of Foothills No. 31 requires the preparation of an Area Structure Plan to provide a framework for subsequent subdivision and development within the plan area.

Consultants were retained by the landowners to prepare the Plan. The consultants have met with the landowners on a regular basis during the preparation of the Plan.

The Plan requires the approval of the M.D. of Foothills Council following public circulation, subsequent reviews and amendments.

### **1.4 Plan Implementation**

The Wood Valley Estates Area Structure Plan, adopted by By-Law in accordance with Section 633 of the Municipal Government Act, shall become a statutory document of the Municipal District of Foothills No. 31.

Pursuant to Section 692(1), (f) of the Municipal Government Act, Council held a Public Hearing with respect to the proposed By-Law on December 14, 2000. The Wood Valley Estates Area Structure Plan does not supercede, repeal, replace, regulate, or otherwise diminish any Statutory Plan in effect in the Plan Area.



## 1.5 Plan Review and Amendment

While the Area Structure Plan is designed to provide an outline of how this specific plan area of the Municipality will be developed; changing considerations (environmental, social and economic) may require amendments to the Plan from time to time.

Council should review the Plan from time to time and amend if necessary, and shall hold a public hearing as required by Section 692(1) of the Municipal Government Act prior to giving second reading to any proposed amendment.

## 1.6 Interpretation

In this Plan:

- a) **“Concept Plan”** means the Area Concept Plan adopted by Council for this Plan area.
- b) **“Council”** means the Council of the Municipal District of Foothills No. 31.
- c) **“Plan”** means the Wood Valley Estates Area Structure Plan.
- d) **“Subdivision Approving Authority”** means the Council of the Municipal District of Foothills No. 31
- e) **“Plan of Subdivision”** means a detailed proposal for development of the land and forms the basis for an application for subdivision.
- f) **“Residual Lands”** means all lands within the Plan Area which are not identified for residential, roadway and utility uses by the Plan.
- g) **“Municipal Reserve” ((MR)** as defined by Section 666(1) of the Municipal Government Act.
- h) **“Environmental Reserve” (ER)** as defined by Section 554(1) of the Municipal Government Act.

## 1.7 Legislative Framework

### 1.7.1 The Municipal Government Act

The Municipal Government Act as amended to this date sets out the requirements for an Area Structure Plan in Section 633(2) as follows:

“An Area Structure Plan

- (a) must describe:
  - i the sequence of development proposed for the area;
  - ii the land uses proposed for the area, either generally or with respect to specific parts of the area;
  - iii the density of population proposed for the area either generally or with respect to specific parts of the area;and

- iv the general location of major transportation routes and public utilities;

and

- (b) may contain any other matter the Council considers necessary.”

### **1.7.2 The Municipal Development Plan**

The Municipal Development Plan, adopted by Council Bylaw 139/98, is a statutory planning document affecting land use within the Municipal District of Foothills No.31.

Pursuant to the Municipal Development Plan, and based on the very low capability of this parcel for agriculture, the appropriate land uses for the Plan Area include the following:

- a) Country Residential Development
- b) Reserves - Municipal, School & Environmental
- c) Agriculture

Specific policies designed to achieve the objectives contained in the Municipal Development Plan are as outlined in the Municipal Development Plan as adopted by Bylaw 139/98 and this Area Structure Plan.

## **2.0 The Plan Area**

**2.0 THE PLAN AREA**

**2.1 Regional/Municipal Location**

The Plan Area comprises the NW 36-21-02 W5 and the north ½ of SW 36-21-02 W5 generally located 3.2 kilometres south of Lloyd Lake and adjacent to the east side of SH 773 at 242 Avenue. The Plan Area lies entirely within the Municipal District of Foothills No. 31.

**2.2 Definition of the Plan Area**

**2.2.1. Boundaries of the Plan Area**

This Area Structure Plan encompasses land that five (5) landowners wish to sub-divide. The property is bounded on the north by 242 Avenue S.W., on the east by the fifteen residential lots of White Post Lane, on the south by residential acreages and on the west by SH773. The total plan area is 77.577 hectares (191.69 acres) more or less.

The plan location is illustrated on Figure 1 and the Planning Area is illustrated in Figure 2.

The landowners who wish to sub-divide include:

**A. N.W. 36-21-02 W5**

Art and Helen Holden . . . . .	22.43 hectares (55.43 acres)
Plan 7810781 Blk 3 NW 36-21-2-W5	
Desmond and Adelaide Holden* . . . . .	24.38 hectares (60.25 acres)
Plan 7810781 Blk 4 NW 36-21-2-W5	
<i>(*This includes the six - 3 acre lots currently approved and under development)</i>	

**B. North ½ .S.W. 36-21-02 W5**

Clark and Hedy Seaborn . . . . .	9.60 hectares (23.72 acres)
Block 1. S.W. 36-21-02-W5	
Frank Varga . . . . .	9.60 hectares (23.72 acres)
Block 2. S.W. 36-21-02-W5	
Len and Lucill Maddison . . . . .	11.56 hectares (28.57 acres)
Plan 7410925 Parcel 5. Blk 3, SW 36-21-2-W5	

**Total area to be sub-divided . . . . . 77.57 hectares (191.69 acres)**

### **2.2.2 General Physical Description**

Wood Valley Estates is located within a bowl-shaped land form that generally slopes from south to north. The high point on the site is located in the south west corner of the Plan Area. The low point is near the entrance to White Post Lane at the north end of the site. Within this planning area there is a difference of some 95 metres in elevation. Slopes vary from steep, +/- 20% to flat +/- 3%. The area drains to the north through a central ravine, that receives drainage flows from neighbouring lands to the east and from the balance of the site. The central ravine generally bisects the subject lands. The site is being used primarily for residential acreages and as marginal grazing land for a small number of cattle. The soils are Class 4 according to the Canada Land Inventory. Class 4 soils have severe limitations that restrict the range of crops or may require special conservation practises.

Existing buildings include four residences located off SH773, six lots currently under development on the north west corner of the parcel, two single family residences located on the west side of White Post Lane, itself containing fifteen other residences of approximately 0.81 hectare (2 acre) parcels, and a former girl guide camp located near the centre of the site. The development of the six lots on the north west corner of the subject parcel has included the re-construction of the western portion of 242 Ave. and an entrance road that will serve this proposed development

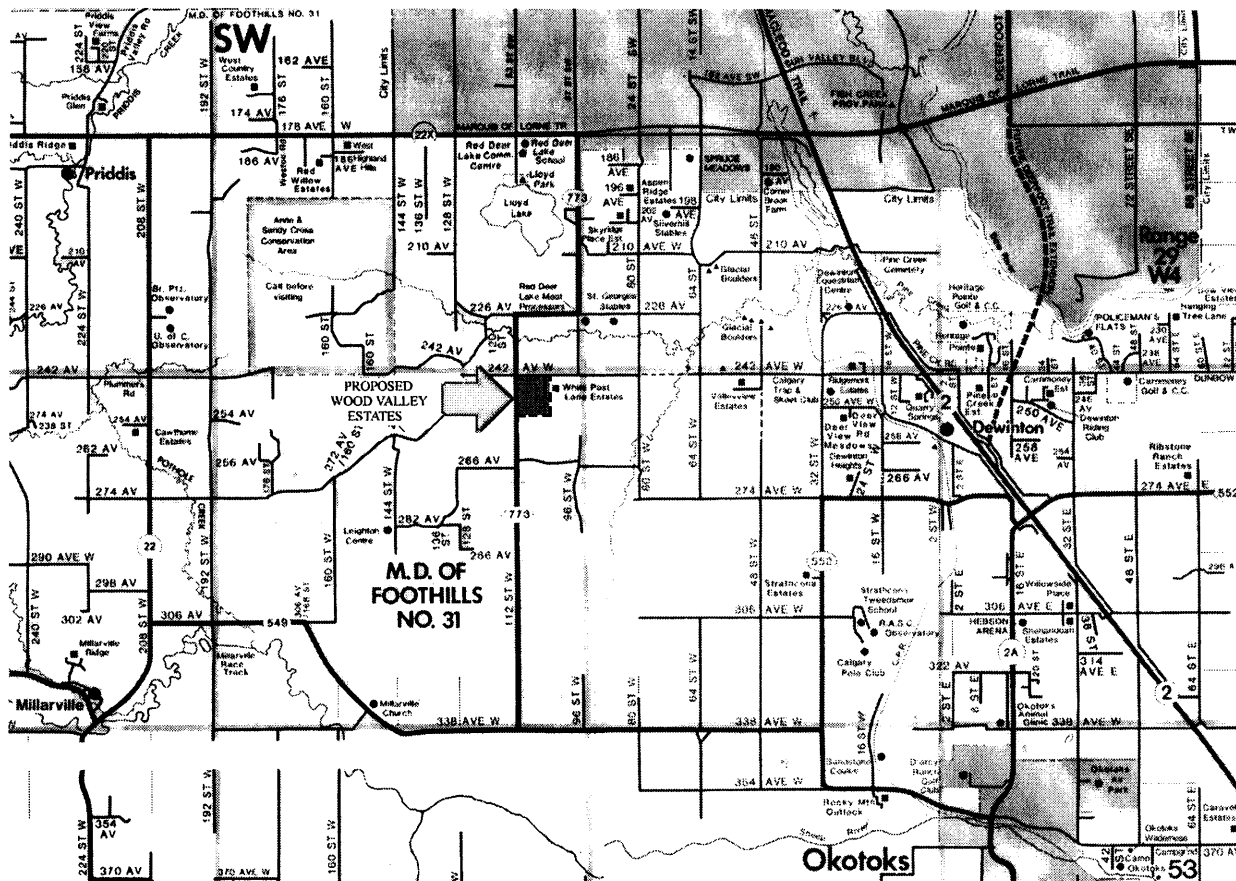


Figure 1 - Plan Location

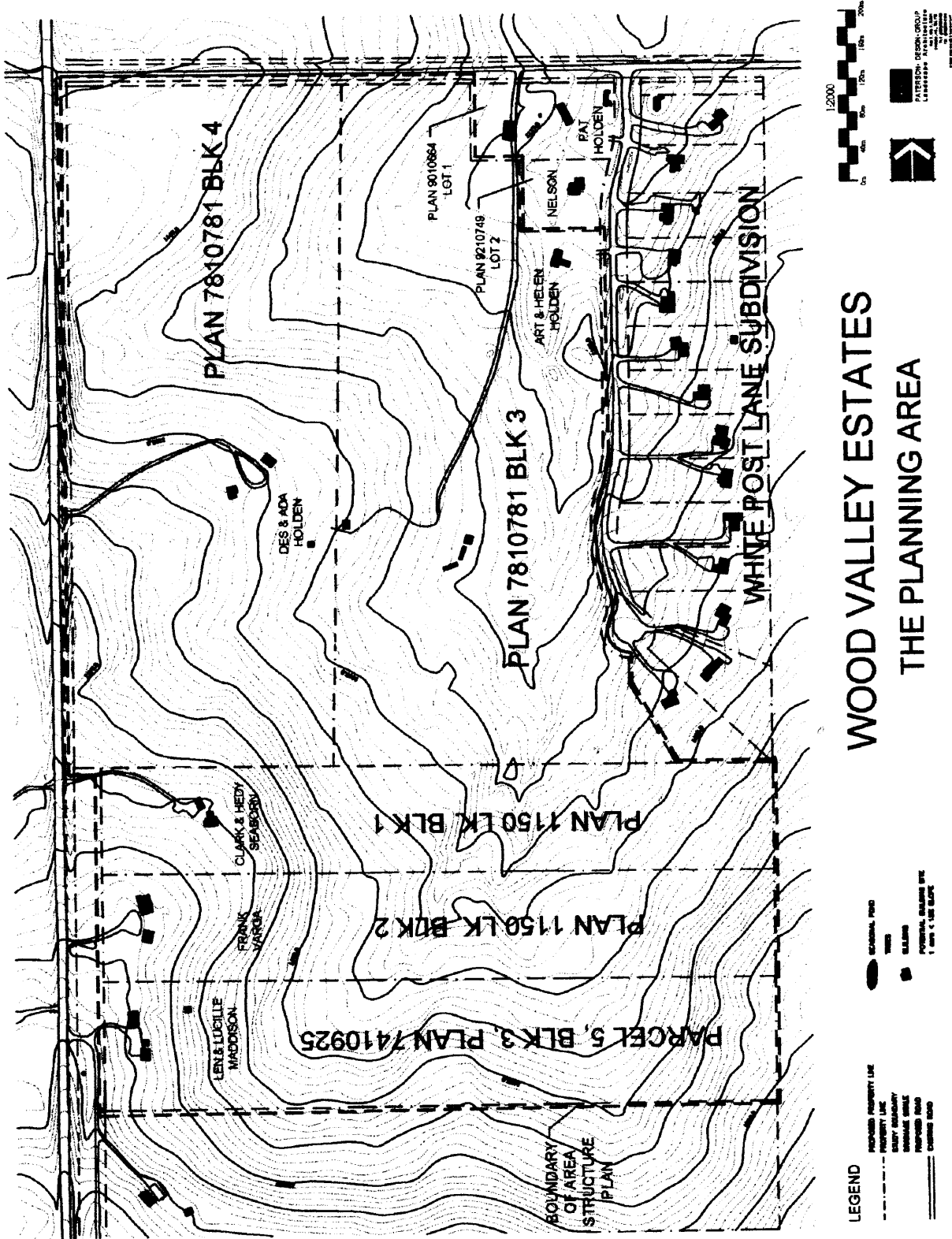


Figure 2 - The Plan Area

### **3.0 Plan Objectives**



**3.0 PLAN OBJECTIVES**

**3.1 Goals and Objectives of the Plan**

- 3.1.1 To create a country residential development achieving the highest design, aesthetic and environmental standards in conformance with the existing provincial, regional and municipal policy documents.
- 3.1.2 To act as a guide under which the Municipal District can review and evaluate specific development proposals.
- 3.1.3 To provide a framework for subsequent sub-division and development proposals.
- 3.1.3 To establish polices which will direct proposed land use, open space, population density, location of transportation routes, location and methods of utility servicing, phasing of development, site specific issues such as escarpment and highway setbacks and other such matters as Council deems necessary.

## **3.2 Principles of Development**

The major objectives of this development are as follows:

- 3.2.1 To ensure all development is in accordance with the current statutory policy and municipal standards.
- 3.2.2 To provide for residential land uses that respect the character of the landscape and which reflect the rural surroundings.
- 3.2.3 To provide high quality design and development standards for all proposed development.
- 3.2.4 To provide integrated municipal and environmental reserve parcels that serve the needs of the neighbourhood and that take advantage of the natural features of the area.
- 3.2.5 To ensure municipal and environmental reserves continue to allow public recreational activities that respect the quality of the landscape.
- 3.2.6 To develop safe and efficient transportation and utility systems that respect the natural qualities of the landscape.
- 3.2.7 To encourage safe and efficient movement of traffic within and adjacent to the proposed development by adhering to the long term goals of Alberta Transportation and Utilities.
- 3.2.8 To ensure that all development is controlled by fair and equitable policies that respect the character of the neighbouring developments.
- 3.2.9 To respect the areas natural resources and to activity mitigate against their destruction or overuse.
- 3.2.1 To improve upon and preserve the aesthetic qualities of the area.

## **4.0 Plan Policies**

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**Wood Valley Estates Area Structure Plan**

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**4.0 PLAN POLICIES****4.1 The Plan Concept**

This section discusses the implementation of the Area Structure Plan objectives and principles of development identified in Section 3.0 as they apply specifically to Wood Valley Estates and as currently reflected in the approved amended Area Concept Plan.

**Goal:**

***To comprehensively plan a country residential subdivision that reflects the highest standards of design, aesthetic and environmental respect in conformance with the existing provincial, regional and municipal policy documents.***

The Wood Valley Estates Area Structure Plan, Figure 3, provides the Municipal District of Foothills with a planned development consisting of country residential and integrated open space and environmental land uses that respect the character the surrounding landscape and neighbouring residential acreages.

The Area Concept Plan approved as a part of Council's June 10, 1999 resolution approving the Redesignation - PTN: N.W. 36-21-01-W5M, included a plan indicating a total of 15 new lots and three parcels of land in agricultural balance, one of which included the area known as the Girl Guide Camp. The Concept Plan approval allowed development of six lots on the northwest corner of the planning area to proceed and these are now under development. With the elimination of the Guide Camp, this Area Structure Plan continues to follow the design intent of the Area Concept Plan making only minor realignments of the boundaries of agricultural and MR parcels resulting in an increased municipal reserve buffer for residents of the adjacent White Post Lane. In its current configuration, this Area Structure Plan will permit a total of eight new lots to be developed in addition to the six already approved for a total of fourteen lots as agreed in the Area Concept Plan.

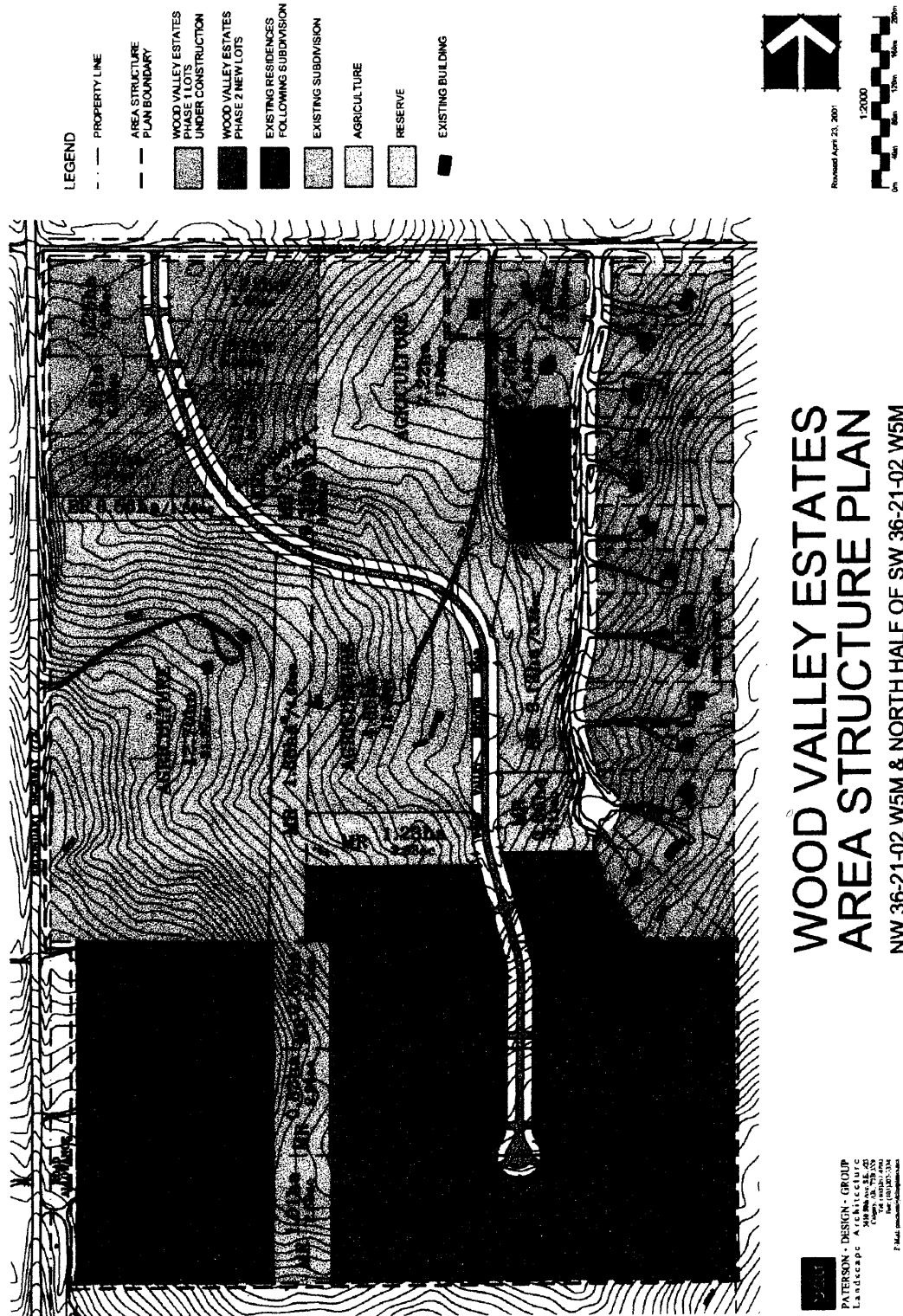


Figure 3 - Wood Valley Estates Area Structure Plan

## 4.2 Residential Land Use Component

### 4.2.1 Country Residential Development

**Principle:**

***To provide for residential uses in a manner that is sensitive to the character of the landscape and the needs of the greater community.***

**Policies:**

- 4.2.1.1 All Country Residential Development shall conform to provisions of the Municipal Development Plan and the Land Use By-Law including the general and specific setback requirements from highways, property lines and internal roads.
- 4.2.1.2 All subdivision and development shall be in conformity with the provisions of the Municipal Government Act, the Subdivision and Development regulations.
- 4.2.1.3 New Country Residential lots within the Area Structure Plan area shall range in size from 1.22 hectares (3.00 acres), to 3.63 hectares (8.97 acres), more or less.
- 4.2.1.4 Approval for Country Residential Development shall be contingent upon a signed Development Agreement between the Municipal District of Foothills No.31 and the Developer for the internal road following approval of the plan of subdivision.
- 4.2.1.5 All utilities and roads shall be developed in keeping with Municipal and Provincial standards as follows:
- a) Individual water wells shall be developed for each lot in accordance with Alberta Environment standards and licensing procedures.
  - b) Sewage treatment and disposal shall utilize conventional septic tanks and fields or be accomplished by mechanical treatment systems in accordance with the guidelines established by Alberta Labour in the Alberta Private Sewage Treatment and Disposal Regulations of Alberta Environmental Protection.

- c) Access roads and internal circulation roads shall be designed in accordance with Municipal standards and shall be approved by the Municipality of Foothills roads engineer.
- d) Installation of overhead and underground power, gas and telephone services shall be completed to all new lots at the Developer's expense and shall be in accordance with the franchised utility company design and installation standards.
- e) Timely garbage pickup and disposal from the development to an approved disposal site shall be the responsibility of each individual lot owner.
- f) Utility rights-of-way shall be provided in accordance with provincial and municipal regulations.

#### **4.2.2 Girl Guide Camp**

The "Tiny Holden Guide Camp" has been in continuous existence for many years. It has served thousands of young women who participated in an adventure camp providing a true rustic experience in the Foothills of the Rockies. Over the years, the camp became an important part of the annual program of the Girl Guides organization who developed a long standing tradition of use in the Plan Area. However, increasing pressures of development in the region and the requirements for continuous upkeep of the structures have led the land owners, in consultation with the girl guides, to conclude that the camp, in its present form, can no longer adequately serve the needs of the girl guides. Consequently, the owners have decided to seek other ways to commemorate Tiny Holden.

***Principle:***

***To phase out the Girl Guide Camp following plan approval.***

**Policies:**

- 4.2.2.1 To allow sufficient time for the Guides to seek alternate sites, the Girl Guide Camp shall be allowed to remain and be used until December 31, 2000.
- 4.2.2.2 All on-going maintenance and upkeep of the Guide Camp during this transition period shall be at the Developer's expense.
- 4.2.2.3 Following closure of the Guide Camp, all buildings and associated camp development shall be completely removed

and disposed of at the Developer's expense.

- 4.2.2.4 Following building removal the site shall become part of the Agricultural District parcel.

#### **4.2.3 Plan 7810781 Blk 3 NW 36-21-2-W5**

***Principle:***

***To allow the continued use of the residual lands of Plan 7810781 Blk 3, for agricultural purposes.***

**Policies:**

- 4.2.3.1 The residual lands of Plan 780781 Blk 3 consist of two parcels divided by an internal M.D. road. Parcel 1 encompasses the old Girl Guide camp. It is 4.857 hectares (12 acres) more or less in size. Parcel 2 to 7.22 hectares (17.83 acres) more or less. The combined parcels equal 12.077 hectares (29.83 acres).
- 4.2.3.2 Intensive Agricultural uses as defined by the Municipal Development Plan and Land Use Bylaw shall not be allowed without prior approval of the Municipal District of Foothills No 31.
- 4.2.3.3 A "Restrictive Covenant As To the Use of Land" shall be signed between the land owner and the Municipal District of Foothills limiting further subdivision of the Agricultural District land without the written approval of the Municipal District of Foothills No. 31.

#### **4.3 Agricultural District - Plan 7810781 Blk 4 NW 36-21-2-W5**

***Principle:***

***To allow the continued use of the residual lands of Plan 7810781 Blk 4, for agricultural purposes.***

**Policies:**

- 4.3.1 The subject lands shall continue with their current agricultural land



use until changes in the Municipal Development Plan regulations and By-Laws permit additional considerations.

4.3.2 Agricultural uses shall be limited to non-intensive farming of animals and agricultural crops.

4.3.3 A "Restrictive Covenant As To the Use of Land" shall be signed between the land owner and the Municipal District of Foothills limiting further subdivision of the Agricultural District land without the written approval of the Municipal District of Foothills No. 31.

#### **4.4 Environmental Component**

***Principle:***

***To allow the utilization of such areas for public and private outdoor recreational activities such as walking, hiking and bicycling.***

***To ensure that development on or near environmentally sensitive areas is controlled in accordance with policies satisfactory to Alberta Environment and the Municipal District of Foothills.***

**Policies:**

4.4.1 Environmental reserve areas within the Plan Area may be utilized for recreation purposes to the satisfaction of Alberta Environment and the Municipality of Foothills.

4.4.2 Any sub-division or development shall recognize the slope conditions in the Plan Area, and set-backs shall be in accordance with the requirements of the Municipal District Land Use By-Law and the recommendations of a qualified professional to the satisfaction of the Municipal District and Alberta Environment.

4.4.3 The dedication of Environmental Reserve (ER) in those areas not suitable for subdivision or development shall be considered at the plan subdivision stage.

#### **4.5 Reserves - School/Municipal and Environmental**

***Principle:***

***To ensure that the school and recreational land needs of the community are met through the provision of a publically accessed, integrated open space system.***

Capacity currently exists within the area schools to accommodate the projected student population from the Plan Area therefore no provision for school reserves is made within the Plan Area.

**Policies:**

- 4.5.1 Municipal Reserve (MR) has been dedicated as required by the Municipal Government Act, Subdivision regulations and the direction of Council on approval of the Area Concept Plan.
- 4.5.2 Lands dedicated for Municipal Reserve are similar in quality as the lands being utilized for development and will remain in a natural undeveloped state until utilized by the M.D.
- 4.5.3 Environmental Reserve (ER) as determined by Council has been dedicated adjacent to White Post Lane to provide a development buffer from the adjacent residential acreages and to respect the drainage course crossing under SH773. It will remain in a natural unaltered state.

**4.6 Transportation**

***Principle:***

***To Develop an efficient and safe internal roadway in accordance with the standards of the Municipality of Foothills.***

**Policies:**

- 4.6.1 Access to the Plan Area shall be limited from 242 Avenue and the proposed internal road. Direct access on to SH773 shall not be permitted with the exception of existing accesses serving the pre-concept plan lots abutting SH773.
- 4.6.2 Internal roads shall be developed in accordance with Municipal Standards.
- 4.6.3 All land uses proposed shall provide for their full parking requirements as outlined in the Land Use By-Law.

**4.7 Phasing**

***Principle:***

***To phase development in a logical and efficient manner based upon market conditions***

The first phase of development is currently underway with the re-construction of the intersection of 242 Ave and SH773, the development of the initial length of internal access road and the six lots approved by Council on the north west corner of the Plan Area.

The second phase of the development will address both market absorption and servicing considerations and will include the extension of the internal access road to service the new lots.

#### **4.8 Utility Servicing**

***Principle:***

***To provide a high level of services which will not detrimentally affect adjacent communities.***

The Plan Area shall have high quality development standards in all areas including water and sewage systems, roadways, landscaping and architectural guidelines/restrictive covenants aimed at creating a quality residential development.

The Developer shall prepare a set of community development guidelines as an integral part of the Development Agreement process, which will include control of the standards and development and operation of all communal utilities.

All utilities and roads will be developed in keeping with municipal and provincial standards as follows:

**Policies:**

##### **4.8.1 Water Supply, Storage and Distribution**

4.8.1.1 Individual water wells shall be provided for each lot in accordance with Alberta Environment standards and licensing procedures.

4.8.1.2 All capital costs associated with the provision of the facilities will be the sole responsibility of the Developer.

##### **4.8.2 Sanitary System**

4.8.2.1 Sanitary treatment shall be provided for each lot for sewage treatment and disposal in accordance with guidelines established by Alberta Labour and Alberta Environmental Protection as outlined in Section 4.2.1.5.(c) of this plan.

- 4.8.2.2 Geotechnical testing, if deemed necessary by Council, shall be undertaken to ensure adequate capability of the land to support septic tanks and fields.
- 4.8.2.3 All capital costs associated with the provision of facilities will be the sole responsibility of the Developer.

#### **4.8.3 Storm Drainage System**

- 4.8.3.1 A system of surface drainage integrated with the road system shall form the basis for run-off control within the development area. The open space overland flows will be directed to natural discharge water features within the site and ultimately to the natural drainage areas adjoining the property. The routes, discharge rates and flow will not be altered by new construction other than the access road which will direct water towards existing drainage channels. Cross flows will be contained within culverts as necessary to ensure positive drainage. Ditch checks will be used as required to impede water flow.
- 4.8.3.2 If deemed necessary by Council, A Storm Water Management Plan shall be completed by a certified professional to the satisfaction of the Municipal District of Foothills No. 31

#### **4.8.4 Shallow Utilities**

- 4.8.4.1 Extension of shallow utilities and their associated costs shall be the sole responsibility of the Developer. The right-of-way and servicing requirements shall be determined at the Plan-of-Subdivision stage.

### **4.9 Protective Services**

#### **4.9.1 Police Service**

- 4.9.1.1 Police service to the Plan Area shall be provided by the RCMP detachment at Okotoks and Black Diamond/Turner Valley.

#### **4.9.2 Fire Service**

- 4.9.2.1 Fire Department assessments as part of the Municipal District's tax base of this existing residences in this area and will extend to all lots in the Plan Area.

## **5.0 Implementation**

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## 5.0 IMPLEMENTATION

### 5.1 Community Contact to Date

The preparation of this Area Structure Plan was preceded by the preparation and approval of an Area Concept Plan. Since this plan's approval by Council, the Developer has continued to liaise with adjacent land owners, has prepared and distributed a newsletter informing residents in the community about the status of the proposal and forwarded questionnaires to each landowner within a one mile radius of the Plan Area. A total of 53 questionnaires were distributed and approximately fifty percent (50%) responded. Those that did not respond were generally residents who lived at the outer edges of the one mile radius from the Plan Area.

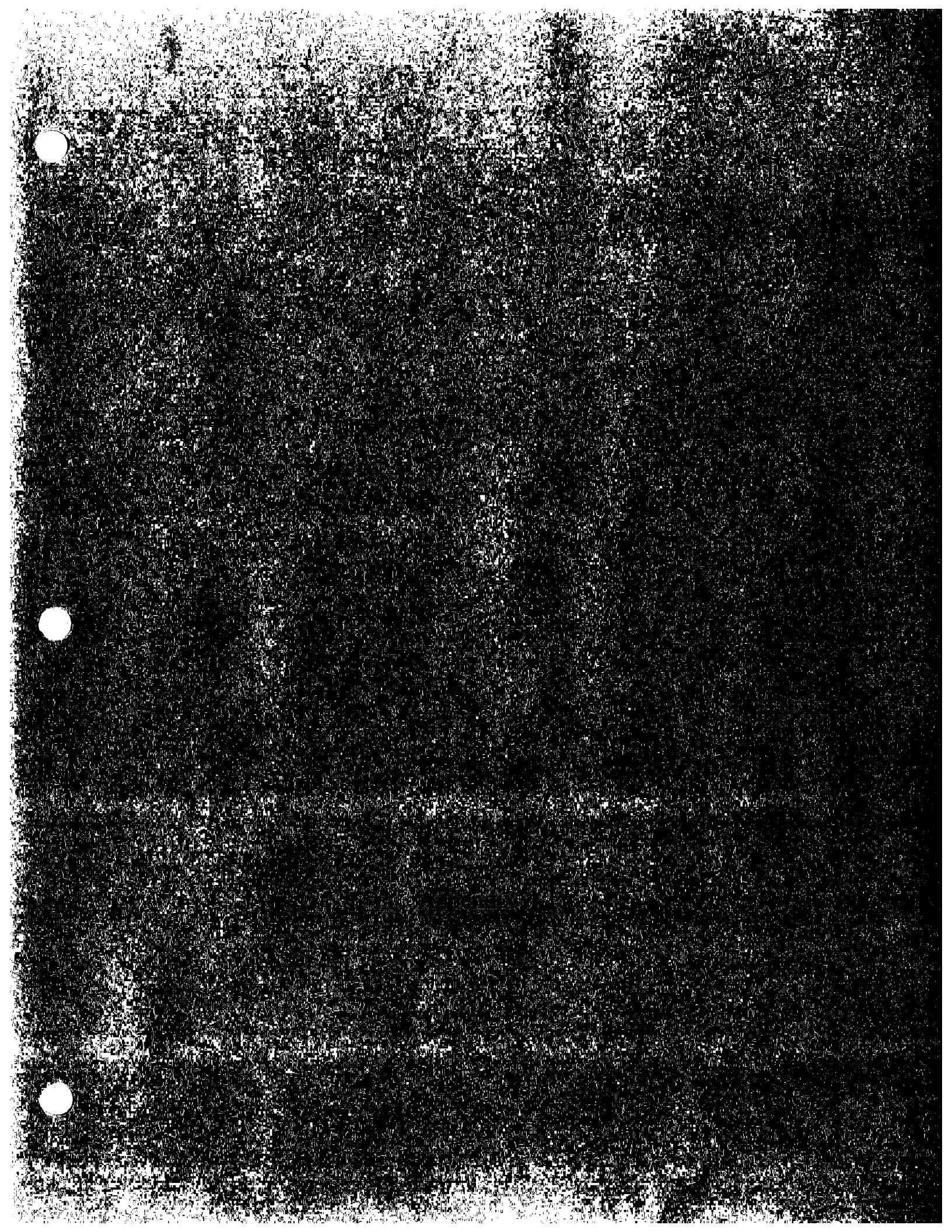
Because of the very high response rate, this questionnaire, a copy of which is in the appendix, is considered to be representative of the majority view of the residents of this region. The respondents were sixty eight percent (68%) in favour of the development as proposed. They voiced their support for many reasons including:

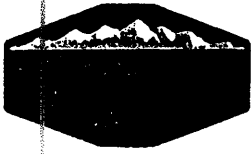
- the Developers are local residents who will continue to live in the Plan Area,
- the plan exhibits landscape sensitivity in its recognition of land form and community open space needs, and
- the Developer's willingness to share water resources with their neighbours.

Further, those in favour of the development expressed concerns that a piecemeal approach to subdivision could result in the creation of unsightly pan-handle lots with their extensive driveways and potential accesses on to SH773.

Of the twenty percent (20%) of respondents who were opposed to the development, the majority provided no reasons for their objections. It was therefore not possible for the Developer to offer resolutions for these individuals. Twelve percent (12%) of the respondents voiced no opinion and are assumed to be non-objectors.

It is clear, based on the community contact to date, that the absolute majority of land owners within a one mile radius, are in favour of this Area Structure Plan.





## Municipal District of Foothills No. 31

309 MACLEOD TRAIL, BOX 5605,  
HIGH RIVER, ALBERTA T1V 1M7  
TELEPHONE (403) 652-2341 or (403) 931-1905  
FAX (403) 652-7880

June 28, 1999

Paterson Design Group  
C/O Lawrence Paterson  
Box 7 Site 5 RR 1  
Okotoks, AB T0L 1T0  
CANADA

Dear Sir/Madam:

**Re: D. & A. Holden - Redesignation - PTN: N.W. 36-21-01-W5M**

Please be advised that at its June 10, 1999 meeting, Council passed the following resolutions:

MOVED to accept the revised site plan in accordance with the Wood Valley Estates Area Concept Plan.

MOVED that the Public Works Department be requested to supply a report to the Planning Department outlining any concerns with site lines as well as the requirement for upgrading from Secondary Highway 773 to the new internal subdivision road.

Prior to further consideration of the Bylaw, you will now be required to submit the following:

- final lot fees of \$400.00 per new lot;
- Developer's Agreement as per recommendations from the Public Works Department;
- Proof of adequate water supply as per the Provincial Water Act;
- Subdivision application (enclosed) as well as subdivision fees of \$365.00 per new lot + \$35.00 filing fee and \$250.00 Subdivision Appeal Fee (paid up front).

By copy of this letter, the landowners who submitted letters of concern and/or who attended the public hearing will be notified of this decision.

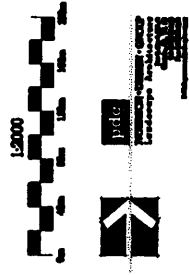
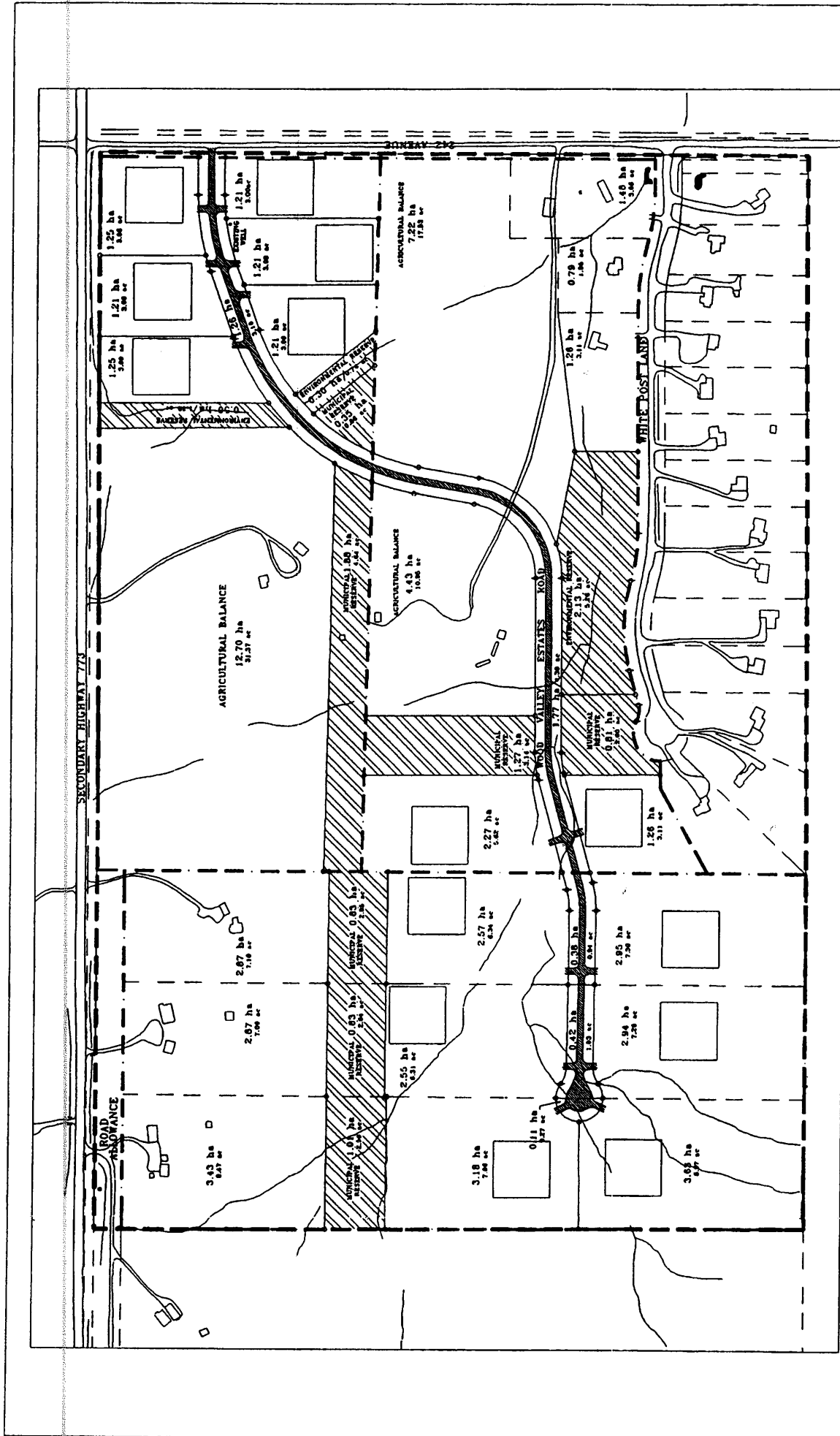
Should you require further assistance, please contact Kelley Fiske-Nielsen in our Planning Department.

Sincerely,  
MUNICIPAL DISTRICT OF FOOTHILLS NO.31

Judy Gordon  
Coordinator/Planning Department

JG/cg

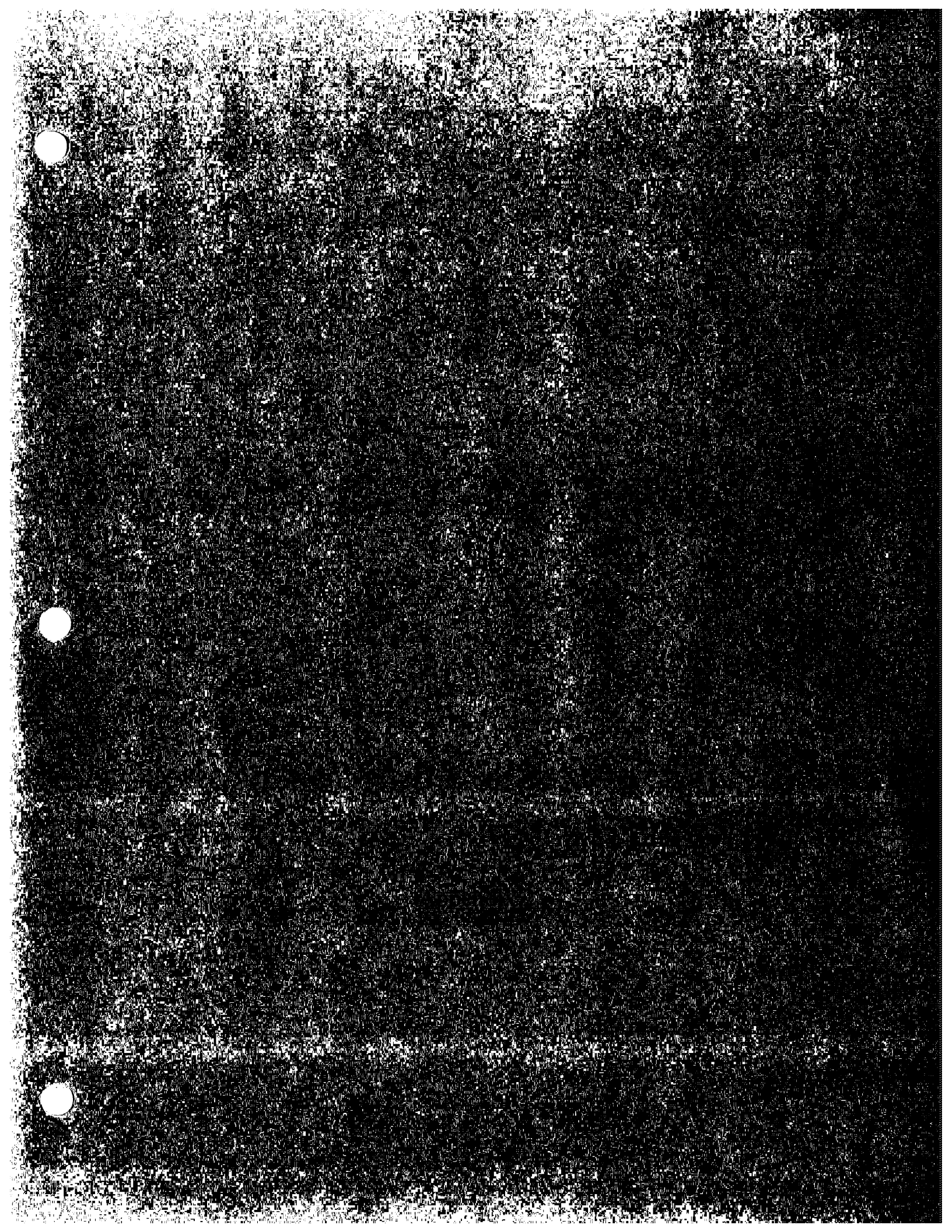




# WOOD VALLEY ESTATES

## REVISED AREA CONCEPT PLAN

- LEGEND**
- PROPOSED PROPERTY LINE
  - - - PROPERTY LINE
  - - - STUDY BOUNDARY
  - - - DRAINAGE SWALE
  - - - PROPOSED ROAD
  - - - EXISTING ROAD
  - SEASONAL POOD
  - TREES
  - BUILDING
  - POTENTIAL BUILDING SITE
  - 1:2000 1% SLOPE



## **WOOD VALLEY ESTATES NEWSLETTER AND QUESTIONNAIRE**

January 2000

**Dear neighbour:**

This letter is being sent to each local residence and landowner within a one mile radius who may be interested in, or affected by, the residential development underway on, and proposed for, the Holden, Seaborn, Varga and Maddison lands. At its June 10, 1999 meeting MD Council accepted the site plan for the Des and Ada Holden property, and this is proceeding as phase 1. As you may also be aware the new municipal government act requires preparation and MD acceptance of an Area Structure Plan (ASP) and this statutory requirement affects the subsequent developments as proposed, requiring this questionnaire and public information gathering.

### **Background on the Phase 1**

The concept plan earlier approved added 15 new lots to the 22 lots already approved within the plan boundaries comprising the NW 36-21-2-W5 and the north 80 acres of the SW 36-21-2-W5. This approval allowed us to proceed with the first phase of development, the 6 new lots on the Des and Ada Holden property. A portion of 242 Avenue has been reconstructed to improve sight distances and safety, and to provide an entry into the project. The access road on the property will be paved.

Wells have been drilled for the 6 lots, and we are happy to report a very ample supply of water. Our proven water supplies are up to 6 times greater than those required by the Alberta Government. Water supply testing information is on file at the MD office. As you would recall, there has been a significant amount of debate about water supply. More about this later.

The Phase 1 properties are now for sale, and the sale agreement contains a covenant regarding the use and development of the properties, a covenant very similar to that which governs the White Post Lane development. Together with the ample 3 acre lot sizes it will ensure land development compatible with adjacent properties. Some lots have already been sold to people who desire to live in the country, and we look forward to these people becoming our neighbours.

### **Background on the proposed Phase 2 developments**

With the proven success of Phase 1, we will proceed as soon as possible with Phase 2. This is being revised as a result of new information, as follows items A to D.

#### **A Escalating costs of subdivision and road development**

The escalating costs of the subdivision development in making one mile of paved road make it difficult to develop and market an affordable lot. Because of this, we are asking that the ASP include 4 more lots to the 37 previously approved or in place.

## **B Improvement In lot shapes**

As suggested by some members of council, the lots proposed on the Seaborn and Varga properties will be amalgamated by boundary adjustment to provide wider and more private properties. The resulting lots are a large 5 acres in size, will be mostly located in the trees, and will not intrude on the privacy of those living nearby.

## **C Changes to the water system**

As reported earlier, the wells which have been drilled on phase 1 have proven very ample water. This together with the historical abundance of water found in the wells in the valley bottom and the fact that White Post Lane wells have proven very adequate, all lead to the conclusion that water availability will not prove to be a limiting factor on this development. Despite this, we recognize that some neighbours on high hillsides surrounding this development have found it difficult to obtain water from domestic wells. Respecting this, we are proposing a caveat in this ASP as follows:

- i the developer will create a municipal water system co-op for the 9 lots closely grouped at the southern extremity of the development in accordance with Alberta Environment standards
- ii The developer will covenant that the water co-op system may be "tapped into" by adjacent acreage landowners to serve their own domestic needs
- iii Adjacent property owners so using the co-op water supply will do so at their own cost for hookup and will pay for their pro-rata and proper share of operating costs as do other water co-op members
- iv the developer will covenant all properties on the water co-op system to provide free utility right of way to any adjoining neighbour so desiring to join the water co-op.

## **D Principle- to be Included In the Area Structure Plan**

Every ASP must have a time frame limitation and a scope of application. We are, in this ASP including a principle that: No further subdivisions will be made of the lands included within this ASP unless (a) the MD allows a new high density land designation permitting more than 32 residences per quarter section and (b) a permanent water system, not relying on well water becomes available and can become connected to any new residences proposed.

## **We have some concerns**

We live in the area and will continue to do so. Therefore whatever we do impacts us as much as it does you. That is why we are concerned. We do not want to propose

anything that will adversely impact our neighbourhood, we only wish to improve it. During the many meetings, back fence discussions and telephone tally that have taken place over the past couple of years much has been said that needs clarification. The following comments are some examples seen in recent editions of the paper:

**"High density of this nature is inappropriate in this agricultural community"**

The ASP, as now envisaged, contains only 41 of the 48 permitted by the MD's current regulations. Furthermore, the land we propose to develop is not used for agriculture. It is terrain which has never been farmed. Those who object to high density, we note, are not involved in agriculture, but rather live in nearby acreages, most smaller acreages than that which we are proposing. This ASP continues in the development of high quality, quiet, country acreage properties already prevalent.

**"Highway 773 is not upgraded to a level that can handle additional daily traffic"**

Upgrading of Highway 773 will occur when traffic conditions warrant. These demands are not attributable to this proposal. The upgrade, when it happens, will be paid for by taxes and may indeed be cost shared by the province.

**"The developers plan was lacking in that council had to make revisions"**

We appreciate the inputs of Council and MD staff, who were frequently consulted in the preparation of the plan. Council has frequently and historically asked for revisions to many plans, and ours is no exception. It is normal for plans like ours to go through many refinements, an indication of our willingness to make the best for all concerned.

**"This area is a recognized water shortage area"**

We note that White Post Lane has had a reliable water source since its inception, the only water shortages being due to mechanical failure. The new Q20 tests performed on Phase 1 have proven water to be up to 6 times that required by the Alberta Water Resources Act. This has confirmed the opinion of our water consultant, and we believe will also prove true for the balance of the development. Incidentally, the MD also utilizes the services of our water consultant.

### **Critical questions to be asked**

We have spent a lot of time and money. We have talked, and will continue to talk to you, our neighbours about this plan and feel that we have an excellent plan which if anything will enhance the existing residential property values. We ask you to look carefully at the plan, and consider these questions as they affect you personally as you reply to the attached questionnaire which will be submitted to the MD as a requirement of the ASP application:

- 1 Does this plan put any more vehicular traffic past my driveway?
- 2 Does this plan put any new houses intruding on my lifestyle closer to my house than my existing neighbours?
- 3 Does this plan, incorporating the MD bylaws and governed by a development covenant similar to that of White Post Lane, seem likely to create a nuisance, a slum or any sort of bad neighbourhood likely to devalue my property?
- 4 Does this plan put any new residential septic fields nearer to my water supply than is my own septic field?
- 5 Does this plan, having a community water co-op for the southern 9 properties, put any water wells closer to the WPL community wells than these WPL wells are to each other?

We raise these questions because we feel in the past there have been a number of residents objecting on the basis of limited information. Hopefully this information news letter will help you to consider the questions asked on the attached questionnaire.

We are asking if you would fill in answers to the questions, and mail, fax or deliver this questionnaire by February 18, 2000 to one of the following locations where it will be tabulated and prepared to assist council in the public meeting to come. We will, following our tabulation, provide you with an update. Thank you for your time, we appreciate your response.

Clark and Hedy Seaborn  
RR # 9 Calgary, Alberta T2J5G5  
Res phone 256-1861 fax 236-3091

Paterson Design Group Inc.  
Landscape Architects  
Box 7, Site 5, RR #1  
Okotoks, Alberta T0L1T0  
Office phone 938-2459 office fax 938-2476

Sincerely

Clark Seaborn

Larry Paterson

Representing the owner developers of Wood Valley  
Estates, F. Varga, A. and H. Holden, D. and A. Holden, L.  
and L. Maddison, C. and H. Seaborn

**WOOD VALLEY ESTATES AREA STRUCTURE PLAN QUESTIONNAIRE**  
**Sent to all property owners within 1 mile of Wood Valley Estates**

Name \_\_\_\_\_ Date \_\_\_\_\_  
Address \_\_\_\_\_ H Phone \_\_\_\_\_  
\_\_\_\_\_ B Phone \_\_\_\_\_

Legal description of your nearby property \_\_\_\_\_  
Approx area of your property-if residential \_\_\_\_\_

Have you been consulted or informed about this proposed development  
in the earlier concept plan applications?  
By public meetings \_\_\_\_\_ By meeting with the consultant \_\_\_\_\_  
by discussions with neighbours \_\_\_\_\_ by attendance at MD meeting \_\_\_\_\_

Are you? In favour \_\_\_\_\_ Neutral \_\_\_\_\_ Undecided \_\_\_\_\_ Opposed \_\_\_\_\_  
Other \_\_\_\_\_

What sort of development would you be willing to  
accept? \_\_\_\_\_

Do You have preferences where the buildings/lots are  
located \_\_\_\_\_

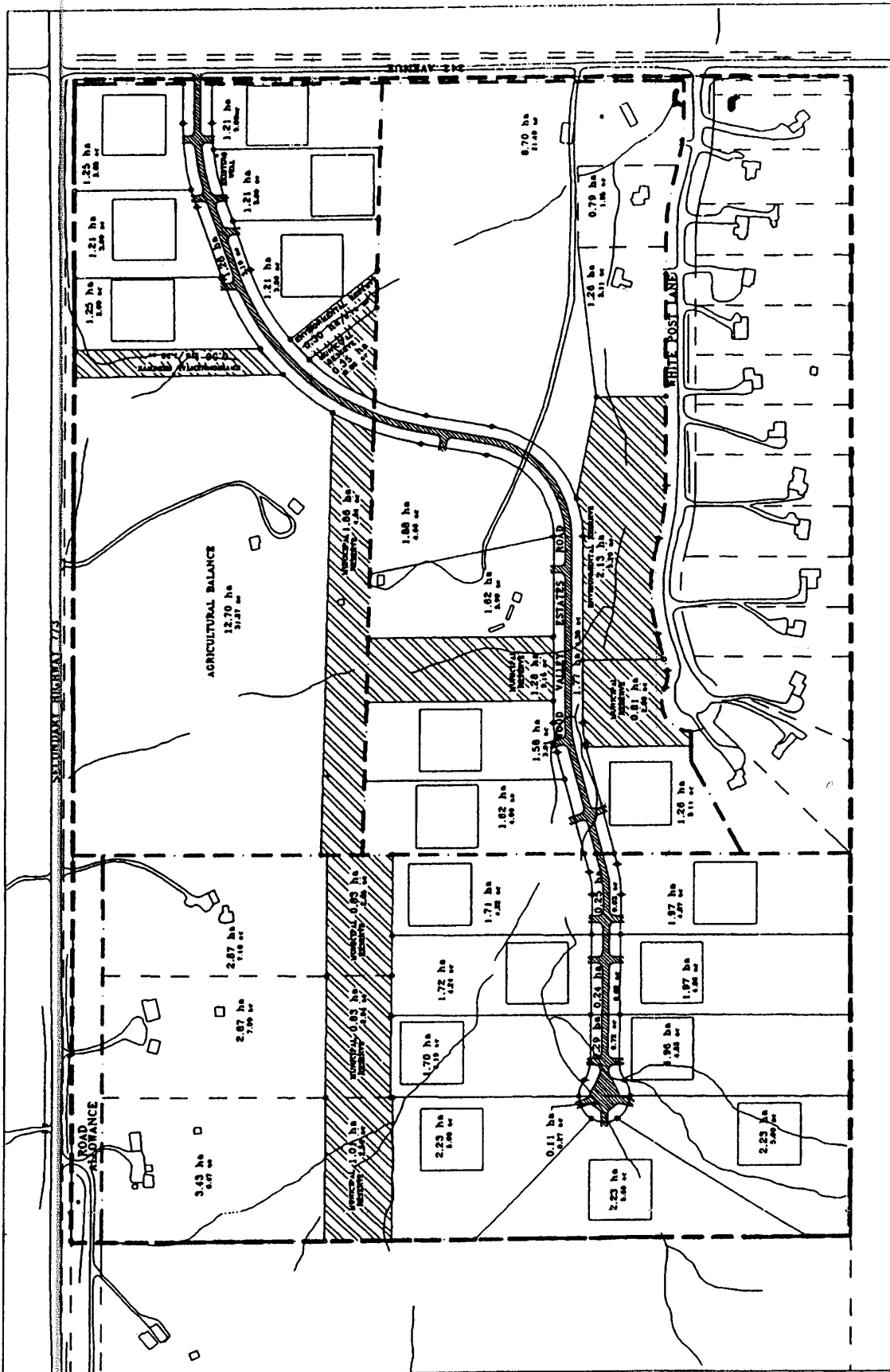
What are your greatest concerns about this proposed development?  
\_\_\_\_\_

Number of lots \_\_\_\_\_  
Secondary Highway #773 \_\_\_\_\_  
Ground water quantity \_\_\_\_\_  
Septic beds impact on groundwater \_\_\_\_\_  
Impact on views \_\_\_\_\_  
Use of agricultural land \_\_\_\_\_  
Other \_\_\_\_\_

Are there steps or procedures that would make you more comfortable  
with this proposal? \_\_\_\_\_

What do you feel are the benefits of this proposed development?  
\_\_\_\_\_

Any other comments? \_\_\_\_\_  
use reverse if necessary \_\_\_\_\_

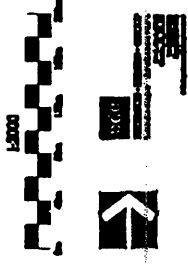


**LEGEND**

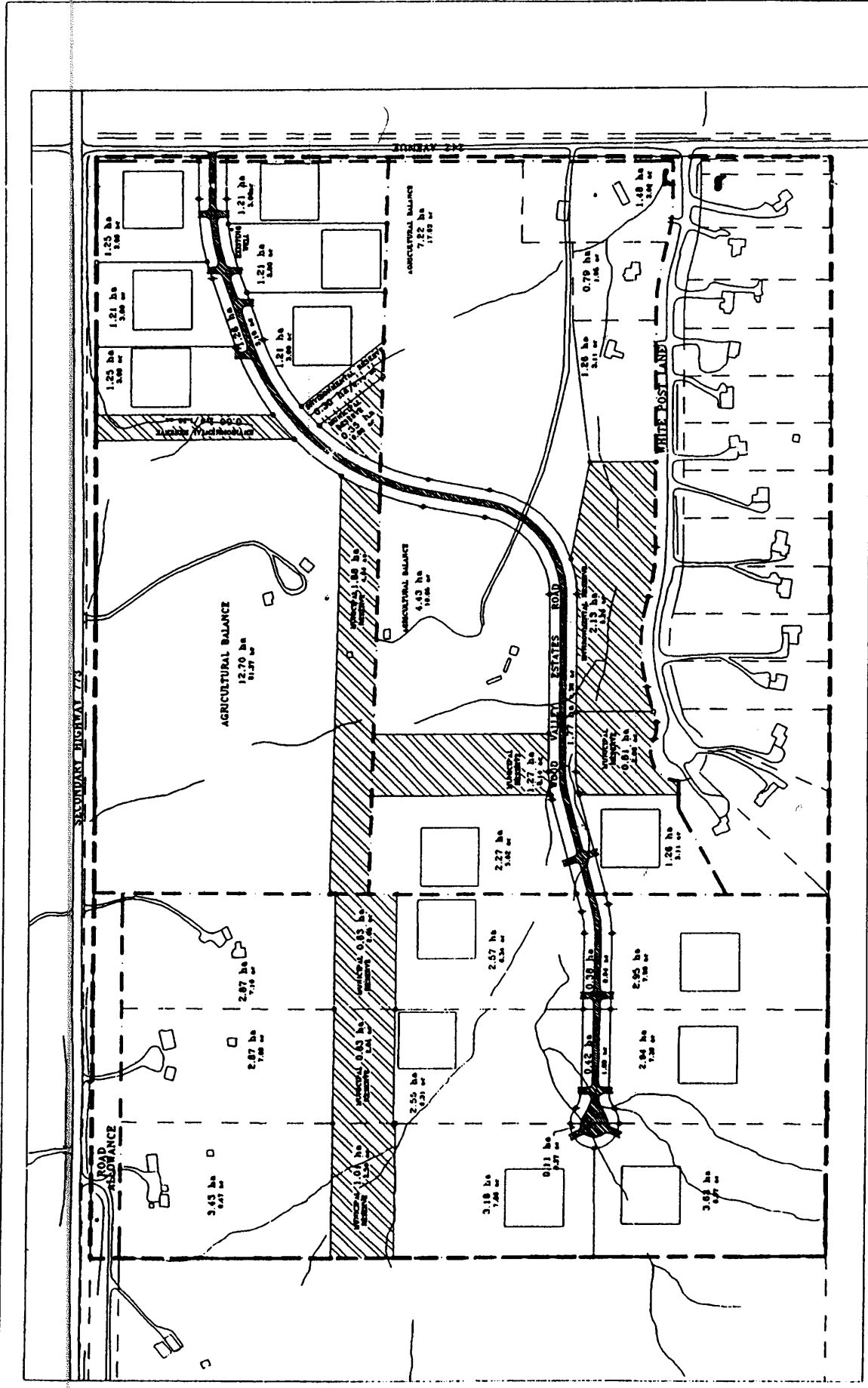
- PROPOSED PROPERTY LINE
- PROPERTY LINE
- PROPOSED 500' BOUNDARY
- DAMAGE BANK
- PROPOSED ROAD
- EXISTING ROAD
- SEASONAL POND
- POTENTIAL BUILDING SITE

**WOOD VALLEY ESTATES**

**PROPOSED AREA STRUCTURE PLAN**







**LEGEND**

- PROPOSED PROPERTY LINE
- PROPERTY LINE
- PUD BOUNDARY
- EXISTING ROAD
- PROPOSED ROAD
- EXISTING ROAD

**ROAD**

- ROAD
- ROAD
- ROAD
- ROAD

**BUILDING**

- BUILDING
- BUILDING
- BUILDING
- BUILDING

**AGRICULTURAL BALANCE**

- AGRICULTURAL BALANCE
- AGRICULTURAL BALANCE
- AGRICULTURAL BALANCE
- AGRICULTURAL BALANCE

**WOOD VALLEY ESTATES**

- WOOD VALLEY ESTATES
- WOOD VALLEY ESTATES
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- WOOD VALLEY ESTATES

**WHITE POST ROAD**

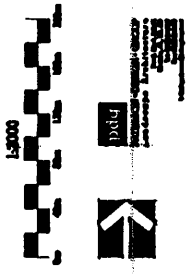
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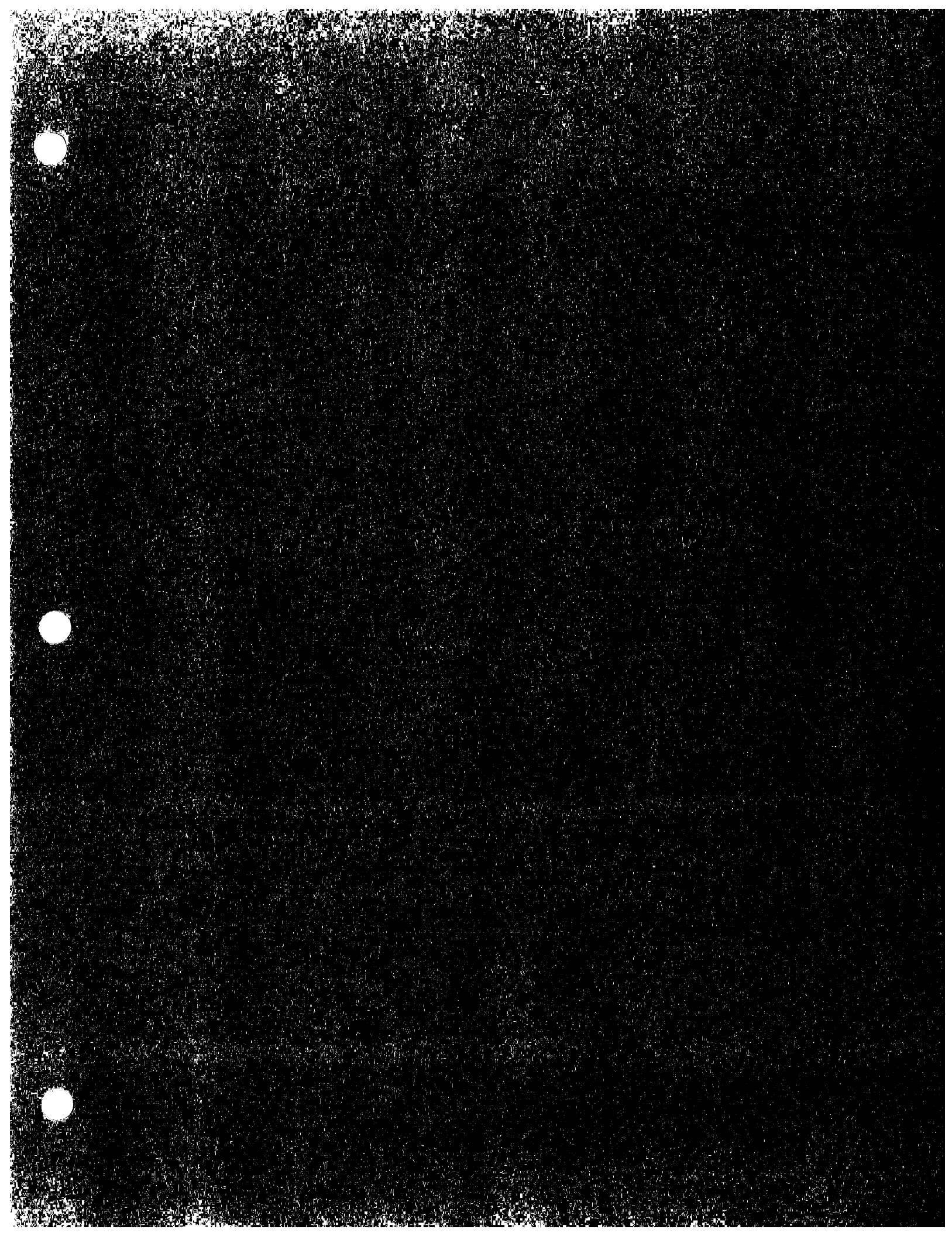
**SECONDARY HIGHWAY 773**

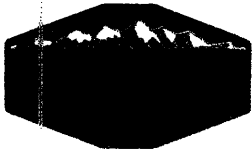
- SECONDARY HIGHWAY 773
- SECONDARY HIGHWAY 773
- SECONDARY HIGHWAY 773
- SECONDARY HIGHWAY 773

# WOOD VALLEY ESTATES

## APPROVED AREA CONCEPT PLAN







## Municipal District of Foothills No. 31

309 Macleod Trail, Box 5605  
High River, Alberta T1V 1M7  
Telephone: (403) 652-2341 or (403) 931-1905  
Fax: (403) 652-7880  
web: <http://mdfoothills.com>

January 18, 2001

Paterson Design Group Inc.  
c/o Lawrence Paterson  
Box 7, Site 5, RR 1  
Okotoks, AB T0L 1T0  
CANADA

Dear Mr. Paterson:

**Re: Wood Valley Estates Area Structure Plan - PTN: N.W. & S.W. 36-21-02-W5M**

Please be advised that at its January 4, 2001 meeting, Council gave first reading to Bylaw 001/2001 authorizing the the adoption of the Wood Valley Area Structure Plan in NW & 36-21-2 W5.

Prior to any further consideration on this application, the developers are to submit revisions and amendments to the Area Structure Plan to conform with the Area Concept Plan previously approved by Council on January 21, 1999.

We would like to make you aware that third and final reading must be given within two years from the date of first reading. You therefore have until January 4, 2003 to finalize this application or your Bylaw will automatically be rescinded.

The fees for the enclosed Subdivision Application will be \$425.00 per new lot + \$50.00 filing fee and a \$300.00 Subdivision Appeal Fee which is to be paid up front.

Should you require any further assistance please contact Coreena Carr of our Planning Department.

Sincerely,  
MUNICIPAL DISTRICT OF FOOTHILLS NO.31

  
Judy Gordon  
Planning Coordinator

JG/sj

cc: A. & H. Holden  
D. & A. Holden  
C. & H. Seaborn  
F. Varga  
L. & L. Maddison  
Area Landowners

Encl.



MUNICIPAL DISTRICT OF FOOTHILLS NO. 31

Box 5605, 309 Macleod Trail • High River, Alberta T1V 1M7

APPLICATION FOR SUBDIVISION APPROVAL

FOR OFFICIAL USE ONLY

Date of receipt \_\_\_\_\_

File No.: \_\_\_\_\_

Fees submitted: \_\_\_\_\_

Receipt No. \_\_\_\_\_

- By plan of subdivision
By other instrument
(Tick whichever applies)

THIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICABLE BY THE REGISTERED OWNER OF THE LAND, THE SUBJECT OF THE APPLICATION OR BY AN AUTHORIZED PERSON ACTING ON HIS BEHALF.

1. Name of registered owner of land to be subdivided
Address
Postal Code
Home Phone
Business Phone

2. Authorized person acting on behalf of registered owner
Address
Postal Code
Home Phone
Business Phone

3. LEGAL DESCRIPTION AND AREA OF LAND TO BE SUBDIVIDED:
All/part of the: 1/4 sec. twp. range west of meridian.
Being all parts of lot block Reg. Plan No. C.O.T. No.
Area of the above parcel of land to be subdivided acres.

4. LOCATION OF LAND TO BE SUBDIVIDED:
a The land is situated in the Municipal District of Foothills No. 31
b Is the land situated immediately adjacent to the municipal boundary? Yes No
If "yes", the adjoining municipality is
c Is the land situated within 0.5 miles of the right-of-way of a Highway? Yes No
If "yes", the Highway is No., the secondary road is No.
d Is the land situated within 0.5 miles of a river, stream, watercourse, lake or other permanent body of water, or a canal or drainage ditch? Yes No
If "yes", state its name

5. EXISTING AND PROPOSED USE OF LAND TO BE SUBDIVIDED:
Describe:
a Existing use of the land
b Proposed use of the land
c The designated use of the land as classified under a land use bylaw or a zoning bylaw or a land use classification guide where applicable
d. Number of new parcels being created. Size of parcels being created

6. PHYSICAL CHARACTERISTICS OF LAND TO BE SUBDIVIDED:
a Describe the nature of the topography of the land (flat, rolling, steep, mixed)
b Describe the nature of the vegetation and water on the land (brush, shrubs, tree stands, woodlots, etc. - sloughs, creeks, etc.)
c Describe the kind of soil on the land (sandy, loam, clay, etc.)

**EXISTING BUILDINGS ON THE LAND TO BE SUBDIVIDED:**

Describe any buildings, historical or otherwise, and any structures on the land and whether they are to be demolished or  
oved:

---

---

**REGISTERED OWNER OR PERSON ACTING ON HIS BEHALF:**

I \_\_\_\_\_ hereby certify that I am the registered owner  
(Full name in block capitals) I am authorized to act on behalf of the  
registered owner

and that the information given on this form is full and complete and is, to the best of my knowledge, a true statement of the  
facts relating to this application for subdivision approval.

Address \_\_\_\_\_ (Signed) \_\_\_\_\_

Phone No. \_\_\_\_\_ Date \_\_\_\_\_

**RIGHT OF ENTRY**

I hereby authorize the Municipal District of Foothills No. 31 to enter my land for the purpose of conducting a site inspection in  
connection with my application for subdivision approval.

This right is granted pursuant to Sec. 43 (1) (a) and 5 (d) of the Planning Act.

\_\_\_\_\_  
Owner's Signature

This personal information is being collected under the authority of the Municipal Government Act and will be used for planning  
and zoning purposes. It is protected by the privacy provisions of the *Freedom of Information and Protection of Privacy Act*.

**THIS SECTION FOR OFFICIAL USE**

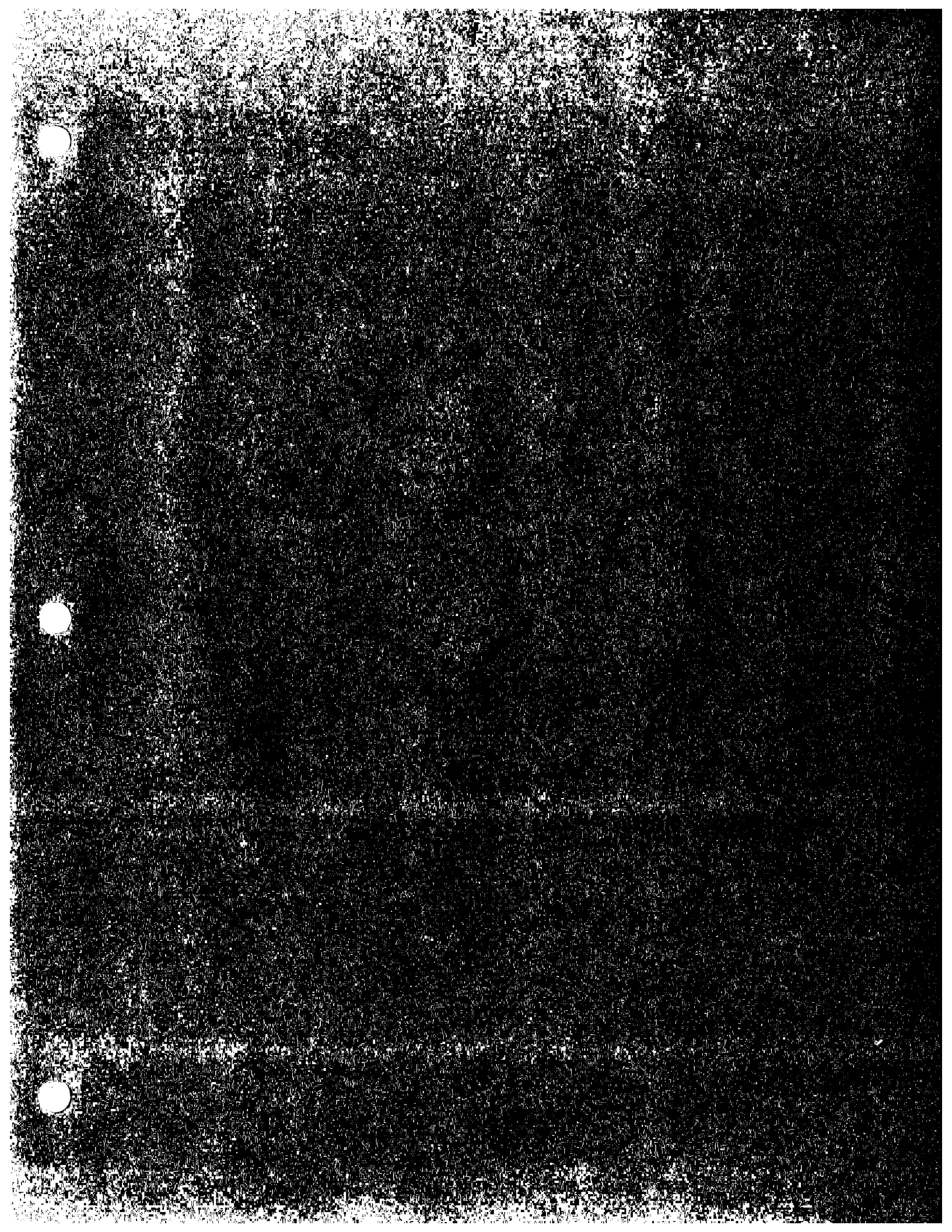
Decision \_\_\_\_\_

The reasons for refusal or conditions of approval are attached.

Date \_\_\_\_\_

Signed \_\_\_\_\_

(Authorized Officer of Approving Authority)



June 30, 1998  
File No 9847

Seaborn Consultants Ltd  
Bay 5, 4041 74 Avenue SE  
Calgary, AB.  
T2C 2H9

Attention: Mr. Clark Seaborn

**RE: Proposed Acreage Subdivision  
NW-36 and part of SW-36-21-02-W5M**

Dear Sir:

Further to your letter and documents of May 11, 1998 we enclose a review of groundwater well data with respect to the potential for individual wells for any proposed further subdivision. Our comments and observations are as follows:

- [1] The White Post Lane subdivision consists of 14 two acre lots on a communal water system obtained from three wells. Under Interim Licence #08787 three priority numbers have been issued for a total of 6 ac-ft/year [20.3 m<sup>3</sup>/day or 3.1 igpm]. The original well was drilled in 1976 to a depth of 105 feet but completed to a depth of 100 feet. The aquifer was described as a sandstone, highly fractured and cemented. A second well was drilled in August of 1984 to a depth of 110 feet then subsequently deepened to 135 feet in November 1987. This well was tested at a flow rate of 12 igpm for 86 hours with a calculated Q20 of 11 igpm. Based on comments from the driller's log it was suggested that the maximum pump rate be less than 5 igpm because of the presence of expanding shale. During the flow testing of the second well no impact was observed on the first well. A third well was drilled in June 1987 to a depth of 171 feet and pump tested for 60 hours. In April 1987 the original well was deepened from 100 to 121 feet.

Seaborn Consultants Ltd  
 Attention: Mr. Clark Seaborn  
 June 30, 1998  
 Page 2

[2] Groundwater consumption records [ in gallons] for White Post Lane are tabulated as follows:

Year	Well #1	Well #2	Well #3	Total Consumption per lot
1988	389900	703590	506930	1,600,420
1990	538800	322060	364350	1,225,210
1991	462930	385310	252660	1,100,900
1992	419850	362590	241210	1,023,650
1993	401790	278677	329010	1,009,477
1994	409950	285420	505250	1,200,620
1995	380770	177710	468100	1,026,580

The highest groundwater consumption was observed in 1988. With the exception of 1988 all other years indicate an average consumption of less than 240 gpd/lot which is the Alberta Environmental Protection guideline [June 27, 1994]. Based on historical records none of the wells are averaging greater than 1 igpm on a continuous flow basis [equivalent to 525,600 gal/year] except Well #2 in 1988 and Well #1 in 1990.



[3] Pumping water levels [in feet] for the period 1990 to 1995 are tabulated as follows:

Year	Well #1 SWL 45	Well #2 SWL 65	Well #3 SWL 53
1990: May	68	60	67
1991: Apr	69	62	67
: Jun	67	62	65
: Oct	69	61	66
1992: Jun	68	62	69
: Nov	68	63	70
1993: Apr	68	63	48
: Oct	64	62	45
1994: Apr	64	60	40
1995: Dec	58	57	44

The static water levels [SWL] are indicated for each well at the time of well completion and/or well deepening. The water level depths reported to Alberta Environment are supposed to reflect pumping water levels although it appears that the levels in Well #3 from 1993 to 1995 reflect static or non-pumping water levels. The following observations are made from a review of the data:

- [a] In Well #1 the original swl was 42 feet on August 6, 1976. When the well was deepened in April 1988 the swl was 45 feet. The water level therefore indicates little or no drop over the 1976 to 1988 time frame.
- [b] In Well #2 the original swl was 59 feet on August 3, 1984. When the well was deepened on November 10, 1987 the swl was 65 feet. There is little or no drop in water level over the 1984 to 1987 time frame.

- [c] In Well #3, the original swl was 52.6 feet on June 16, 1987. Water level data collected between 1993 and 1995 indicates that the water levels have risen since the well was installed.
- [d] Based on historical records there is no evidence that pumping water levels are decreasing over the operating period 1990 to 1995.
  
- [4] The White Post Lane Subdivision is located along the east flank of a drainage gully which flows northward toward Pine Creek. According to the local hydrogeological map, springs occur along tributaries to, as well as the major Pine Creek drainage basin. The relief over the subdivision varies from 1155 meters at the south end to 1113 meters at the north end for an elevation difference of some 42 meters. Three acreages currently exist on the west flank of the drainage gully essentially opposite the White Post Lane subdivision.
  
- [5] The water well data for NW-36 and SW-36 has been tabulated on the enclosed Table 1. The following observations are made from a review of the data:
  - [a] Well depths vary significantly from 31.4 to 103.7 meters in depth
  - [b] Preliminary, short term flow rates vary from a low of 4 gpm to 50 gpm
  - [c] The White Post Lane and Holden/Nelson wells are clustered around similar depths and non-pumping water levels
  - [d] The Seaborn, Varga and Maddison wells in the northern portion of SW-36 cluster about common depths and non-pumping water levels
  - [e] Well logs indicate relatively thin water bearing zones suggesting stratified, heterogeneous, non-radial flow
  
- [6] A hydrostratigraphic cross-section oriented southwest to northeast along bedrock dip was constructed and enclosed with this letter report. An interpretation of the hydrostratigraphic cross-section relationships suggest the following:
  - [a] The Seaborn, Maddison and Varga wells located on the upland area southwest of White Post Lane are completed at a deeper depth than the Holden/White Post Lane wells and do not appear to be hydraulically connected

Seaborn Consultants Ltd  
Attention: Mr. Clark Seaborn  
June 30, 1998  
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- [b] The Holden and White Post Lane wells are clustered about similar well depths and non-pumping water levels and are located stratigraphically lower, along the valley bottom sideslopes, than the Seaborn et al wells
- [c] There was reportedly no hydraulic connection between the White Post Lane Well #2 and Well #1 during an 86 hour pump test in 1985, suggesting that even through a potential exists for hydraulic connection that none was present.
- [d] The most recent Holden well [Nov 97] has a water elevation nearly identical to that of the White Post Lane well #3 [1987] and well #2 [1987] even after 10 years of operation of the White Post Lane production wells

In summary, the following conclusions have been reached from the data review:

- [1] Under existing groundwater withdrawal licences White Post Lane is allowed to divert 6 ac-ft or 1,628,220 gallons per year or approximately 4461 gallons per day. Based on original pump test data, any of the three wells should have the capability of supplying the entire subdivision requirement of 3360 gallons per day [14 lots X 240 gpd/lot].
- [2] There is no evidence based on pumping water levels that the aquifer is being depleted. Historical data for well #3 indicates a water level rise since its installation.

- [3] Based on historical consumption records, the White Post Lane subdivision uses less than the 240 gallons per day per lot deemed adequate by Alberta Environmental Protection's June 27, 1995 guidelines for rural water supply. The water demand is currently buffered by an 8000 gallon storage reservoir. It is our understanding that a water conservation program is in effect at White Post lane. This may account for the reduced water consumption observed since the peak demand in 1988.
- [4] The Holden/Nelson White Post lane wells are potentially hydraulically connected based on stratigraphic relationships. However, pump testing on the White Post Lane wells #2 and #1, indicated a lack of hydraulic response confirming that the aquifers are fracture controlled.
- [5] The Seaborn/Varga/Maddison wells are located at deeper depths than the White Post Lane wells and based on stratigraphic relationships are not hydraulically connected.
- [6] The variation in depth and flow rate lends support to the assumption that the aquifers are fracture controlled. This implies that high and low yield wells can be found in close proximity to one another depending on fracture spacing and fracture connectivity. Shallow fracture flow systems can be subject to depletion because of a decrease in duration and intensity of precipitation events. This phenomenon can be minimized somewhat by ensuring a deeper completion zone and restricting flow rates to avoid excessive drawdown.
- [7] Based on available well record information, and knowing that the site is characterized by fracture flow, there is no reason why additional subdivision, using individual wells, can not be undertaken provided that the current test of "existing + proposed lots divided by 6" is adhered to.
- [8] Assuming a maximum density of 32 lots in NW-36, a Q20 of 5.3 igpm would be required to support additional subdivision. It is cautioned that wells drilled on the upland area in the vicinity of the Seaborn/Varga/Maddison wells may experience a depletion in water level subject to prolonged seasonal moisture deficits. Deeper wells in this area may be required.

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June 30, 1998  
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- [9] If preliminary drilling in the area suggests that wells capable of passing a Q20 redesignation are difficult to obtain, then consideration may have to be given to the development of one or two "good" wells and the establishment of a communal water supply system.

If you have any question or comments regarding our conclusions, please contact the undersigned at your convenience. Thanking you for the opportunity to have been of service to Seaborn Consultants, we remain,

Respectfully yours,  
**Groundwater Exploration & Research Ltd**

Bob Nowak; Ph.D., P.Geol.  
Groundwater Geologist

# Table 1 Summary of Groundwater Well Data

Landowner	Date Drilled	Td/Npw(m)	Completion Interval (m)	Preliminary Flow Data
<b>NW-36</b>				
Holden	Jun 58	17.7/9.1	12.8-15.9	15 gpm/1 hr-u
Holden "C"	Apr 90	31.4/10.7	13.1-31.4	50 gpm/2 hrs-a
Holden WPL Well #1	Aug 76	32.0/12.8	18.3-30.5	24 gpm/12 hrs-p
Nelson "B"	Mar 92	31.7/12.2	16.5-31.7	40 gpm/4 hrs-a
White Post Lane #2	Nov 87	41.2/19.8	24.4-41.2	16 gpm/3 hrs-b
White Post Lane #3	Jun 87	52.1/16.2	39.6-43.6	5 gpm/60 hrs-p
White Post Lane #1	Apr 88	36.9/13.7	18.3-36.9	20 gpm/3 hrs-b
Holden "J"	Nov 97	54.9/31.6	43.0-51.8	10.5 gpm/ 2 hrs-p
<b>SW-36</b>				
Seaborn	May 90	85.4/57.9	57.9-83.8	10 gpm/2 hrs-b
Varga	Jun 72	55.5/48.8	51.8-54.9	20 gpm/0.75 hrs-b
Varga	Jun 85	70.1/56.1	64.0-70.1	9 gpm/2 hrs-b
Maddison	Feb 77	68.6/56.4	54.9-68.8	8 gpm/3.25 hrs-b & a
Maddison	Sep 90	90.2/57.9	61.0-67.1 & 73.2-79.3 & 84.1-90.2	8 gpm/2 hrs-b
Foster	Dec 74	54.9/31.4	45.7-54.9	4 gpm/3.5 hrs-b
Hammer	Aug 83	103.7/75.9	85.4-91.5	9 gpm/3 hrs-b
Siverston	Jan 94	51.8/38.1	33.5-51.8	6 gpm/12 hrs-p
Lawuman	Nov 72	51.8/38.1	48.8-51.8	5 gpm/4 hrs-u
Curzon	Mar 92	42.7/22.3	18.3-35.1	4 gpm/4.5 hrs-p
	u = unknown;	p = pump;	a = air;	b = bailer

