BYLAW NO. 2933

A BYLAW OF THE CITY OF MEDICINE HAT to:

(a) amend Bylaw No. 2822 being the City of Medicine Hat General Municipal Plan Bylaw; and

(b) adopt the Ranchlands Area Structure Plan.

WHEREAS pursuant to Section 64 of the ***Planning Act*** R.S.A. 1980, Chapter P-9, a council may pass a bylaw adopting an area structure plan for the purpose of providing the framework for subsequent subdivision and development of an area of land;

AND WHEREAS the General Municipal Plan of the City of Medicine Hat, which has been adopted by Bylaw No. 2822, requires the utilization of area structure plans to provide the framework for subsequent subdivision and development of land within the City;

AND WHEREAS the land legally described as portions of Sections 8 and 9, Township 13, Range 5, West of the Fourth Meridian and all of Block B, Plan 6164 J.K. is suitable for the land uses proposed in the Ranchlands Area Structure Plan;

AND WHEREAS a draft of the Ranchlands Area Structure Plan was reviewed by City technical staff and was revised to reflect relevant technical requirements and is now considered acceptable from a technical standpoint;

AND WHEREAS the road network shown in the Area Structure Plan will be adjusted if necessary, in order to conform with the recommendations of the City's transportation study that is presently underway;

AND WHEREAS the revised Plan dated June 1994 entitled, "Ranchlands Area Structure Plan", a copy of which is attached as Schedule "A" to this Bylaw, is proposed for adoption as an area structure plan;

AND WHEREAS the requirements of the ***Planning Act*** R.S.A. 1980 Chapter P-9 regarding the giving of notice of this Bylaw have been complied with;

AND WHEREAS copies of this Bylaw and related documents were made available for inspection by the public at the office of the City Clerk as required by the ***Planning Act*** R.S.A. 1980, Chapter P-9;

AND WHEREAS a public hearing with respect to this Bylaw was held in the Council Chambers at City Hall on the 8th day of August, A.D. 1994 at 6:30 p.m.;

NOW THEREFORE THE MUNICIPAL CORPORATION OF THE CITY OF MEDICINE HAT, IN COUNCIL ASSEMBLED, ENACTS AS FOLLOWS:

1. This Bylaw may be cited as the Ranchlands Area Structure Plan Bylaw.

2. The Ranchlands Area Structure Plan, a copy of which is attached as Schedule "A" to this Bylaw, is adopted as an area structure plan pursuant to Section 64 of the ***Planning Act.***

3. Bylaw No. 2822, the City of Medicine Hat General Municipal Plan Bylaw, is amended with respect to growth strategy, staging of development and other matters as required to allow development in accordance with the Ranchlands Area Structure Plan.

4. This Bylaw comes into force upon third reading.

READ A FIRST TIME in open Council this 4 day of July A.D. 1994

MAYOR - TED J. GRIMM

CITY CLERK - L.P. GODIN

READ A SECOND TIME in open Council this 8 day of August A.D. 1994

MAYOR / TED J. GRIMM

CITY CLERK - L.P. GODIN

READ A THIRD TIME AND FINALLY PASSED in open Council this

8 day of August A.D. 1994.

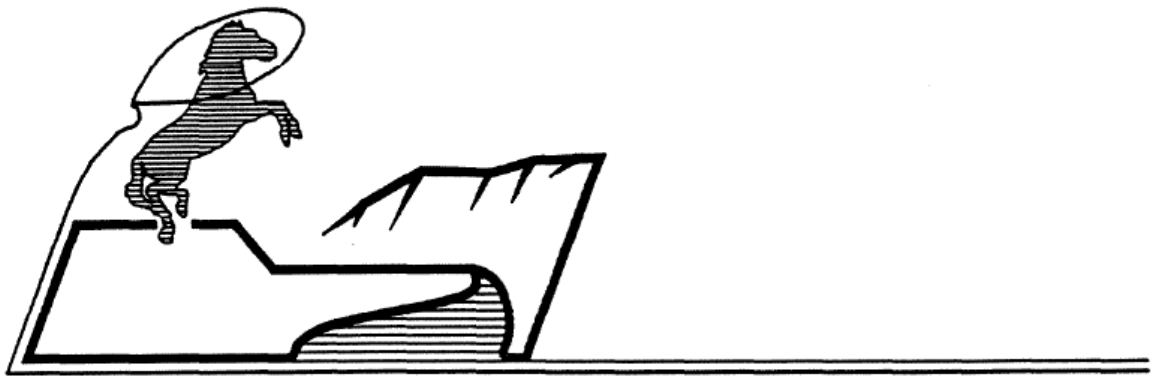
MAYOR / TED J. GRIMM

CITY OF MEDICINE HAT ANIMO ET FIDE ALBERTA

CITY CLERK - L.P. GODIN

SCHEDULE "A"

BYLAW #2933



RANCHLANDS AREA STRUCTURE PLAN

ADOPTED ON AUGUST 8, 1994

Medicine Hat
The Gas City

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1.0 INTRODUCTION

In late 1992 the City of Medicine Hat requested the Southeast Alberta Regional Planning Commission to prepare an area structure plan for some City owned land known as Ranchlands (formerly called S and T Ranches). Council adopted the terms of reference for this plan in the spring of 1993 (Appendix II). The engineering servicing study and concept design were done during the summer and early fall of 1993.

The goal of this plan is to provide a residential neighbourhood design concept to:

- protect the ecological integrity of the area;
- provide a variety of housing choices;
- provide for neighbourhood commercial development; and
- incorporate design elements to enhance the quality of life for the residents.

2.0 SITE ANALYSIS

2.1 Location:

The study area is located in the northeast quadrant of the City on a 380 hectare peninsular shaped piece of land which is generally bounded on the north, east and south by the South Saskatchewan River and on the west by 11th Avenue northeast. The study area incorporates portions of sections 8 and 9, township 13, range 5, west of the fourth meridian and all of block B, plan 6164 J.K. (Figure 2.1).

2.2 Topography:

The study area consists of three distinct benches (Figure 2.1). The upper and middle benches are separated by a 15 m high slope which has a grade of approximately 15 percent. The elevation separation between the middle and lower bench is approximately 5 m with only the northern end of the slope exceeding 15 percent.

The drainage pattern is generally west to east. Details of the drainage pattern are shown in Figure 4.1 of the Servicing Study (UMA Engineering Ltd., October 1993). A three dimensional illustration of the study area is shown in Figure 2.2.

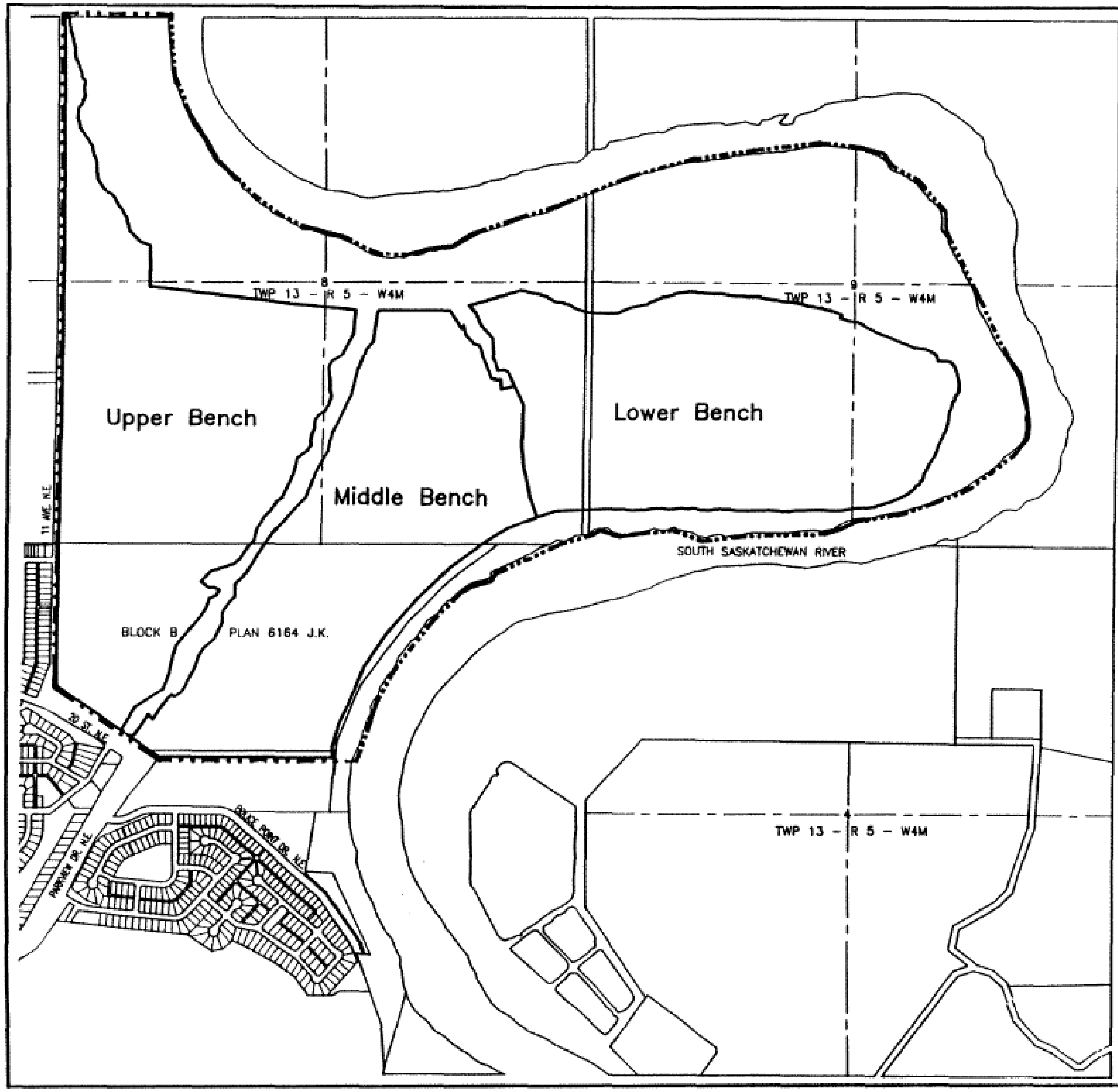
2.3 Soils

Most of the study area contains a thin layer of topsoil underlain by sandy soils. Parts of the upper bench are further underlain by clay till. Further details including bore hole logs can be found in the UMA report entitled, Interim Geotechnical Report For The Proposed Ranchlands Subdivision Area Structure Plan (UMA Engineering Ltd., August 1993).

RANCHLANDS AREA STRUCTURE PLAN

FIGURE 2.1

Study Area



-·-·-·- Study Area

City of Medicine Hat

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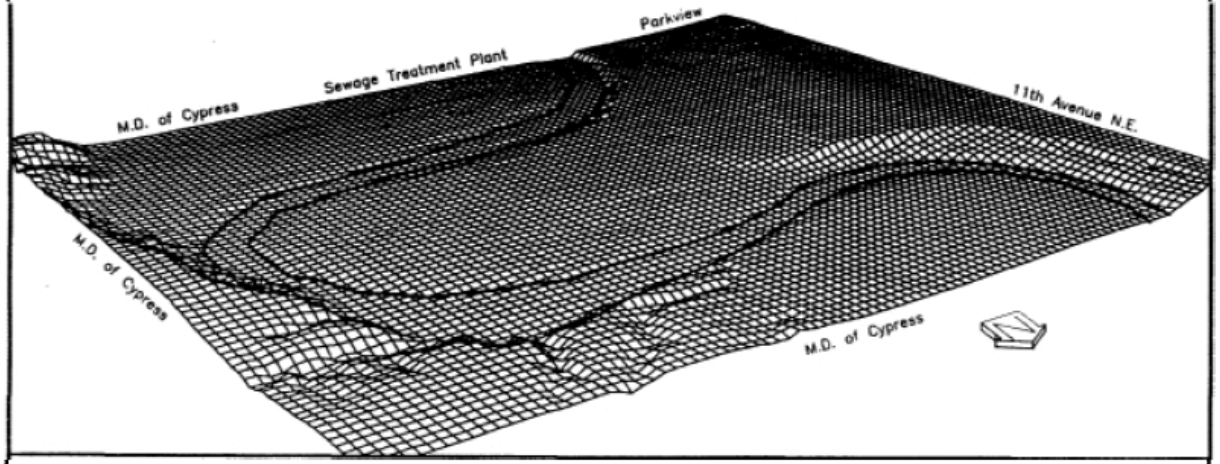
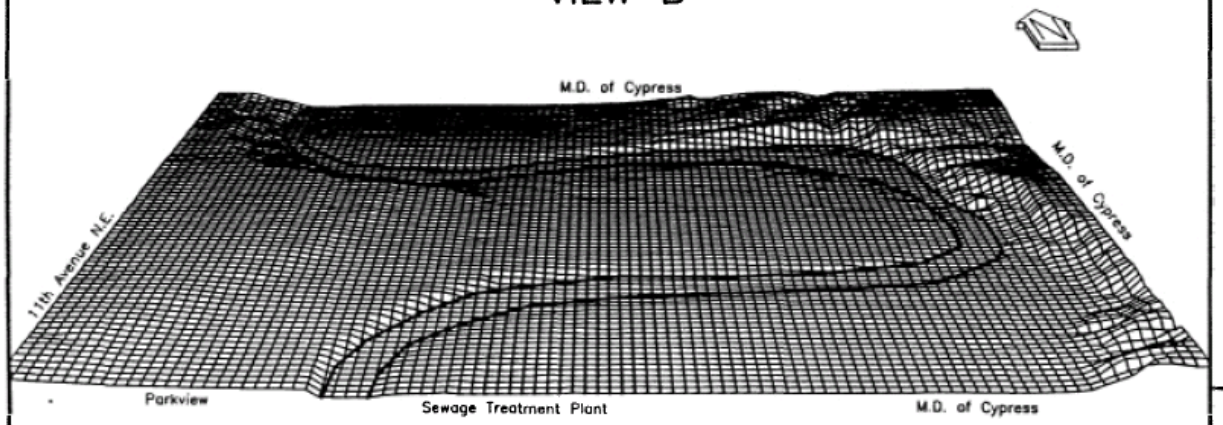
VIEW A



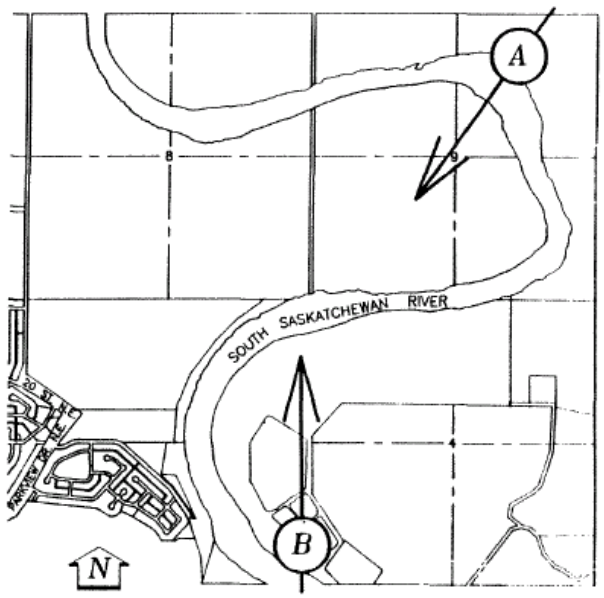
VIEW B



RANCHLANDS AREA STRUCTURE PLAN

FIGURE 2.2

Perspective



City of Medicine Hat

2.4 Existing Land Use:

The upper and middle benches are leased for grazing. The lower bench is leased for growing vegetables. The micro climate of the lower bench and the easy access to water for irrigation makes this one of the best areas in Alberta for growing vegetables (Huber, 4 February 1993). Two pivot irrigation systems are currently in place on the lower bench.

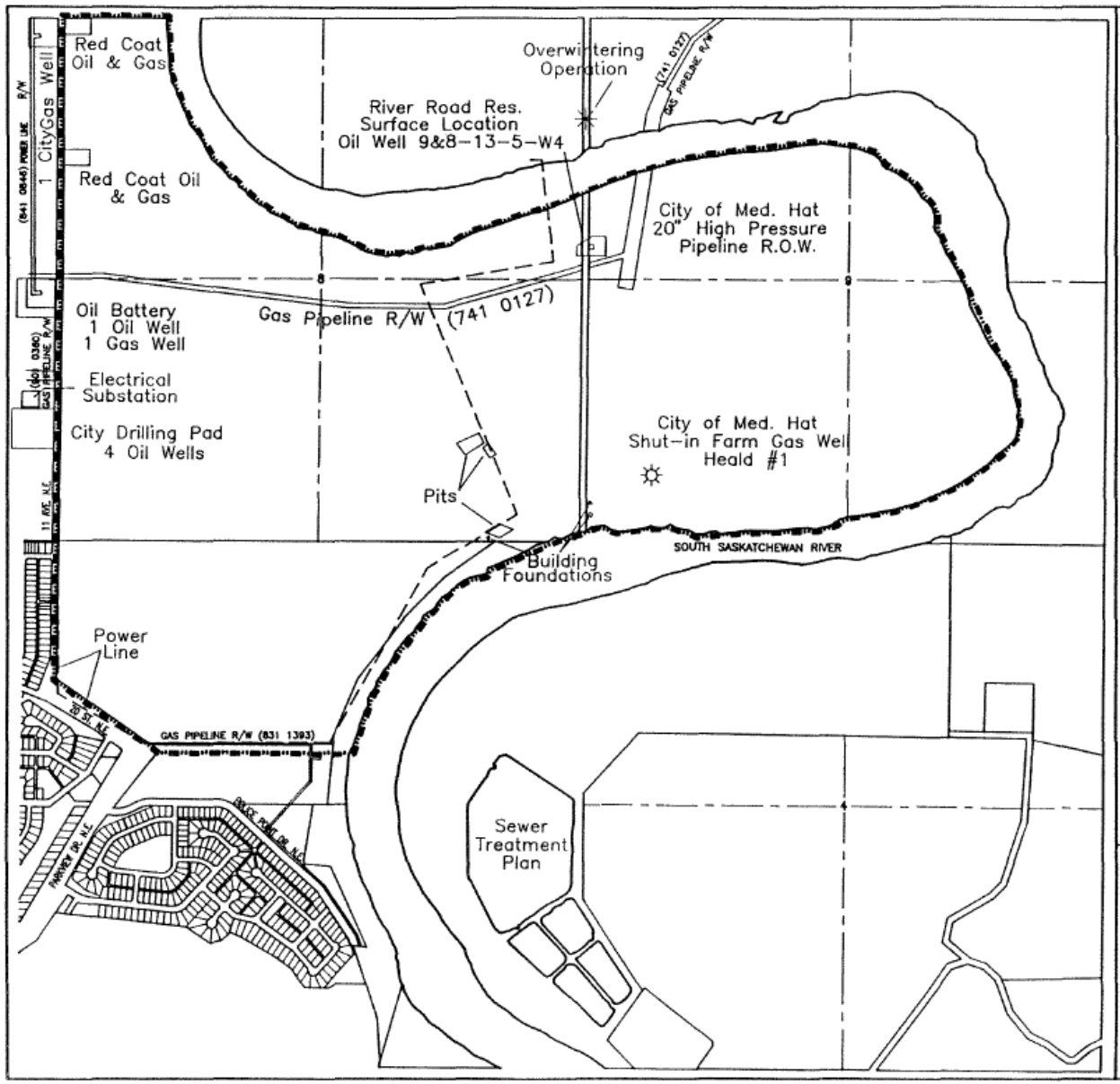
There are also several oil and gas wells and a high pressure gas line located in the study area (Figure 2.3).

2.5 Adjacent Land Uses

Existing residential development is located to the southwest of the study area. Along the west boundary north of the existing residential development there is a drilling pad and an oil battery (Figure 2.3). The industrial park buffer zone is located to the northwest. Across the river north of the site in the in the northwest quarter section of section 9 is a 5000 head cattle overwintering operation (Figure 2.3). Most of the rest of the land to the north and east is used for grazing. The land south of the study area is cultivated. The City of Medicine Hat's sewage treatment plant is located across the river south of the study area (Figure 2.3).

2.6 Visual Assessment

The study area has both visual assets and liabilities. On the one hand, the cliffs of the South Saskatchewan River's east bank, which are plainly visible from all three benches, create a beautiful natural backdrop to the study area with the river itself providing a dynamic boundary. The upper and middle benches also provide broader views of the river valley and in some locations a view of the Parkview subdivision. On the other hand, the topography and location provide less appealing views of the industrial park west of the study area (seen from the upper bench only), the overwintering operation north of the study area, and the City's sewage treatment plant south of the study



RANCHLANDS AREA STRUCTURE PLAN

FIGURE 2.3

Man Made Constraints

---- Power Line

Study Area

City of Medicine Hat

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considerations will have to be made in order to enhance the view of the visual assets and minimize the view of visual liabilities. Provision of public access to selected viewpoints, especially along the top of the mid-slope, is an important element to be incorporated into designs at the outline plan stage.

2.7 Study Area Constraints

The study area contains the following man made (Figure 2.3) and natural (Figures 2.4 and 2.5) development constraints.

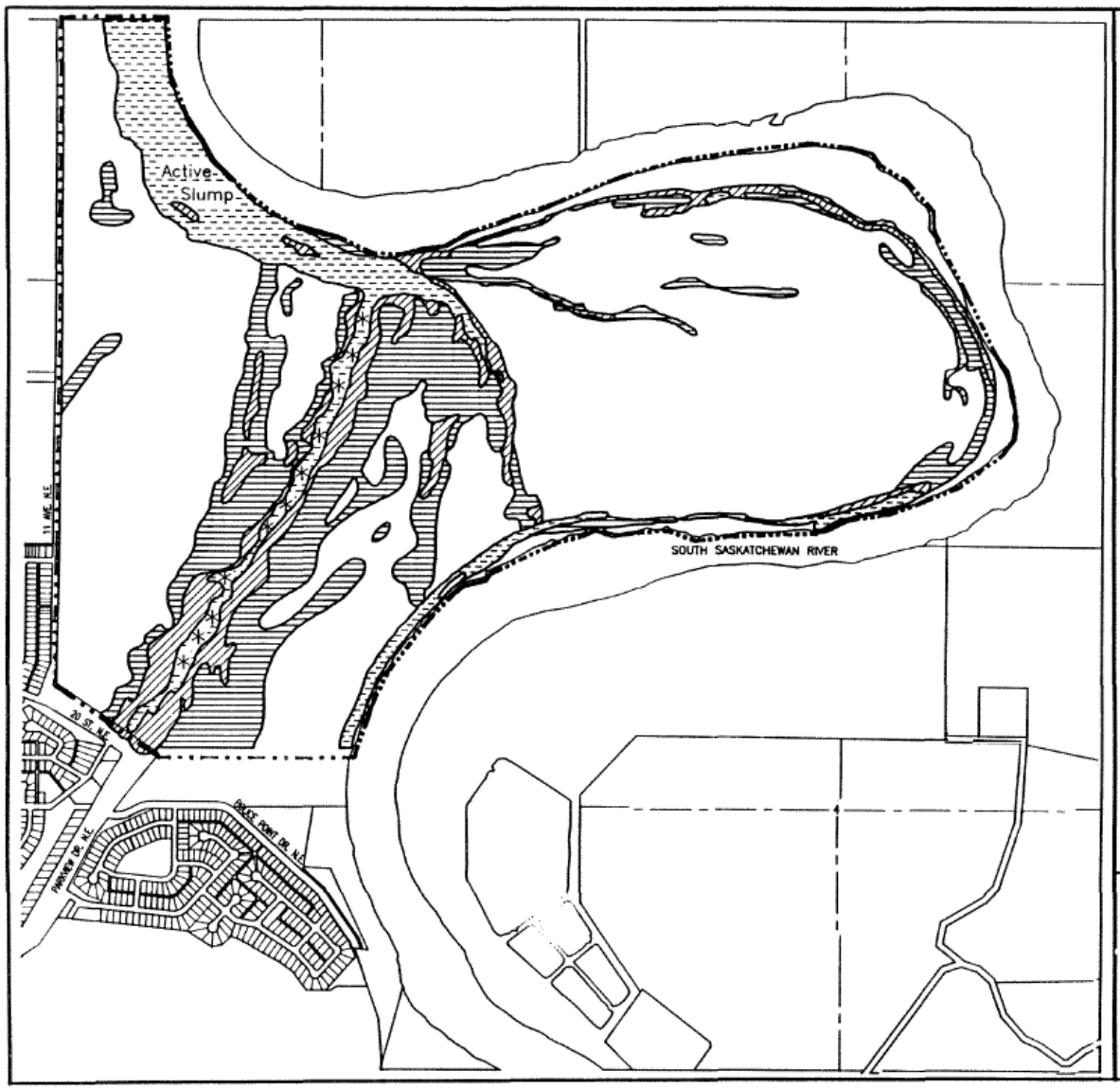
2.7.1 Oil and Gas Developments

A 20 inch high pressure gas pipeline runs through the centre of section 8 (Figure 2.3). Due to the proximity of this pipeline to required setback from the actively slumping bank of the South Saskatchewan River it creates a convenient north boundary for development of the study area. There are also a number of oil and gas wells on the site (Figure 2.3). Most of the existing oil and gas wells are located north of the high pressure gas line and so will not constrain development of the study area.

Prospective purchasers of land should be advised that there is a potential for enchanced oil recovery within the entire Ranchlands area. The City will request that any additional oil wells and/or oil recovery facilities are installed according to the City's guidelines for oil drilling as established from time to time.

2.7.2 High Voltage Electrical Transmission Line

This 69 kV overhead transmission line is located along the coterminous boundaries of the study area with the Parkview and North East Crescent Heights subdivisions (Figure 2.3). It requires an 18 m right of way. While this right of way will sterilize a lot of land it



RANCHLANDS AREA STRUCTURE PLAN

FIGURE 2.4

Slope Analysis

- 0% to 5% Slope
- 5% to 10% Slope
- 10% to 15% Slope
- Over 15% Slope
- Mid–Slope
- Study Area

City of Medicine Hat

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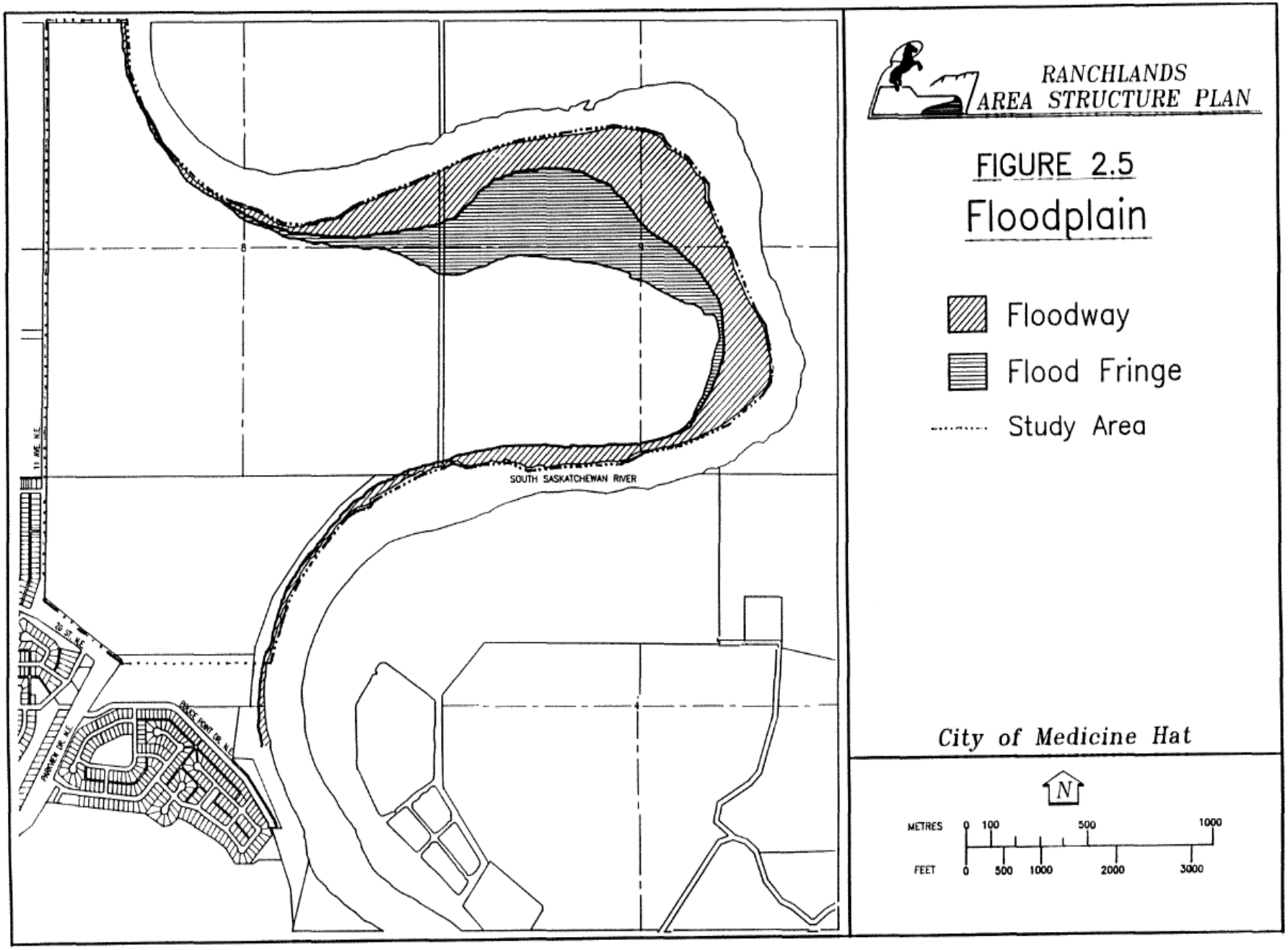
RANCHLANDS
AREA STRUCTURE PLAN
FIGURE 2.5
Floodplain
Floodway
Flood Fringe
Study Area
SOUTH SASKATCHEWAN RIVER
City of Medicine Hat
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will also provide land for pedestrian and bicycle paths. The right of way will not be dedicated as Municipal Reserve.

2.7.3 Building Foundations and Pits

A number of old building foundations are located in the south portion of the middle bench (Figure 2.3). These foundations are part of an old intensive livestock operation. In addition there are a number of pits in this section that may have been used by the ranch to make silage and later by the City to dispose of some concrete from the old foundations of the farm buildings. Detailed engineering review will be required at the outline plan stage to determine if these structures will constrain development.

2.7.4 Active Slump

There is an active slump located in the northwest quadrant of the study area along the bank of the South Saskatchewan River (Figure 2.4). The difference in elevation from the river bed to the top of the upper bench is over 60 m. The Servicing Study (UMA Engineering Ltd. October 1993) recommends a minimum setback of 1.5 times the slope height where slope failures have occurred and a minimum setback of 1.25 times the slope height where there is no evidence of slope movement. The precise location of the setback will be established based on a more detailed geotechnical investigation to be carried out at the outline plan stage. Given that this slump is on the outside curve of the river, further undercutting and subsequent slumping of the bank is likely. Remedial action to stabilize the slump may be necessary.

2.7.5 Mid-Slope Between Upper and Middle Benches

This slope has a grade of approximately 15 percent. Although it is only 15 m high it forms a natural division between development on the

upper and middle benches (Figure 2.4). In addition, it will be an important visual amenity for people living on the middle and lower benches. It will also function as a natural sound barrier for the arterial road located at the toe of the slope. It is proposed that it be left in a natural state in order to provide important habitat for wildlife. In addition, by being left in a natural state maintenance costs will be reduced.

2.7.6 Flood Plain

Approximately 80 ha of the study area are located in the 1 in 100 year flood plain (Figure 2.5). The delineation of the floodplain is based on The Medicine Hat Floodplain Study (Alberta Environment, May 1986). This area will be dedicated as environmental reserve.

The flood plain contains important riparian habitat. The Biophysical Survey (Society of Grasslands Naturalists, 23 September 1993) indicated that 60 percent of the species of birds, 63 percent of the mammal species; 56 percent of the herptile species; and 45 percent of the plant species surveyed in the study area are found in this habitat (note many species are found in more than one habitat type). The riparian forest is also important for visual amenity and microclimate modification.

Most of this area will be left in a natural state. However, a few previously disturbed areas or areas of non-critical habitat may be developed for parks to accommodate low intensity recreational uses such as soccer or slow pitch.

2.7.7 Overwintering Facility

There is a 5000 head cattle overwintering facility located in the northwest quarter of section 9 and the southwest quarter of section 16, township 13, range 5, west of the fourth meridian (Figure 2.3).

Given that livestock will only be kept in this facility during the winter months and that the predominate winds are from the southwest, odour problems should not be a significant constraint to development.

The prospective purchasers of land should be advised of the existence of livestock operations in the area.

2.8 Flora and Fauna

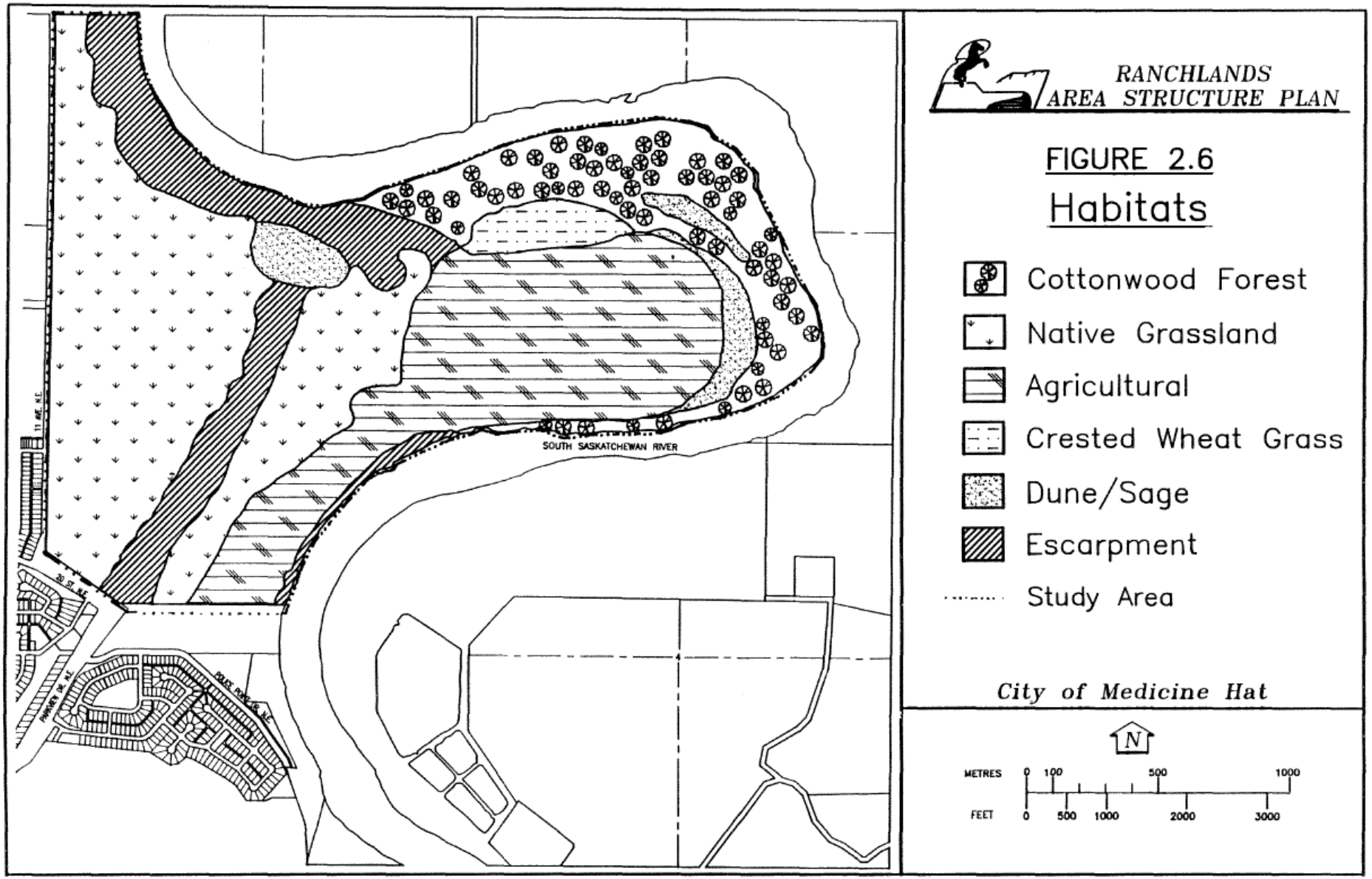
In the spring and summer of 1993 the Society of Grasslands Naturalists conducted a biophysical survey of the Ranchlands Area (Society of Grasslands Naturalists, 23 September 1993). They identified six distinct communities (Figure 2.6).

A total of 19 species of mammals, 9 species of herptiles, 169 species of birds and 103 species of plants (including 16 introduced species) were identified in the study area. Included in the species list are 4 mammal species, 3 herptile species, 20 bird species, and 4 plant species that are either on the COSEWIC (Committee on the Status of Endangered Wildlife in Canada) list or are considered to be highly sensitive to or intolerant of human disturbance. These include the Bobcat, American Badger, Leopard Frog, Prairie Rattlesnake, Short-horned Lizard, American White Pelican, Bald Eagle, Prairie Falcon, Golden Eagle, and Low Milk Vetch.

A more detailed investigation of the impact of development on endangered sensitive species may be required at the outline plan stage.

2.9 Archaeological Resources

In a previous archaeological survey 15 prehistoric sites (i.e. teepee rings, native campsites, etc.) were identified but not assessed. No known historic sites (i.e. historic buildings, battle grounds, etc.) have been recorded on the site. The Alberta Government requires that all subdivision applications in this area be referred to Alberta Community Development for review.


RANCHLANDS
AREA STRUCTURE PLAN
FIGURE 2.6
Habitats
Cottonwood Forest
Native Grassland
Agricultural
Crested Wheat Grass
Dune/Sage
Escarpment
Study Area
City of Medicine Hat
SOUTH SASKATCHEWAN RIVER
11 AVE. N.E.
30 ST. N.E.
PARKER DR. N.E.
POLICE POINT DR. N.E.
N
METRES 0 100 500 1000
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3.0 DEVELOPMENT CONCEPT

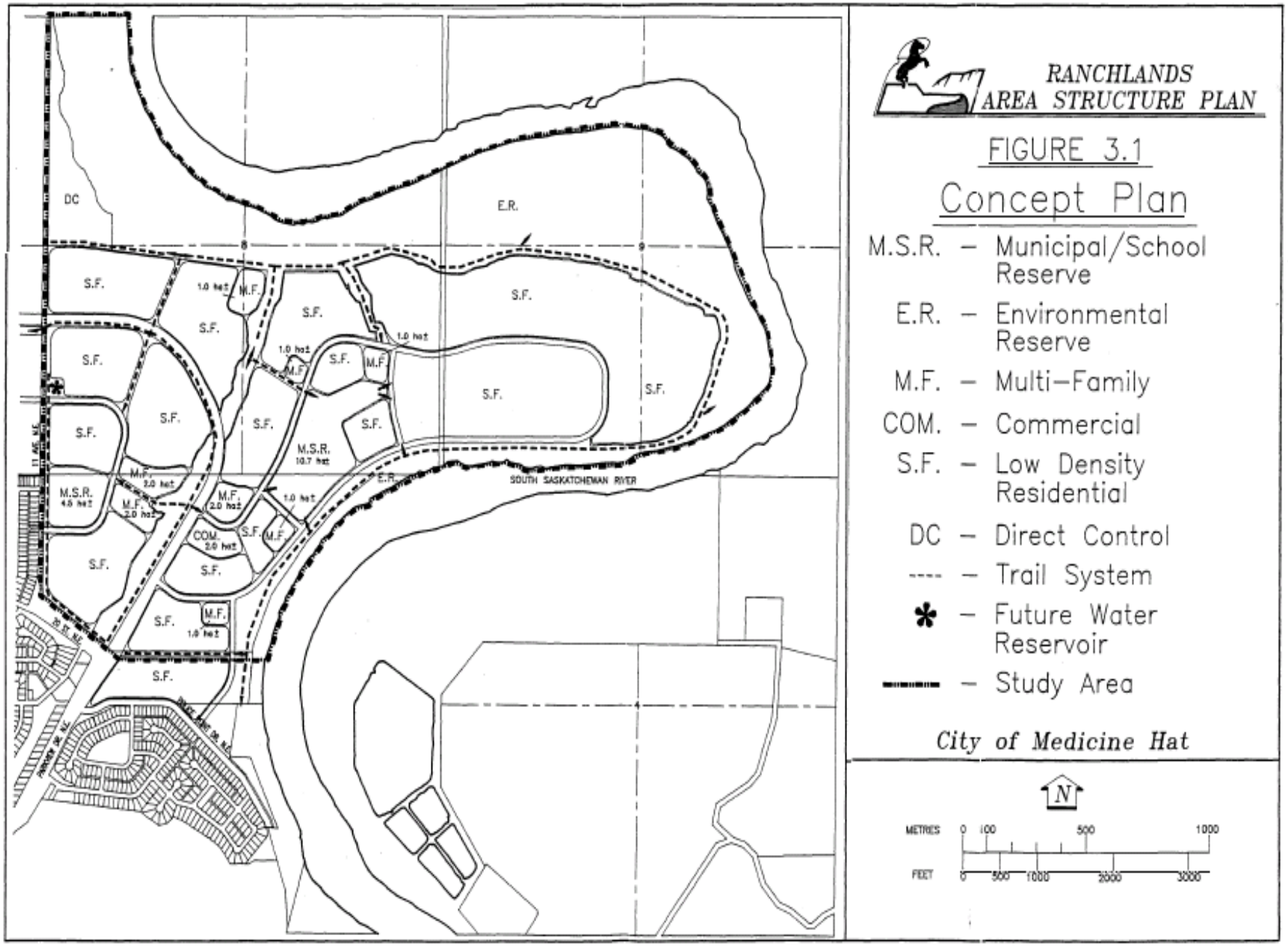
The development concept plan is shown on Figure 3.1. The concept provides for an integrated residential neighbourhood which allows for a variety of dwelling types, a neighbourhood commercial site, and three school sites. The concept integrates the outstanding natural features of the site into the design. Provisions are made for an extensive trail system which will provide recreational opportunities and facilitate transportation by foot or bicycle. Details of the various land uses are given below.

3.1 Single Family Residential

This classification includes single detached dwellings, as well as two, three and four unit dwellings (i.e. duplexes, triplexes, and fourplexes). In order to make efficient use of land as well as utility infrastructure single family residential densities of 12 dwelling units per gross hectare are proposed for the upper and middle benches. Due to the porous nature of the soil and the proximity of the one in one hundred year flood level to the surface of the lower bench only slab on grade dwellings (including manufactured homes) will be allowed. Densities on the lower bench will be 10 dwelling units per gross hectare.

3.2 Multi-family Residential

Between 1991 and 2011 family households in Medicine Hat are expected to increase by approximately 18 percent while non-family households are expected to increase by approximately 46 percent. It is expected that many non-family households will choose to live in multi-family dwelling units. To help accommodate the expected demand the study area contains a number of multi-family parcels. These parcels will be developed at a density of approximately 50 dwelling units per gross hectare. This density will be suitable for row housing, garden apartments and low rise apartments although the exact type of multi-family housing will not be determined until the development stage. Multi-family dwellings should be located near collector roads in order to reduce traffic in the interior of neighbourhoods


RANCHLANDS
AREA STRUCTURE PLAN
FIGURE 3.1
Concept Plan
M.S.R. – Municipal/School Reserve
E.R. – Environmental Reserve
M.F. – Multi–Family
COM. – Commercial
S.F. – Low Density Residential
DC – Direct Control
---- – Trail System
* – Future Water Reservoir
– Study Area
City of Medicine Hat
N
METRES 0 100 500 1000
FEET 0 500 1000 2000 3000
DC
E.R.
S.F.
M.F.
1.0 ha±
M.S.R. 10.7 ha±
M.S.R. 4.0 ha±
2.0 ha±
COM. 2.0 ha±
SOUTH SASKATCHEWAN RIVER

16

and to be close to bus routes. In order to increase the viability of the commercial site a multi-family residential site has been located adjacent to it.

3.3 Commercial Land Use

In order to meet the day to day needs of residents a 2.0 hectare neighbourhood commercial site has been allocated at the intersection of the arterial and a major collector road (Figure 3.1). This location will facilitate right hand turn entry to the parcel as people return home from work.

3.4 Open Space and Schools

3.4.1 Municipal Reserve

Two municipal/school reserve (MSR) sites are shown on the concept plan. (Figure 3.1) The site on the upper bench has been requested for a school site to serve both the Ranchlands aea as well as the Northeast Crescent Heights area. The site on the middle bench is centrally located on a flat area and is of sufficient size to accommodate two school sites and municipal reserve. This combined municipal/school resrve site allows the opportunity for joint use agreements and the sharing of facilities. The detailed location and sizes of the school sites and municipal reserve will be determined at the outline plan stage.

In addition to the 15.0 hectares of municipal/school reserve (MSR), 8.8 hectares of neighbourhood municipal reserve not shown on the concept plan will be located in the various phases. The size and location of the balance of this municipal will be determined at the outline plan stage and dedicated at the time of subdivision approval. The proportion of park to be dedicated in eash phase is indicated in Table 3.1 and was rationalized based on the amount of adjacent environmental reserve and the proposed density for each area. In order to improve useability and maintenance efficiency, no park should be less than 0.4 hectares in size.

TABLE 3.1
Distribution of Municipal and School Reserve by Phases

Phase	Gross Area (hectares)	Municipal/School (M.S.R.)[1]	Neighbourhood (M.R.)[2]	Total	% of total reserve
1	10.5	-	-	-	-
2A	14.1	-	1.0	1.0	4.2
2B	13.0	4.5	-	4.5	18.9
2C	11.3	-	1.0	1.0	4.2
2D	18.3	-	1.0	1.0	4.2
2E	11.5	-	0.5	0.5	2.1
2F	13.5	-	0.5	0.5	2.1
DC	9.0	-	-	-	-
Subtotal	90.7	(4.5)	(4.0)	(8.5)	(35.7)
3A	16.7	-	0.5	0.5	2.1
3B	10.9	-	1.0	1.0	4.2
3C	7.7	-	1.0	1.0	4.2
3D	21.1	10.5	-	10.5	44.1
Subtotal	56.4	(10.5)	(2.5)	(13.0)	(54.6)
4A	31.0	-	1.3	1.3	5.5
4B	27.7	-	0.5	0.5	2.1
4C	20.7	-	0.5	0.5	2.1
Subtotal	79.4	-	(2.3)	(2.3)	(9.7)
Total	237.0	15.0	8.8	23.8	100.0

1 As shown on concept plan.

2 Location to be determined at outline plan stage and dedicated at the time of subdivision approval.

3.4.2 Environmental Reserve

The one in one hundred year floodplain, as well as all grades over 15 percent and their setbacks will be dedicated as environmental reserve (Figure 3.1). The environmental reserve is to be left in its natural state unless developed as a park. (see section 2.7.6)

3.4.3 Schools

The two school boards have requested a total of three school sites - two public schools and one separate school. Medicine Hat School Division No. 76 requested two 4.25 hectare sites, one on the upper bench and one on the middle bench, to accommodate schools for Grades E.C.S. to 8. The Medicine Hat Catholic School Board of Education also requested a school site on the middle bench.

These sites are located adjacent to collector roads in order to facilitate transportation of students, and centrally located within the catchment areas.

3.4.4 Trail System

An extensive trail system is proposed in order to facilitate non-vehicular traffic and to provide a recreational opportunity for residents (Figure 3.1). The trail system would tie into the City's existing system. The trail system makes use of environmental reserve, municipal reserve, utility rights of way and roads. Details regarding the location of the trail system will be determined at the outline plan stage.

3.5 Land Use Allocation and Projected Populations

Land use allocation and projected populations are shown in Table 3.2. The length of time it will take to completely develop the study area is difficult to predict since housing starts have been increasing each year for the past few

years. However, based on the assumption that there will be 200 housing starts per year in the City and that 50 percent will occur in the study area the single family component of phase 1 will be completed in approximately 1 year, phase 2 in approximately 9 years after the completion of phase 1, phase 3 in approximately 6 years after the completion of phase 2 and phase 4 in approximately 8 years after the completion of phase 4. Based on this assumption it will take approximately 24 years to complete the development of the study area. It must be noted that this assumption does not account for an increasing or decreasing rate of growth and therefore should be treated with great caution.

TABLE 3.2
DWELLING UNIT AND POPULATION PROJECTIONS FOR RANCHLANDS AREA STRUCTURE PLAN

Phase	Gross Developable Area (ha)[1]	Gross Density (Dwelling units/ha)	Total Dwelling Units	Population per Unit	Population
Phase 1					
Single family	9.5	12	114	3.0	342
Multi-family	1.0	50	50	1.5	75
Subtotal	**10.5**	-	**164**	-	**417**
Phase 2					
2A					
Single family	12.1	12	145	3.0	435
Multi-family	2.0	50	100	1.5	150
Subtotal	**14.1**	-	**245**	-	**585**
2B					
Single family	8.5	12	102	3.0	306
Multi-family	0.0	-	-	-	-
Reserve (MSR)	4.5	-	-	-	-
Subtotal	**13.0**	-	**102**	-	**306**
2C					
Single family	11.3	12	136	3.0	408
Multi-family	0.0	-	-	-	-
Subtotal	**11.3**	-	**136**	-	**408**
2D					
Single family	16.3	12	196	3.0	588
Multi-family	2.0	50	100	1.5	150
Subtotal	**18.3**	-	**296**	-	**738**
2E					
Single family	11.5[2]	12.0	138	3.0	414
Multi-family	0.0	-	-	-	-
Subtotal	**11.5**	-	**138**	-	**414**
2F					
Single family	12.5	12	150	3.0	450
Multi-family	1.0	50	50	1.5	75
Subtotal	**13.5**	-	**200**	-	**525**
Phase 2 Total					
Single family	**72.2**	**12**	**867**	**3.0**	**2601**
Multi-Family	**5.0**	**50**	**250**	**1.5**	**375**
Reserve (MSR)	**4.5**	-	-	-	-
TOTAL	**81.7**	-	**1117**	-	**2976**
Phase 3					
3A					
Single family	10.0	12	120	3.0	360
Multi-family	1.0	50	50	1.5	75
Subtotal	**11.0**	-	**170**	-	**435**

Phase	Gross Developable Area (ha)[1]	Gross Density (Dwelling units/ha)	Total Dwelling Units	Population per Unit	Population
3B					
Single family	8.9	12	107	3.0	321
Multi-family	2.0	50	100	1.5	150
Subtotal	**10.9**	-	**207**	-	**471**
3C					
Single family	6.7	12	80	3.0	240
Multi-family	1.0	50	50	1.5	75
Subtotal	**7.7**	-	**130**	-	**315**
3D					
Single family	15.3	12	184	3.0	552
Multi-family	1.0	50	50	1.5	75
Reserve (MSR)	10.5	-	-	-	-
Subtotal	**26.8**	-	**234**	-	627
Phase 3 Total					
Single family	**40.9**	**12**	**491**	**3.0**	**1483**
Multi-Family	**5.0**	**50**	**250**	**1.5**	**375**
Reserve (MSR)	**10.5**	-	-	-	-
TOTAL	**56.4**	-	**741**	-	**1848**
Phase 4					
4A					
Single family	31.0	10	310	3.0	930
Multi-family	0.0	-	-	-	-
Subtotal	**31.0**	-	**310**	-	**930**
4B					
Single family	27.7	10	277	3.0	831
Multi-family	0.0	-	-	-	-
Subtotal	**27.7**	-	**277**	-	**831**
4C					
Single family	20.7	10	207	3.0	621
Multi-family	0.0	-	-	-	-
Subtotal	**20.7**	-	**207**	-	**621**
Phase 4 Total					
Single family	**79.4**	**10[3]**	**794**	**3.0**	**2382**
Multi-family	**0.0**	-	-	-	**0**
TOTAL	**79.4**	-	**794**	-	**2382**
TOTAL					
Single family	**202.0**	-	**2266**	**3.0**	**6798**
Multi-family	**11.0**	-	**550**	**1.5**	**825**
Reserve (MSR)	**15.0**	-	-	-	-
Total	**228.0**		**2816**	-	**7623**

1 Includes land area of roads,municipal reserve and commercial uses but does not include environmental reserve & municipal/school reserve.
2 Does not include 9.0 hectare direct control parcel.
3 The proposed slab on grad housing in the phase will be developed at lower densities than the conventional housing in the other phases.

4.0 SERVICING SYSTEMS

A servicing feasibility study for the site was conducted by UMA Engineering. Their report entitled, Report For The City of Medicine Hat Ranchlands Area Structure Plan Servicing Study (UMA Engineering Ltd. , October 1993), should be consulted for a more detailed information.

5.0 PHASING

Four phases are proposed as outlined in Figure 5.1. These phases represent a logical extension of existing development and servicing.

5.1 Phase I

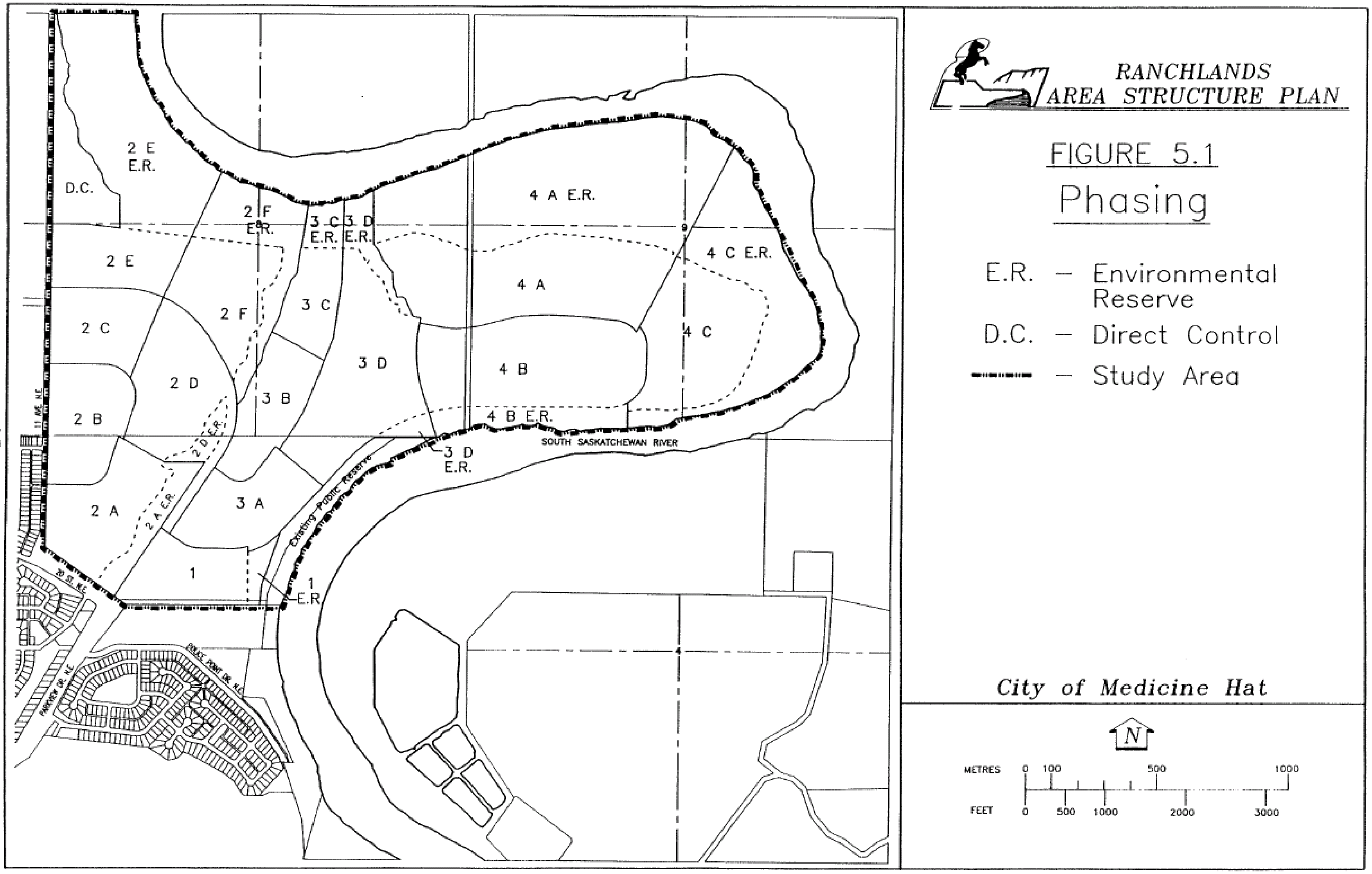
Phase I of this plan will be designed in conjunction with Parkview Phase III. Prior to development of this phase a new off-site sanitary sewer trunk main and river crossing are required. Engineering for this trunk and river crossing should commence immediately. In addition, a new storm water trunk main to the river is required. The trunk main needs to be oversized in order to accommodate runoff from all of Phase II and a portion of Phase III. At the same time a stormwater quality treatment pond for controlling contaminants in runoff will be developed at the stormwater outfall.
Parkview Drive will also have to be extended in order to serve phase I.

5.2 Phase II

Phase II will be the start of development on the upper bench adjacent to the existing North East Crescent Heights subdivision. During the development of Phase II a water storage reservoir and water main to supply the reservoir will be required. In addition, the electrical substation will have to be upgraded and Parkview Drive will be extended to 11th Avenue N.E.

5.3 Phase III

Phase III development will commence on the middle bench. A new lift station and forced main as well as a new storm trunk will be required prior to the development of the northeast portion of this phase. In addition, Parkview Drive will have to be extended from 11th Avenue N.E. to 24th Street N.W. A stormwater quality treatment pond will be developed in conjunction with stormwater outfall on the north side of the site.


RANCHLANDS
AREA STRUCTURE PLAN
FIGURE 5.1
Phasing
E.R. – Environmental Reserve
D.C. – Direct Control
Study Area
City of Medicine Hat
N
METRES 0 100 500 1000
FEET 0 500 1000 2000 3000
2 E E.R.
D.C.
2 F E.R.
3 C E.R.
3 D E.R.
4 A E.R.
4 C E.R.
2 E
4 A
2 F
3 C
2 C
4 C
3 D
4 B
2 D
3 B
2 B
4 B E.R.
SOUTH SASKATCHEWAN RIVER
2 D E.R.
3 D E.R.
2 A
3 A
2 A E.R.
Existing Public Reserve
1
1 E.R.

25

5.4 **Phase IV**

Phase IV represents development of the lower bench. Although no major infrastructure upgrading is required it must be remembered that due to the proximity of the one in one-hundred year flood level to the surface level of this bench and the porous nature of the soil there are a variety of constraints associated with development of this phase. Major engineering design work will be required for developments in this phase to ensure protection from flood damage. No basements will be allowed.

6.0 IMPLEMENTATION

6.1 Outline Plans

Prior to the submission of a subdivision application an outline plan for each phase must be completed. This plan will be treated as an amendment to this Area Structure Plan.

The outline plan will contain the following information:

- A detailed geotechnical report which establishes accurate setbacks from slopes and identifies any other geological constraints to development.
- Detailed engineering service study to determine infrastructure (sanitary sewer, storm sewer, water, gas, electrical, phone and cable TV) location and size. A stormwater master plan based on a computer model must be included in the engineering study.
- Detailed road layout including local road network.
- Establish proposed transit routes.
- Identify proposed zoning
- Identify specific size and location of environmental reserve, municipal reserve, school reserve, and the trail system.
- Identify specific location of commercial and institutional (e.g. churches) uses.
- Include development guidelines (e.g. energy efficiency design guidelines) and architectural and/or development controls.
- A phase I environmental audit.
- A historical resources survey.

APPENDIX I

Bibliography

Alberta Environment. May 1986. The Medicine Hat Floodplain Study Summary Report.

Huber, Reuben. 4 February 1993. Interview with Mr. Huber.

Society of Grasslands Naturalists. 23 September 1993. Biophysical Survey of the Ranchlands Area Medicine Hat, Alberta.

UMA Engineering Ltd. August 1993. Interim Geotechnical Report for the Proposed Ranchlands Subdivision Area Structure Plan.

UMA Engineering Ltd. October 1993. Report for the City of Medicine Hat Ranchlands Area Structure Plan Servicing Study.

Appendix II

TERMS OF REFERENCE

S and T RANCH

AREA STRUCTURE PLAN

Prepared by

Southeast Alberta Regional Planning Commission

March 1993

1.0 Introduction

The City of Medicine Hat has requested that the staff of the Southeast Alberta Regional Planning Commission prepare an area structure plan for the S and T Ranch.

2.0 Purpose

The purpose of these terms of reference is to provide a guideline for the preparation of S and T Ranch Area Structure Plan.

3.0 Plan Goal

The goal of the S and T Ranch Area Structure Plan shall be:

To provide a residential neighbourhood design concept for the S and T Ranch which will:

- protect the ecological integrity of the area;
- provide a variety of housing choices;
- provide for neighbourhood commercial development; and
- incorporate design elements to enhance the quality of life for the residents.

4.0 Plan Objectives

4.1 To ensure the preservation of the natural fauna and other heritage features throughout the river valley area.

4.2 To support imaginative urban design and land development.

4.3 To achieve a compact, environmentally pleasing urban area, which complements and reinforces the physical form of the immediate setting.

4.4 To examine the potential for higher density residential developments.

4.5 To facilitate the use of public transportation.

4.6 To provide parks which meet the needs of residents.

4.7 To develop a continuous linkage of parks, boulevards, trails, and public open spaces contributing to and connecting with, the River Valley Park System.

4.8 To design a circulation system which follows natural topography and preserves natural features as much as possible.

4.9 To ensure that utility facilities and extension are developed for the area in an economical and efficient manner.

4.10 To provide for a neighbourhood commercial centre to provide convenient services to residents.

4.11 To provide land for schools as required.

5.0 Data Collection and Analysis

The following information is required:

5.1 Historic

- Conduct a historic land titles search.
- Undertake air photo analysis.
- Interview people familiar with the area.

5.2 Resources

- Contact the Energy Resources Conservation Board to get the locations of all gas and oil wells and pipelines.
- Contact Police Point Interpretive Centre to get information on bird and plant surveys.

5.3 Engineering

- The City of Medicine Hat should arrange for an engineering study to be completed which will contain the following information:
  - depth of water table;

- suitability of soils for development (analysis will be done for: liquid limit, plastic limit, particle size, bearing capacity, and any other parameter recommended by the City or the consulting engineer); and

- setbacks for steep slopes.

- The City of Medicine Hat should arrange for a traffic study to be conducted.

- The feasibility of incorporating a stormwater retention pond into the design will be examined.

5.4 Planning

- Environmental impact assessment guidelines will be developed (this project may serve as a pilot project for municipal environmental impact assessment in Medicine Hat). There will be no fill allowed in the flood risk area.

- Sustainable community development guidelines will be developed (this project may serve as a pilot project for the application of these guidelines).

5.5 Schools

- City school authorities will be contacted to assess the need for schools.

5.6 Parks and Recreation

- City officials will be contacted in order to assess the requirements for parks and recreation facilities.

5.7 Public Housing

- Appropriate authorities will be contacted to assess the needs for public housing.

6.0 Mapping

6.1 Key Map

6.2 Base Map

A 1:5000 base map will be produced using CAD technology. The basemap will:

- delineate all legal boundaries.

6.3 Map Layers

A variety of layers will be produced including:

- contours (3-D format),
- vegetation,
- microclimate,
- features (habitat),
- floodplain,
- constraints (oil and gas wells and pipelines and steep and unstable slopes),
- visual analysis (views),
- adjacent land uses,
- proposed design,
- roads and utilities (water, storm sewer, sanitary sewer, gas, and electric), and
- phasing.

7.0 Design Concept

- The design will incorporate sustainable community principles.
- The design will be based on forecasted market needs.
- The natural setting will be incorporated into the design.

8.0 Timeline

REVISED TIME LINE FOR RANCHLANDS AREA STRUCTURE PLAN

Task	Revised Time
Formulate goals and objectives	Completed
Mapping	Completed (except plant communities)
Data collection and analysis	Completed
Development of environmental impact assessment guidelines	July, 1993
Development of sustainable community development guidelines	Completed
Engineering Study	July - October, 1993
Design	August 1993
Technical Review by City[1]	November 1993
Revisions	December 1993
Council Review of Alternative Concepts	Sufficient direction has been received from Council that this step and the next step can be eliminated
Revisions	
Submission to Council for Statutory Review and Approval[2]	January, 1994
Tentative Adoption	May, 1994

[1] Review by Board of Commissioners and Land Department

[2] This process to follow the City's policy for circulation of Area Structure Plans.