

HERITAGE HEIGHTS AREA STRUCTURE PLAN

OCTOBER 1989

MARTIN & COMPANY LTD.  
LAND SURVEYORS AND CONSULTING ENGINEERS  
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T1H 0P1

# HERITAGE HEIGHTS AREA STRUCTURE PLAN

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Reference Material (under separate cover)

- 1                      "Mining Subsidence Study - Heritage Heights Subdivision" by EBA Engineering Consultants Ltd.
- 2                      "Slope Stability Evaluation - Heritage Heights Subdivision" by EBA Engineering Consultants Ltd.
- 3                      "Heritage Heights Subdivision - Transportation Planning" by Swanson Transportation Consultants Ltd.

## HERITAGE HEIGHTS STRUCTURE PLAN

### SECTION ONE

### INTRODUCTION

#### 1.1 Area Structure Plan - Purpose and Relation to Other Plans

An Area Structure Plan is intended to provide a framework for preparing previously undeveloped areas for new development. It must comply with higher level plans, in this case the General Municipal Plan (1980) and the 1969 report by the Oldman River Regional Planning Commission titled "The Urbanization of West Lethbridge". Similarly, outline and subdivision plans, which provide more specific design details, must comply with the Area Structure Plan.

##### i) General Municipal Plan

The General Municipal Plan (1980) was amended by City Council on December 12th, 1988 with the passage of By-Law 4274, an Amendment to the General Municipal Plan for a Portion of N½ of Section 35-8-22-W4M. This amendment recognized the subject lands as an acceptable growth area for residential purposes and showed the subject lands as being suitable for an Area Structure Plan.

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1.1 ii) Village Concept

The report "The Urbanization of West Lethbridge" established the principle that development in West Lethbridge should follow the "Village Concept". The basic principles of the Village Concept are as follows:

- a) A village is normally formed by a coalition of two neighbourhoods. Each village will contain two public elementary schools and each school will represent a nucleus for a neighbourhood of approximately 5-6,000 persons. A separate elementary school, serving an area equal in size to a village should be centrally located within each village.
- b) The village is the major unit of residential development. The village unit is approximately one square mile in area and is bounded on all sides by arterial roadways. Each village will contain approximately 11-12,000 people.
- c) Each village unit will be designed to be energy efficient. Services such as commercial centres, health clinics and schools, as well as medium and high density housing, will be centrally or conveniently located and strategically placed along major public transit routes. Placement of all land uses should ensure that roadways and services are used as efficiently as possible. Residential layout and lot design shall be as energy efficient as possible.

- d) Each village unit should contain one village commercial centre located at the intersection of an arterial and collector roadway, and designed to provide a wide range of goods and services. Each village commercial centre will be designed for a trade area of approximately 11,000 to 12,000 persons.
  
- e) Each village may contain local commercial facilities located at the interior of the village and designed to provide a limited range of convenience goods and services. The local commercial centre will be designed for a trade area of approximately 5,000 persons.
  
- f) Each village will contain a variety of housing types. Residential dwellings of similar types should be arranged in small clusters and these clusters dispersed throughout each development stage.
  
- g) The park classification system shown in the City of Lethbridge Open Space Plan will be used to define and organize open space in each village. An open space linkage must be a functional and enjoyable part of the overall open space system, and may consist of a combination of sidewalks, boulevards or separately-dedicated open space walkways.

## 1.2 Heritage Heights Structure Plan

Heritage Heights and the neighboring development, Ridgewood Heights are separated from Indian Battle Heights, by an arterial road, University Drive. However, all three areas are considered to be part of the Community II Village Plan as a result of City Council's decision of December 11, 1989. This, together with the fact that the anticipated combined population for both Heritage Heights and Ridgewood is anticipated to range between 4,200 and 5,000 persons, suggests that the development will not have the threshold populations to warrant village type or scale of services such as parks, commercial development.

As a result, an objective of the Heritage Heights Area Structure Plan is to allow for the provision of parks and commercial areas at a neighbourhood scale and not a village scale. At the same time, the Plan must provide linkages or access for pedestrians, bicycles and vehicles to the major village scale services to be found in the adjacent Indian Battle Heights. This would not only allow access to these ancillary services to the residents of Heritage Heights, but would also serve to encourage village commercial development and better use of schools and parks in Indian Battle Heights.

The Heritage Heights Area Structure Plan addresses this vital linkage with Indian Battle Heights as well as land uses, general design considerations, a roadway network and utility servicing to the area.

## SECTION TWO

SITE ANALYSIS2.1 Location

The Heritage Heights planning area is outlined on **Figure 1.1** and **1.2**. It is an irregular shaped parcel encompassing about 84.3 ha. The site is bounded on the north by the Canadian Pacific Railway, on the south by Ridgewood Heights subdivision, and on the west by the proposed realignment of University Drive. The eastern boundary is the top of bank setback as determined in accordance with the policies of the River Valley Area Redevelopment Plan. This setback is accurately defined in the report by EBA Engineering Consultants Ltd. "Slope Stability Evaluation - Heritage Heights Subdivision" dated July, 1989.

2.2 Topography and Drainage

The area exhibits an undulating or rolling character with a general slope to the northeast. A contour analysis is presented in **Figure 2**. Several small sloughs and poor drainage areas exist due to the undulating nature of the topography. The eastern boundary of the study area is adjacent to coulee slopes that are about 90 meters above the Oldman River, which flows northerly at the toe of the coulees.



### 2.3 Existing Zoning

The area is currently zoned UR (Urban Reserve). The UR designation is meant to restrict subdivision and development until such time as the City agrees the area is ready for development.

### 2.4 Existing Land Uses

The area is almost entirely used for agriculture purposes. The exceptions being the present right-of-way for University Drive and the vacant 30 meter strip of land parallel and adjacent to the Canadian Pacific Railway tracks. There are no buildings on the site. Refer to Figure 3 for existing land uses.

### 2.5 Land Ownership

Figure 4 details the current ownership of lands included in the Heritage Heights Area Structure Plan. These owners and the approximate area of their holdings are as follows:

<u>Owner</u>	<u>Area</u>	<u>% of Total</u>
1. City of Lethbridge	3.1 ha.	3.68%
2. Canadian Pacific Ltd.	38.9 ha.	46.14%
3. Marathon Realty Co. Ltd.	41.5 ha.	49.23%
4. John K. Dunn & Truda N. Dunn	<u>0.8 ha.</u>	<u>0.95%</u>
Total Area	84.3 ha.	100%

All lands within the study area owned by either Canadian Pacific or Marathon Realty are subject to an Agreement for Sale to Bel-Aire Land Developments Ltd. with a closing date set for July of 1989.

## 2.6 Adjacent Land Uses

The existing and planned land uses adjacent to the study area are shown on Figure 5.

The area to the south, Ridgewood Heights, is exclusively a single family area with the majority of homes being above average in terms of size and quality of development.

The area to the southwest forms part of the Indian Battle Heights Village, with a Catholic Elementary/Junior High School planned at the southwest corner of the intersection of University Drive and Gary Drive.

The lands to the west, which are separated from the Heritage Heights area by the proposed re-alignment of University Drive, are presently uncultivated pasture lands and are intended to form part of a future village.

Immediately adjacent to the north boundary of the study area is the Canadian Pacific Railway tracks which separates the study area from the old Galt No.8 Coal Mine Headworks, which is presently being used for industrial purposes.

To the east are the coulee slopes and the Oldman River, which form part of the City of Lethbridge Urban Park system. Immediately across the river is Indian Battle Park, which is a medium intensity recreational and historical interpretative centre.

## 2.7 Opportunities and Constraints

The Heritage Heights study area and its surroundings, contain a number of natural and man-made features which will impact planning for the study area. Opportunities should be maximized and the effects of constraints minimized in the planning process. These opportunities and constraints are also shown in Figure 5.

Man-made features in the study area and its immediate surroundings include:

- i) University Drive and it's proposed intersection orientations with Gary Drive and Highway No. 3 West, as well as the proposed overpass over the Canadian Pacific Railway.
- ii) The Canadian Pacific Railway tracks and the High Level Bridge.
- iii) The current industrial use at the site of the old No. 8 Galt Coal Mine Headworks.
- iv) Undermining of the study area from previous coal mining operations.

- v) The River Valley Area Redevelopment By-law which is intended to control development in the river valley and the adjacent coulee slopes.
- vi) The Lethbridge Urban Park and its associated trail system.
- vii) Ridgewood Heights residential subdivision to the south of the study area.
- viii) Indian Battle Heights Village to the southwest of the study area.
- ix) Atso Towaawa Village Park in Indian Battle Heights.
- x) The proposed village shopping centre in Indian Battle Heights.
- xi) Mike Mountain Horse Public Elementary School in Indian Battle Heights.
- xii) The proposed Catholic Elementary/Junior High School at the intersection of University Drive and Gary Drive.

Natural features in the study area and it's immediate surroundings include:

- i) Panoramic views of the River Valley from the eastern portion of the study area.

- ii) Natural features such as vegetation and animal life found in the river valley and the adjacent coulee slopes.

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## SECTION 3

PROPOSED LAND USES AND DESIGN CONSIDERATIONS3.1 Proposed Land Uses and Dwelling Form

The proposed land uses are outlined in Figure 6.

The land uses are summarized as follows:

	Approximate Areas	
	Net	Gross
Low Density Residential	55.0 ha.	73.7 ha.
Commercial	0.4 ha.	0.4 ha.
Institutional	1.8 ha.	1.8 ha.
Open Space	<u>8.4 ha.</u>	<u>8.4 ha.</u>
Total	65.6 ha.	84.3 ha.

## i) Residential Uses

The proximity of Heritage Heights to the River Valley and to Ridgewood Heights suggests a continuation of the land uses and housing types in Ridgewood Heights. Ridgewood has been a highly successful development that appears to meet consumer demand to a greater extent than any other residential development currently underway in the city.

A multi-family site originally developed in Ridgewood was changed to a single family area because of lack of interest in the site and because of the negative effect it was having on the sale of single family lots in its proximity. This further reinforces evidence of consumer demand for an exclusively single family area.

It is therefore recommended, that all residential areas in Heritage Heights be low density residential and that consideration should be given to primarily single family housing during preparation of the Outline Plan. Adult oriented housing projects and family oriented housing projects, similar to Waterton Village, now under construction in Indian Battle Heights, appear to be in demand. At present there are no such areas in the City specifically planned for these uses. Two sites in the city have been rezoned to accommodate adult oriented housing projects, and these appear to have met with favourable consumer demand. It is recommended that consideration be given to these housing types during preparation of the Outline Plan. Potential areas are shown on Figure 6. The density and form of dwelling units in these adult or family orientated housing projects should be compatible with the single family nature of Heritage Heights, but may incorporate attached units.

ii) Commercial and Institutional Uses

Heritage Heights and Ridgewood Heights fall within the Village II Community Plan. The combined population totals only form 4,200 to 5,000 people and therefore will not have the thresholds necessary to support village commercial developments. It is still necessary to provide for the day to day shopping and convenience needs of the residents of both Ridgewood and Heritage Heights.

Only one commercial site is provided for in the plan. The site is not shown on the map "Proposed Land Uses" (Figure 6) as the final location will be determined prior to subdivision. This commercial site will be no greater than .41 ha. in area and will be located along the looped collector road at an interior location away from University Drive and not be placed on the southeast corner of University Drive and Gary Drive. The site shall also be connected into the Heritage Heights pedestrian/bicycle linkage system to provide convenient access. This commercial site should be zoned Direct Control, restricting use to a gas bar, convenience store and car wash.

It is proposed that a site of about 1.6 to 1.8 ha. be set aside adjacent to University Drive at the intersection with the north loop of the collector road for institutional uses. This use is an appropriate land use immediately adjacent to the overpass which is a high noise generator.



### 3.2 Densities and Population

In keeping with the generally single family nature of Heritage Heights it is planned to allow for an overall density of between 12 and 14 units per gross hectare. However, the target density will be 12 units per gross hectare. This is slightly higher than Ridgewood Heights which has an overall density of about 10 units per gross hectare. The slightly higher density is to allow for the higher densities associated with the adult and/or family orientated housing projects and to allow for the possibility of smaller lots than in Ridgewood.

The persons per unit figure of 3.0 persons per unit used for population projections is based on the survey of housing types undertaken by the City of Lethbridge, and documented in the "Mountain Heights - Sunrise Estates - River Bend Area Structure Plan."

Projected Units and Population

G Area (1)	Target Density U.P.G.H.A. (2)	No of Units	Average P.P.U.(3)	Population
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82.1 ha.	12	985	3.0	2,955
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82.1 ha.	14	1150	3.0	3,450
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(1) Gross area includes open space but excludes commercial area.

(2) U.P.G.H.A. - Units Per Gross Hectacre.

(3) P.P.U. - Persons Per Unit

If fully developed as planned, Heritage Heights could provide an opportunity for between 985 and 1150 dwelling units and contain between 2,955 people and 3,450 people.

Using the target density of 12 U.P.G.H.A. this results in a target population of 2,955 people.

### 3.3 Park and Open Space

The proximity of Heritage Heights to the River Valley and the Urban Parks system and to Atso Towaawa Village Park in Indian Battle Heights; as well as the relatively small population, suggests a village park is not necessary to serve the residents of Heritage Heights.

It is recommended that the area can best be served with a centrally located, larger block park/school site containing about 4.0 ha., one block park of about 0.8 ha. and approximately 4 or 5 smaller block parks of about 0.4 ha. each dispersed throughout the site. The general location of these parks is shown on Figure 7 with the actual location to be determined at the Outline Plan Stage. The total area of open space, excluding the buffer strips along the railway and University Drive, should not exceed 10% of the gross area of 8.43 ha.

The strips of open space shown parallel and adjacent to the railway tracks and University Drive will serve to provide both a noise buffer and a visual buffer between the adjacent residential uses and the conflicting transportation uses.

Adequate linkage for pedestrian and bicycle transportation is also recommended between block parks. Linkages are discussed more fully in Section 3.4 of this report and are shown in Figure 7.

## 3.4

Linkages - Internal and to Adjacent Areas

In order to provide access to the village scale amenities such as schools, shopping facilities and parks, found in Indian Battle Heights, it is essential that provisions be made for safe and efficient pedestrian and bicycle movement within Heritage Heights linking to Indian Battle Heights.

These linkages should connect from one open space or park to another and to the commercial areas and to a safe crossing of University Drive. It is recommended that a pedestrian underpass be investigated to provide this safe crossing of University Drive. Provision should also be made for a pedestrian/bicycle connection from Ridgewood Heights to the underpass to provide similar safe access to Ridgewood residents. Concern has been expressed by School District No. 51 and parents in Ridgewood regarding the crossing of University Drive by elementary school children. Pedestrian lights installed at the intersection of University Drive and Ridgewood Blvd., have not alleviated these concerns and students are currently bused from Ridgewood to Mike Mountain Horse Elementary School. A pedestrian underpass in the approximate location shown in **Figure 7** will provide a safe crossing for the residents of both Heritage Heights and Ridgewood. This crossing would provide the necessary access to Mike Mountain Horse School, sports fields and other major recreational facilities at Atso Towaawa Park and to the village commercial site in Indian Battle Heights.

Adequate linkage from Ridgewood to the proposed school site will be provided at the easterly and westerly end of Heritage Heights connecting with the existing trail network. Additional linkages will be provided through the existing lanes at the north end of Ridgewood which will be extended northerly as walkways into Heritage Heights.

Through the Urban Parks Project, the City of Lethbridge has developed extensive trail systems and recreational facilities in the river valley. Connecting the University Drive underpass and the internal linkages in Heritage Heights with the Urban Parks trail network expands the recreational opportunities for residents in Heritage Heights and Ridgewood, as well as people living in Indian Battle Heights. These linkages are shown schematically in Figure 7 with the final alignment and shape to be determined at the Outline Plan stage.

### 3.5 Access to Schools

Separate School District No. 9 has indicated they do not need any land in Heritage Heights set aside for school purposes. Elementary children in the separate school district will initially attend the Children of St. Martha School and in the future if and when constructed, the proposed school at the intersection of University Drive and Gary Drive. Junior and senior high school students will be bused to appropriate facilities within the school system until such schools are available in West Lethbridge.

Public School District No. 51 has indicated the need for an elementary school site within Heritage Heights that would also service the needs in Ridgewood. The site will be approximately 4 ha. in size and will be developed as a joint school site/community park. The school site will be located on the east side of the minor collector running north/south rather than on the looped major collector and will be approximately in the centre of the Heritage Heights subdivision. Adequate internal walkways will be developed to facilitate access for children from Ridgewood Heights to the school.

Junior and senior high school students will be bused to appropriate facilities within the school system until such schools are available in West Lethbridge.

### 3.6 Coal Mine Subsidence

The report "Mining Subsidence Study - Heritage Heights Subdivision" prepared by EBA Engineering Consultants Ltd. is available as reference material to this Area Structure Plan.

This report is a result of a detailed study on the potential effects of mining subsidence on this proposed development. In general, the report concludes that future mining subsidence should not pose any problems to the proposed development of Heritage Heights. However, the recommendations contained in this report should be addressed where appropriate in the Outline Plan and the detailed design of the subdivision.

### 3.7 Slope Stability and Setbacks

The report "Slope Stability Evaluation - Heritage Heights Subdivision" by EBA Engineering Consultants Ltd. is available as reference material to the Area Structure Plan.

This report defines the top of slope setback line as determined in accordance with the requirements of the City of Lethbridge "River Valley Redevelopment Plan" (By-Law No. 4068). This line is considered as the property line for lots and is also the eastern boundary of the Heritage Heights Area Structure Plan. The River Valley Redevelopment Plan (By-Law No 4068) should be amended at the same time as approval of this Area Structure Plan in order to ensure that western boundary of the Redevelopment Area coincides with this top of slope setback.

The Slope Stability Report also contains recommended development guidelines which should be addressed where appropriate in the Outline Plan and the Detailed Subdivision Design.

### 3.8 Noise Levels and Buffer Requirements

#### i) Noise Levels

Canada Mortgage and Housing Corporation defines 55dB as the maximum acceptable level of noise for residential development. The main sources of noise for Heritage Heights are the road traffic along University Drive and the train traffic along the CP Railway. The Area Structure Plan has set aside open space along both University Drive and the railway to allow space for possible noise attenuation and to further separate the residential units from the noise sources. These open spaces will also serve to provide spaces for pedestrian and bicycle traffic.

Detailed noise calculations and noise abatement measures will have to be addressed at the subdivision design stage. Noise abatement measures may include any one or a combination of the following:

- increased building setbacks
- berming
- noise abatement fencing

ii) Vibration

The proximity of the residential development to the railway track has raised some concern with regard to the possible effect that vibrations from train traffic may have on the residential structures and the life styles of residents in the area. During the subdivision planning stage, a vibration study will be undertaken to quantify the degree of vibration and analyse any potential problems.

iii) Buffer Requirements

It is recommended that adequate berming and landscaping be undertaken in the open space strip adjacent to the railway tracks to provide a visual separation from the residential areas in Heritage Heights and the industrial area on the north side of the railway tracks.



## SECTION 4

EXISTING AND FUTURE ROAD NETWORK

The existing roads within the study area include University Drive and a gravel section road intersecting University Drive immediately south of the crossing with the Canadian Pacific Railway tracks. Both of these roads will be realigned to accomodate an overpass over the Canadian Pacific Railway, an improved intersection with Highway No. 3A west as well as adequate connections to future arterial roads planned in West Lethbridge.

The Functional Plan for this realignment was prepared by Reid, Crowther Partners Ltd. The preliminary engineering design is currently being undertaken by Reid, Crowther and is scheduled to be complete in the fall of 1989 with construction commencing in 1992. The existing roadways will be abandoned in favor of the new University Drive location which forms the western boundary of the study area.

Heritage Heights will be serviced by an internal collector which will loop through the study area as shown on Figure 8. The southerly loop will intersect with University Drive and Gary Drive that is proposed to continue westerly from University Drive.

The northerly loop will intersect with University Drive to align with the proposed Highway No. 3A West. In order to accomplish this intersection in a safe and efficient manner, it will be necessary to make some minor adjustments to the alignment of the road heading west. Reid, Crowther have indicated this will not pose a problem and will be incorporating both of these intersections into their design of University Drive.

A minor collector is proposed that would run generally north/south connecting with the major looped collector road. The proposed school site will abutt this minor collector rather than the major looped collector road.

The engineering firm of Swanson Transportation Consultants Ltd. has completed a Traffic Study which included a trip generation and distribution analysis to determine University Drive intersection volumes. This report is available as reference material to this Area Structure Plan.

The final alignment of both intersections as well as the issues of traffic control and intersection channelization, will be determined upon completion of the engineering design of University Drive and will be incorporated into the Outline Plan.

The collector road right-of-way standards and line assignments will be submitted for approval to the City of Lethbridge Subdivision Review Committee at the time of Outline Plan Approval. Local road locations and configurations will also be determined at that time with right-of-way standards and line assignments, to meet current City of Lethbridge standards.

## SECTION FIVE

SERVICING5.1 Water Mains

An existing 300mm water main running through the lane at the easterly end of Ridgewood Heights will be continued northwesterly to the proposed collector road in Heritage Heights. It will then continue westerly in the collector road to connect with a proposed 300mm water main at the southerly intersection with University Drive. The City of Lethbridge will be constructing this proposed 300mm main southerly along University Drive, then through the proposed school site to intersect with an existing 300 mm main located in Red Crow Blvd. (Refer to Figure 9). The exact location of the proposed 300 mm connection will be determined at the time of construction.

This 300mm water main loop through Heritage Heights will be constructed during the initial stage of development and will ensure adequate provision of water for all of the Heritage Heights development.

5.2 Sanitary Sewer System

Heritage Heights will be serviced by a gravity flow sanitary sewer system connecting to an existing 600mm trunk in Ridgewood Heights. This trunk will be extended northwesterly to intersect with the Heritage Heights collector road and thence north and west along the collector road to the northerly intersection with University Drive. (Refer to Figure 10).

The sanitary main through Heritage Heights must be designed to accommodate an upstream flow of 8.73 cubic feet per second from future developments on the west side of University Drive. The City has indicated an invert of 919.29m is necessary to service this future development to the west; however, an invert of about 917.0m will be required to service the low area in the northwest corner of Heritage Heights.

### 5.3 Storm Sewer System

The storm sewer trunk will tie into an existing 1500mm storm sewer at the north east end of Ridgewood and connects with the outfall line leading to the Oldman River. From the connection point in Ridgewood the storm sewer will run westerly in an easement, parallel and adjacent to the rear property lines of Ridgewood and then to the collector road in Heritage Heights. It will then follow in the collector road north and westerly to the northerly intersection with University Drive. (Refer to Figure 11).

In order to accommodate drainage from future developments on the west side of University Drive, the storm trunk must be designed to accommodate a flow of 291 cubic feet per second with a time of concentration of 42.1 minutes. The maximum elevation of the storm trunk crossing University Drive crossing is 916.58m.

Due to downstream limitations in the capacity of the storm outfall to the Oldman River, the West Lethbridge Storm Water Management Report identifies that the Heritage Heights drainage basin must provide 165 cubic metres of storm water storage for each hectare of developed land. This storage should be incorporated into the street grading network.

5.5 Electrical, Telephone and Gas

The various utility companies responsible for electrical, telephone and gas distribution have indicated that Heritage Heights would be serviced, without any problems, by extending lines northward along University Drive.

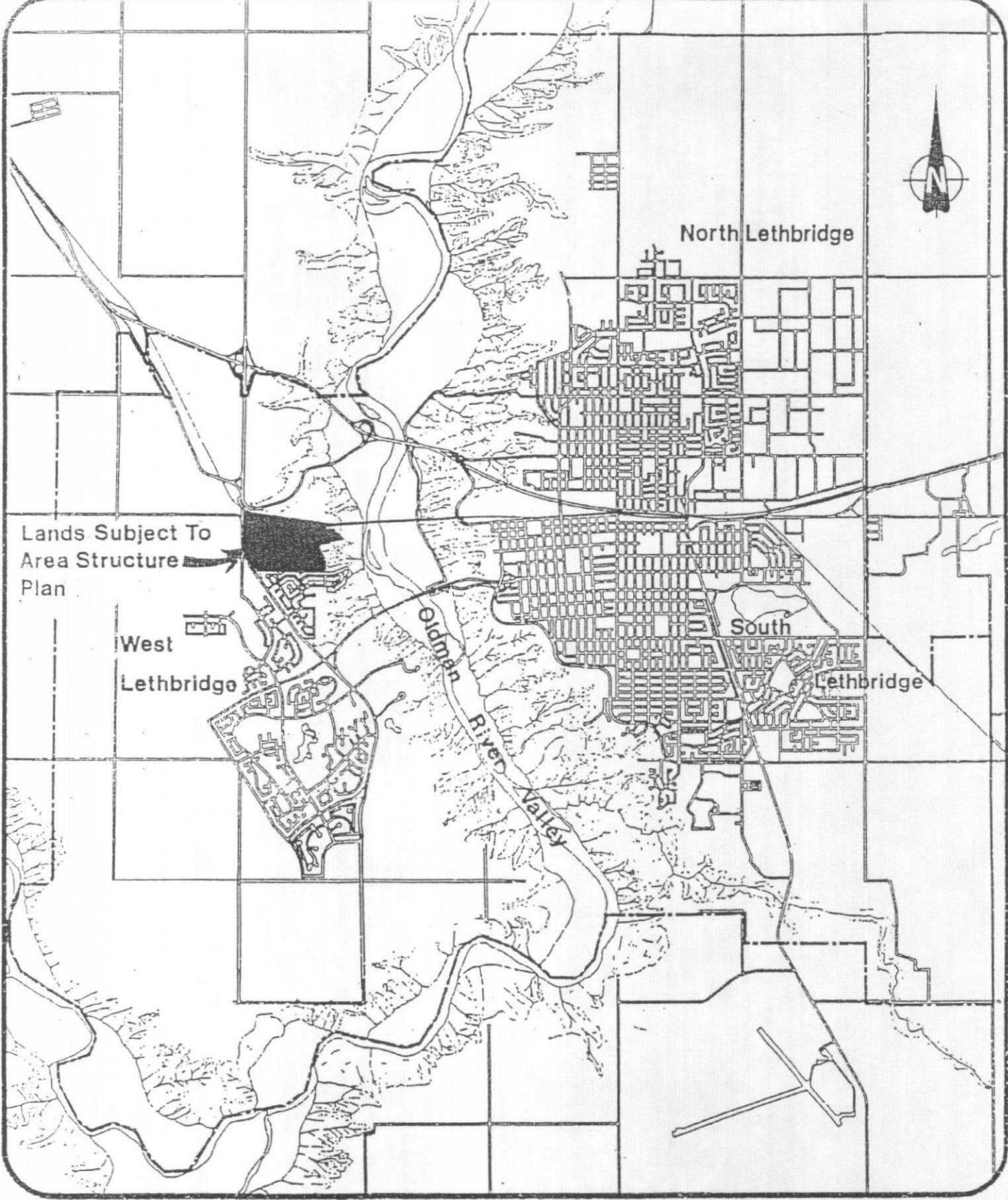
SECTION SIX

PHASING

The initial phase of development will generally encompass the southern part of the area (refer to Figure 12). This would include the southern leg of the major collector with the associated trunk water main. Also included in the first phase would be trunk storm and sanitary sewer from the northeasterly end of Ridgewood to the intersection with the major collector.

Each neighborhood in Heritage Heights will vary in character resulting in subsequent directions of growth being dependant upon demands for different types of housing.

In order to provide an alternate access to Heritage Heights from University Drive, it will be necessary to provide an alternate temporary access at the point when about 70 lots are serviced. When about 350 lots have been serviced, this temporary access may have to be relocated. The exact location, configuration and timing of these temporary access points will be addressed to the satisfaction of the City of Lethbridge at the time of Tentative Plan approval.



**HERITAGE HEIGHTS  
AREA STRUCTURE PLAN**

**LOCATION MAP - FIGURE 1.1**

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1811-50 AVENUE NORTH

LETHBRIDGE, ALBERTA



FIGURE 1.2

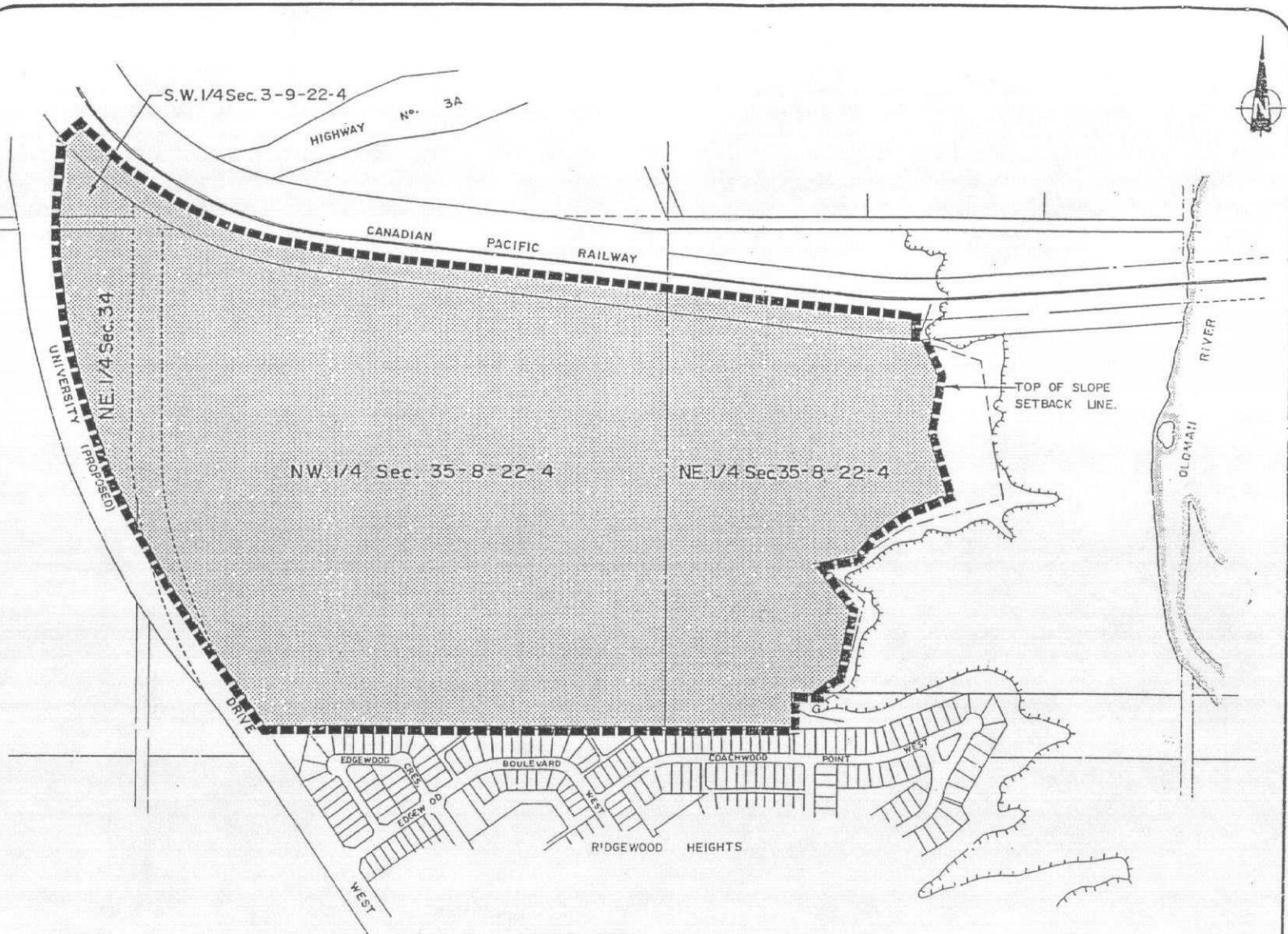
TITLE

Area Boundary

LEGEND

■■■■ SUBDIVISION BDY

Area = 84.3 ha



HERITAGE  
HEIGHTS

AREA  
STRUCTURE PLAN

0 100 200 300m

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FIGURE 2

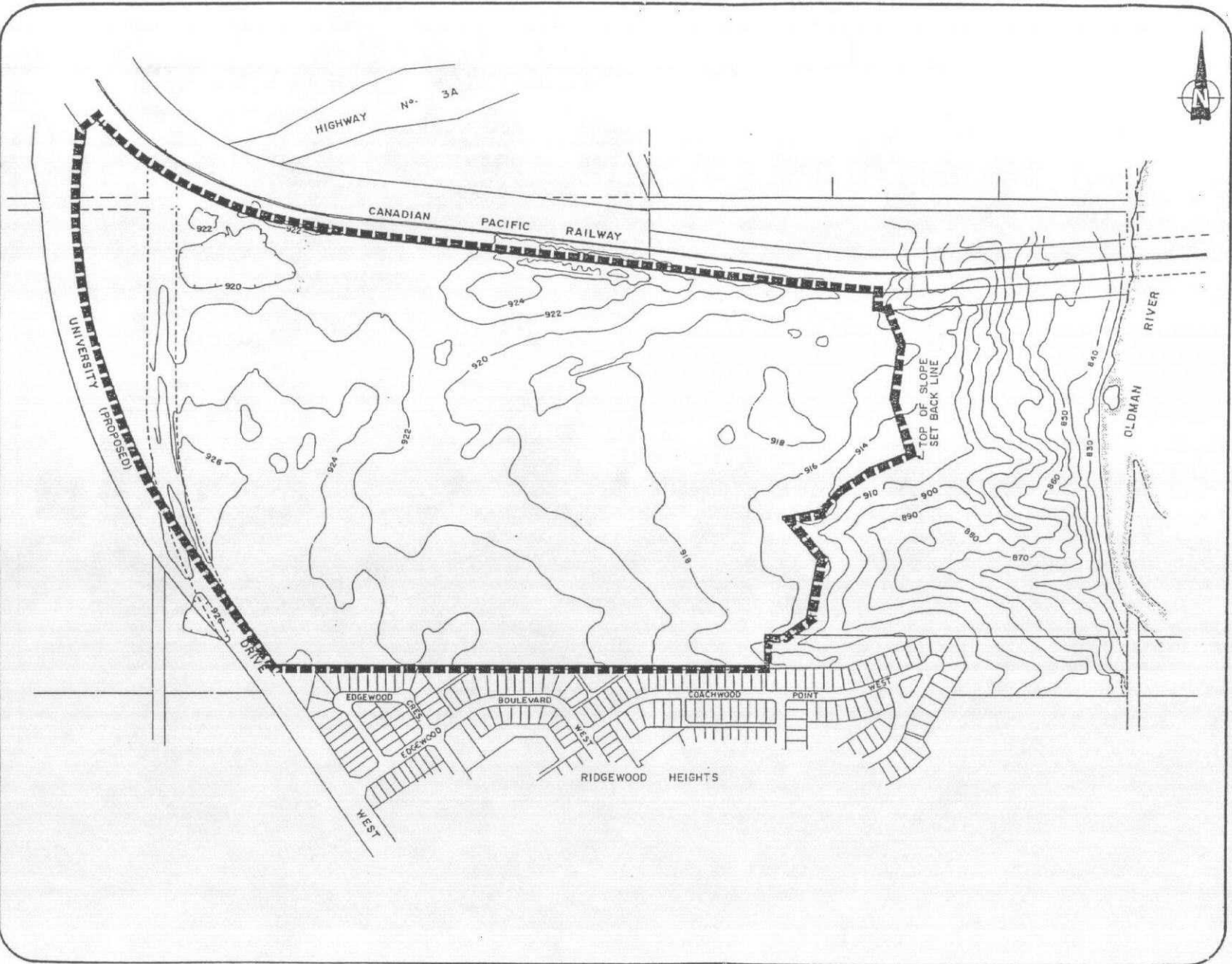
TITLE

# Contour Analysis

LEGEND

▣▣▣ SUBDIVISION BDY.

Elevations are in metres and are referred to geodetic datum.



## HERITAGE HEIGHTS AREA STRUCTURE PLAN

0 100 200 300m

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281a-31a Avenue North, Lethbridge, Alberta

FIGURE 3

TITLE

Existing  
Land Uses

LEGEND

-  AGRICULTURAL
-  VACANT
-  EXISTING ROADS
-  SUBDIVISION BDY.

HERITAGE  
HEIGHTS  
AREA  
STRUCTURE PLAN

0 100 200 300m

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2512-56 Avenue North, Lethbridge, Alberta

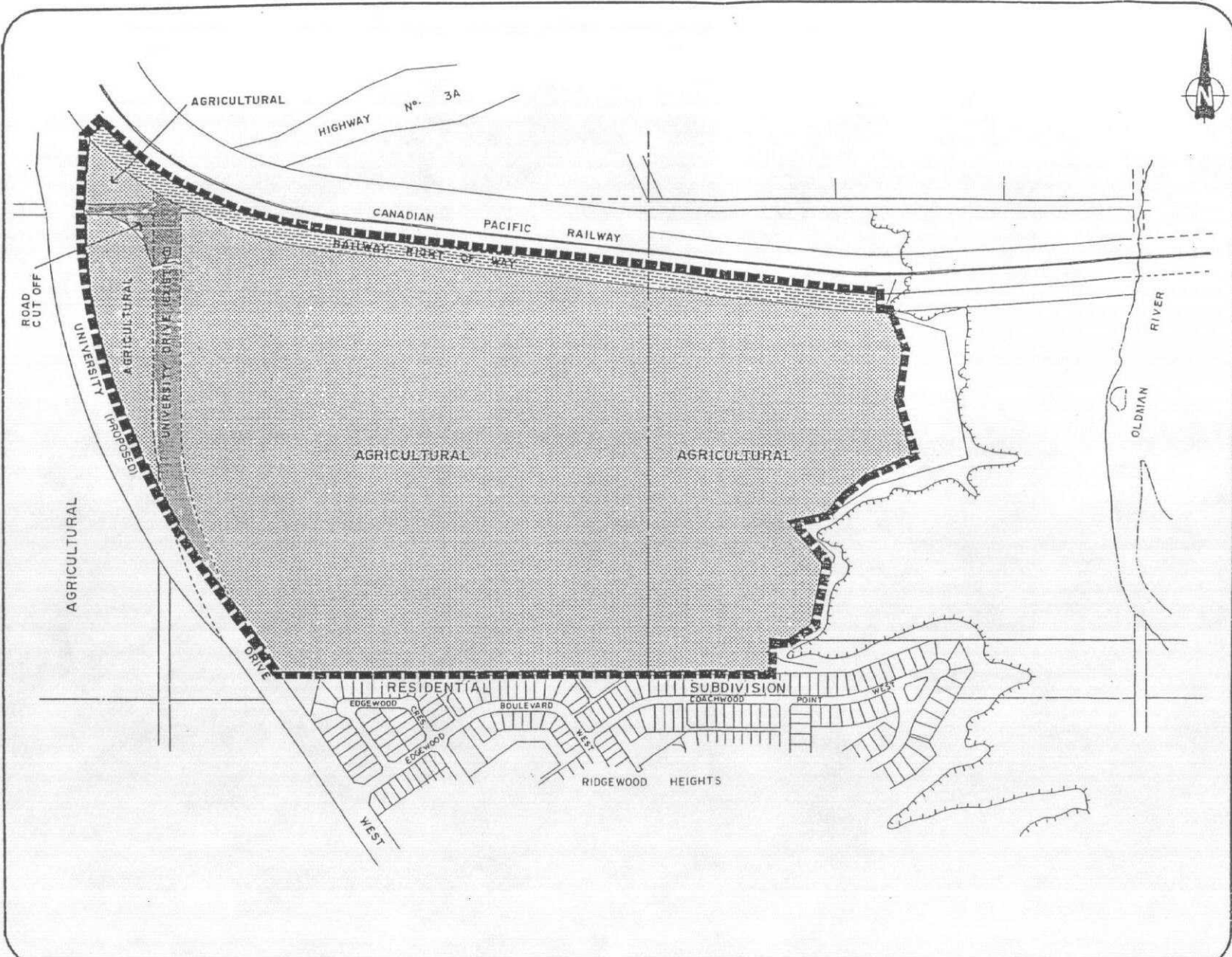





FIGURE 4

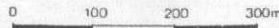
TITLE

Land Ownership

LEGEND

- SUBDIVISION BDY
-  CANADIAN PACIFIC LIMITED
-  MARATHON REALTY COMPANY LIMITED
-  JOHN K. DUNN TRUDA N. DUNN
-  CITY OF LETHBRIDGE

HERITAGE HEIGHTS AREA STRUCTURE PLAN



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7814-5th Avenue North Lethbridge, Alberta

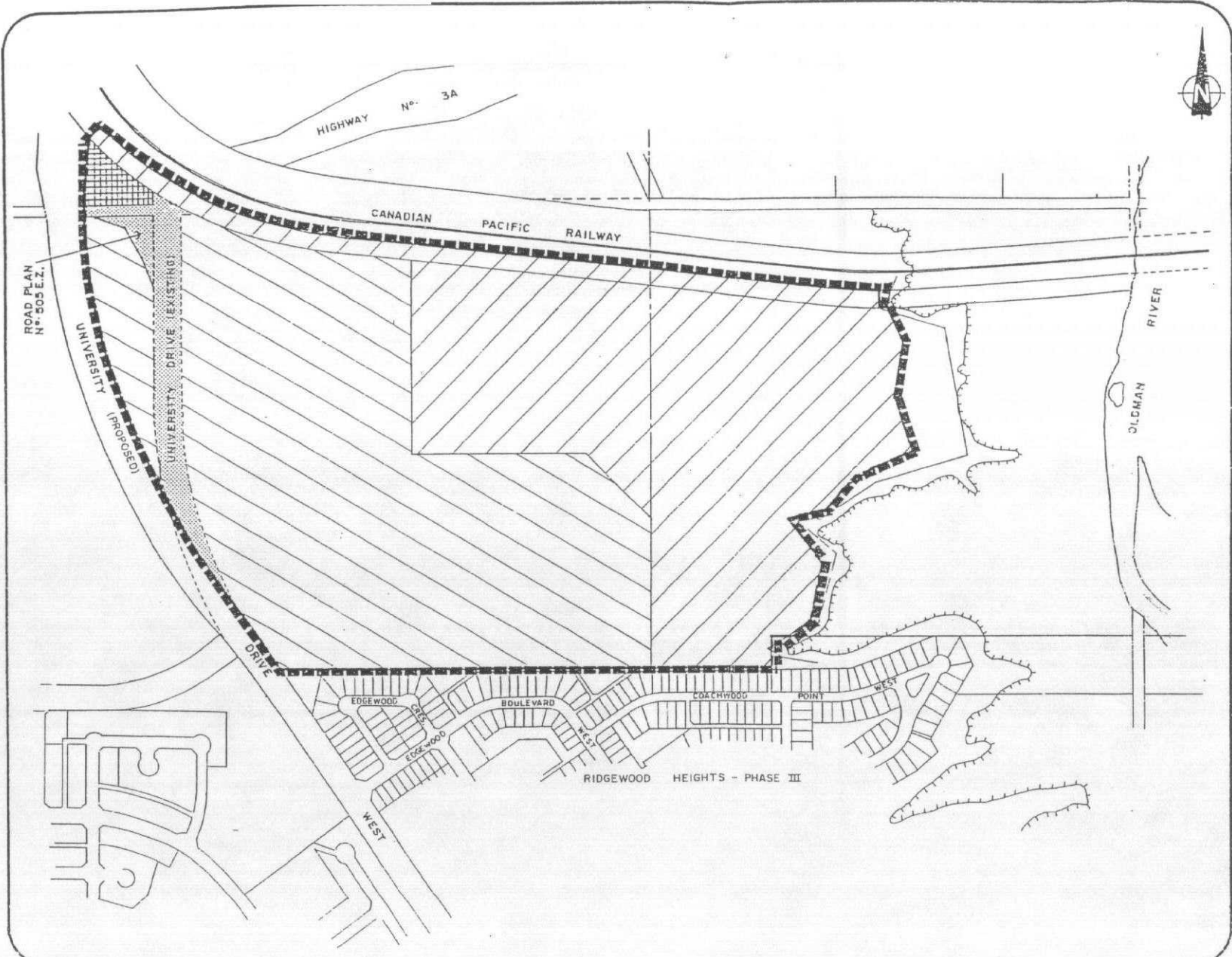








FIGURE 5

TITLE  
Adjacent Land  
Uses and  
Opportunities  
+ Constraints

LEGEND

-  SUBDIVISION BD
-  AGRICULTURAL
-  RESIDENTIAL
-  PARKLAND
-  INDUSTRIAL
-  COMMERCIAL

HERITAGE  
HEIGHTS  
AREA  
STRUCTURE PLAN

0 100 200 300m

MARTIN & COMPANY LTD.  
CONSULTING ENGINEERS, PLANNERS & LAND SURVEYORS

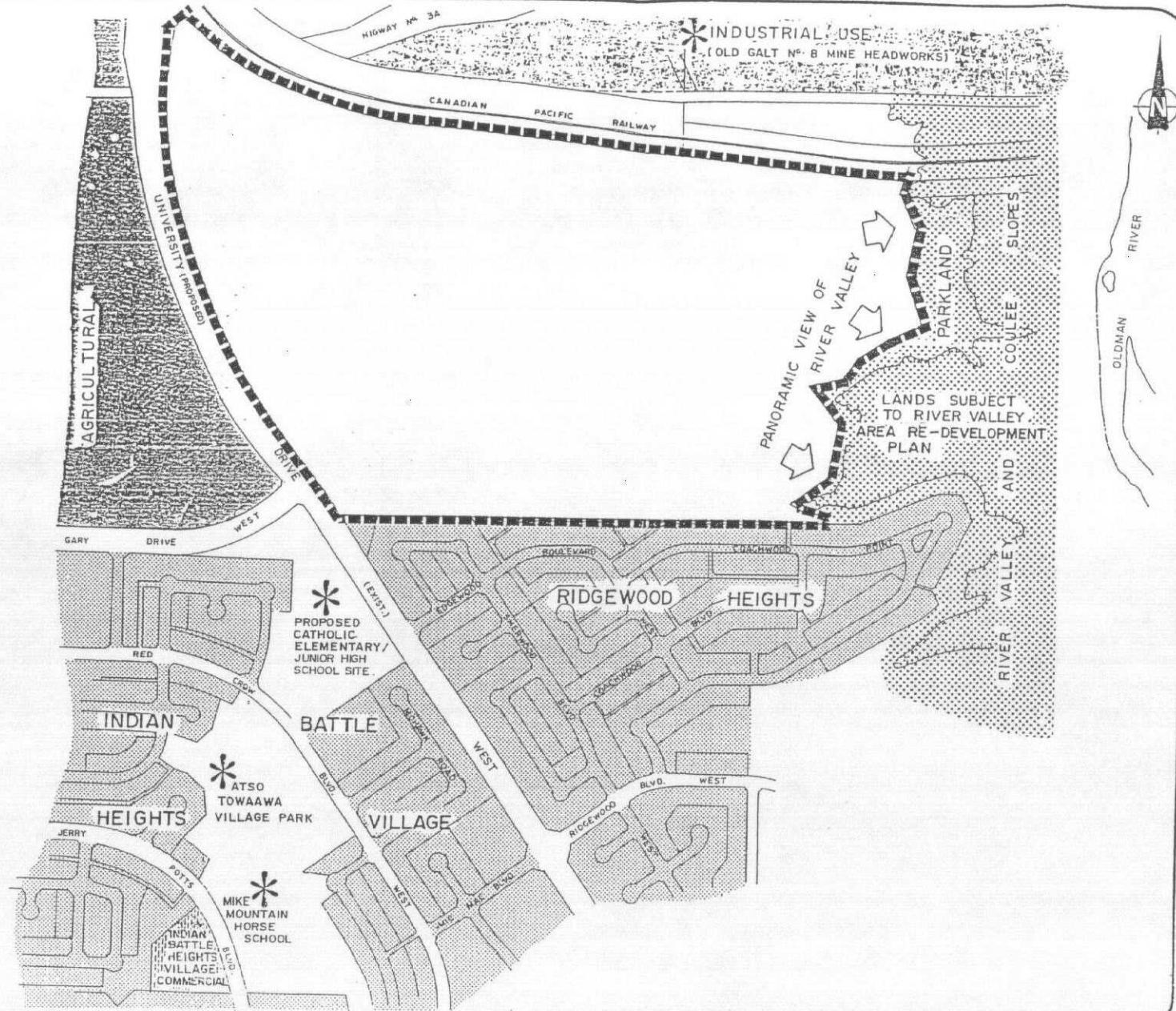


FIGURE 6

TITLE

Proposed  
Land Uses

LEGEND

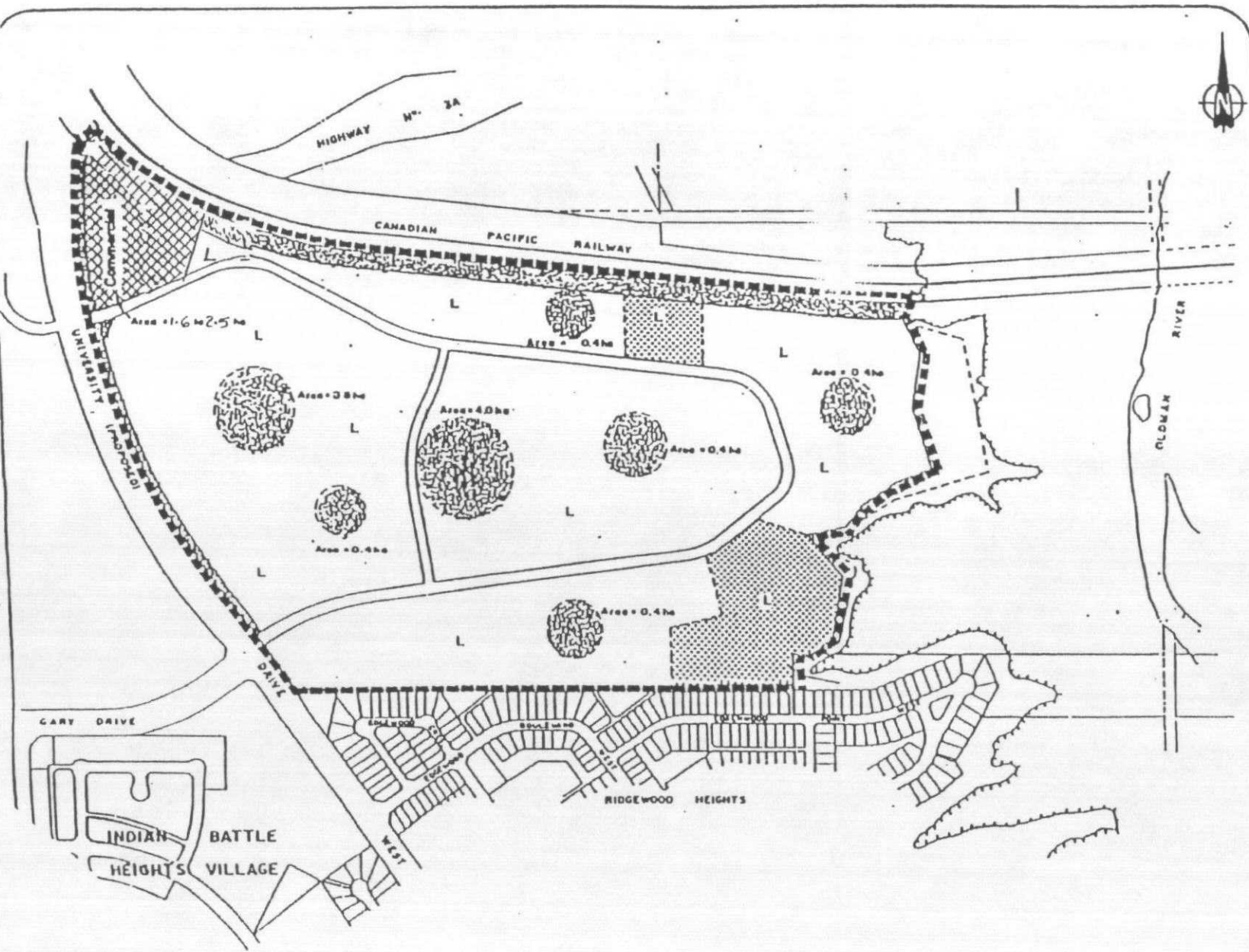
Subdivision B.C.

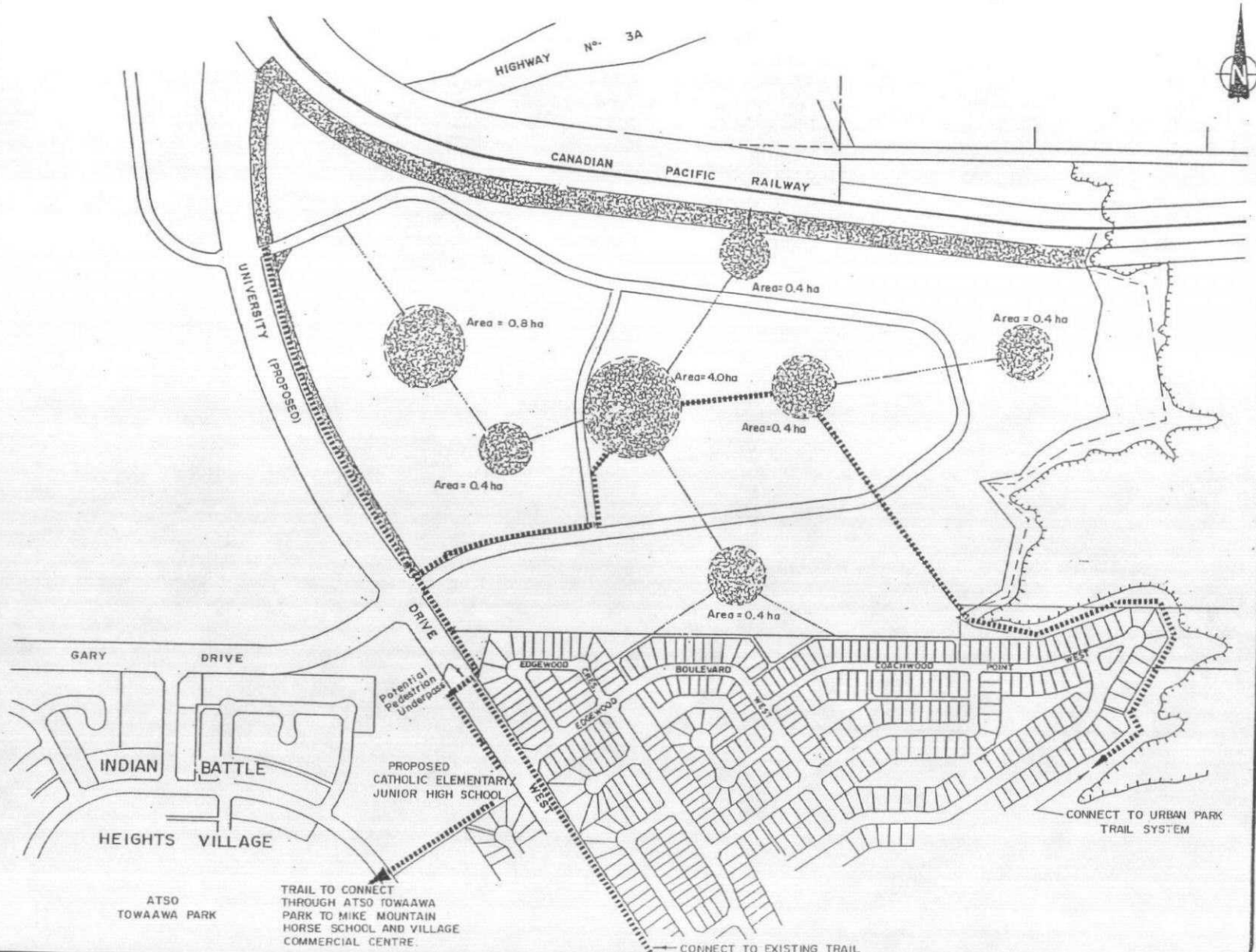
-  Commercial
-  OPEN SPACE / BLOCK PARK
-  POSSIBLE LOCATION FOR ADULT OR FAMILY ORIENTATED HOUSING PROJECTS
-  LOW DENSITY RESIDENTIAL
-  PUBLIC ELEMENTARY SCHOOL SITE / BLOCK PARK

HERITAGE  
HEIGHTS  
AREA  
STRUCTURE PLAN



MILLIN & COMPANY LTD





**FIGURE 7**

TITLE  
**Open Space & Bicycle & Pedestrian Linkages**

- LEGEND
- ..... MAJOR LINKAGE
  - MINOR LINKAGE
  - OPEN SPACE

NOTE:  
 AREAS SHOWN ARE APPROXIMATE ONLY.





**HERITAGE HEIGHTS AREA STRUCTURE PLAN**

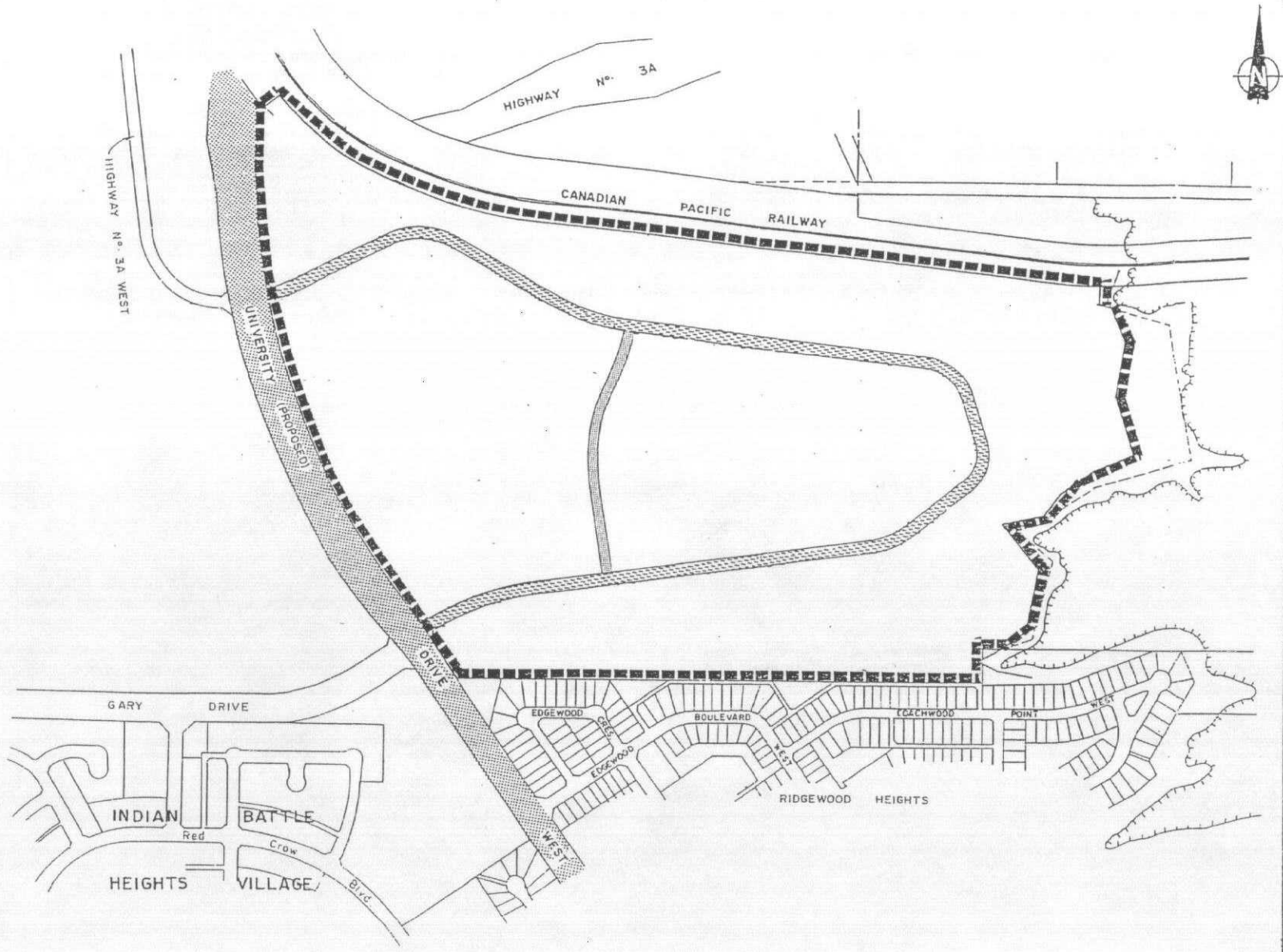


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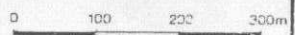
FIGURE 8

TITLE  
**Transportation Network**

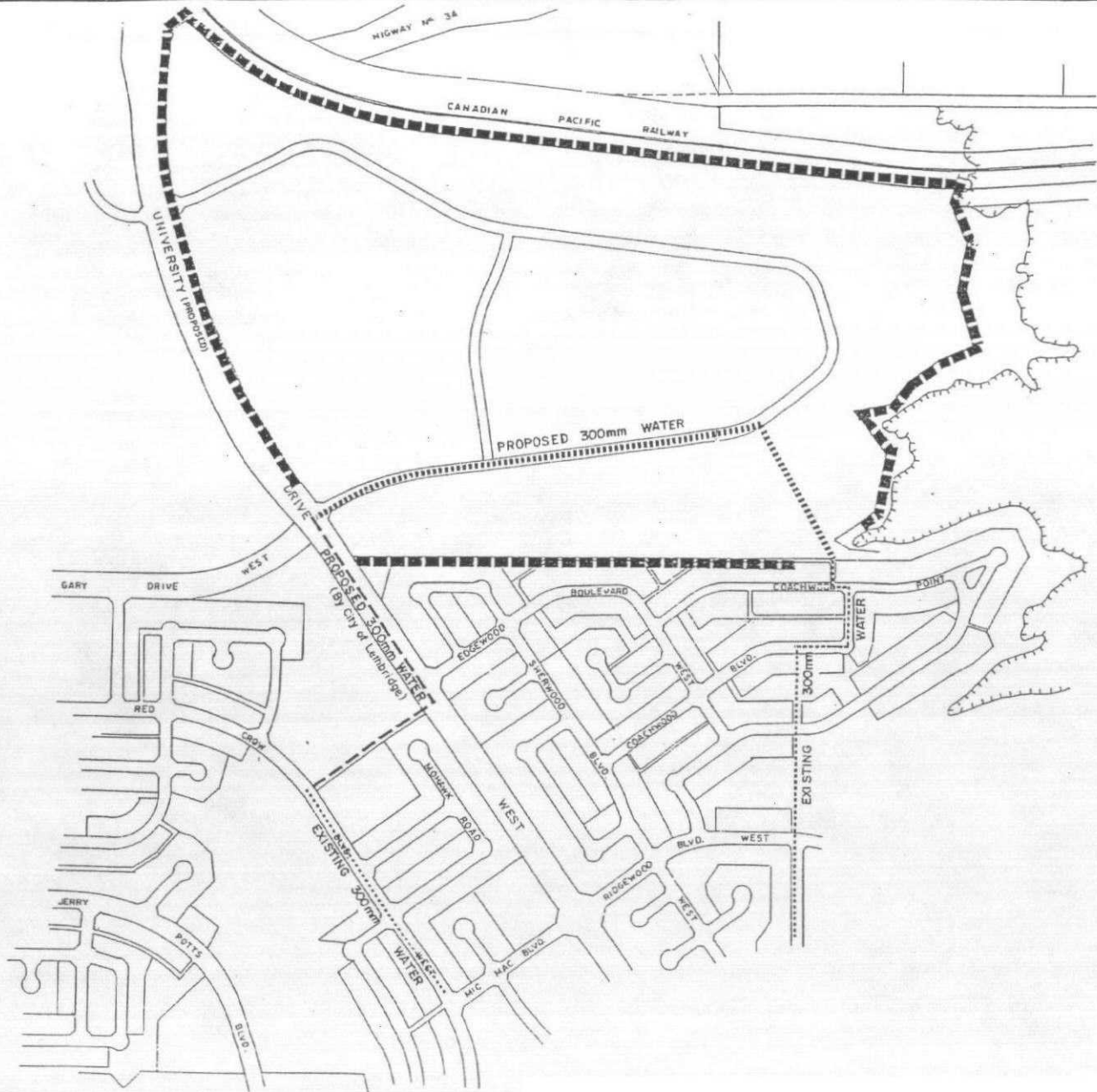
- LEGEND
-  MINOR COLLECTOR
  -  MAJOR COLLECTOR
  -  ARTERIAL
  -  SUBDIVISION BDY.



**HERITAGE HEIGHTS**  
**AREA**  
**STRUCTURE PLAN**







**FIGURE 9**

TITLE

**Water  
Mains**

LEGEND

- ▬▬▬** SUBDIVISION BOUNDARY
- ⋯⋯⋯** PROPOSED 300mm Ø WATER MAIN
- ⋯⋯⋯** EXISTING 300mm Ø WATER MAIN
- - - - -** PROPOSED 300mm Ø WATER MAIN (BY CITY OF LETHBRIDGE)

**HERITAGE  
HEIGHTS  
AREA  
STRUCTURE PLAN**



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FIGURE 10

TITLE

Sanitary Sewer  
Trunk

LEGEND

■■■■ SUBDIVISION BDY.

●●● PROPOSED  
SANITARY SEWER  
TRUNK

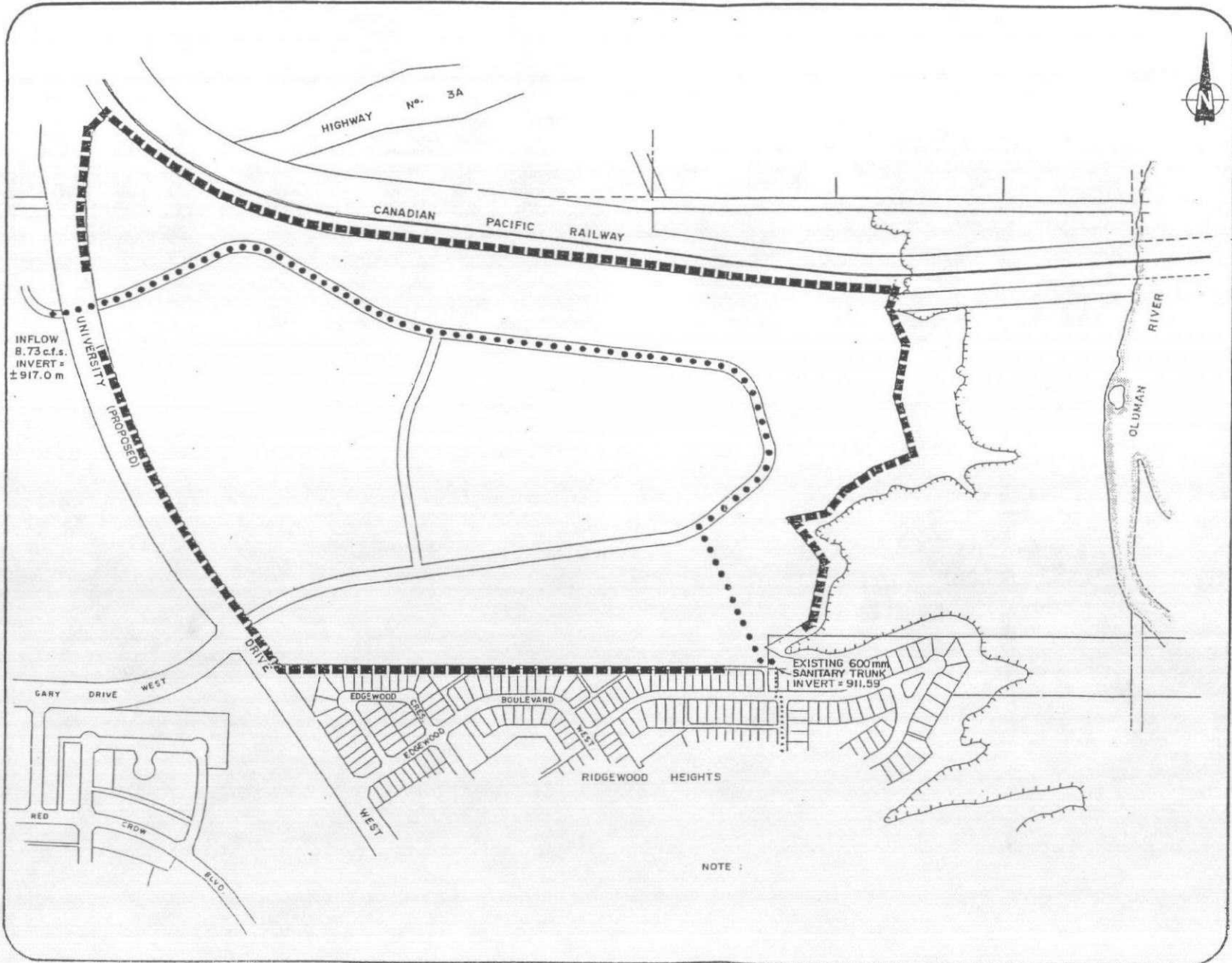
..... EXISTING 600mm  
SANITARY SEWER  
TRUNK

HERITAGE  
HEIGHTS  
AREA  
STRUCTURE PLAN

0 100 200 300m

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22 St. John's Avenue North, Scarborough, Ontario



INFLOW  
8.73 c.f.s.  
INVERT =  
± 917.0 m

UNIVERSITY  
(PROPOSED)

HIGHWAY  
No. 3A

CANADIAN  
PACIFIC  
RAILWAY

OLUMAY  
RIVER

GARY DRIVE  
WEST

EDGEWOOD

BOULEVARD

RIDGEWOOD HEIGHTS

EDGEWOOD

WEST

EXISTING 600mm  
SANITARY TRUNK  
INVERT = 911.99

NOTE :

RED

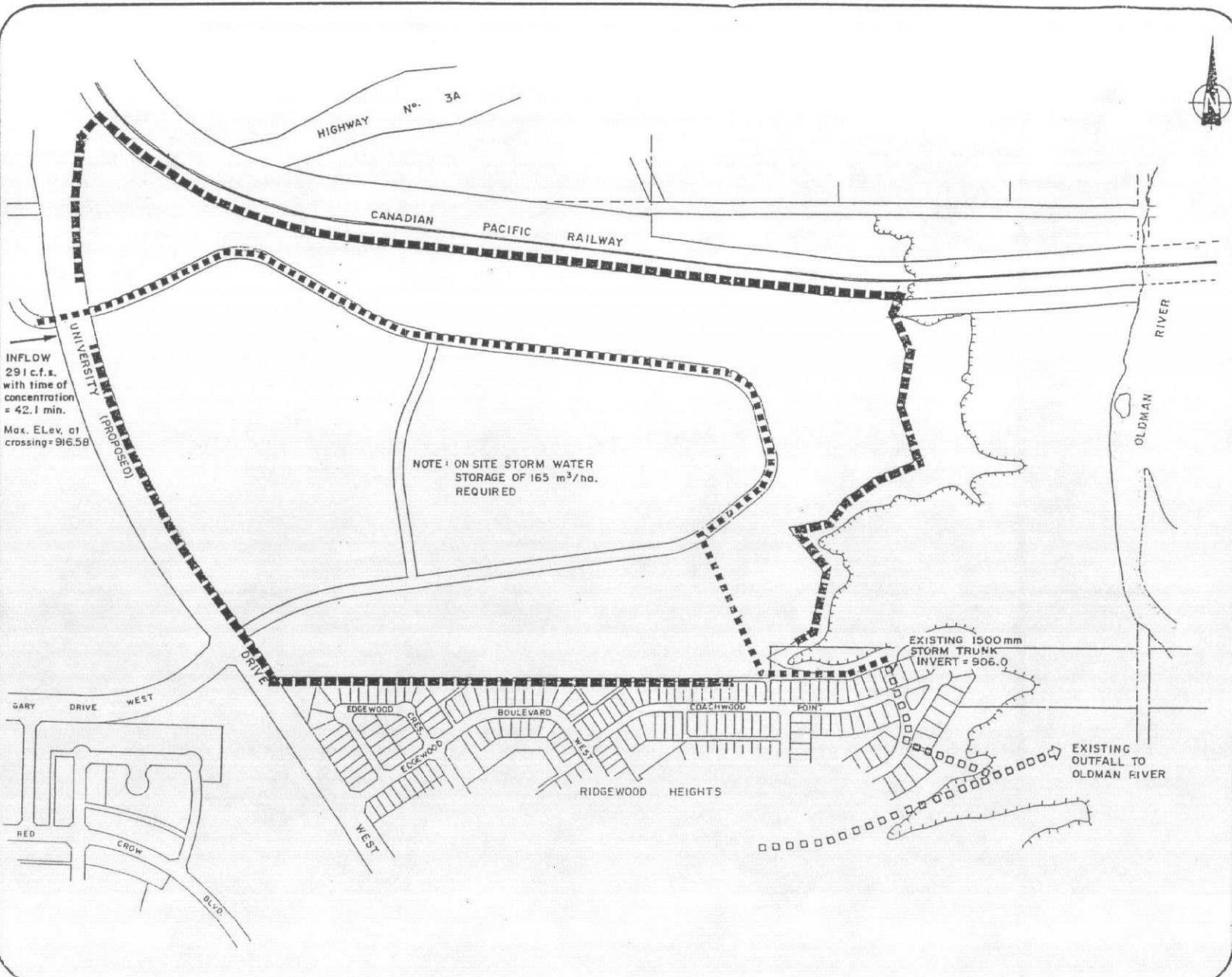
CROW

BLVD

FIGURE 11

TITLE  
**Storm Sewer Trunk**

- LEGEND
- ▬▬▬▬ SUBDIVISION BDY
  - ▬▬▬▬ PROPOSED STORM-SEWER TRUNK
  - EXISTING STORM SEWER TRUNK



HERITAGE HEIGHTS AREA  
 STRUCTURE PLAN

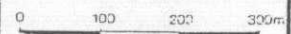


FIGURE 12

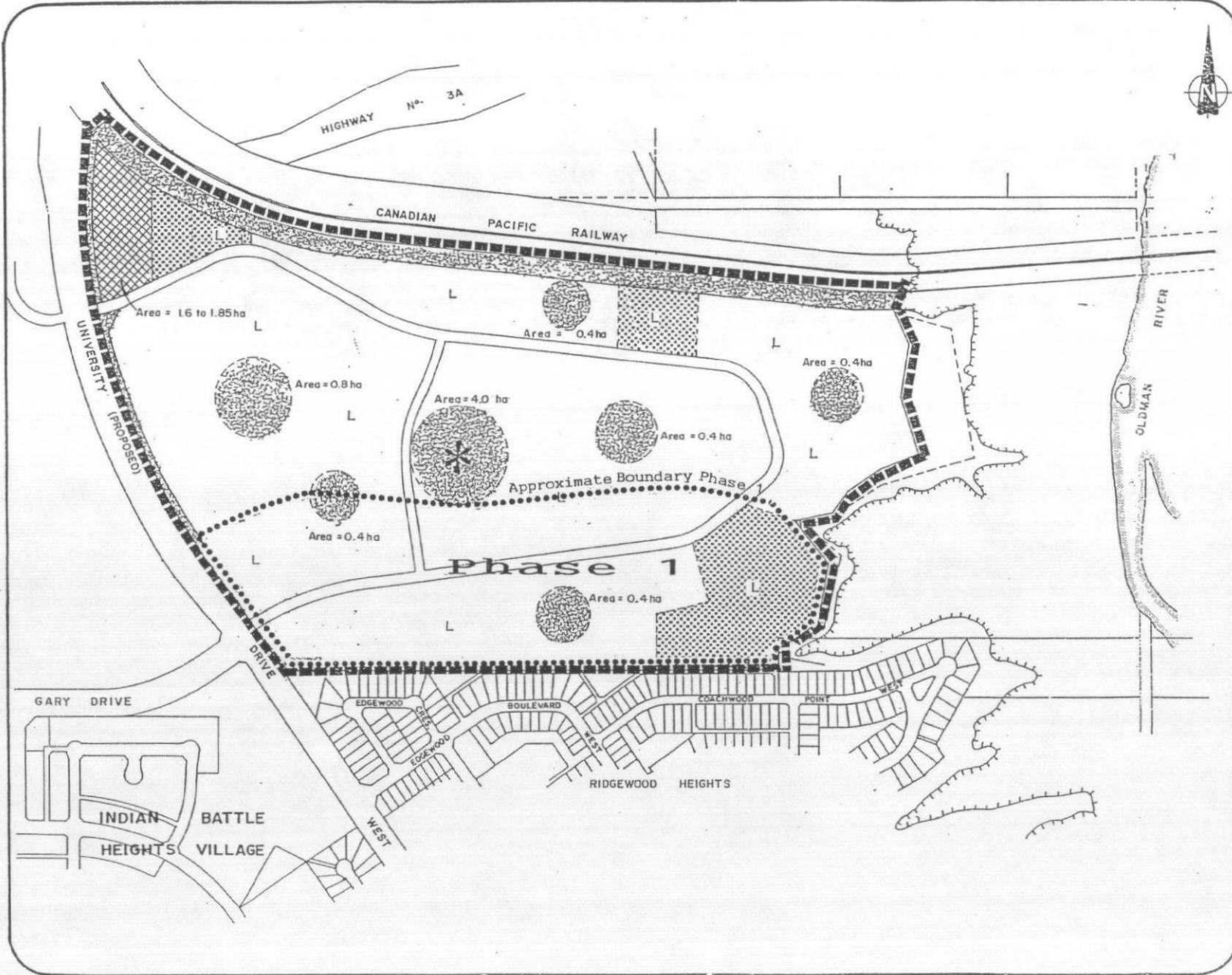
TITLE

# Phasing

LEGEND

▬▬▬▬ SUBDIVISION BDY

..... PHASE 1 BDY



## HERITAGE HEIGHTS AREA

### STRUCTURE PLAN



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