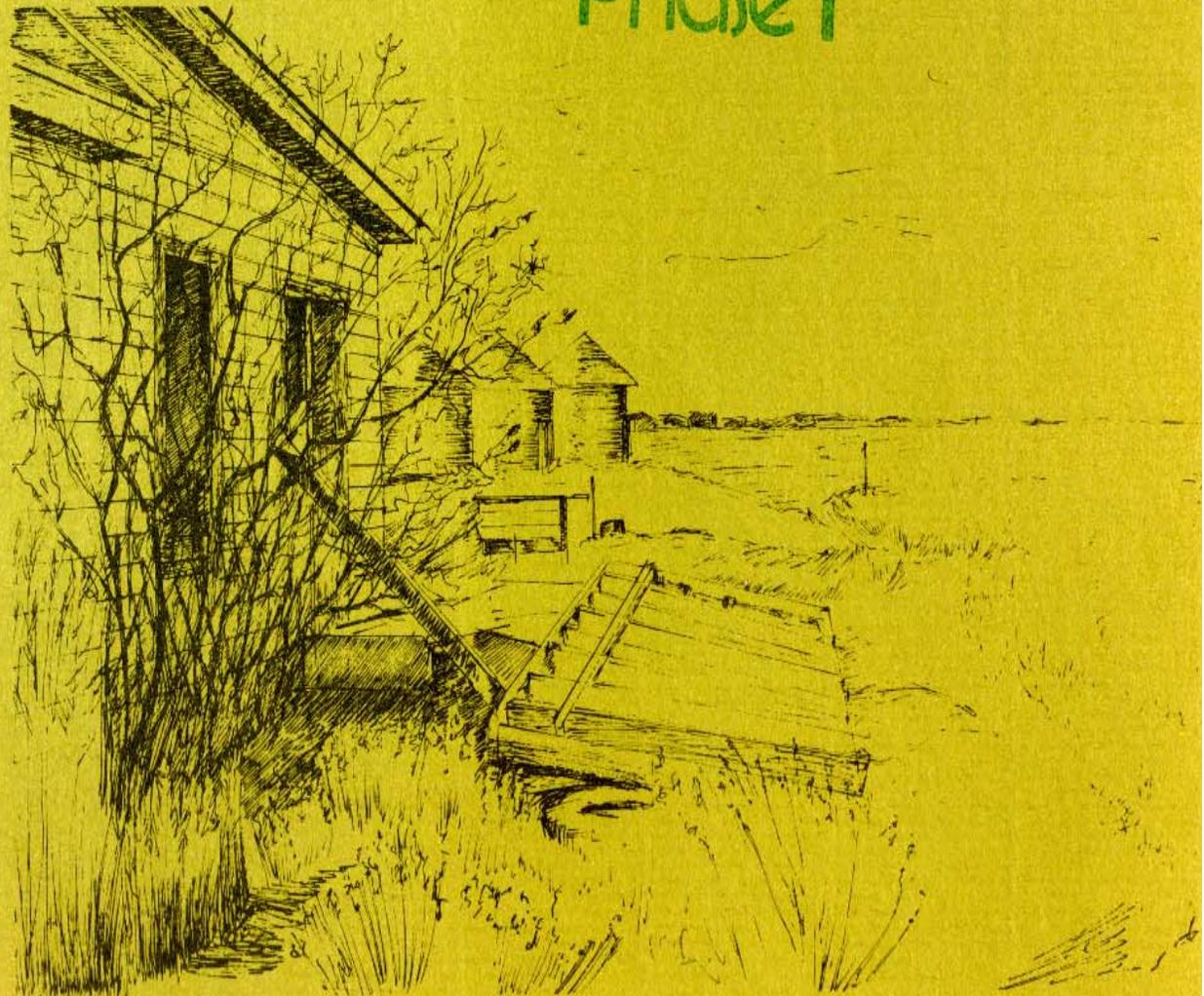
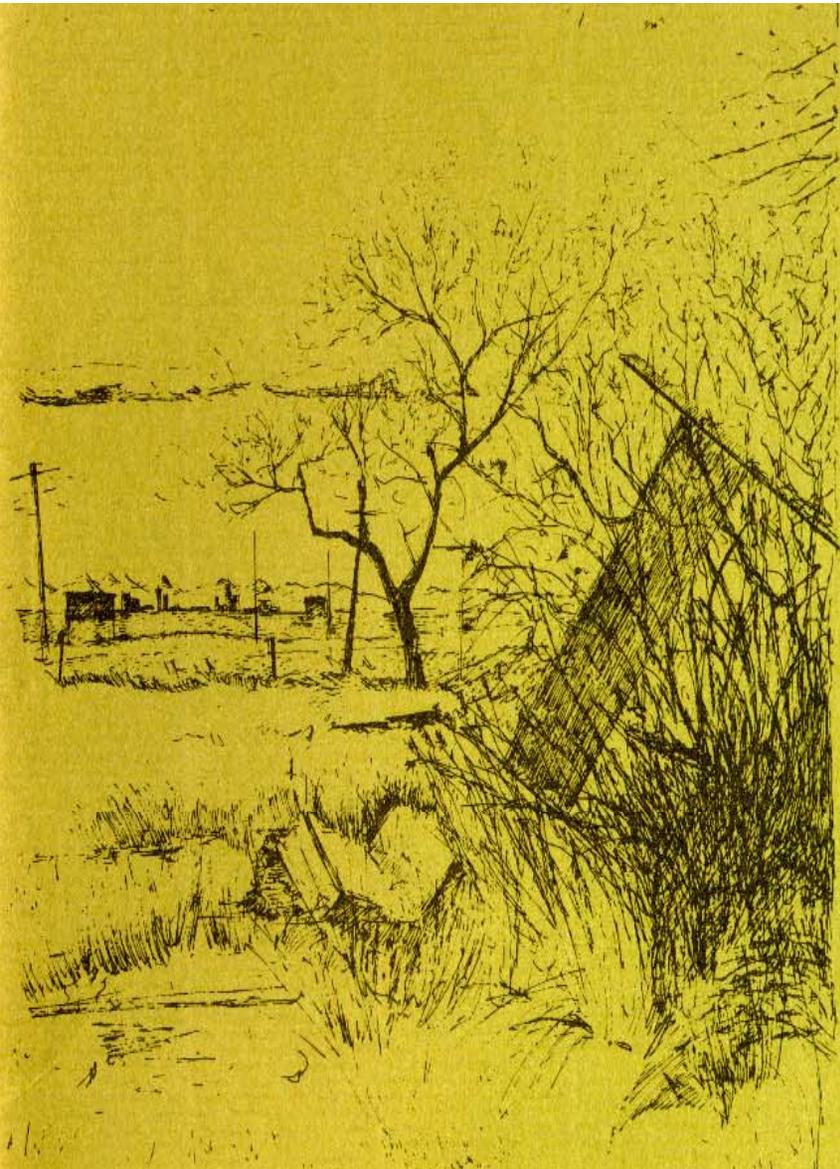


Burlington

Phase I

Area
Structure
Plan



The Blue Pages of this document contain supporting information and do not form part of the bylaw.
For the purposes of electronic publications the Blue Pages are identified by the footer “Burlington Phase 1 ASP - Supporting Information”.

BURLINGTON PHASE 1

Area Structure Plan and Supporting Information

**Office Consolidation
2006 August**



Note: This office consolidation includes the following amending Bylaws:

AMENDMENT	BYLAW	DESCRIPTION	DATE
1	14P82	a. Map 2, 6, 13 – text deleted b. Section 3.3.4 – sentence deleted c. Section 3.3.4 – sentence deleted d. Section 3.3.4 – revise wording e. Section 4.2.5 – revise wording f. Section 4.2.5 – text deleted, replace by new text	1982 June 14
2	24P82	a. Section 3.2.4 – paragraph delete b. Section 3.3.4 – sentence deleted c. Section 4.3.3 – sentence deleted	1983 January 17
3	10P87	a. Section 3.2.2 – paragraph deleted, replaced by new paragraph b. Footnote to Section 3.2.2 - deleted	1987 May 11
4	18P89	a. Map 2 - replaced (superseded by 10P92) b. Map 13 - replaced c. Section 3.2.3 – paragraph deleted, replaced (superseded by 10P92)	1989 July 17
5	10P92	a. Map 2 - replaced b. Section 3.2.3 – paragraph deleted, replaced	1992 July 20

Amended portions of the text are printed in *italics* and the specific amending Bylaw is noted.

Persons making use of this consolidation are reminded that it has no legislative sanction, and that amendments have been embodied for ease of reference only. The official Bylaw and amendments thereto are available from the City Clerk and should be consulted when interpreting and applying this Bylaw.

PUBLISHING INFORMATION

TITLE: BURLINGTON AREA STRUCTURE PLAN PHASE 1
AUTHOR: LONG RANGE PLANNING & RESEARCH DIVISION
STATUS: APPROVED BY CITY COUNCIL 1981 JUNE 16 (BYLAW 9P81)
PRINTING DATE: AUGUST 2006
ADDITIONAL COPIES: THE CITY OF CALGARY
PLANNING INFORMATION CENTRE #8115
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BURLINGTON PHASE 1 AREA STRUCTURE PLAN

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1 INTRODUCTION

1.1 Format of the Area Structure Plan

The Burlington Phase I Area Structure Plan is divided into five sections as follows:

1. A general introduction to both the area and the terms of Reference;
2. The statutory requirements for an area structure plan;
3. The land use plan, which is based on two development cells;
4. The individual elements (transportation, utilities, public use areas and social services) that together make up the complete area structure plan;
5. The recommended sequence of development strategy.

1.2 Location of Burlington

The Burlington Phase I Area Structure Plan area includes all lands located within the city limited to the east of 68 Street N.E. and between the Trans-Canada Highway on the south and McKnight Boulevard (48 Avenue N.E.) on the north. It includes portions of section 25 and 36 of Township 24, Range 29, West of the 4th Meridian, and has a total area of about 99 hectares (245 acres).

The location of Burlington Phase I, within the context of both the wider Burlington Study Area¹ and the City as a whole, is indicated on Map 1.

1.3 Terms of Reference

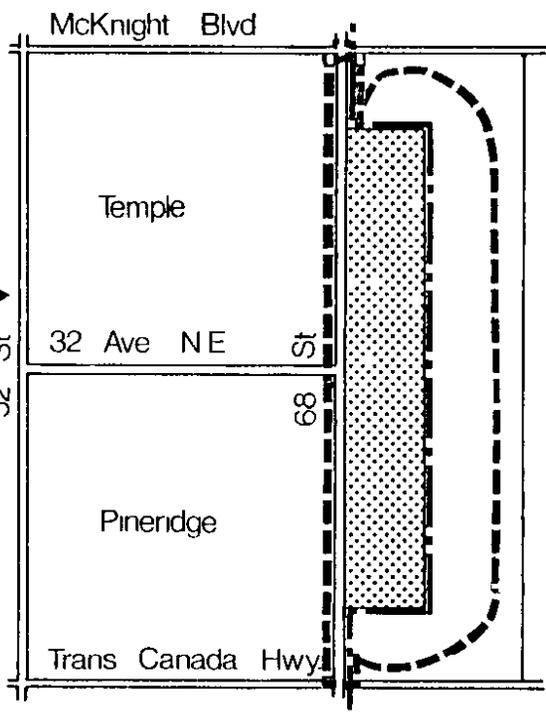
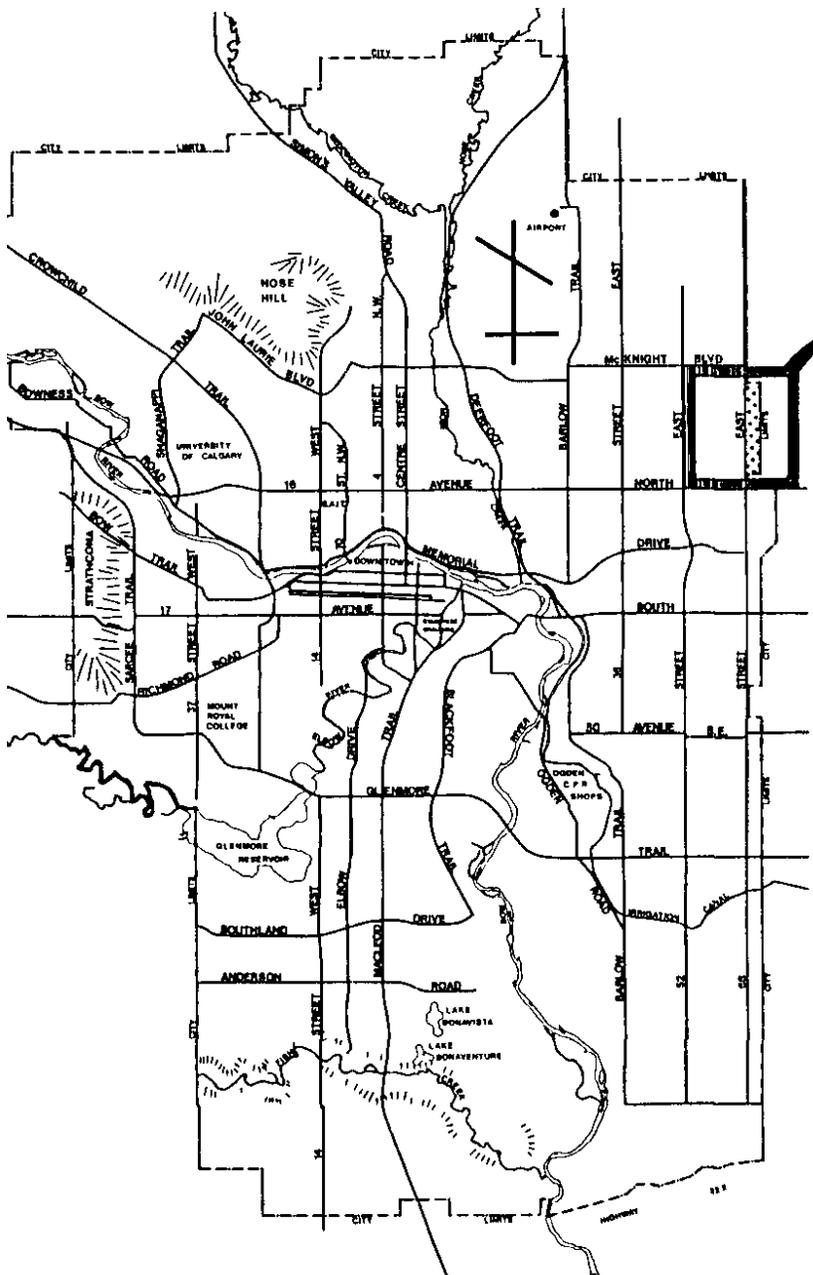
On July 8th, 1980 the Board of Commissioners approved the appointment of IDEC Associates to undertake the preparation of an Area Structure Plan for Burlington Phase 1. In addition, IDEC Associates was required to prepare land use proposals for the balance of the Burlington Study Area, which forms

¹ All the land to the west of the revised Transportation and Utility Corridor between the Trans-Canada Highway and McKnight Boulevard.

a logical extension to the Area Structure Plan area. The above land use proposals encompass the adjacent lands presently outside of the city limits bounded by the revised Transportation and Utility Corridor, the Trans-Canada Highway and McKnight Boulevard.

This total study area involves approximately 640 acres of land in the shape of an elongated rectangle. Of this total area, 225 hectares (556 acres) are considered ultimately developable, of which 99 hectares (245 acres) are presently within the city limits.

Only those portions presently within the city limits are covered by this Area Structure Plan. Information relating to land outside Burlington Phase 1 is included only where it is necessary for the clarification of the Area Structure Plan. Land use proposals for the ultimate development of the entire Burlington Study Area are contained in the Supporting Information. While these proposals are only conceptual in nature they have been prepared to ensure that the Burlington Phase 1 Area Structure Plan fits logically into an ultimate community plan. They have also been prepared at this time for use as a basis of a possible second phase area structure plan in the event of the annexation of all or a portion of the remaining land. However, since this land is presently beyond the city limits the conceptual land use proposals contained in the Supporting Information cannot be given any format status at this time.



BURLINGTON
PHASE 1

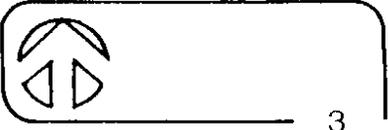
map no
1

title
Location Map

- Legend
- City Limits
 - - - Burlington Study Area Boundary
 - [Hatched Box] Burlington Phase 1

prepared by
idec associates
engineers and planners

date
May, 1981



2 STATUTORY REQUIREMENTS AFFECTING THE BURLINGTON AREA

2.1 The Planning Act

The Planning Act, 1977, as amended, establishes the legal requirements for an area structure plan, and specifies the relationship that area structure plans must have to general municipal plans and regional plans.

Section 62 of the Act states the purpose and specifies the contents of an area structure plan as follows:

“62(1) For the purpose of providing a framework for subsequent subdivision and development of an area of land in a municipality, a council may, by by-law passed in accordance with Part 6 adopt a plan to be known as the (name) Area Structure Plan”.

“62(2) An area structure plan shall:

- (a) conform to any general municipal plan in existence and affecting the area that is the subject of the area structure plan;
- (b) 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;
- (c) contain such other matters as the council considers necessary.”

2.2 The Calgary Regional Plan

The Calgary Regional Plan (1971) indicates that the Area Structure Plan area is currently in a Medium Density District. This designation does not permit an urban density level of development.

Section 53 of the Planning Act requires that every municipal statutory plan (eg. area structure plan) be in conformity with the Regional Plan, and that no municipality authorize or undertake any development that is inconsistent with the Regional Plan.

In this regard, therefore, an application was made on August 8, 1980 to the Calgary Regional Planning Commission for an amendment to the Regional Plan from a Medium Density to a High Density District in order that an area structure plan can be adopted for Burlington Phase I. This amendment was given final approval by the Calgary Regional Planning Commission on February 13, 1981.

2.3 The Calgary General Municipal Plan

The Calgary General Municipal Plan designates the study area as a new area for general urban development and as being suitable for an area structure plan¹. The General Plan also gives some guidance on the scope and intent of area structure plans in the city (Paragraphs 4.1.6-4.1.12)

¹ Calgary General Municipal Plan Figure 2.1.3, Paragraph 4.1.12 and Table 4.1.2 as amended June 17, 1980.

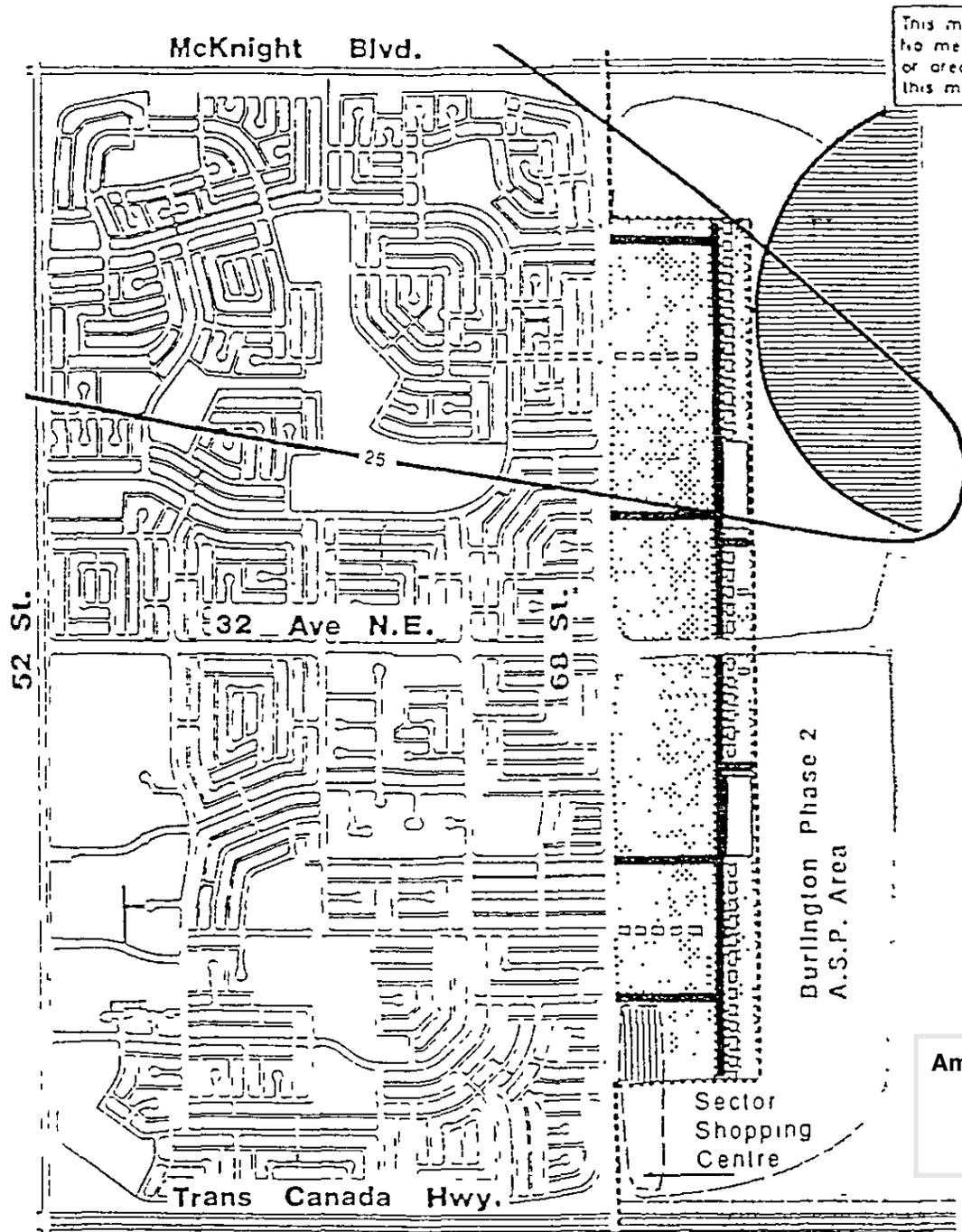
3 THE LAND USE PLAN

3.1 Introduction

The accompanying land use plan recognizes the constraints imposed by the major existing and proposed road systems and the existing city limits. The plan is based on the continuation of 32 Avenue N.E. eastward through this area as a four lane major road. This creates two separate development cells, and in turn creates a potential for two separate neighbourhoods.

The plan is based upon the assumption that the eventual annexation of the developable lands to the west of the revised Transportation and Utility Corridor will occur at some time in the future. It is therefore intended that this Area Structure Plan area will eventually fit into a comprehensive community plan in the wider context of the Burlington Study Area.

Because of the limited population capacity of the Burlington Phase I Area, it will not be feasible to provide community facilities until such time as additional development within the Burlington Study Area occurs. Due to the constraints imposed by a sour gas well in Section 36, full development may not happen for another 10-25 years. With the possibility of the land adjacent to the southern cell being annexed within the next year, however, it will become feasible to develop some community facilities to the south of 32 Avenue. These facilities would also serve the neighbourhood to the north. In the meantime, the Burlington Phase I Area will be planned on a neighbourhood basis, and thus will depend temporarily upon other communities in the northeast for some of the social and recreational needs. To assist the owners developers and all levels of approving authorities in the implementation of this Area Structure Plan, the land use plan has been developed on the basis of the two development cells. Each cell is examined in turn with respect to such factors as location, size and density, land uses, circulation systems, and energy efficiency of design.



This map is conceptual only
no measurement of distances
or areas should be scaled off
this map

BURLINGTON
PHASE 1 map
no
2

title
LAND USE PLAN

Legend

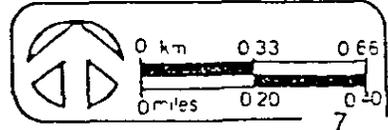
- Commercial
- Joint Use Site
- Airport
- Noise Exposure
- Forecast Contour
- Collector Road
- Pedestrian/Bicycle Path
- Residential
- Revised
- Transportation & Utility Corridor
- Sour Gas Constraint

prepared by
idec associates
engineers and planners

date
MAY 1992

9P81
Approved 1981 June

Amended
1982 June 14P82
1989 July 18P89
1992 July 10P92



Since each of the development cells within the Burlington Phase I area is part of a larger development unit, the land use has been structured to allow each development cell to expand to its “natural” boundaries. The methods by which these expansions can be achieved are covered in the accompanying Supporting Information part of this document.

As a general principle, any multi-family development shall be dispersed throughout the area, rather than being concentrated on a few large sites.

3.2 Development Cell A1

3.2.1 Location

Development Cell A1 is bounded by 68 Street N.E. on the west, the 32 Avenue N.E. extension on the north and the existing city limits on the east and south.¹

1 The Supporting Information includes a section on the present ownership and acreages involved in the total Cell A Development Area.

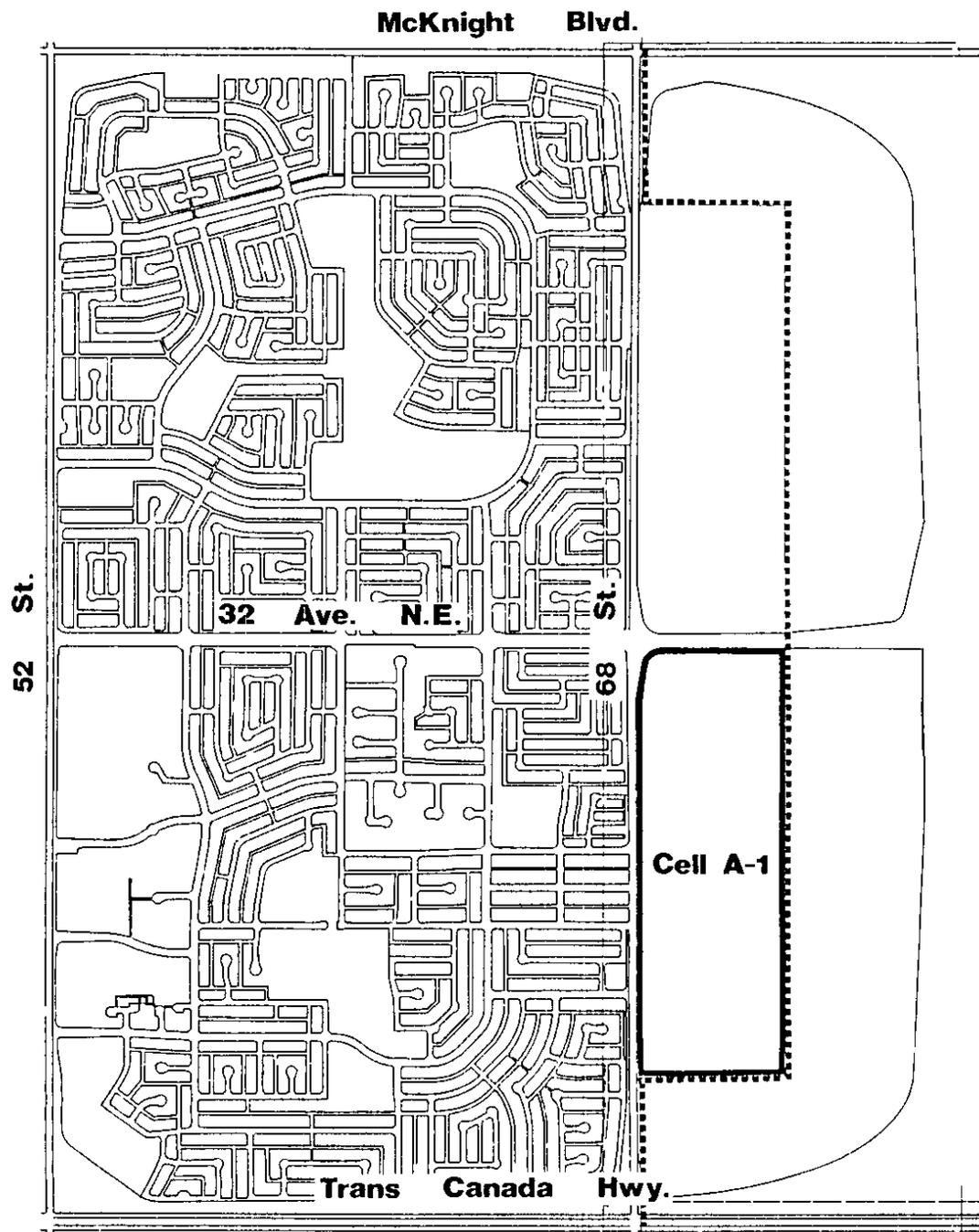
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3.2.2 Size and Density

*Development Cell A-1 comprises approximately 50 hectares (123 acres) of gross developable land. Overall, residential density in this cell is expected to fall within the range of 9.9 to 14.8 units per gross residential hectare (4 to 6 units per gross residential acre). However, individual outline plans with average densities either above or below the limits of this range will be considered for approval. **10P87***

The above density figures are typical of a predominantly low density suburban community. The criteria needed to justify higher density housing, as set out in Table 3.3.2 of the Calgary Municipal Plan, are not present in the Cell A1 area.¹

1 These criteria include access to: rapid transit, regional recreation areas, major open space systems, shopping centres and employment opportunities.



BURLINGTON
PHASE 1

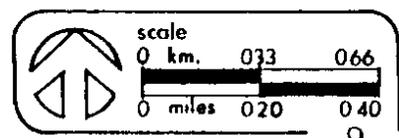
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Development Cell A-1

..... City Limits

prepared by
idec associates
 engineers and planners

date
May, 1981



3.2.3 Land Uses

The Calgary General Municipal Plan designates the Burlington Phase I Area as an “additional new area for residential development” (Figure 2.1.2) and as an area considered suitable for an area structure plan (4.1.2).

Even though the Cell A1 area will be developed with predominantly low density housing, initiatives by the developer to ensure that a variety of dwelling types are provided in accordance with Policy H.30, Calgary General Municipal Plan shall be encouraged.

None of the land within Cell A1 qualifies as environmental reserve. Therefore, all 50 hectares (123 acres) will be subject to municipal/school reserve at the time of subdivision. If the full 10% potential municipal/school reserves are taken in the form of land rather than cash-in-lieu, this will provide 5.0 hectares (12.3 acres) of land for public use. This land will be required for school, park and community facilities as follows.

The Development Cell A1 shall contain a 3 hectare (7.5 acre) joint use site. It is to be located in the north-central part of the cell so as to be accessible to the residents of Cell B1. It shall be located adjacent to the eastern city limits in order facilitate expansion. This site will be developed in conjunction with a similar adjacent site in Development Cell A2 (the dedication of which would be subsequent to annexation and subdivision). The north portion of this ultimate joint use site is a suitable location for community facilities. A public elementary school would ideally be located on the southern portion. In terms of an ultimate 6 hectares (15 acres) joint use site this would mean a 2.4 hectare (6 acre) community facility area and a 3.6 hectare (9 acre) elementary school site. The community facility will service Cells A1, B1, A2 and eventually B2, while the elementary school will service only Cells A1 and A2, and possibly B1 on a temporary basis.

At least three neighbourhood parks (tot lots, etc.) shall be provided for within the A1 development cell. They shall each be a minimum of .2 ha± (.5 ac±) in size, and shall be uniformly distributed throughout the cell. The exact size and location of these neighbourhood parks shall be determined at the Outline Plan stage of subdivision.

There is also provision for .5 ha (1.3 ac) of open space in the form of pedestrian/bicyclist pathways. Any unused reserve dedications shall be applied towards increasing the sizes of the neighbourhood parks.

The plan provides for a site to accommodate a portion of a sector shopping centre east of 68 Street N.E. as shown in Map 2. This commercial site extends further south into the area covered by Burlington Phase 2 Area Structure Plan. The total area to be allocated to this shopping centre is 9.3 hectares (23 acres), of which roughly 4.6 hectares (11.4 acres) is included in the study area, while the balance is within Burlington Phase 2 Area Structure Plan boundary.

18P89

Local commercial uses may also be provided at the intersection of 32 Avenue N.E. and 68 Street N.E.

18P89, 10P92

3.2.4 Circulation System

The internal collector road system has been designed such that bus service to and from the west can ultimately be extended as the area to the east is annexed and subsequently developed. Both of the east-west collector roads, 22 Avenue and 26 Avenue, intersect with 68 Street N.E. directly opposite collectors from the Pineridge community to the east. *Sentence deleted 14P82* The north-south collector (71 Street) ties this neighbourhood to the development of the Cell B1 area to the north.

This tie provides residents of the Cell B1 area with access to the local commercial site and the joint use site in Cell A1, and with ultimate development of the Burlington Study Area will provide access to the future community facilities to be located in this neighbourhood.

Paragraph Deleted

24P82

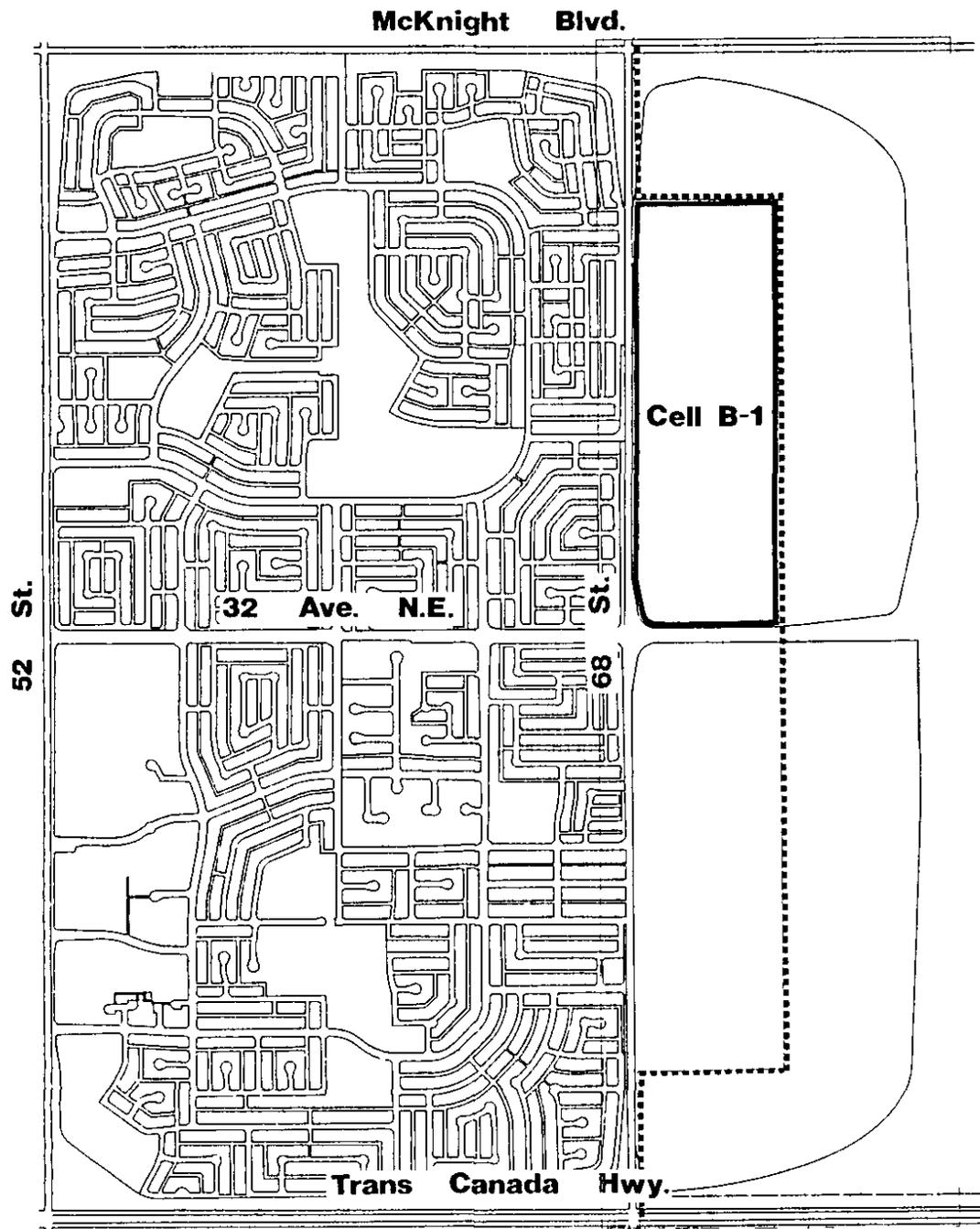
3.2.5 Energy Efficiency of Design

Innovative subdivision design aimed at achieving economy in total energy consumption shall be encouraged.

3.3 Development Cell B1

3.3.1 Location

Development Cell B1 is bounded by 32 Avenue N.E. on the south and 68 Street N.E. on the west. The existing city limits form the eastern and northern boundaries.



BURLINGTON
PHASE 1

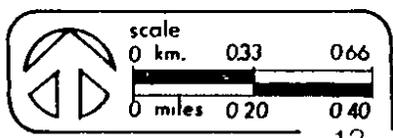
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4

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Development Cell B-1

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date
May, 1981



3.3.2 Size and Density

Development Cell B1 covers approximately 49 hectares (122 acres) of land. Residential densities as represented by future outline plans shall fall within the range of 14.8 to 19.8 units per hectare (6-8 units per acre). This will likely achieve an average density throughout Cell B1 of about 17.3 units per hectare (7 units per acre) equivalent to 855 dwelling units and a population of approximately 2800. The above density figures are typical of a predominantly low density suburban community. The criteria needed to justify higher density housing, as set out in Table 3.3.2 of the Calgary Municipal Plan are not present in the Cell B1 Area.¹

¹ These criteria include access to rapid transit, regional recreation areas, major open space systems, shopping centres and employment opportunities.

3.3.3 Land Uses

As with Cell A1, Development Cell B1 will be developed with predominantly family-oriented, low-density residential and associated uses (See 3.2.3).

Land use considerations for Cell B1 are influenced by the sour gas development constraints in Cell B2 (see Pages 42 – 44) which could delay development in that cell for anywhere from 10 to 25 years. Therefore, Cell B1 will be dependent on Cell A1 and, for a short period, on other communities for recreational and school services.

On May 8, 1972, Council adopted a policy that requires a noise warning caveat be placed on the titles of all residential properties constructed in areas where the Airport Noise Exposure Forecast is over 25. The purpose of this caveat is to alert the initial purchaser and subsequent owners of these houses of a potential problem. Owners of houses applying for C.H.M.C. financing, whose houses are located in the 25 – 30 N.E.F. range, may be required to provide additional sound proofing to meet C.M.H.C. standards in effect at the time of development.

None of the land within Cell B1 qualifies as environmental reserve. Therefore, all 49 hectares (122 acres) will be subject to municipal/school reserve at the time of subdivision. If the full 10% potential municipal/school reserves are taken in the form of land rather than cash-in-lieu this will provide 4.9 hectares (12.2 acres) of land for public use. This land will be required for school and park facilities as follows.

Development Cell B1 shall contain a 3 ha (7.5 acre) joint use site that is to be centrally located north-south within the cell to provide good access to the area residents, and adjacent to the eastern city limits to facilitate future expansion.

This site will be developed in conjunction with a similar adjacent site to be provided in Cell B2. The dedication of the latter site will be subsequent to annexation following removal of the sour gas hazard.

In terms of the ultimate 6 ha \pm (15 ac \pm) joint use site, 3.6 ha \pm (9 ac \pm) will be for a public elementary school site, with the remaining 2.4 ha \pm (6 ac \pm) being available for use as a park or recreation area.

At least three neighbourhood parks shall be provided for within this development cell. They shall each be a minimum of 0.2 hectares (0.5 acres) in size, and shall be uniformly distributed throughout the cell. The exact size and location of these neighbourhood parks shall be determined at the Outline Plan stage of subdivision.

There is also provision for 0.5 ha (1.3 ac) of open space in the form of pedestrian/bicyclist pathways. Any unused reserve dedication shall be applied towards increasing the sizes of the various neighbourhood parks.

Local convenience (corner store) retail facilities could be included at the Outline Plan stage of subdivision.

3.3.4 Circulation System

The traffic circulation system proposed for Development Cell B1 is essentially a mirror image of that proposed for Cell A1. *Sentence deleted 14P82*
In order to minimize the likelihood of *through traffic* from Burlington gaining access to Temple Drive via

37 Avenue, 14P82 the east – west collector into Cell B1 shall connect with 68 Street N.E. at a point to the south of the existing intersection with 37 Avenue from Temple. The exact location of this intersection shall be determined through consultation with the Transportation and Engineering Departments prior to Outline Plan approval. Representatives of the Temple community expressed no opposition to the proposal that the northern east – west collector from Cell B1 intersect with 68 Street directly opposite 43 Avenue.

As noted in 3.2.4 above, the north-south collector will provide residents of Cell B1 with direct access to the neighbourhood shopping centre and community facilities in Cell A1. *Sentence deleted 24P82*

3.3.5 Energy Efficiency of Design

Innovative subdivision design aimed at achieving economy in total energy consumption shall be encouraged.

4 PROVISION OF SERVICES

4.1 Introduction

This section deals with the various services required to support development in the Area Structure Plan area. It starts with a discussion of the principal external roads that will serve the area. It then considers internal roads and public transportation as well as basic 'hard' services as sewers water mains,

natural gas, telephone and electric lines. The section closes with a review of 'soft' public services such as schools, community facilities and public services which are necessary for the functioning of a viable suburban residential community.

4.2 External Roadway System

4.2.1 Trans-Canada Highway

The ultimate right-of-way requirements for the Trans-Canada Highway (16 Avenue N.E.) have been established to permit its re-construction to freeway standards. Access will be fully controlled with grade separated interchanges proposed for the locations shown on Map #5. However, the connection with 68 Street will be at grade with signal controls until such time as an interchange is warranted.

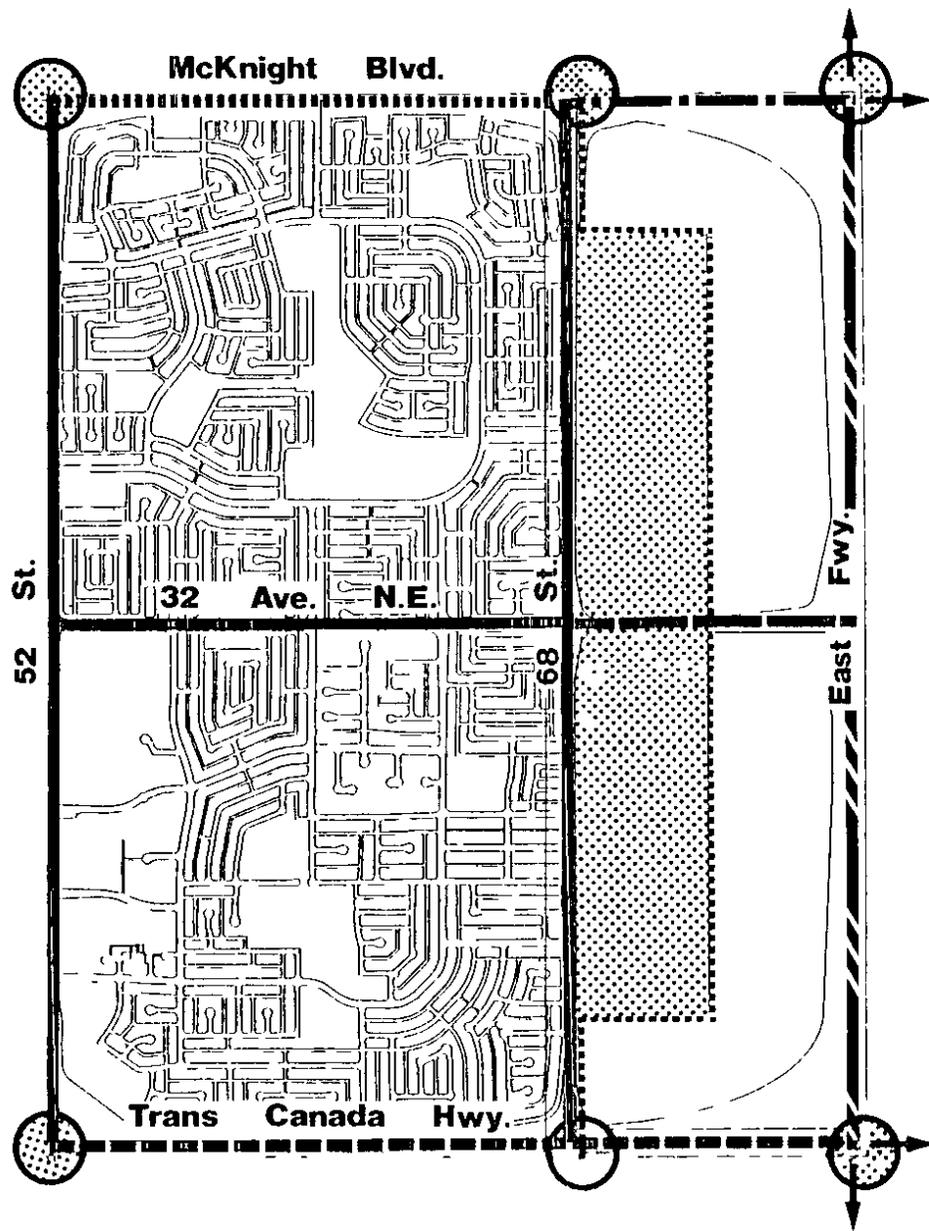
4.2.2 68 Street N.E.

68 Street will ultimately be upgraded from its present two lanes to a 4 lane divided major road between McKnight Boulevard (48 Avenue N.E.) and the Trans-Canada Highway. Because of its proximity to the proposed East Freeway and the consequent restriction on ramp locations, the future interchange with the Trans-Canada Highway cannot be designed to accommodate full turning movements. This interchange will provide access to and from 68 Street to the west only. East-bound traffic from Burlington and the Properties will have access to the Trans-Canada Highway via either 32 Avenue or McKnight Boulevard and the proposed East Freeway.

4.2.3 32 Avenue N.E.

To the west of the study area, 32 Avenue N.E. has been constructed as a divided 4 lane major road, separating the communities of Rundle and Pineridge from Whitehorn and Temple. It serves primarily as an arterial link between "The Properties" (the four communities described above) and the industrial areas and major north south roads (52 Street and 36 Street) to the west. Access is restricted to north/south majors and collector roads.

The eastward extension of 32 Avenue N.E. will be classified as a major road. Initially it might be limited to two lanes and stubbed west of the proposed East Freeway, thus serving only the Burlington Area. However, it will ultimately be widened to four lanes and extended to the east by means of a flyover across the proposed freeway at such time as traffic demands from possible future urban development east of the Corridor necessitates it. Alberta Transportation is currently planning for only a partial interchange on the East Freeway at 32 Avenue, with connections to and from the north only. However, there appears to be strong justification for a full interchange, given the restrictions imposed on the Trans-Canada / 68 Street interchange.



BURLINGTON map no
5
PHASE 1

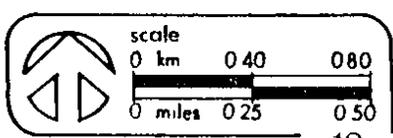
title
External Roads

Legend

- Existing
- Freeway
- Expressway
- Major
- Proposed
- Freeway
- Expressway
- Major
- Proposed Full Interchange
- Proposed Partial Interchange
- City Limits

prepared by
idec associates
engineers and planners

date
May, 1981



4.2.4 McKnight Boulevard

McKnight Boulevard (48 Avenue N.E.) forms the northern boundary of the Area Structure Plan area. This road is now being upgraded to expressway standards to the west of 68 Street, and will ultimately be extended as an expressway to the east. A full interchange is ultimately planned for McKnight Boulevard and the East Freeway, as well as for the 68 Street/McKnight Boulevard interchange. In the interim, however this connection will be an at-grade signalized intersection.

4.2.5 Collector Intersections Along 68 Street

Along 68 Street the existing intersections with collector roads in Pineridge and Temple have been located in accordance with standard spacing criteria for traffic signals. In order to minimize interruptions to traffic flow along this major road, the collector road connections from Burlington should tie into these intersections. However, such direct connections at all four access points could invite westbound traffic to short-cut along Temple Drive and Rundlehorn Drive, to the detriment of residents of Temple and Pineridge.

In order to minimize short-cutting traffic through the *Temple Community* the plan specifies a jogged intersection of 37 Avenue and 68 Street (see 3.3.4)
delete text **14P82**

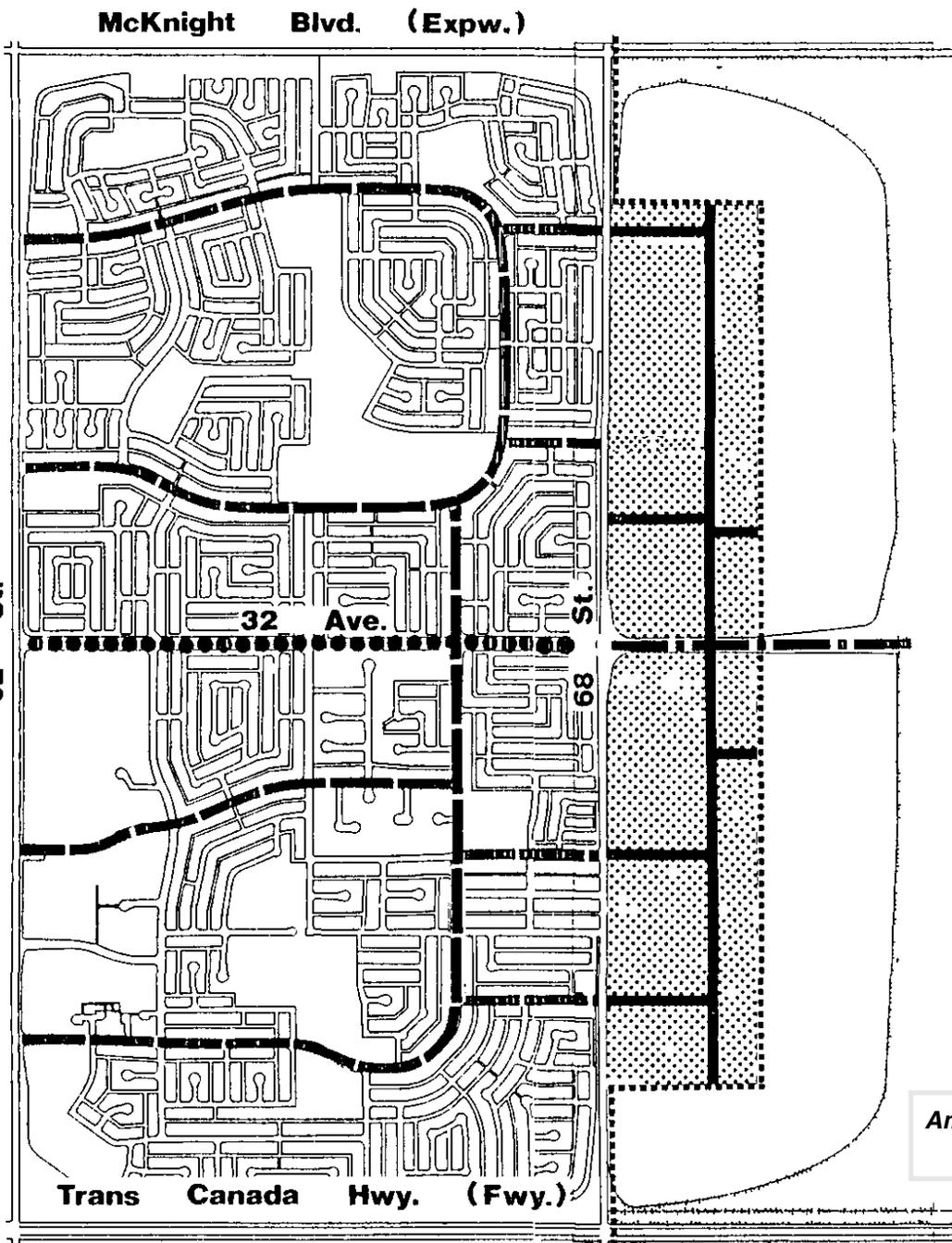
4.3 Internal Circulation System

4.3.1 Collector Roads

The internal collector road pattern is constrained by the location of access points to 32 Avenue and 68 Street as access is prohibited along the north, east and south boundaries due to the constraints imposed by McKnight Boulevard and the proposed East Freeway and the Trans-Canada Highway respectively. It is also constrained by the fact that the ultimate developable area between 68 Street and the revised Transportation and Utility Corridor (see Supporting Information) is only 800 metres, and the City Transportation Department requires a system of collector roads that permits bus routes to be located within a 450 metre walking distance of every residence.

The north-south collector is located such that it is as far away as possible from the proposed East Freeway/32 Avenue interchange in order to minimize traffic “weaving” conflicts on 32 Avenue.

The location of the north-south collector road system is also constrained by the need to locate the major reserve parcels to the east of this road so that the possibility exists to enlarge them once the areas to the east are annexed.



Amended
1982 June 14P82

BURLINGTON
PHASE 1

map no
6

title
Road Plan

Legend

Existing

- - Major
- ▬▬▬ - Collector

Proposed

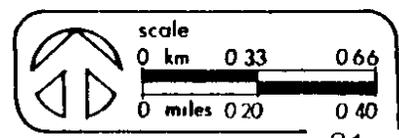
- ▬▬▬ - Major
- ▬▬▬ - Collector
- City Limits

prepared by

idec associates
engineers and planners

date
May, 1981

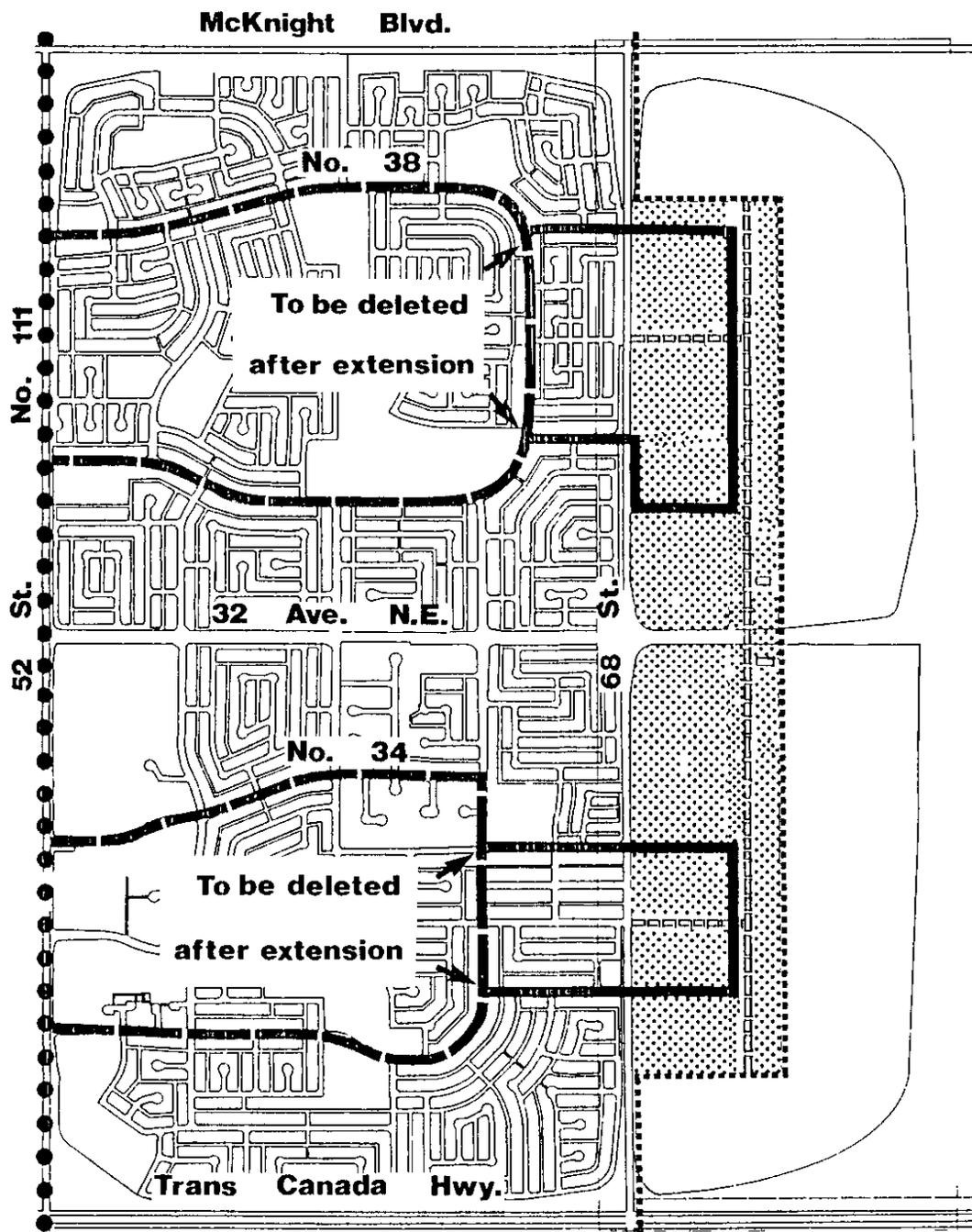
Approved
1981 May 9P81
(see bottom left corner)



In the design of the internal collector road system, provision has been made to extend these collector roads into the proposed annexation areas. It is therefore imperative that at the Outline Plan stage the developers of the A1 and B1 neighbourhoods indicate how the balance of the developable areas to the west of the proposed East Freeway can be developed as logical extensions of these neighbourhoods.

4.3.2 Public Transit Service

The extension of public transit service to the Burlington Phase I area will be phased in relation to the development of the areas north and south of 32 Avenue. Calgary transit bus routes #34 and #38 will be extended from Pineridge and Temple respectively, eastward across 68 Street. These feeder bus lines will bring passengers to Blue Arrow and crosstown buses presently operating on 52 Street N.E., and ultimately to the proposed northeast L.R.T. line on 36 Street N.E.



BURLINGTON map no
7
PHASE 1

title
**Public Transit
 And Pathways**

Legend

Existing Bus Service

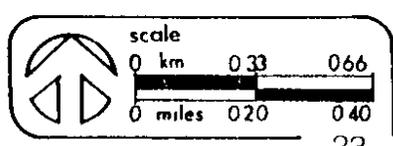
- ● -Blue Arrow
- ▬▬▬ -Regular Service

Proposed Bus Service Extension

- ▬▬▬ - Regular Service
- ▬▬▬▬▬ - Pathway
- City Limits

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 engineers and planners

date
May, 1981



4.3.3 Pedestrian/Bicyclist Pathway System

A pedestrian/bicyclist path system shall be developed to provide public access to the proposed joint use sites within Burlington, as well as to the adjacent communities to the west.

Provision for a bicycle path and walkway system throughout the community has been made to link the following:

- (1) Main open space areas.
- (2) Joint use sites.
- (3) The city bicycle path system.

Pedestrian access to the communities of Pineridge and Temple will be facilitated by pedestrian crossings at the following locations: at 68 Street N.E. and 43, 37, 32, 29 and 22 Avenue N.E., at least two of which will be guard controlled for the school children.

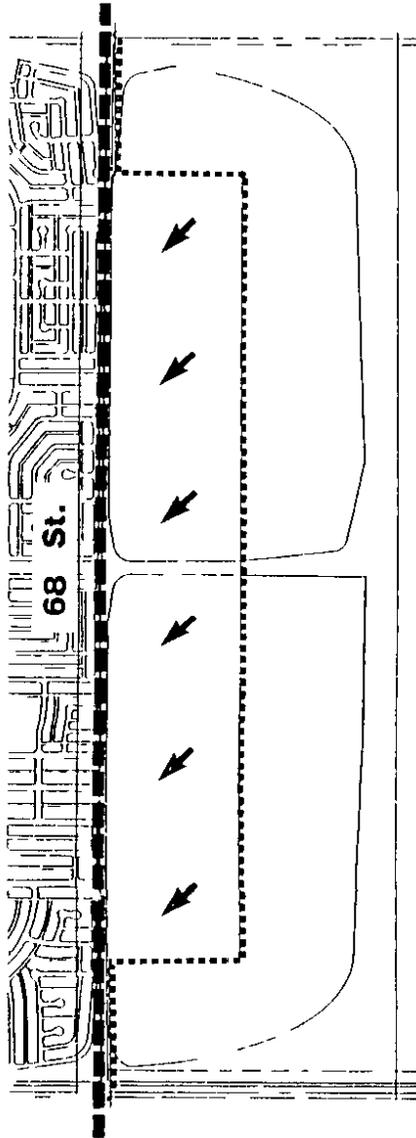
Sentence deleted

24P82

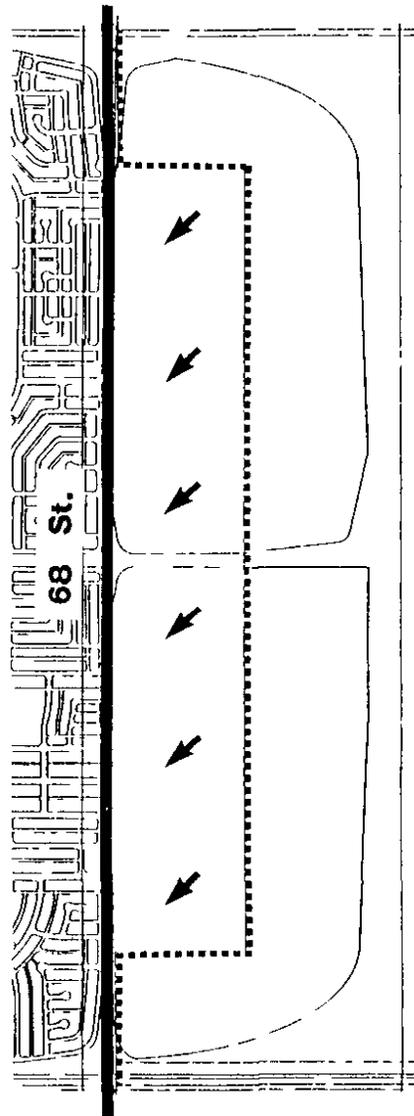
4.3.4 Design Refinements

The alignment and configuration of internal collector roads, pedestrian/bicyclist paths and bus routes as shown on the Land Use Plan (Map 2) and on Maps 6 and 7 are not intended to be exact, and are subject to refinement at the Outline Plan stage of development.

Sanitary



Storm



BURLINGTON PHASE 1

map
no
8

title
**Sanitary And
Storm Servicing**

Legend

- 27" Sanitary Sewer Line (Existing)
- 85'x60' Storm Sewer Line (Existing)

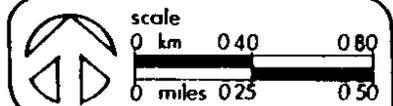
..... City Limits

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engineers and planners

date

May, 1981



4.4 Utilities

4.4.1 Storm Water Management

Two basic alternatives exist with respect to storm water management for the total Burlington Study Area. Alternative 1 involves conventional servicing with storm sewer trunks, while Alternative 2 is based upon the use of storm water retention ponds.

The Burlington Phase I area can be drained into the existing 68 Street Trunk. This will not preclude either of the two options available for drainage of the total area, as noted above (see Supporting Information B.3.3.3 and B.3.3.4 for further details).

The ultimate storm drainage scheme is to be determined through a storm water management study, to be submitted by the developers prior to the approval of Outline Plans for Phase I. This study shall address the drainage of the entire Burlington Study Area, and shall be subject to the approval of the City's Engineering Department.

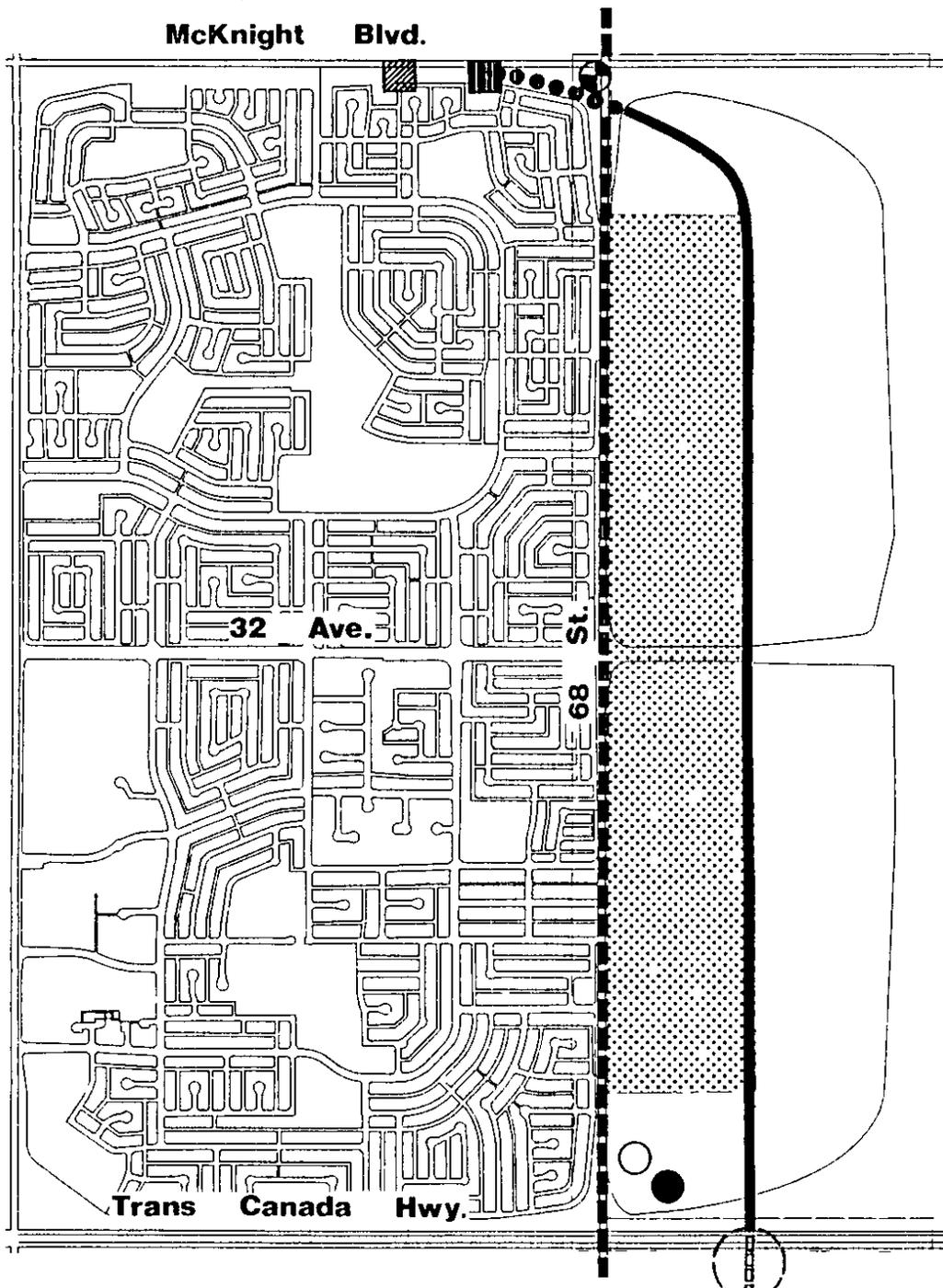
4.4.2 Sanitary Sewer Services

Sufficient sanitary sewer capacity exists in the 68 Street trunk to accommodate sewage from the Burlington Phase I Area Structure Plan area.

At the Outline Plan Stage for the development of Cell A1 and Cell B1, a servicing scheme shall also be provided for Cells A2 and B2 respectively.

4.4.3 Water Supply

The entire Burlington Study Area can be readily serviced both from major mains on McKnight Boulevard and the Trans-Canada Highway and from ties across 68 Street. There is a 16" main on McKnight Boulevard and a 12" main on the Trans-Canada Highway.



BURLINGTON map no
9
PHASE 1

title **Natural Gas ,
Electricity And
Telephone**

Natural Gas

- Existing Regulation Station
- Site For Future Facility
- Existing Valve Assembly
- 16inch High Pressure Line

Electric

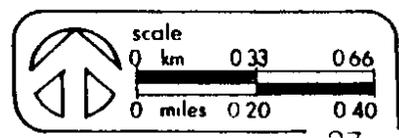
- Existing 13.2 kV Line
- Proposed Overhead 13.2 kV Line
- Proposed Underground 13.2 kV Line
- Existing Sub Station No 39

Telephone

- Temple Exchange
- City Limits

prepared by
idec associates
engineers and planners

date
May, 1981



4.4.4 Natural Gas Services

A 16 inch high-pressure natural gas trunk line is presently located in an easement running along the east side of 68 Street. It is currently located well above what will become the finished grade of 68 Street. Preliminary studies by the consultants indicate that the line will be lowered only at road crossings, and that some berming may be required. However, other alternatives such as deepening or relocating the line shall be addressed at the Outline Plan Stage. Any berming shall not be so high as to constitute a visual barrier.

Subdivision shall be undertaken in accordance with the Calgary Planning Commission policy of not allowing any habitable dwelling to be constructed within 50 feet from the centre of a pipeline. A greater setback distance may be required by the Calgary Planning Commission on recommendation of the pipeline operator.

Furthermore, no earth cover shall be added to or removed from the 15.24 m right-of-way in which the pipeline is located without first obtaining written consent from Canadian Western Natural Gas.

The distribution system will be installed as dictated by the phasing of development. Distribution pipelines will be installed along the public thoroughfares in accordance with City of Calgary standard line assignments.

4.4.5 Telephone Services

Telephone service to the Burlington area can readily be provided from the existing exchange in Temple at 6315 McKnight Boulevard. There will not be sufficient demand to warrant another exchange within the Burlington area itself.

4.4.6 Electrical Services

The alignment of the proposed overhead 13.2 kV line designed to service the Burlington Area is parallel to and in the vicinity of the existing city limits. This line will tie into an existing line in Abbeydale to the south and will tie into the south side of McKnight Boulevard at 68 Street, where it will run underground to the existing substation in the north east corner of Temple.

The City Electric System proposes that this 13.2 kV line run overhead in a lane system parallel and adjacent to the main north/south collector road. However, if an entirely laneless subdivision is planned, the cost of installing this line underground shall be borne by the developer.

With the road widening planned for 68 Street, the existing 138 kV line will have to be relocated to the west side of the street. The cost of relocating the line shall be charged against the developer unless the widening is undertaken on the City's initiative.

4.5 Public Services

4.5.1 Schools

The Calgary Board of Education has requested one public elementary school site to be located centrally in Development Cell A1. The exact size and location of this site shall be determined at the Outline Plan stage of subdivision. The Board has indicated that elementary school services for Cell B1 will ultimately be provided from a site east of the present city limits, assuming the eventual annexation of that area.

The Board also advises that it has no plans to build school facilities in the Burlington area for the foreseeable future, and reserves the right to designate schools which pupils will attend. Burlington Phase I will, therefore, be designated as a busing area for all elementary school students. Junior high and high school service for the Burlington area will be integrated with Pineridge and Temple.

The Calgary Separate School Board has indicated that it will not require any school sites within the Burlington Phase I Area. The Board proposes to direct students of this school district in the area north of 32 Avenue to an elementary school to be constructed in the community of Temple, and those south of 32 Avenue to an existing school in Pineridge. The Board stressed the importance of providing good public transit service for students from Burlington to schools in the Properties.

4.5.2 Parks and Recreation

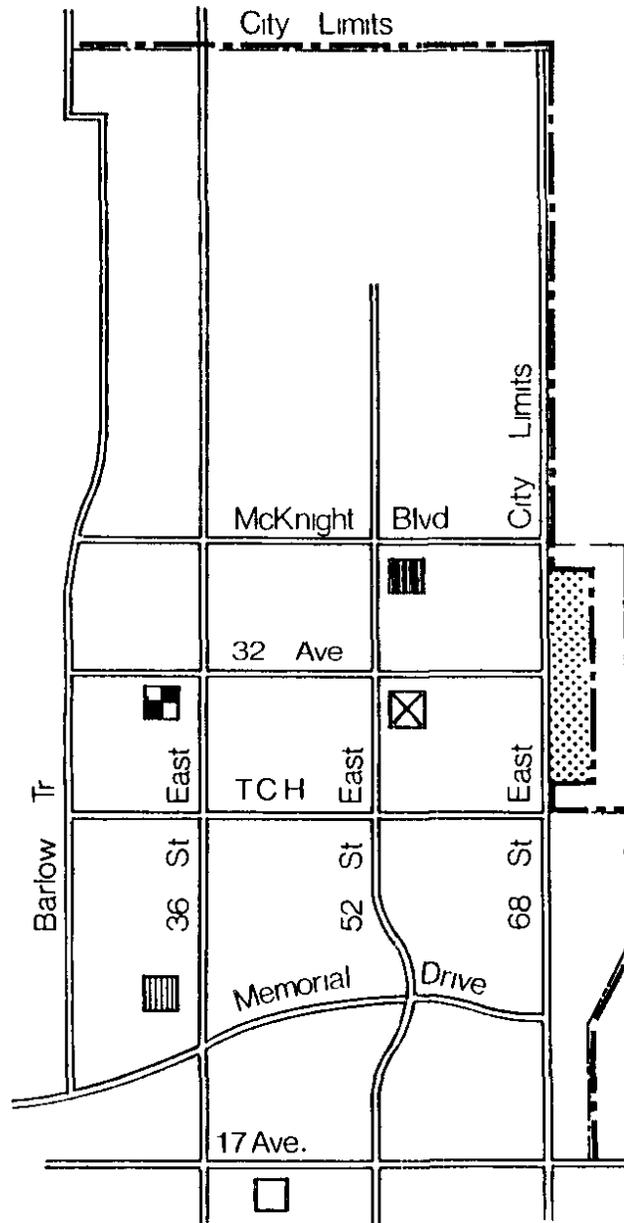
One centrally located community recreational facility is proposed for the Burlington Area Structure Plan area. It will be provided in the Cell A1 area and will be located as centrally as possible in order to serve both neighbourhoods. A 2.4 ha (6 acre) park with playground facilities will be provided within the joint use site in Cell B1, and will be connected with the aforementioned community facility by the proposed pedestrian/bicyclist path. As previously mentioned, at least six neighbourhood parks will be distributed throughout Cells A1 and B1.

4.5.3 Police Services

Police services in the area will be provided from an existing temporary station which is located at 1828A 36 Street S.E. Future service will be provided from a proposed station which is to be located at 3207 12 Avenue N.E. This service will be subject to change based on the Police Department's future zone re-alignments.

4.5.4 Fire Protection Services

A fire station is located at Temple Drive and 52 Street, approximately one mile away. Another station has been proposed to be located approximately four miles to the north. The Fire Department foresees no problems in extending its present services into the Burlington Area.



BURLINGTON
PHASE 1

map
no
10

title
Public Services

Legend

-  -Proposed Hospital
-  -Health Clinic
435 36 St NE
-  -Library (Village Square)
2640 52 St NE
-  -Fire Station
7199 Temple Dr
-  -Social Services
4202 17 Ave SE

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idec associates
 engineers and planners

date
May, 1981



4.5.5 Library Services

A Library is scheduled for construction in the Village Square Complex in the near future. This Library will service the Properties Area and the Burlington Area.

4.5.6 Health Services

There are plans to build a hospital in the Properties south of 32 Avenue to the west of 36 Street, not more than three miles from Burlington. The hospital could be in operation within 5 to 7 years, although a final commitment on this facility has yet to be made by the Province.

The nearest Board of Health Clinic is located in Franklin Park, to the south and west of the Properties. However, a clinic will shortly be available within the Village Square on 52 Street.

4.5.7 Social Services

The nearest social services facility is an area office which is located in Forest Lawn at 4202 – 17 Avenue S.E.

Adequate social services are not presently available to accommodate residential development in Burlington. School buildings and community facilities are considered suitable sites for these programs, but in the event school construction is not undertaken in the first few years of community development, the development of the community facility building should become a priority. The developer shall provide an acreage assessment to offset the cost of this facility, in accordance with the following conditions:

The Planning Department negotiate an acreage assessment with approval of the developers of Burlington for the purpose of establishing a

reserve fund for the construction of a Community Association Hall and associated sports facilities, and further:

- (a) the acreage assessment be sufficient to afford a reasonable size facility with sports amenities.
- (b) the fund be turned over to the future Community Association upon election of a representative executive.
- (c) the reserve fund may be used for capital purposes only.
- (d) the Community Association consult with the developers regarding the design of the facility.

Day care facilities will be required. There should also be early childhood services providing programs and space for kindergarten and nursery school children in central locations both north and south of 32nd Avenue.

Recreation and athletic programs oriented to elementary school children and teenagers should be provided in conjunction with the education facilities. A community facility should include a teenage drop-in centre.

Social Services required for adult groups should include individual and family counselling, family life education programs, etc. These services can be provided by the Forest Lawn Area office for Social Services.

5 SEQUENCE OF DEVELOPMENT

The Planning Act 1977 Section 62 (2) requires that an area structure plan describe the sequence of development proposed for the area.

The sequence of development strategy for the Burlington Phase I Area Structure Plan area is to permit development to proceed from south to north in both development cells, simultaneously. However, prior to approval of development of the first stage, a decision shall be required on the method of storm water management to be adopted for the area outside of the present city limits. A storm water management study for the Engineering Department's approval is to be submitted by the developer proposing to develop first, and the study is to cover the entire development area. Outline Plans may then be approved by the Calgary Planning Commission.

Supporting Information

Burlington Area Structure Plan

Phase I

B.1 The Burlington Study Area

The Burlington Study Area encompass all the lands between 68 Street N.E. on the west and the revised Transportation and Utility Corridor on the east, including the area covered by the Phase I Area Structure Plan. This larger area was chosen for the study because the present city limits do not constitute a logical boundary for community planning. Although by no means a certainty, there seems to be a strong possibility that future annexation decisions will lead to the city limits being established in conjunction with these boundaries.

When the external roadway network is fully developed, Burlington will be isolated from the community that has developed to the south (Abbeydale), as well as from communities that may develop in the future to the east and north respectively.

The Phase I Area Structure Plan has already discussed the barriers created by 68 Street and 32 Avenue. The effect of these major roads will be to divide the Burlington Study Area into two large residential neighbourhoods of roughly equal size as shown on Map 11.

B.2 Land Ownership

The existing pattern of land ownership is shown on Map 12. The consolidation of ownership among just four owners means that the development process should be comparatively easy to co-ordinate and control.

B.3 Land Use Recommendations

B.3.1 Ultimate Land Use Concepts

The ultimate land use concept presented on Map 13 represents a simple extension of the Phase I Area Structure Plan.

The ultimate concept is a comprehensive land use plan which integrates all the land in the Burlington Area into a single viable community. As discussed under 3.2.3 and 3.3.3 of the Phase I Area Structure Plan, the proposed joint use sites and other municipal reserves are reflective of a community concept, to the extent that these reserves and their associated facilities are planned on the basis of a single community, as opposed to two communities north and south of 32 Avenue.

**BURLINGTON
STUDY AREA**

map
no.
11

title
**Gross Developable
Area**

Legend

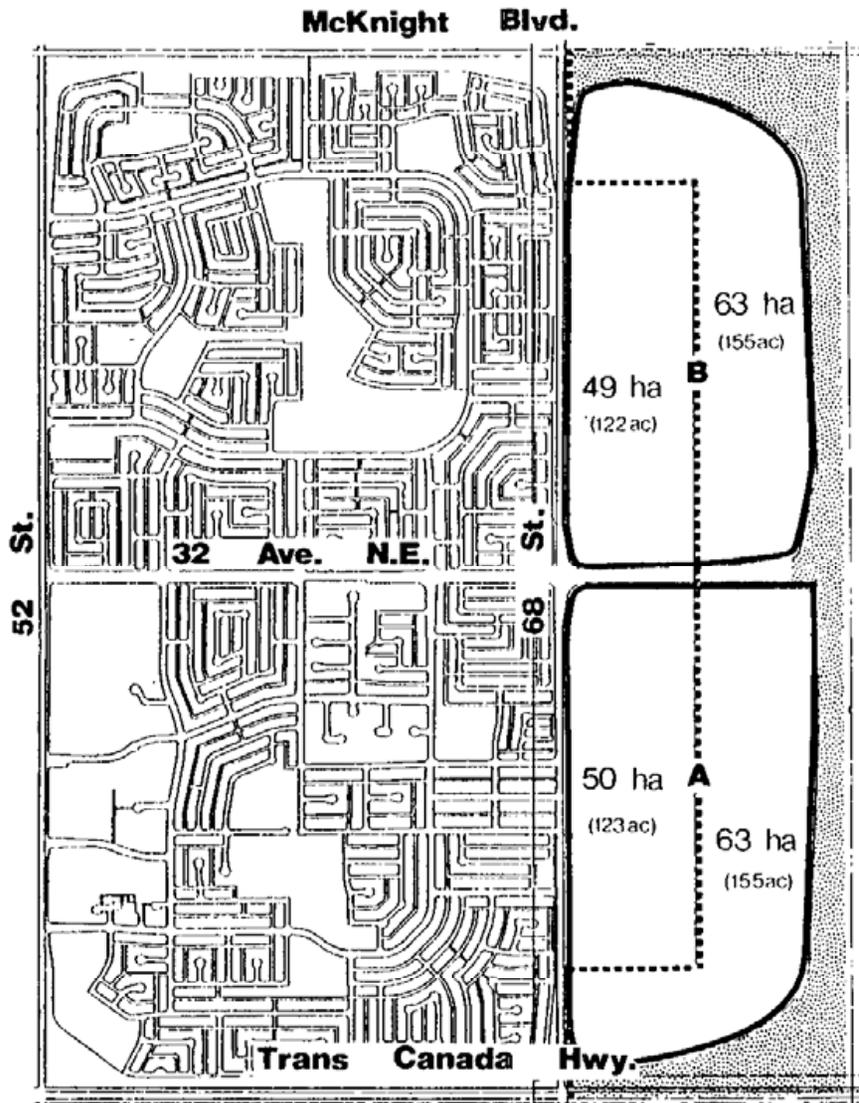
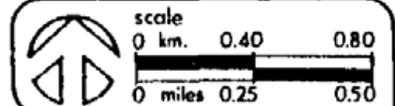
- Gross Developable Area
- B** Area North of 32 Ave. N.E.
112 ha (277 ac.)
- A** Area South of 32 Ave. N.E.
113 ha (279 ac.)
- Area Required or Major Arterials & The Westerly Portion of The Transportation & Utility Corridor
- City Limits

prepared by :

idec associates
engineers and planners

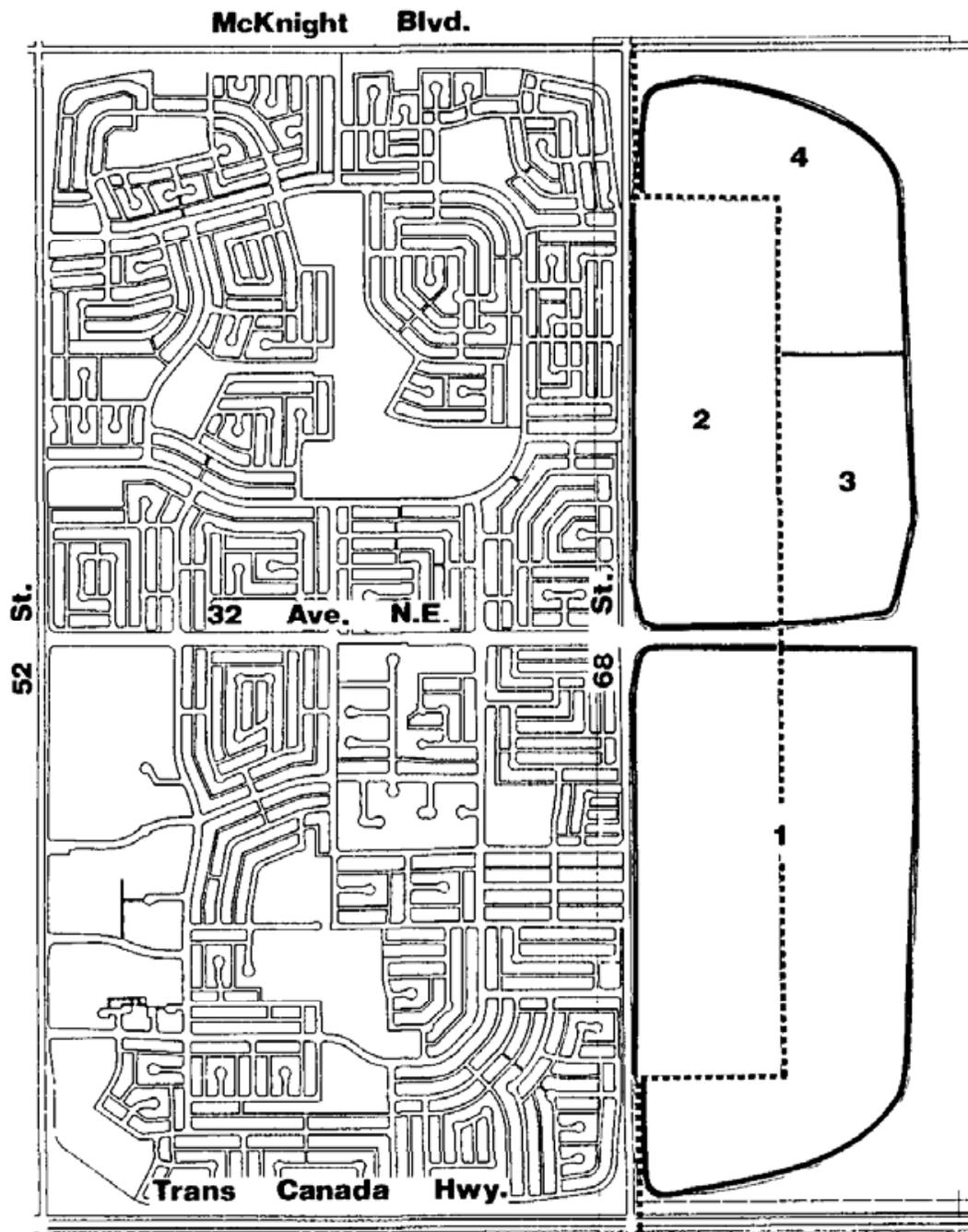
date

May, 1981



B.3.2 Recommendations

- 1) Once the Transportation and Utility Corridor boundary has been finally established, Council should support annexation of the balance of the Burlington Area located south of 32 Avenue. Annexation of the remaining area north of 32 Avenue could also be supported, although the area could remain undevelopable for as long as 25 years, depending upon when the existing sour gas hazards is removed.
- 2) It follows that these lands should be developed in stages on a comprehensive basis as integral extensions of the two existing development cells.
- 3) If a retention pond is required for storm water management purposes it should be incorporated within the Outline Plan for the entire community as a recreational amenity. The City is presently developing policies concerning storm water retention ponds, to which a pond in Burlington would be required to conform.
- 4) Upon annexation of these lands to the City, the land use proposals set out below could form the basis for a Burlington Phase II Area Structure Plan.



**BURLINGTON
STUDY AREA**

map
no
12

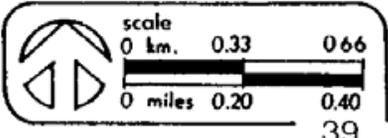
title
Land Ownership

Legend

- 1** Qualico Development Ltd
278 Acres
- 2** Shell Canada Ltd.
120 Acres
- 3** Oakbay Manor
75 Acres
- 4** Wenngatz
89.1 Acres
- City Limits

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idec associates
engineers and planners

date
May, 1981



B.3.3 Development Cell A2

B.3.3.1 Location

Development Cell A2 is bounded by Development Cell A1 on the west, the revised Transportation and Utility Corridor on the east, the Trans-Canada Highway on the south and 32 Avenue on the north. (See Map 14)

B.3.3.2 Size and Density

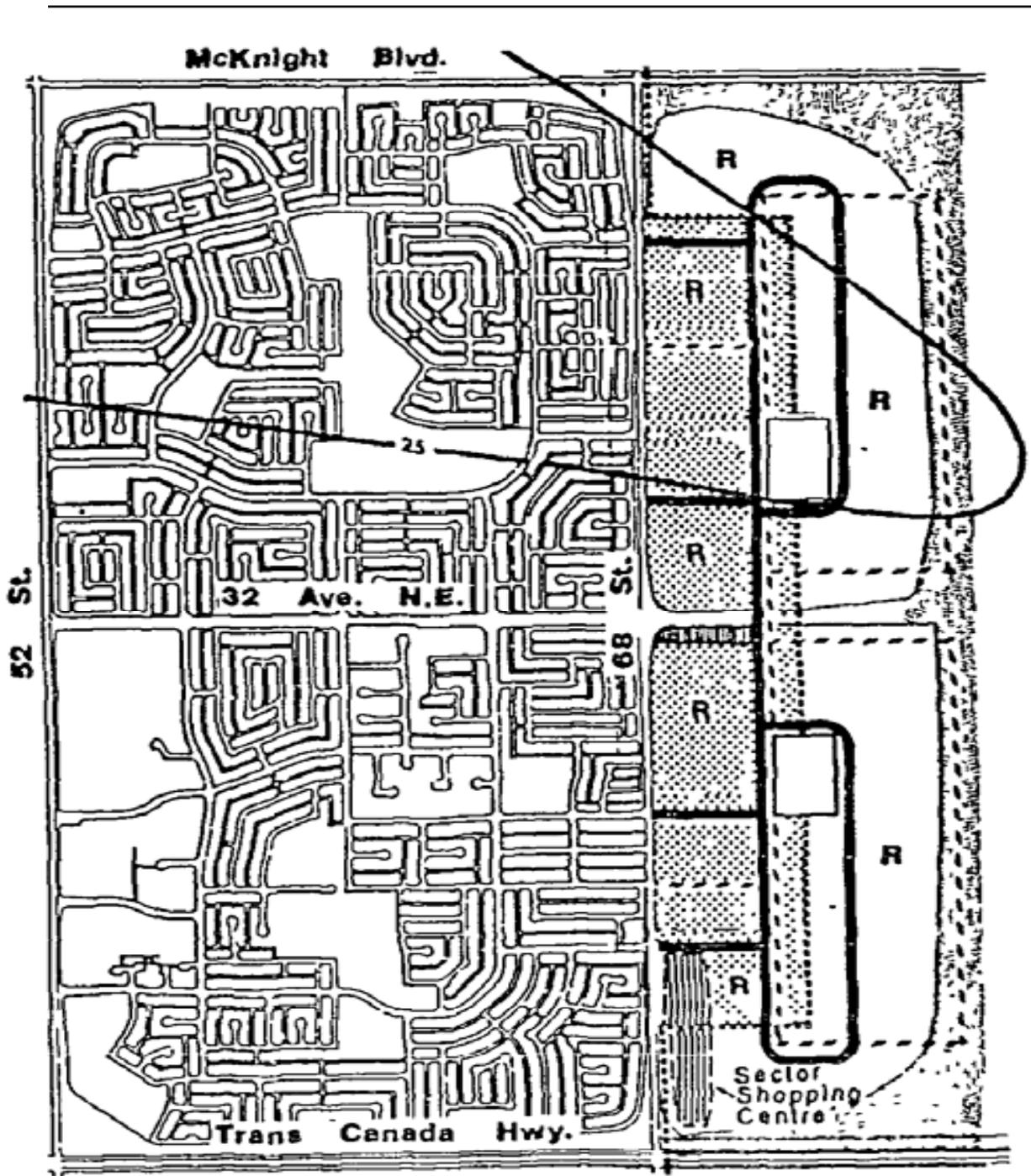
Development Cell A2 is approximately 62.8 hectares (155 acres) in size and if developed at an average density of 17.3 units per hectare (7 units per acre) would house approximately 3,500 people in 1,085 dwellings. If this occurs, it would bring the entire Development Cell A area to approximately 6,300 people in 1945 dwelling units.

B.3.3.3 Land Use

Land Use Option 1 – (No Storm Water Retention Pond)

Canadian Western Natural Gas requires a regulator station in Cell A2. The proposed regulator station site should be located such that the existing valve assembly, which is located within the right-of-way of the Trans-Canada Highway, can be incorporated within the station grounds. The recommended size for the site is 30m x 30m. However, the nature of the surrounding development, as well as the design of the proposed interchange, will influence the final location and size of the site. This can be determined at the Outline Plan stage of subdivision.

The predominant land is expected to be low density residential development. About 3.0 hectares (7.5 acres) of the 6.3 hectares (15.5 acres) of municipal reserve that could be taken through the subdivision process for the Development Cell A2 lands should take the form of a centrally located joint use site that would be located either across from, or contiguous with, the proposed 3.0 hectares (7.5 acres) of joint use site in Cell A1.



BURLINGTON STUDY AREA map no 13

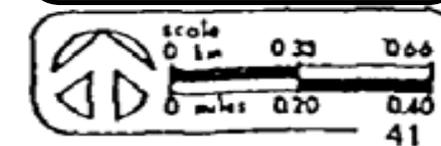
Final
Ultimate Land Use Concept

Legend

- Commercial
- J.U.S. - Joint Use Site
- 25- - Noise Exposure Forecast Contour
- Collector
- Pedestrian Bicycle Path
- R Residential
- Transportation & Utility Corridor

prepared by:
idco associates
engineers and planners

date
Amended
1982 June 14P82
1989 July 18P89
Approved
1981 June 9P81



Land Uses Option 2 – (Storm Water Retention Pond)

Again the major land use will likely be low density residential development. However, the amount of creditable reserve owing to the city will depend upon the current city policies for the treatment of lands used for storm water retention facilities. The pond should be developed as an open space amenity for the Burlington Community.

B.3.3.4 Circulation System

The vehicular circulation system could be an extension of the Cell A1 collector system; the transit service will be looped accordingly. The majority of roads are likely to be residential cul-de-sacs and crescents.

The pedestrian/bicyclist pathway system should extend eastwards in a loop to intersect with the western boundary of the Transportation and Utility Corridor. (See Section B.6)

B.3.3.5 Energy Efficiency of Design

Innovative subdivision design aimed at achieving economy in total energy consumption shall be encouraged.

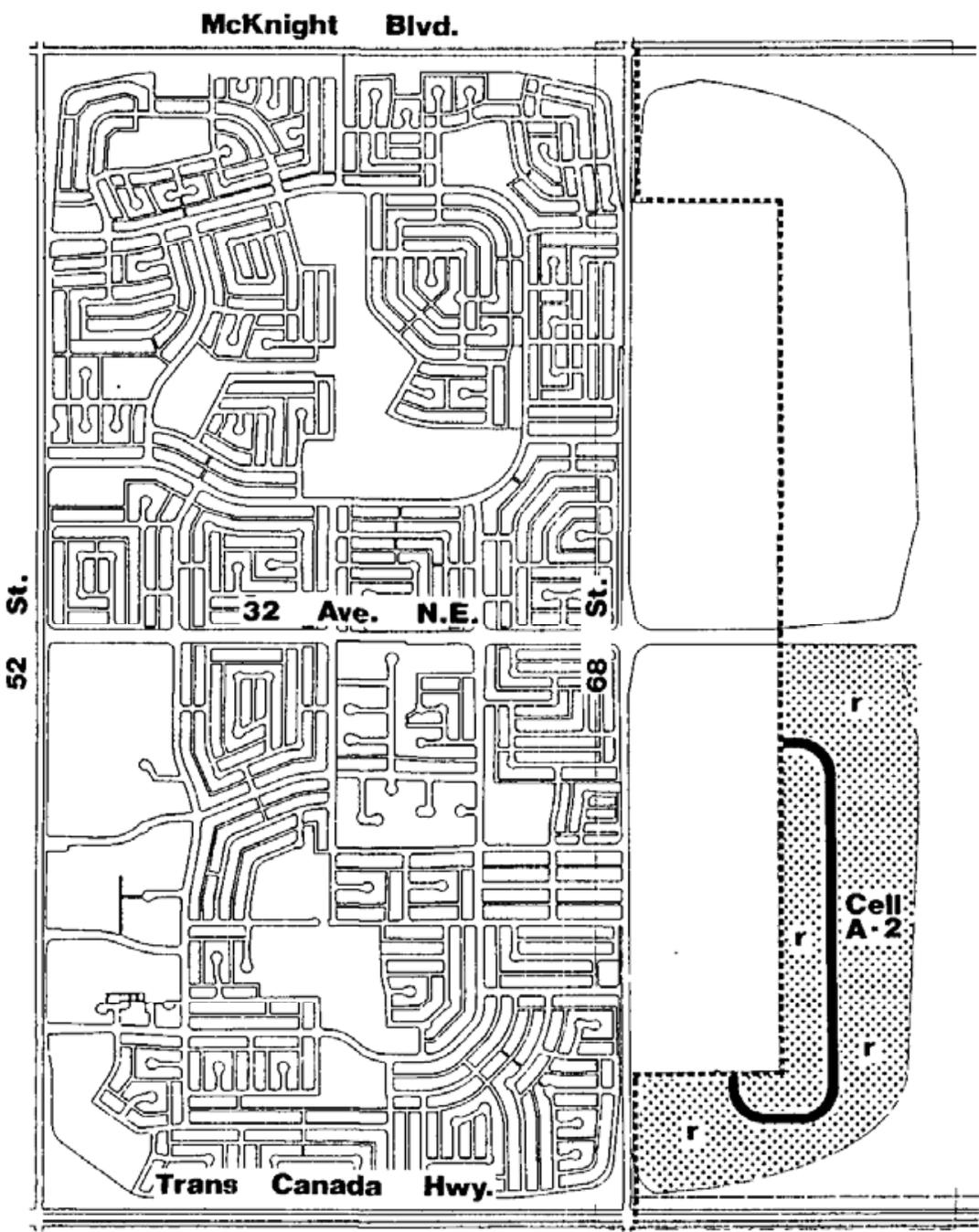
B.3.4 Development Cell B-2

B.3.4.1 Location

Development Cell B2 is located to the north of 32 Avenue N.E. and adjacent to Cell B1 on the west, and is bounded on the north and east by the Transportation and Utility Corridor, as shown on Map 15.

B.3.4.2 Size and Density

Development Cell B2 is approximately 62.8 hectares (155 acres) in size and if developed at an average density of 17.3 units per hectare (7 units per acre) would house approximately 3,500 people in 1,085 dwellings. If this occurs it would bring the entire development Cell B area to approximately 6,300 people in 1940 dwellings units.



BURLINGTON map no
STUDY AREA 14

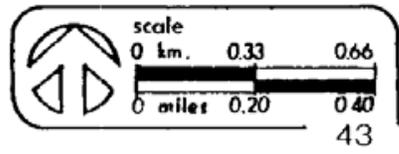
title
Development Cell A-2

Legend

-  Proposed Collector Road
-  Future Residential
-  City Limits

prepared by:
idec associates
 engineers and planners

date
May, 1981



B.3.4.3 Land Use

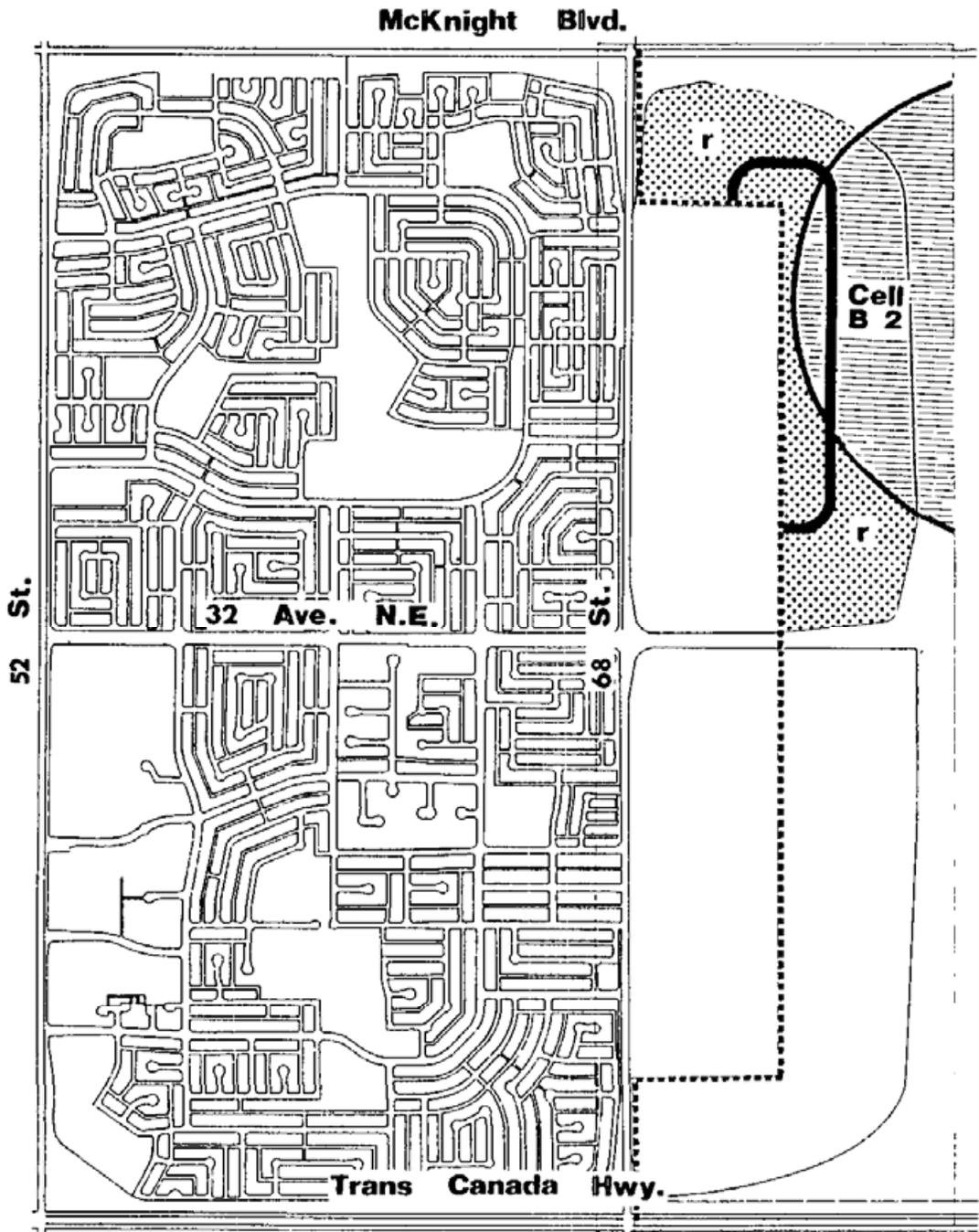
The ultimate land use in Development Cell B-2 will likely be low density residential similar to the other three cells of the proposed Burlington Community. A sour gas well and a sour gas pipeline are presently located in Legal Subdivision 10, 36-24-W4th, and both are classed as Level 2 Facilities. Schedule 6 of the Subdivision Regulation of The Planning Act, 1977 specifies a minimum separation distance of 0.5 kilometres between permanent dwelling units within an urban municipality and a “Level 2” sour gas facility. A “Level 2” Facility is defined as:

- i) a well having a potential release rate of more than 0.3 cubic metres, but not more than 2 cubic metres of hydrogen sulphide per second, or

- ii) a sour gas facility, other than a well, having a potential volume release of more than 300, but no more than 2000, cubic metres of hydrogen sulphide.

In the event that the land to the west of the Transportation and Utility Corridor is eventually annexed to the city, the Subdivision Regulation will prohibit the development of permanent residential dwellings within 0.5 kilometres of these facilities for as long as they are producing at their current rates.

In this respect approximately 24.7 hectares (61 acres) are presently constrained by sour gas facilities, which effectively prevents any urban development within this Cell.



BURLINGTON map no
STUDY AREA **15**

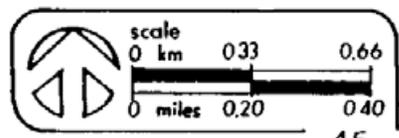
title
Development Cell B-2

Legend

-  Proposed Collector Road
-  Future Low Medium Density Residential
-  City Limits
-  Sour Gas Constraint

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idec associates
 engineers and planners

date
May, 1981



The company in charge of the well (Petrogas Processing Ltd., a subsidiary of Canadian Occidental Petroleum Ltd.), estimates that the well probably has a production life in the order of 10 – 25 years. In other words, urban density residential development will not be permitted in the affected area until about 1990 – 2005.

Therefore, while the entire Development Cell B-2 area could be annexed prior to removal of the sour gas constraint, it is recommended that in the event of annexation the entire Cell be designated as “Urban Reserve : Future Residential”, and that the land be maintained in agricultural use until the constraint is removed.

B.3.4.4 Circulation System

The vehicular circulation system could be an extension of the Cell B1 collector system. The majority of roads are likely to be residential cul-de-sacs and crescents.

The pedestrian/bicyclist pathway system should extend eastwards in a loop to intersect with the western boundary of the Transportation and Utility Corridor.

B.3.4.5 Energy Efficiency of Design

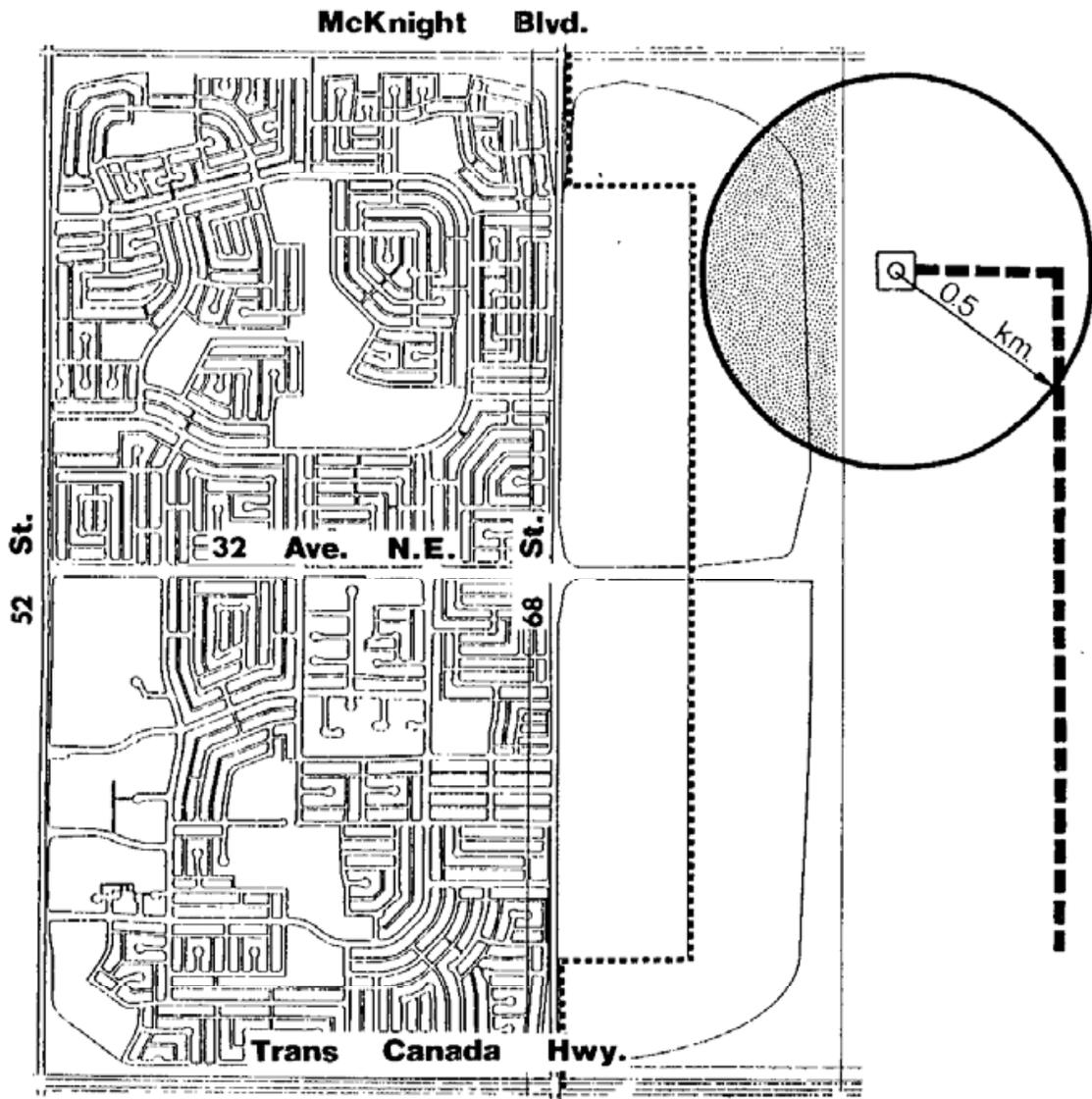
Innovative subdivision design aimed at achieving economy in total energy consumption shall be encouraged.

B.4 Storm Water Management Alternatives

The storm trunk recently installed in 68 Street N.E. was designed to handle storm water only to the height of land that approximates the present city limits through the study area. Therefore, an alternate method of storm water management will be required in order to service the entire study area. Two basic alternatives are possible as discussed below, and as shown in Map No. 17.

Alternative 1

Design the storm sewer servicing network such that all developable land presently within the city limits drains westward into the existing 68 Street storm trunk. The area outside the city limits would drain southward under the Trans-Canada Highway by way of the recently constructed 10' x 10' storm main.



BURLINGTON
STUDY AREA

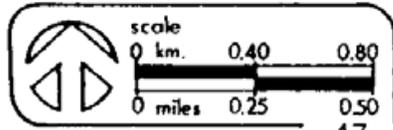
map
no.
16

title
**Sour Gas Develop-
ment Constraint**

- Legend
-  Area Subject To Development Constraint
 -  Sour Gas Pipeline
 -  City Limits
 -  Sour Gas Well

prepared by:
idec associates
engineers and planners

date
May, 1981



Alternative 2

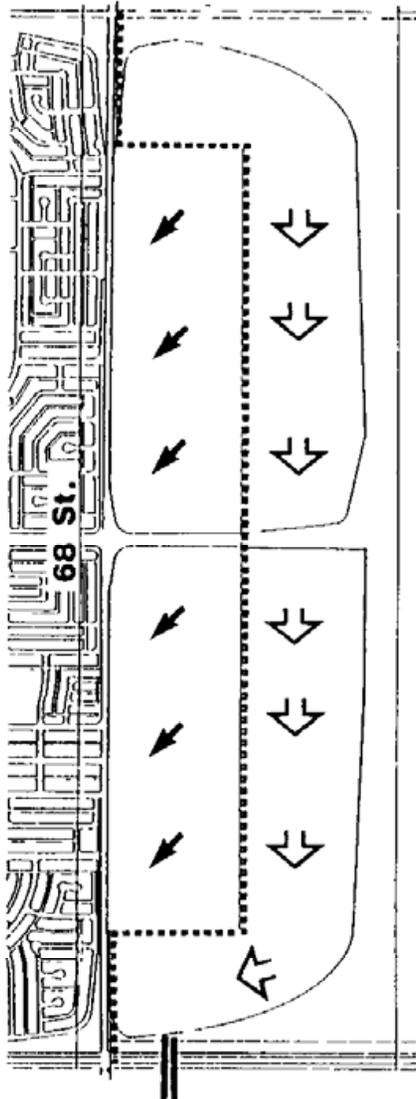
The area within the city limits drains westward into the existing 68 Street storm trunk as in Alternative 1. The area outside the city limits would also drain into the 68 Street storm trunk, but peak flow rates would be delayed by the use of a storm water retention pond.

A final decision on which alternative is to be adopted will be made by the City's Engineering Department, pending completion of a storm water management study by developers. It is important to note that implementation of the recommended storm servicing scheme for the Burlington Phase I Area Structure Plan Area does not preclude either alternative for ultimate development of the total Burlington Study Area.

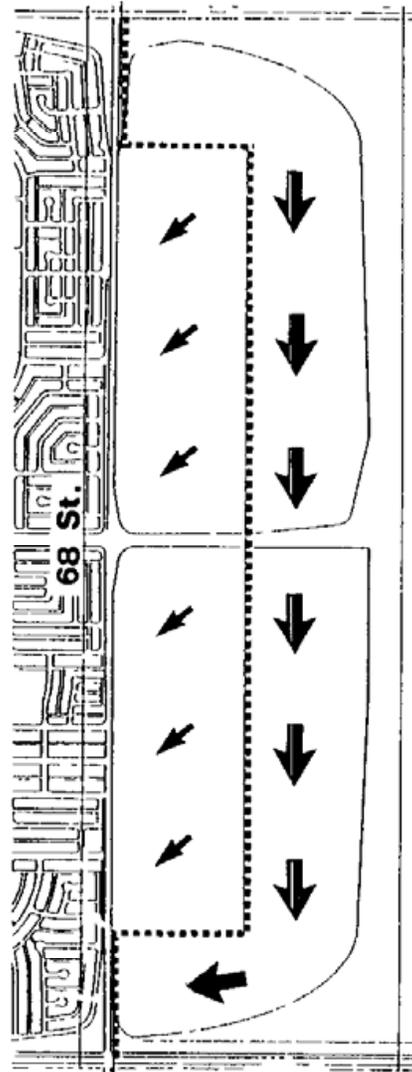
B.5 The Revised Transportation and Utility Corridor

The Transportation and Utility Corridor, as presently defined by Alberta Environment, is 3,960 feet wide in this location. Negotiations are currently underway between the Provincial Government and the respective landowners regarding a revised location for the western boundary of the Corridor. The location shown throughout this report is tentative, based upon information available at the time of writing (May 1981). The exact boundary of the revised Corridor will have to be determined prior to annexation of the balance of the developable lands.

Alternative 1
Conventional
Solution



Alternative 2
Retention Pond
Solution



BURLINGTON
STUDY AREA

map
no
17

title
**Storm Water
Management Options**

LEGEND

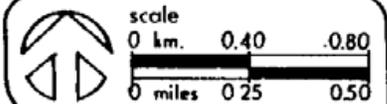
- ➔ Conventional Drainage System
To Existing 68 Street Storm
Sewer
- ➡ Conventional Drainage System
To Duct Under Trans Canada
Highway
- ➡ Drains Via Storm Water
Retention Pond To Existing
68 Street Storm Sewer
- City Limits

prepared by

idec associates
engineers and planners

date

May, 1981



B.6 Topography & Drainage

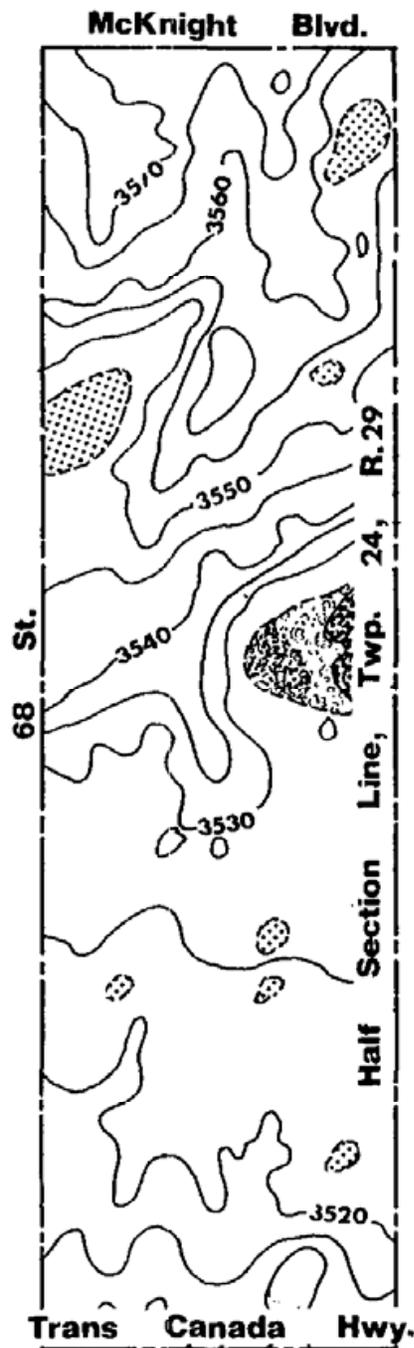
The topography of the Burlington Study Area can be described generally as gently undulating prairie landscape, the only relief being in the form of two sloughs. The land slopes gently to the south. The relative elevation is 32 M (105 ft.), as shown in Map No. 18.

The high permeability of the soils and the relative lack of relief has resulted in an absence of any permanent drainage features. There are, however, intermittent sloughs which are filled with water in the spring and in storm situations. The height of land more or less approximates the present city limits.

B.7 Vegetation and Microclimate

The entire area is presently under cultivation with the exception of the slough areas. The main crops are wheat and hay. The only permanent vegetation occurs in the slough areas, where bush and shrub vegetation (hawthorn) thrives alongside a few small aspens.

Because the site is open and level, and lacks any wind-breaks, the land is exposed to severe microclimatic influence. The area is completely exposed to north-westerly winds, as well as to prevailing westerly and south-westerly winds.



BURLINGTON map no. **18**
STUDY AREA

title
Topography And Vegetation

Legend

 Slough
 Scrub Vegetation
 Cultivated
 (Contour Interval 5 Feet)

prepared by:
idec associates
 engineers and planners

date
May, 1981



