

BY-LAW 83-97

A BY-LAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE BRAEMAR AREA STRUCTURE PLAN.

WHEREAS it is deemed advisable to adopt the Braemar Area Structure Plan.

NOW THEREFORE, the Council of Strathcona County, pursuant to the authority conferred upon it by the Municipal Government Act, S.A. 1994, and amendments thereto, enacts as follows:

1. That this By-law 83-97 is to be cited as the "Braemar Area Structure Plan", and
2. That Schedule "A" attached hereto is hereby adopted as part of this By-law.

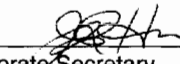
Read a first time this 9 day of December, 1997

Read a second time this 20 day of January, 1998 923

Read a third time and finally passed this 20 day of January, 1998 923



Mayor



Corporate Secretary

Date Signed: January 27/98

BYLAW 83-97

Schedule "A"

BRAEMAR

AREA STRUCTURE PLAN

REVISED

December 1997

COCHRANE ENGINEERING

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1.0 INTRODUCTION

1.1 Background

The the majority of the subject parcel of 23.34 ha is owned by Strathcona County. Genstar Development Company owns approximately 2.3 ha north of Bison Way. In 1992, the RCMP detachment site (approximately 1.9 ha), as well as a portion of Bison Way, were developed on the northeast corner of the site. As part of the development of the RCMP site, a Design Brief dealing with servicing issues was prepared. Strathcona County wishes to provide for the future development of the remainder of the lands in question by preparing this Area Structure Plan. This plan will serve as a guide to future development, including land use and transportation.

1.2 Location

The plan area is located in Sherwood Park in Strathcona County (Figure 1). It occupies approximately the southern 300 m of NE 3-53-23-4 (Figure 2). Sherwood Drive forms the east boundary of the site. Baseline Road is approximately 0.8 km south and the future Lakeland Drive will be approximately 0.5 km north.

1.3 Planning Context

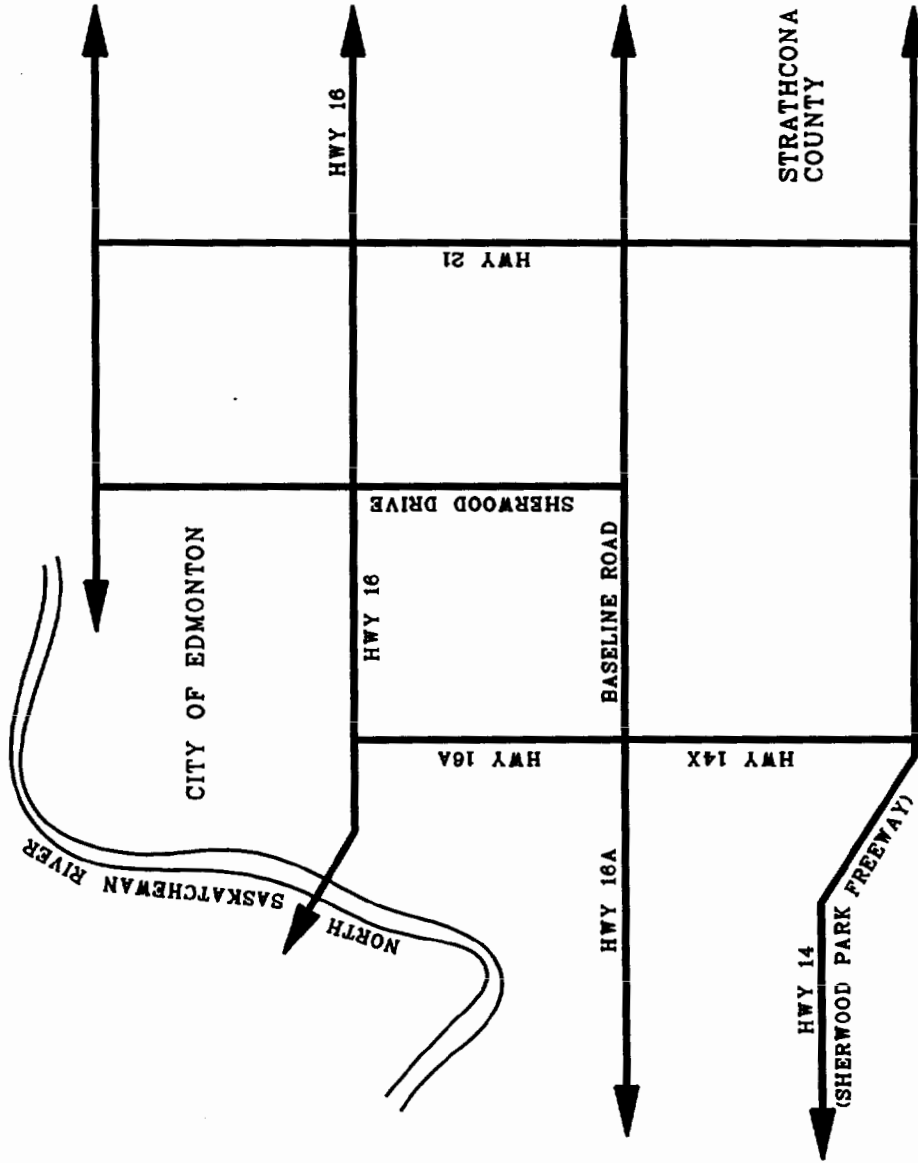
Municipal Development Plan

The *Strathcona County Municipal Development Plan 1986* (MDP) prescribes a three km buffer between future residential uses "north of Baseline Road and existing petroleum refineries, major petrochemical plants, and other heavy industries which have or could have a significant detrimental effect on the safety, use, amenity, or enjoyment of adjacent or nearby sites due to appearance, noise, odour, emission of contaminants, fire or explosive hazards, or dangerous goods". The MDP encourages light/medium industrial, commercial, or recreation uses in the buffer between heavy industrial use and lands designated for residential use.

The majority of the plan area is within the three km Heavy Industrial Buffer. This line is approximately 240 m west of and parallel to Sherwood Drive and corresponds roughly to the western limit of the RCMP detachment site on Bison Way.

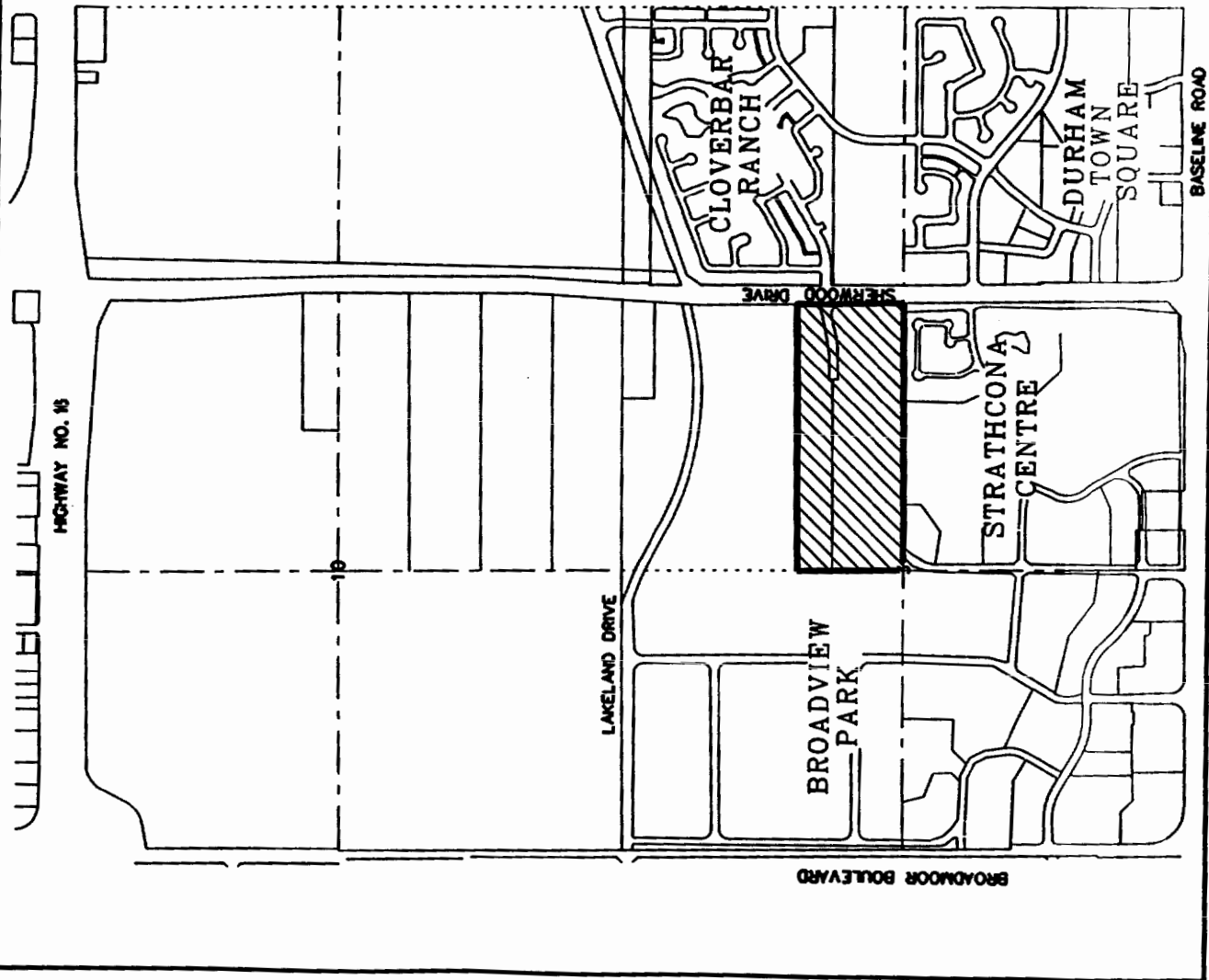
The plan area has been designated Light Industrial/Commercial and Residential land use in the *Sherwood Park Urban Service Area Long Term Land Use Concept* in the MDP.

**BRAEMAR
AREA
STRUCTURE
PLAN**
**Strathcona
County**



DECEMBER, 1997

**FIG. 1
REGIONAL
SETTING**



BRAEMAR
AREA
STRUCTURE
PLAN

Strathcona
 County



DECEMBER, 1997

FIG. 2
KEY PLAN

Area Structure Plans

The following Area Structure Plans have been prepared for the land adjacent to the ASP area:

Durham Town Square ASP: Bylaw 38-86 (SW 2-53-23-W4);
Clover Bar Ranch ASP: Bylaw 11-87 (NW 2-53-23-W4);
Broadview Park ASP: Bylaw 103-84 (W 1/2 3-53-23-W4); and
Strathcona Centre ASP: Bylaw 49-86 (SE 3-53-23-W4).

The boundaries of these plans are shown in Figure 3. Planned future land uses adjacent to the site are shown in Figure 5.

1.4 Existing Development

The existing development within the plan area is outlined in Figure 4. The RCMP detachment building exists on 1.7 ha of land in the northeast corner of the plan area along Sherwood Drive. The remainder of the land is in agricultural use. A trunk sewer crosses the plan area diagonally from the southwest corner to the northeast.

Two pipeline rights-of-way are located along the western limit of the plan area. The Peace Pipe Line Ltd. pipeline has a 12" diameter and maximum pressure of over 500 lb/in². The eastern-most pipeline, owned by Mobile Oil and managed by Rainbow Pipeline, is 24 in. with a maximum pressure of 780 lb/in². The *County of Strathcona No. 20 Land Use Bylaw 42-89* prescribes setback distances from the edge of the right-of-way of transmission pipelines if the pipeline is greater than 305 mm (12 in.) in diameter or 3448 kPa (500 lb per in²). Both of these pipelines meet both of these criteria. The setback distances are:

- 15 m for all residential, commercial, and industrial development;
- 200 m for extended medical treatment, public and private education, community recreation, and protective and emergency services; and
- 5 m for accessory development.

In addition, there is a minimum building setback requirement of five m from the edge of right-of-way of all transmission pipelines.

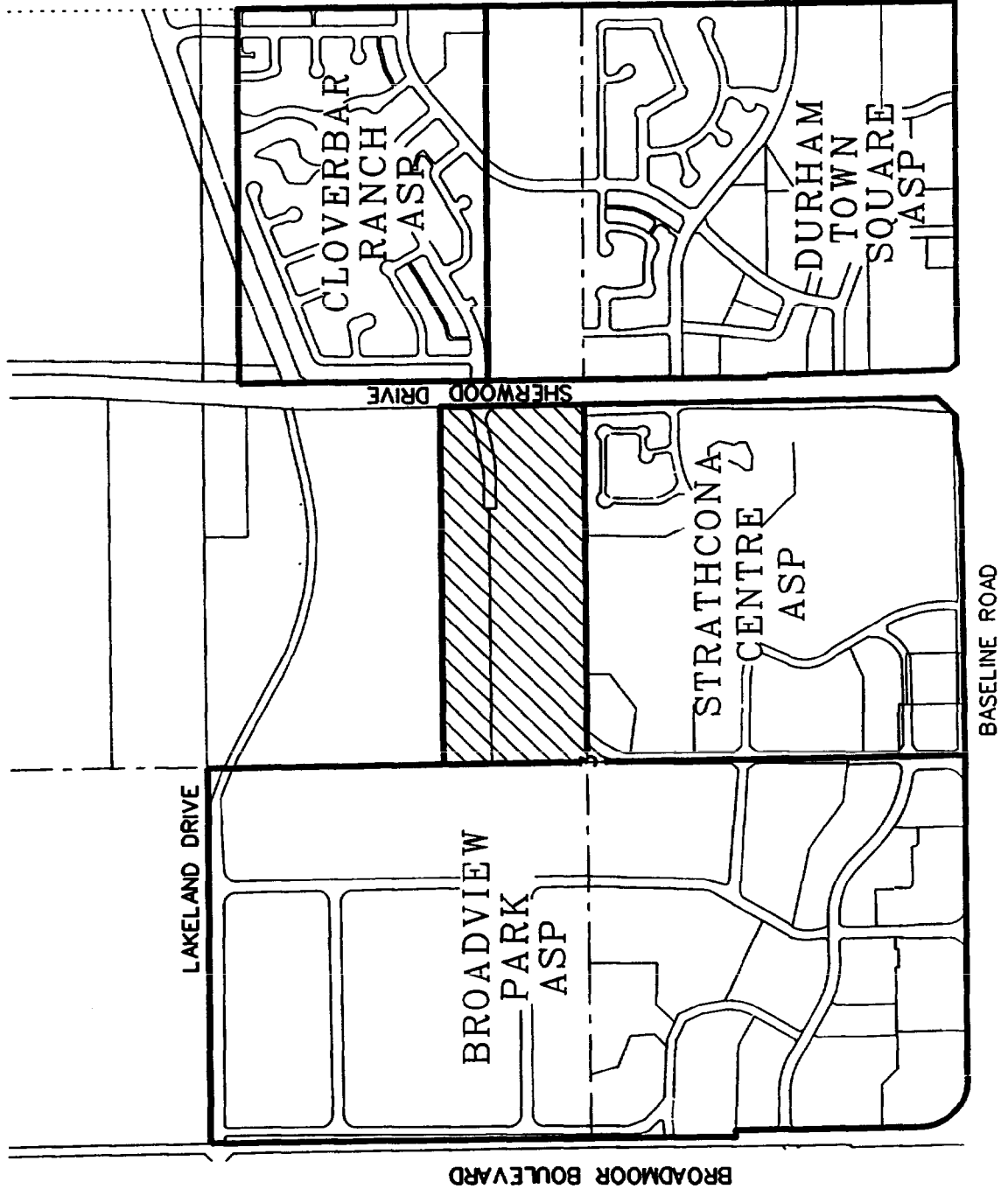
TransAlta Utilities has an overhead power line right-of-way along the southern limit of the plan area. The right-of-way is occupied by a 138 kV line on wooden posts.

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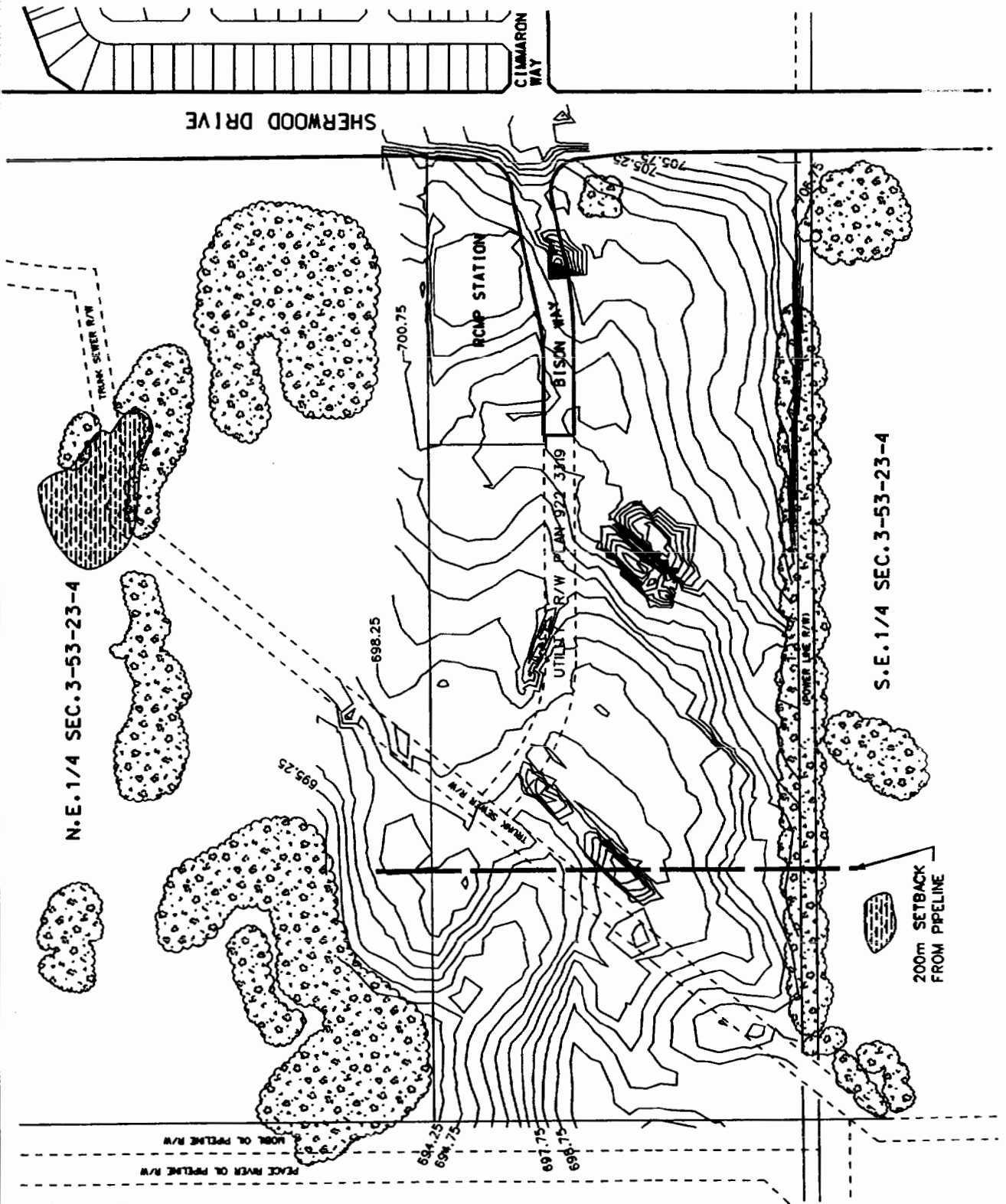


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**FIG. 3
ADJACENT
AREA
STRUCTURE
PLANS**



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BRAEMAR
AREA
STRUCTURE
PLAN
Strathcona
County

- TREE STANDS
- DEPRESSIONS
- CONTOURS



NOVEMBER, 1997

FIG. 4
EXISTING
FEATURES

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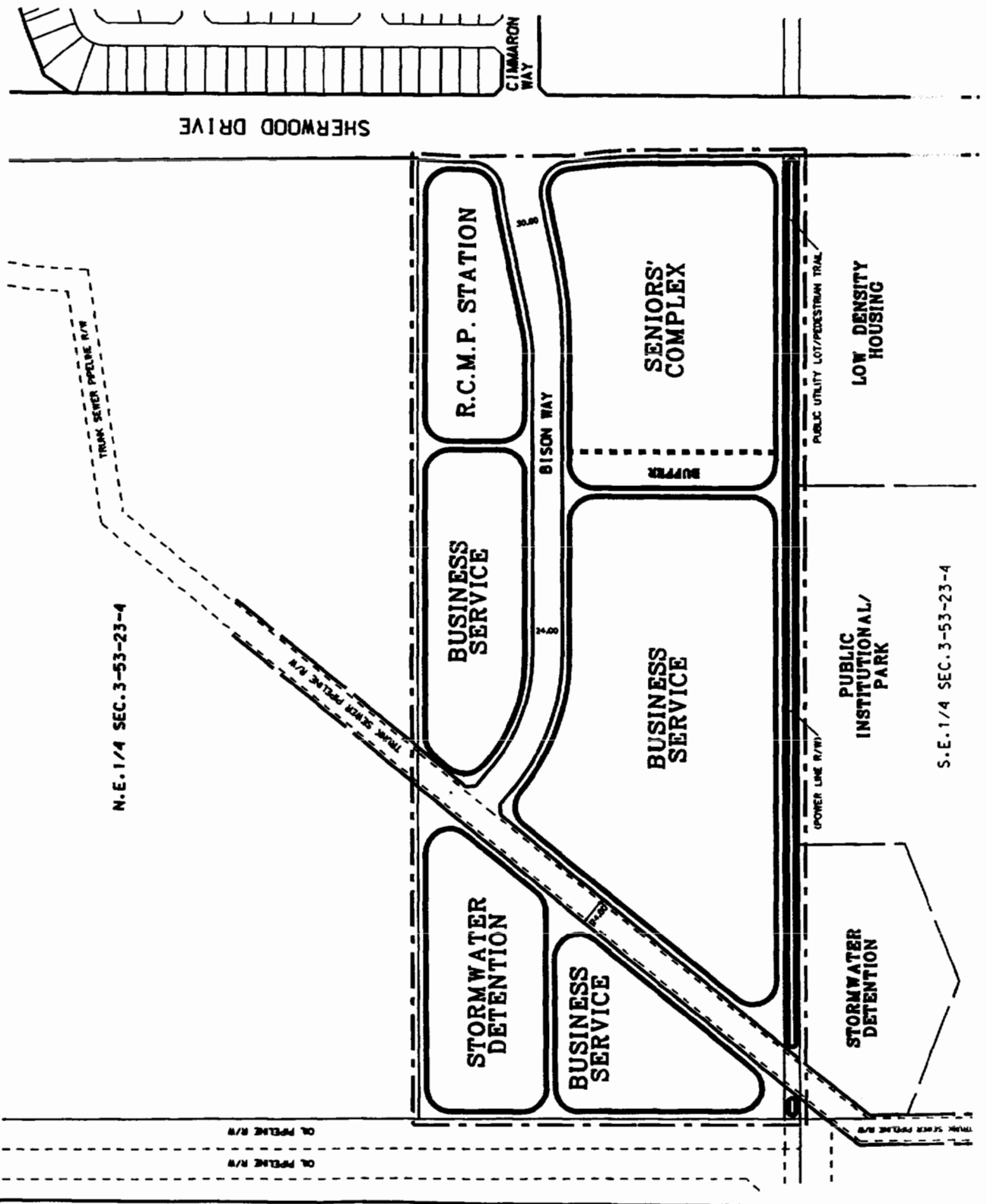
BRAEMAR
AREA
STRUCTURE
PLAN
Strathcona
County

--- ASP BOUNDARY



DECEMBER, 1997

FIG. 5
DEVELOPMENT
CONCEPT



2.0 BIOPHYSICAL ENVIRONMENT

2.1 Topography

The plan area slopes from southeast to northwest with an elevation drop of approximately 13 m. The topography of this site presents a development opportunity in that it affords a good view of downtown Edmonton from the eastern portion of the site. The slope of the site also provides excellent drainage.

2.2 Geomorphology and Soils

The geomorphological profile of the plan area consists of a layer of topsoil 100 mm to 500 mm deep that overlies a deep layer of glaciolacustrine clay and clay till. The topsoil has been removed from an area of approximately five ha in the southeast corner of the plan area.

2.3 Hydrogeology

Shallow groundwater is characteristic of the site with the depth to groundwater ranging from 0.65 m in low lying areas such as the northwest corner to 3.5 m below the surface in the southeast part of the site. Seasonal groundwater level fluctuations are estimated to be approximately 0.5 m over the course of a year. It is reported in the Engineering Design Brief that groundwater level fluctuations are a potential constraint that could limit development to slab-on-grade construction.

2.4 Hydrology

There are no clearly defined or significant water courses or water bodies within the plan area. Drainage is generally from the southeast to the northwest.

2.5 Vegetation

The property is currently used for agricultural purposes and does not support any significant tree stands or vegetation.

3.0 ACCESS/TRANSPORTATION

The existing access to the site is via Sherwood Drive. A short section of an east/west collector roadway, Bison Way, has been constructed to serve the RCMP detachment building. As indicated in Figure 1, the site is centrally located to major transportation routes. TransCanada Highway 16, the "Yellowhead Route", is approximately two km north of the site via Sherwood Drive. Provincial primary highways 14 and 21 are within three km to the west and east respectively. Freeway connections west to the City of Edmonton are available via Highway 16, Baseline Road (Highway 16A), and the Sherwood Park Freeway (Highway 14X).

4.0 DEVELOPMENT CONCEPT

4.1 Road Network/Access

The proposed road network for the plan area and adjacent lands consists of two collector roadways (see Figure 5):

- i) a 24 m wide north/south industrial collector roadway on the trunk sewer right-of-way to provide linkage to Baseline Road to the south and the future Lakeland Drive north of the plan area;
- ii) a 24 m wide east/west industrial collector roadway (Bison Way) to access Sherwood Drive and to access a proposed collector road on the alignment of the trunk sewer as mentioned above.

Additional access from Sherwood Drive will only be permitted with the approval of the County Engineer.

4.2 Land Use

Approved Area Structure Plans to the west and south provide for light industrial, office commercial, and institutional uses adjacent to the plan area. The MDP designates the land to the north for a combination of **Light/Medium Industrial** northwest of the site and **Light Industrial/Commercial** to the east. Based on the surrounding uses (existing and proposed) and on the provisions of the MDP, the site should be developed for office and light industrial uses. Industrial development should be restricted to those uses which will produce no negative impacts on adjacent residential development. Generally, institutional uses will also be acceptable, subject to the same criterion. However, in light of the provisions of the Land Use Bylaw regarding the separation of certain uses from high pressure petroleum pipelines, some such uses will not be permitted within 200 m of the west boundary of the site. The areas of each proposed land use are shown in Table 1.

Residential development exists or is proposed to the east, across Sherwood Drive, and south of the eastern portion of the site (the approved Strathcona Centre ASP). While Sherwood Drive will provide a clear separation between non-residential uses in the plan area and residential development to the east, the future development of some residential use in Strathcona Centre to the south suggests that similar uses would be appropriate within the plan area. Given that Sherwood Drive separates the plan area from community services (e.g., schools) to the east, residential development within the plan area must be adult-oriented. This will minimize the need for children to cross Sherwood Drive. Accordingly, residential development in the form of a seniors' complex is proposed for the southeast portion of the site.

Table 1 - Land Use Areas

Land Use Type	Area (ha)	Percent
Business Service	11.2	48.1
Seniors' Complex	4.8	20.6
Existing RCMP Detachment	1.7	7.3
Stormwater Detention	2.3	9.9
Public Utility Lot/ Pedestrian Trail	0.9	3.8
Collector Road	2.4	10.3
TOTAL	23.3	100.0

The height of development in this location should be carefully reviewed to ensure minimum interference with views of the City of Edmonton skyline enjoyed by residents immediately east of Sherwood Drive. Special controls on building height, and restrictions to use of the site to a seniors' complex, could be implemented through the use of a direct control district, as provided for in the *Municipal Government Act* and the County's Land Use Bylaw.

A transitional area of open space will be required between the seniors' complex and non-residential development to the west. This open space should be provided as part of the site immediately to the west, which should be developed in a comprehensive fashion with appropriate controls to ensure the maintenance of an effective transition.

The development concept also calls for the provision of a stormwater management facility in the northwest corner of the plan area. The TransAlta power line right-of-way will be dedicated as a public utility lot.

4.3 Population

The seniors' complex is expected to accommodate a population of approximately 450.

4.4 Reserve Dedication

The *Municipal Government Act* allows a municipality to take up to 10 percent of the gross area of a parcel being subdivided as school and/or municipal reserve. The subject plan area therefore has the potential to generate 2.4 ha of reserve. In this case, the entire 10 percent should be provided in the form of cash-in-lieu of land as provided in the *Municipal Government Act*.

5.0 SERVICING

5.1 Stormwater Management System

The proposed stormwater management system uses a major/minor system concept to convey flows to the northwest corner of the plan area. Major system flows, (i.e., flows greater than the five year event) are generally conveyed along the roadways. Minor system flows (i.e., flows less than or equal to the five year event) are conveyed by a network of storm sewer pipes.

A dry pond is proposed to detain storm flows at the northwest of the site and limit the discharge rate to pre-development rates. Because high groundwater levels are a constraint to the minimum elevation of the pond, the detention pond design will require construction of an embankment along the north and west boundary of the pond. The outlet structure will consist of a gravity flow culvert and an overflow emergency spillway/weir.

The stormwater discharged from the Strathcona Centre detention pond (see Figure 6) will be routed to bypass the proposed detention pond.

A recent review of servicing in the area indicates that the proposed detention pond in Braemar could be substantially reduced or eliminated, or could be expanded, depending on the final design requirements in conjunction with the Strathcona Centre facility. If the Braemar detention pond is reduced or eliminated, additional land would be available for business service use.

A temporary storm sewer system has been provided for the development of the road for the RCMP detachment building. The temporary system consists of a detention channel on the alignment of the future storm sewer which provides open channel gravity flow to the west and provides temporary detention for this phase.

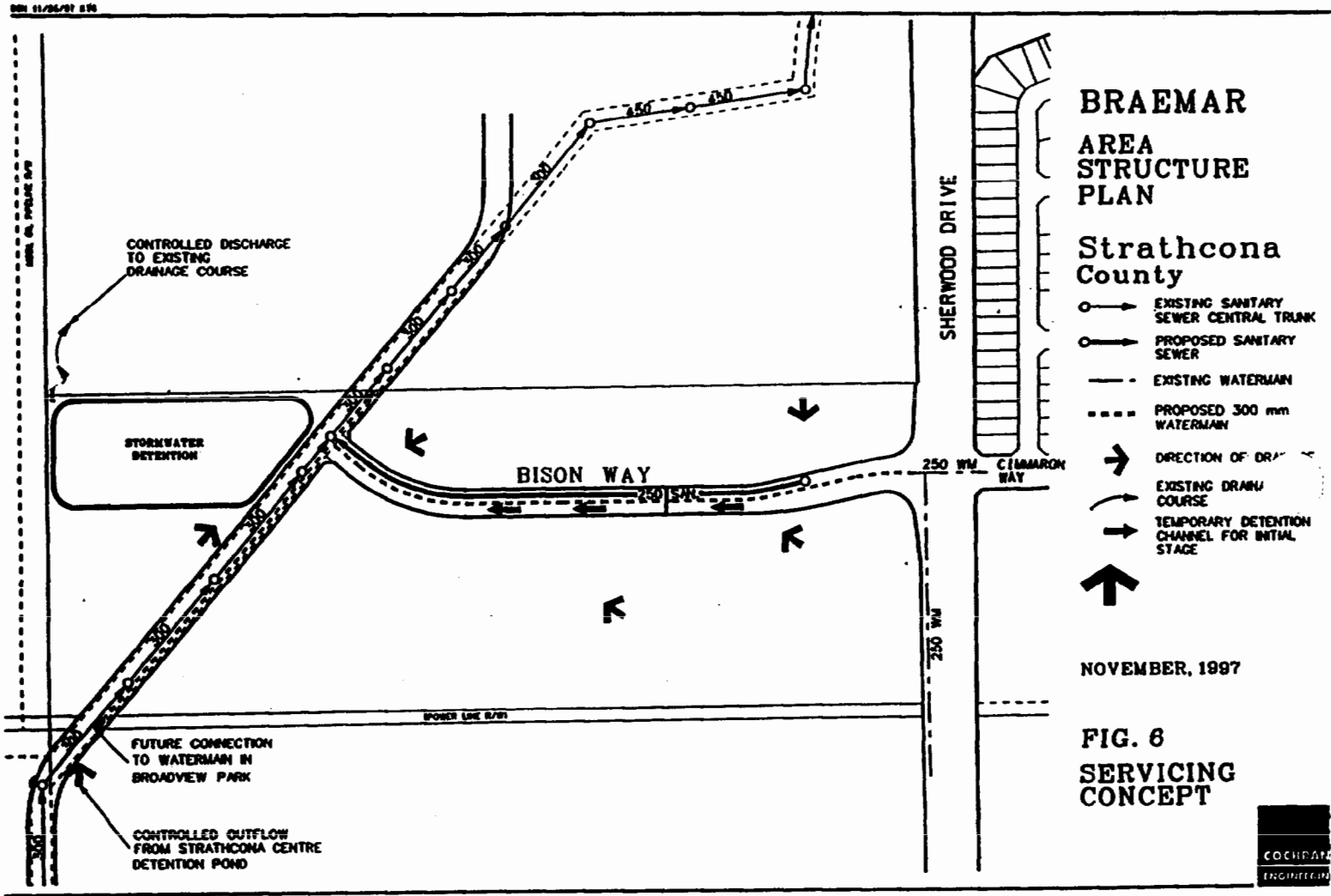
The Design Brief suggests that the type of development proposed for the plan area may be conducive to on-site detention of stormwater in parking lots and restricting outflow to the municipal stormsewer system. The benefit of this approach is a reduction in the size of municipal stormsewers and the associated cost. This approach should be reviewed as development proceeds.

5.2 Water Distribution System

Water for domestic consumption and fire protection will be provided initially by an existing 250 mm diameter watermain located in the Sherwood Drive right-of-way. An additional connection to this system is proposed in the future with a tie-in to an existing 400 mm watermain on Broadmoor Boulevard.

The proposed water distribution system, when complete, will provide a looped system consisting of 300 mm diameter mains within the east/west and north/south collector road rights-of-way.

Figure 6: Servicing Concept



5.3 Sanitary Sewer System

A 300 mm central trunk sanitary sewer crosses the property diagonally northeast/southwest on the west side of the plan area. On-site servicing can be connected along the length of the existing trunk sewer.

A 250 mm diameter sanitary sewer designed in accordance with County requirements for industrial/commercial land use is located in the proposed east/west collector roadway alignment. This sewer provides sufficient capacity for a variety of land uses including intense office development on the entire plan area or low density multiple residential development in the southeast corner. Sanitary sewer laterals from the collector sewer will be provided as required.

The Design Brief indicates that the existing Central Trunk Sanitary Sewer will have insufficient capacity available at full development of the sanitary sewer catchment area. The Design Brief recommends that volume monitoring in the Central Trunk Sewer be implemented while development proceeds and, if required, an alternate trunk sewer be constructed to accommodate sanitary sewage from most of the area between Broadmoor Boulevard and Sherwood Drive.

5.4 Shallow Utilities

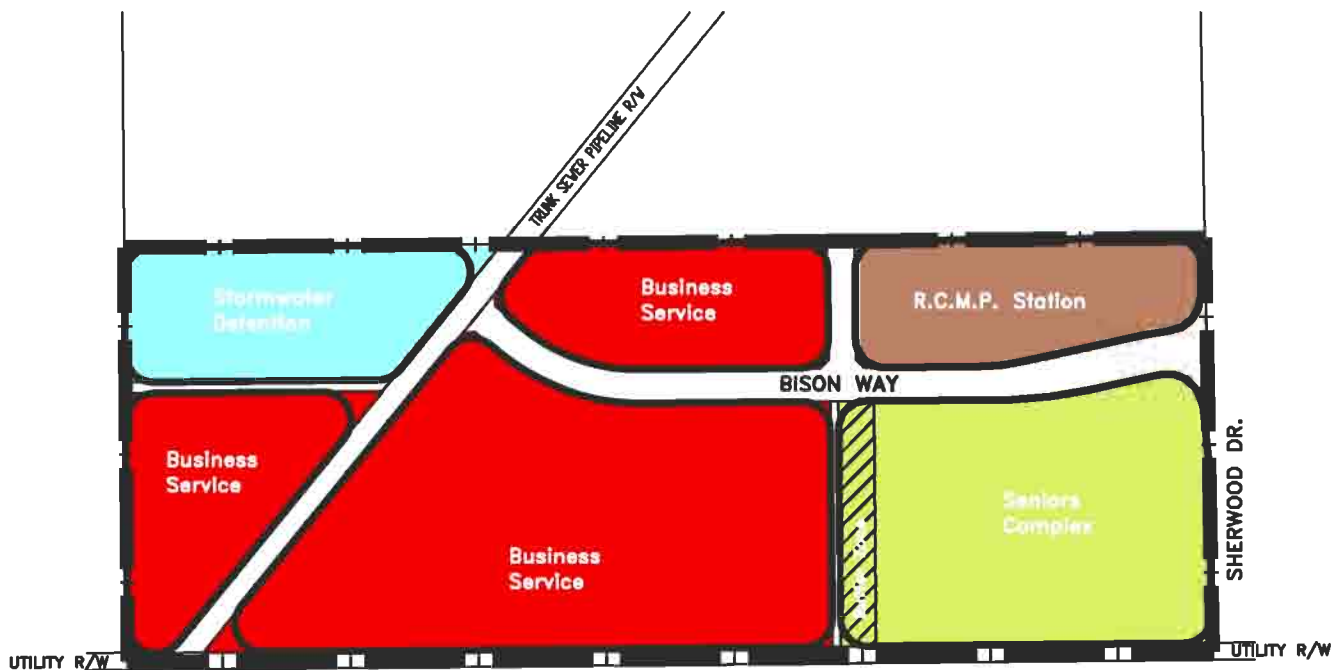
Power, gas, telephone, and cable television services will be provided by utility companies. The services are either contiguous to the property or can be made readily available by short extension of existing facilities.

6.0 IMPLEMENTATION

An amendment to the Land Use Bylaw map and appropriate subdivision will be required for development to occur. The Land Use Bylaw district applied to the non-residential portion will be a standard non-residential district, or a direct control district allowing a broader range of permitted uses and/or site-specific development regulations consistent with the provisions of this plan.

For the part of the plan area to be developed for the seniors' complex, a direct control district will also be required.

Development is expected to progress generally from east to west. However, each new stage must be evaluated to determine whether construction of all or part of the dry pond is required. It is also possible that development may begin in the southwest corner of the plan area as access and servicing become available from the south.



Braemar Area Structure Plan

Bylaw 83-97

Date of Adoption 20-Jan-98

- Business Service
- R.C.M.P. Station
- Stormwater Detention
- Seniors Complex
- Buffer Zone



- Road Plan 
- ASP Boundary 
- Sewer Truck R/W 