

Breckenridge Greens Neighbourhood Structure Plan

Bylaw 9925 October 8, 1991

Office Consolidation August 2004

Prepared by:

*Planning and Policy Services Branch
Planning and Development Department
City of Edmonton*

Bylaw 9925 (as amended) was adopted by Council in October 1991. In August 2004, this document was consolidated by virtue of the incorporation of the following bylaws, which were amendments to the original Bylaw 9925. This Plan is an amendment to the Lewis Farms Area Structure Plan, Bylaw 8733, as approved by Council in June 1988.

Bylaw 9925 Approved October, 1991 (to adopt the Breckenridge NSP into the Lewis Farms ASP)
Bylaw 11865 Approved September 14, 1998 (addition of "low density residential" land use)
Bylaw 12413 Approved October 11, 2000 (redesignation & minor expansion of small northeast area)

Editor's Note:

This is an office consolidation edition for the Breckenridge Greens Neighbourhood Structure Plan, as approved by City Council on October 8, 1991. This edition contains all amendments and additions to Bylaw 9925. For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owner's names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

City of Edmonton
Planning and Development Department



Breckenridge Greens Neighbourhood Structure Plan

Prepared by

Mackenzie Associates Consulting Group Limited

Professional Planners

in association with

I. D. Engineering Company Limited

Professional Engineers

Cornish and Robinson

Golf Course Designers Ltd.

Hardy BBT Limited

on behalf of

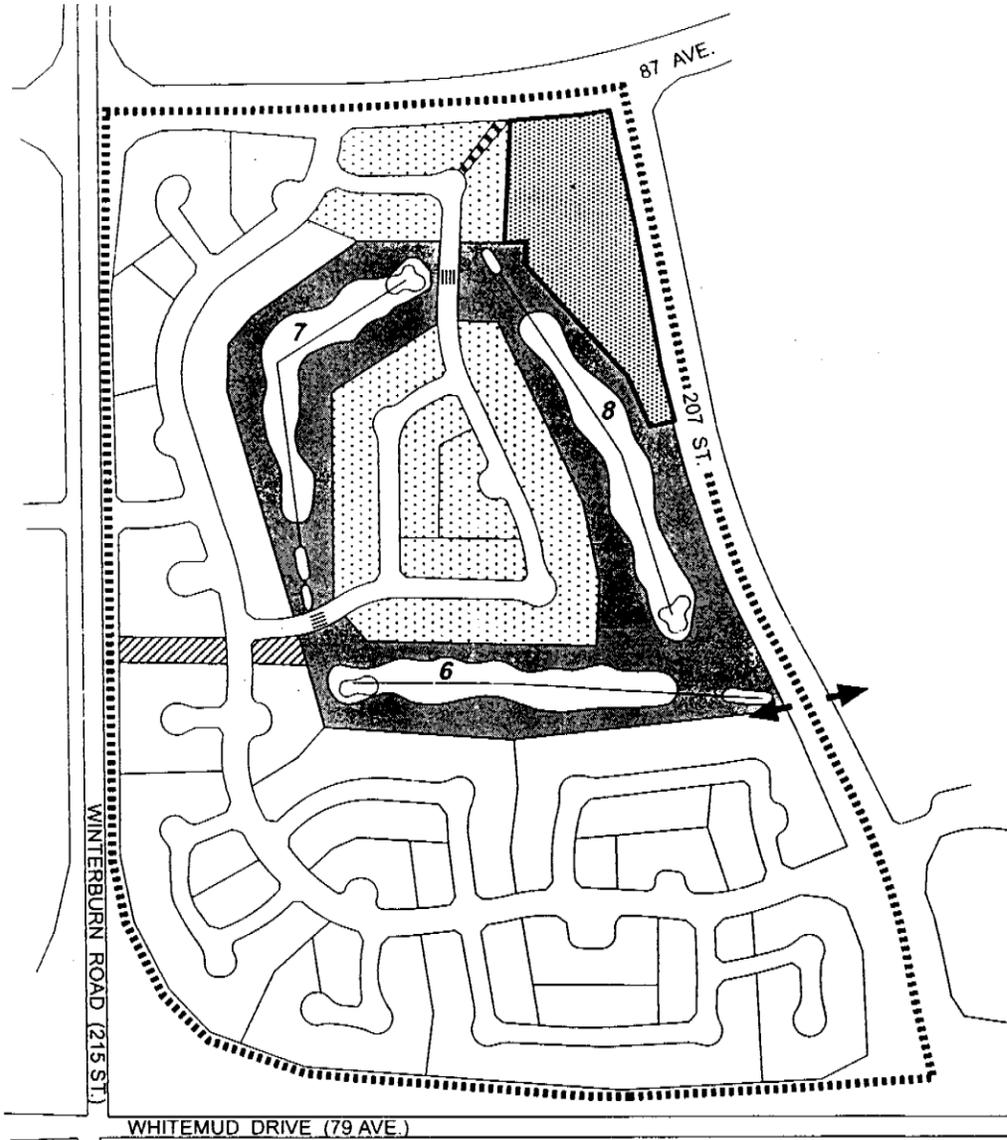
Lewis Estates Developments

September, 1991

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Breckenridge Greens (as Amended by Bylaw 12413, October 11, 2000)



**BYLAW 12413
AMENDMENT TO
BRECKENRIDGE GREENS
NEIGHBOURHOOD STRUCTURE PLAN
(as amended)**



- | | |
|---|--|
|  Single Family |  Walkway |
|  Low Density Residential |  Grade Separated Crossing |
|  Multiple Family |  Grade Level Crossing |
|  Golf Course |  Boundary of Breckenridge Greens N.S.P. |
|  Public Utility Lot |  Boundary of Amendment |

Forward

In order to encourage a continuation of development within the City of Edmonton, while at the same time ensuring that citizens of the City enjoy a high standard of development with quality services for the lands covered by this Neighbourhood Structure Plan, the Council of the City of Edmonton has made the policy decision to approve this Neighbourhood Structure Plan recognizing the following limitations and acknowledgements.

- (a) that final approval of residential servicing agreements remains subject to a determination by the City of servicing performance standards necessitated by soil conditions as outlined in detail in the body of the Plan and that the City, by approval of the Neighbourhood Structure Plan, does not warrant approval of any residential servicing agreement or future redistricting;
- (b) that the City will determine what additional servicing performance standards specific to the lands are required as covered by the Neighbourhood Structure Plan in order to provide the quality services expected by the citizens of the City of Edmonton;
- (c) that all development expenses and other costs, of every nature and kind, are expended at the developer's sole risk and that any additional expenses incurred by the developer as a result of any modifications resulting from the aforesaid servicing performance standards are for the sole account of the developer; and
- (d) that notwithstanding Neighbourhood Structure Plan approval, redistricting approval or subdivision approval, the developer will not apply for development permits or commence construction of buildings, surface and underground improvements until the aforesaid servicing performance standards have been adopted by the City and servicing agreements encompassing those standards have been executed and delivered, it being understood that this provision does not apply to site preparation work already completed or in progress for which a development permit or other approval has already been issued by the City.

Chapter 1: Introduction

1.1 Purpose of Document

This document is the Neighbourhood Structure Plan for Neighbourhood 2 as defined by the Lewis Farms Area Structure Plan. Neighbourhood 2 is named Breckenridge Greens. The Plan has been prepared in accordance with terms of reference for Neighbourhood Structure Plans established by the City of Edmonton Planning and Development Department, and special provisions for Neighbourhood Structure Plan approval pertaining to the integration of resource operations and urban development as required by City Council in the Lewis Farms Area Structure Plan.

This Neighbourhood Structure Plan is intended to implement the Lewis Farms Area Structure Plan by establishing a framework according to which future subdivision and development of land can take place within Neighbourhood 2 on an orderly and comprehensive basis.

1.2 Background

The Lewis Farms Area Structure Plan (A.S.P.) is an area structure plan as contemplated by Section 64 (1) of the *Municipal Government Act* which defines a general pattern of future development for a 10 square kilometer (four square mile) area of land in the City of Edmonton. The A.S.P. plan area is located in west Edmonton immediately west of the *Transportation Utility Corridor (TUC)* and immediately south of Stony Plain Road (Highway 16). The Lewis Farms A.S.P. was approved by Bylaw by the Municipal Council of the City of Edmonton on June 14, 1988 (Bylaw 8733).

Amended by Editor

The Lewis Farms A.S.P. establishes a general land use pattern and transportation structure for the future development of the Lewis Farms area, and identifies large areas for residential and business/industrial use. Within the area identified for residential use, the A.S.P. defines eight future residential neighbourhoods. The A.S.P. also specifies that a Neighbourhood Structure Plan (N.S.P.) be prepared for each defined neighbourhood unit, and that each N.S.P. should be approved by City Council prior to any subdivision being permitted within that neighbourhood area.

1.3 Plan Area

The area to which this document applies (hereinafter referred to as the Plan Area) is the area identified on Figure 1 as Neighbourhood 2. This area corresponds to the area defined as Neighbourhood 2 in the Lewis Farms A.S.P.

1.4 Terms of Reference and Land Ownership

The original Breckenridge Greens NSP was prepared by Mackenzie Associates Consulting Group Limited, Professional Planners. Municipal engineering information and advice was provided by I.D. Engineering Company Limited, Professional Engineers. Geotechnical engineering information and advice was provided by Hardy BBT Limited.

Amended by Editor

Lewis Estates Developments is the developer of a 323.7 hectare (800 acre) tract of land within the Lewis Farms A.S.P. Plan Area. The registered owner of the land is *a private corporation* (100% interest).

Amended by Editor

The Neighbourhood 2 Plan Area encompasses approximately *52.1* hectares (*128.7 acres*).

*Bylaw 12413
October 11, 2000*

Figure 1: Location

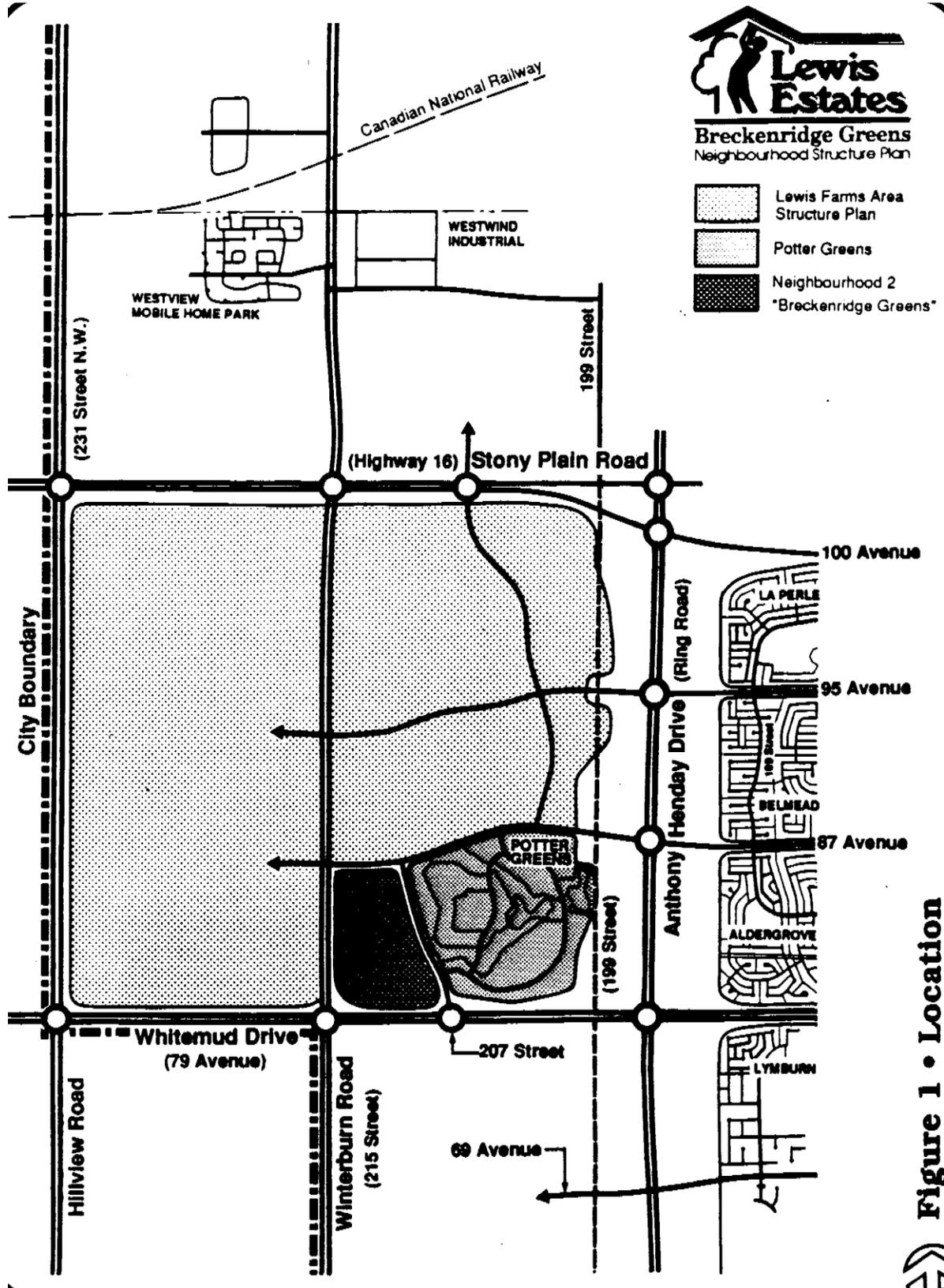


Figure 1 • Location

Chapter 2: Context and Development Factors

2.1 Location and Setting

The general location of the Neighbourhood 2 Plan Area which is illustrated on Figure 1 is identified in more detail on Figure 2. Generally, the Plan Area lies immediately east of Winterburn Road (215 Street) and immediately north of 79 Avenue (*Whitemud Drive*). Both Winterburn Road and 79 Avenue are existing two-lane section roads, developed to rural standards, which form part of the established roadway grid in West Edmonton.

Amended by Editor

The precise boundaries of the Neighbourhood 2 Plan Area will be defined by the following features:

- a) the south boundary of the Plan Area is defined by the north edge of the right-of-way of 79 Avenue which is planned to be developed to freeway standards as a westward extension of Whitemud Drive (the north edge of the right-of-way has been defined by the Transportation Department);
- b) the east boundary is defined by the future alignment of 207 Street (*Lewis Estates Boulevard*), a planned arterial roadway;
- c) the north boundary is defined by the future alignment of 87 Avenue (*Suder Greens Drive*), a planned arterial roadway, and
- d) the west boundary is defined by the east edge of the future right-of-way of Winterburn Road (215 Street) which is planned to be developed to arterial standards.

Amended by editor

2.2 Physical Features

2.2.1 Topography

The topography of the Plan Area consists of attractively rolling terrain. The Area slopes downward from a ridge of higher ground (approximate elevation 701 metres) along the west boundary of the Plan Area toward the east edge of the Plan Area. The central and southeastern portions of the Area are lower (lowest elevation is approximately 694 metres adjacent to 207 Street in the southeast corner of the Plan Area) and several minor

drainage routes are evident. Existing overland drainage routes will be preserved during construction. Within the northwest and southwest corners of the Plan Area there is a distinct rise to an elevation of approximately 701 metres. In comparison with other land developed east of the Plan Area, this high point of elevation is approximately 18 metres higher than land immediately east of the R.D.A.. Major topographic features of the Plan Area are highlighted on Figure 2.

2.2.2 Soils

The geotechnical (soils) and hydrogeological (groundwater) setting has been a significant factor in the general planning for development in the Lewis Farms area, and has been analyzed by Hardy B.B.T. Limited. The soil stratigraphy over the Plan area generally comprises lakelaid clay soils grading with depth into coarser grained silt and sand sediments. Topographically higher areas have a surface mantle of topsoil, whereas lower lying areas are covered by a wet, organic peat deposit.

Subsoil conditions in the Plan Area have been determined and groundwater conditions monitored in an ongoing series of geotechnical investigations carried out in 1984, 1988 and 1990. Soil deposits have been sampled for laboratory testing programs. Piezometers have been installed and a regular program of groundwater level monitoring continues.

The organic soils will require removal for proposed development purposes, but may be used in association with certain recreational uses such as the golf course. Site grading will utilize clayey soils from the Plan Area and adjacent lands to raise the ground surface in selected areas. The majority of residential foundations will be constructed in the clay stratum. Underground servicing will optimize site grading design to position piping with minimum depths of embedment below the groundwater table.

Construction procedures for the residential subdivision will follow conventional practice over the majority of the Plan Area. There are areas where specialized techniques for buried service installation and roadway construction will be utilized, however, the procedures are common and have been proven successful in similar conditions within the Edmonton area. Development planning, design cost estimating has considered the various subsurface conditions in the Plan Area and the end product requirements.

Further details on the developer's approach to servicing development in the Plan Area are provided in Chapter 5 of this document.

2.2.3 Drainage

The existing pre-development pattern of natural drainage in the Plan Area generally follows the existing contours of the land. The general directions of natural drainage are illustrated on Figure 2 and indicate that the Plan Area drains naturally from west to east. From the Plan Area the direction of natural drainage continues southeastward under 207 Street, across golf course lands in Neighbourhood 1 and ultimately into the City of Edmonton storm drainage system.

2.2.4 Vegetation

There is no mature tree cover in the Plan Area. Existing vegetation is composed of cropped open field or grassland in the topographically higher areas, and low scrub brush in the areas of organic soils. Most of the natural vegetation will be removed in the course of development of the Plan Area.

2.2.5 Existing Roadways

Winterburn Road (215 Street) is oiled and currently developed at a rural road standard. It will be upgraded to a major arterial roadway and function as part of the major arterial roadway grid to serve west Edmonton and to provide local access to residential development planned within the Neighbourhood.

79 Avenue is planned to be replaced in the long term by a major, freeway-standard roadway that would be an extension of Whitemud Drive. In the short to medium term future, however, 79 Avenue will continue to function as a rural grid road and provide access to initial stages of residential development in the southern neighbourhoods of the Lewis Farms area.

Arterial roads from West Jasper Place will, when extended, provide good access to existing built, up areas, shopping and schools. Only 87 Avenue (*Webber Greens Drive*) will connect to the Ring Road when built, allowing all directional access and connections to the future 100 Avenue roadway.

Amended by Editor

In summary the Plan Area is well served by major roads which define the Neighbourhood boundaries and provide opportunities for more intensive land use at highly accessible locations.

2.3 Existing Uses

2.3.1 Existing Land Uses

Those portions of the Plan Area featuring useable soils have been cleared and used for agricultural purposes. Lower portions of the Plan Area featuring predominantly organic soils have not been cleared for agricultural use and remain vacant in a predominantly natural state. There are no existing buildings or structures relating to existing or previous agricultural use which possess any significance as development constraints.

The most significant man made feature of the Plan Area is the golf course which is now under development. Other features include minor oil and gas pipeline facilities which have been installed for the transportation of oil and gas products through gathering and transmission networks. These oil and gas facilities are discussed in the following section.

2.4 Oil and Gas Facilities

Existing oil and gas facilities in the Plan Area include a major oil transmission pipeline which is owned and operated by *a private corporation*, a minor flowline which is owned and operated by *a second private corporation*, and a natural gas service line owned, and operated by *a third private corporation*. The location of these existing facilities within the Plan Area are indicated on Figure 2.

Amended by Editor

2.4.1 Pipeline Facilities

The *transmission pipeline*, traverses the Plan Area in an east to west alignment, and occupies an easement 18.3 metres (60 feet) in width as illustrated in Figure 2. This pipeline is a federally licensed facility with approval to transport oil and a full range of petroleum products from refineries in the Edmonton area to markets in the lower mainland of British Columbia. The actual pipeline is located 6.1 metres (20 feet) south of the north edge of the easement. The easement area must be kept free of permanent structures and roadway crossings of the pipeline will require special construction techniques to be undertaken in collaboration with the pipeline operator. The number of roadway crossings of the pipeline should be minimized. Portions of the easement not required for roadway purposes can be used as open space in conjunction with adjacent uses.

Amended by Editor

The *minor* flowline traverses the Plan Area in an east-west alignment adjacent to the south boundary of the existing *transmission pipeline* easement, and then bends to proceed north within the Plan Area, parallel to Winterburn Road (215 Street). This flowline transports the petroleum resources produced by local oil wells beyond Neighbourhood boundaries to a central collection location for treatment and storage. The flowline occupies an easement 5.0 metres (16.4 feet) in width as illustrated in Figure 2. Only the north-south segment of this flowline will be relocated as part of the subdivision servicing process. It will be incorporated into a new alignment within the future road right-of-way for Winterburn Road (215 Street). The east-west segment of the flowline will be incorporated into easements within the golf course and along the boundaries of future parcels to be created in the planned pattern of subdivision.

The existing natural gas service line occupies an easement in a north-south alignment along the Plan Area's west boundary. This natural gas service line is planned to be relocated into the future road right-of-way for Winterburn Road (215 Street) as part of the subdivision servicing process.

Figure 2: Development Factors

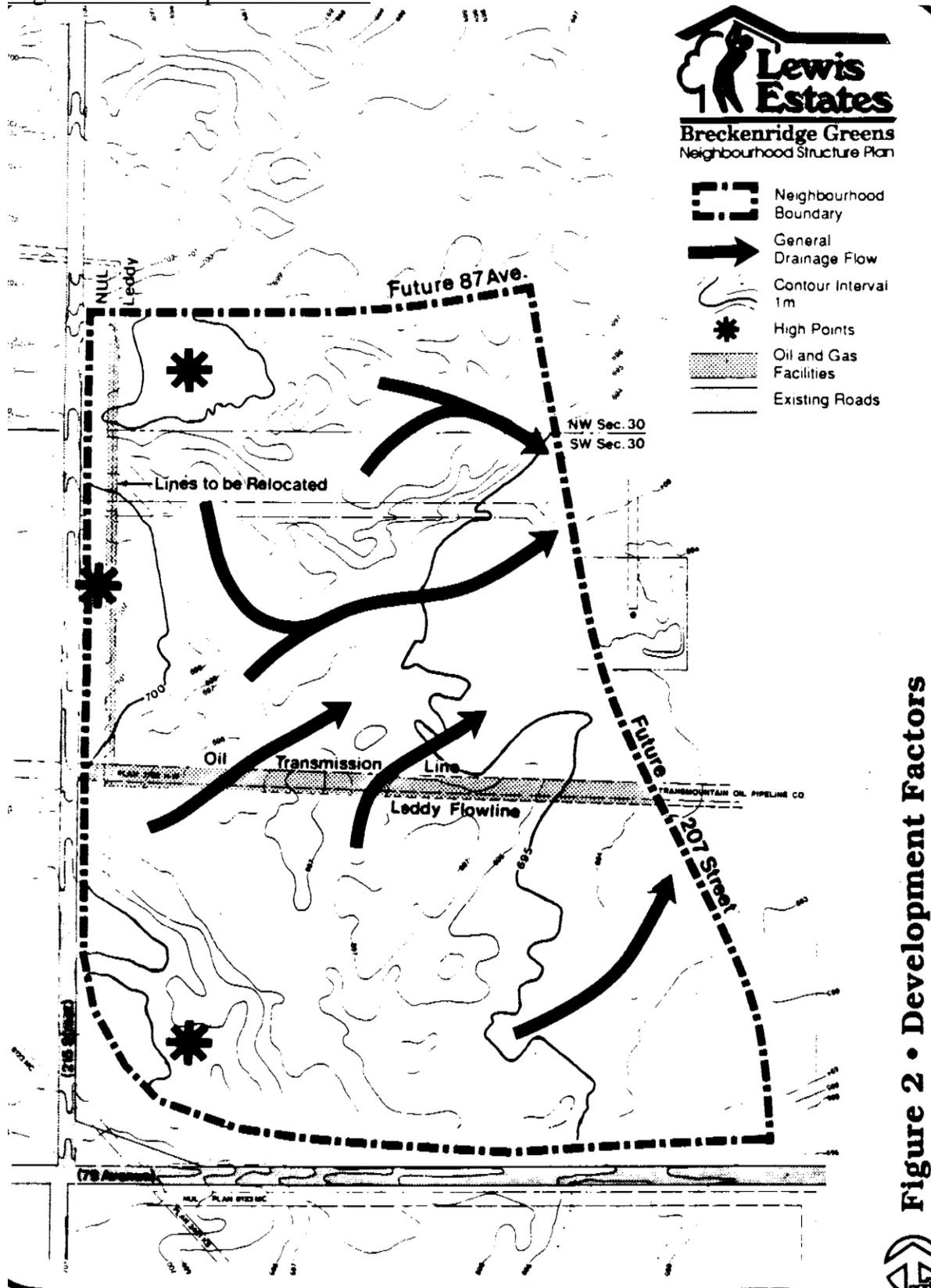
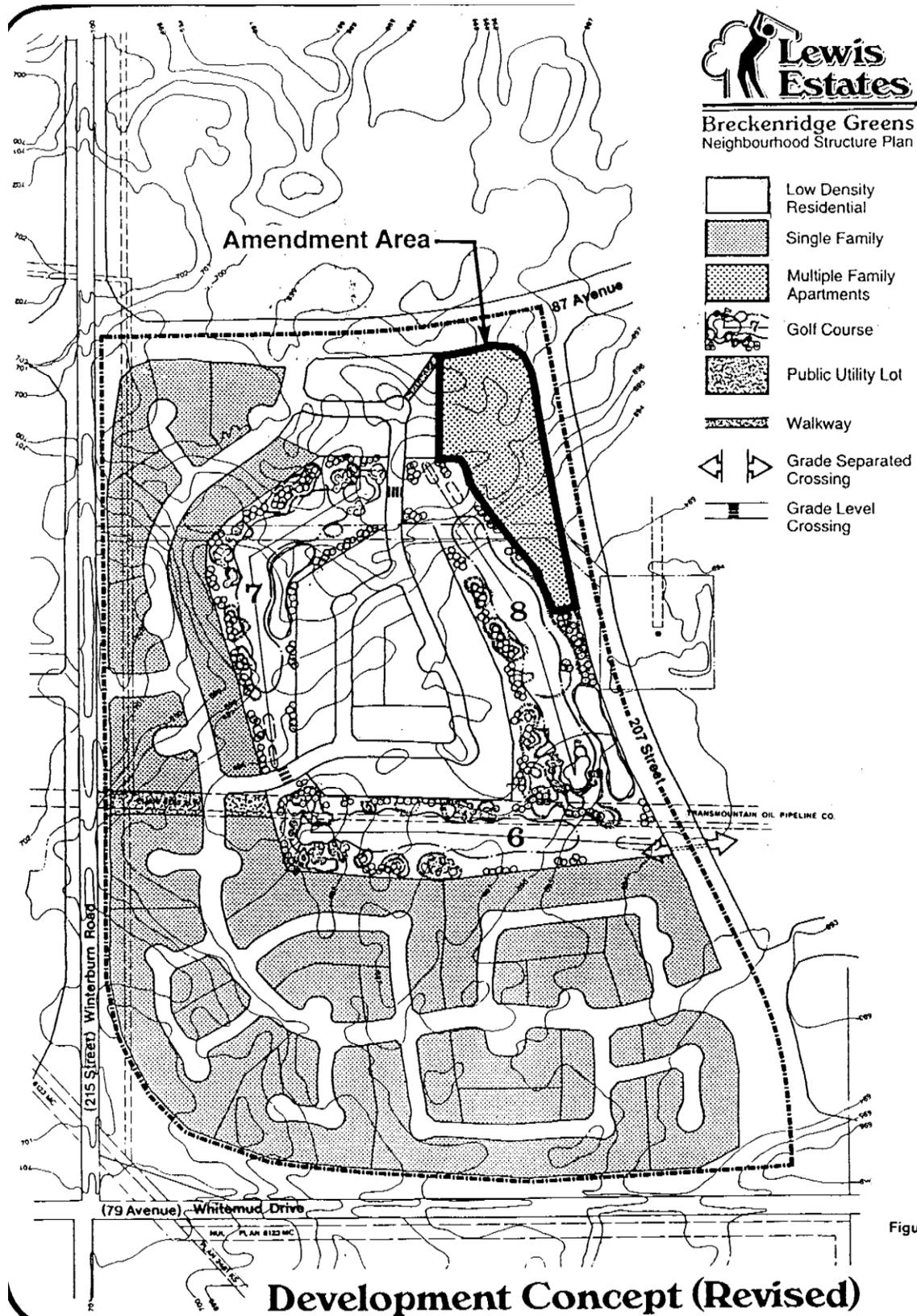


Figure 2 • Development Factors

Figure 3: Development Concept (as Amended by Bylaw 12413)



Chapter 3: Development Objectives

The primary objective of the Development Concept proposed for Neighbourhood 2 is to provide a framework for the subsequent subdivision and development of the Plan Area. Specific objectives of the Development Concept are:

- i) to ensure that the planned pattern of development conforms to the Lewis Farms A.S.P. as approved by City Council;
- ii) to define a comprehensive pattern of development that will permit the Area to be developed in an orderly and economical manner;
- iii) to ensure that the planned development pattern respects and takes advantage of the existing natural features of the Area, such as the areas of higher elevation which afford an opportunity for views, and the geophysical configuration of low lying areas which provide an excellent opportunity for golf course development; and
- iv) to ensure that the planned pattern of development achieves an attractive and functional integration of the existing natural features and oil and gas pipeline facilities in the Area with future residential and recreational land uses.

These objectives form the basic design philosophy according to which the Development Concept for Neighbourhood 2 was formulated. The Development Concept is described in Chapter 4.

Chapter 4: The Development Concept

4.1 Description of the Development Concept

The Development Concept proposed for Neighbourhood 2 is illustrated on Figure 3. It consists of a proposed land use pattern and circulation pattern which, in combination, are intended to define the basic structure of future land use planning and development within the Plan Area.

The general urban design concept is based upon the objective of integrating a planned golf course (three fairways of the 18 fairway golf course which is planned for portions of four separate neighbourhoods in the Lewis Farms area) with high quality residential development.

The topography of the Area exerts a significant influence on the urban design which is expressed in the Development Concept through the following features:

- a) the location of portions of golf course fairways in areas of relatively low lying land in the Plan Area; and
- b) the creation of cells or clusters of residential development on the topographically higher elevations of land.

Portions of the proposed golf course are also located on portions of the *transmission pipeline* easement.

Amended by Editor

Residential land uses, predominantly low density *residential and* single family development, are proposed in three general clusters which are defined by the golf course fairways: a south cluster of *single family residential*; a central cluster of *low density residential*; and a north cluster of *both single family and low density residential*.

*Bylaw 11865
September 14, 1998*

Other proposed uses within the Area include *one* parcel of multi-family residential use located adjacent to the golf course and in the north residential cluster.

*Bylaw 11865
September 14, 1998
Amended by Editor*

A quantitative summary of the land uses proposed within the Neighbourhood is presented on Table 1. The following sections describe the land use and circulation components of the plan. With full development of the land use components which comprise the plan, Neighbourhood 2 in the Lewis Farms Plan Area will become a distinct and identifiable new community.

4.2 Residential

Residential development in the Plan Area is proposed in three general clusters, and the north cluster comprises a blend of multiple family residential uses with single family *and low density residential* uses. Attempts have been made through the design of the Neighbourhood to provide some separation of single family uses from the arterials which form the boundaries of the neighbourhood. Fairway 8 of the golf course has been located parallel to 207 Street (*Lewis Estates Boulevard*) to provide a transition zone to reduce the effects of noise generated by vehicle traffic on this roadway. Where single family uses back on to the arterial roadways normal screen fencing (1.8 metres in height) will be constructed to visually separate the two land uses. The City Transportation Department has indicated that treatment to minimize the potential noise intrusion into the Plan Area from 79 Avenue (Whitemud Drive) will involve a 1.5 metre high berm centred on rear lot property lines, with normal screen fencing 1.8 metres in height on top.

*Bylaw 11865
September 14, 1998*

Amended by Editor

The City's requirements for noise attenuation will be addressed at the subdivision stage to the satisfaction of the General Manager of Transportation. Lots have been sized to accommodate the berm requirement by incorporating extra depth into the single family residential lots backing on to 79 Avenue. The identified berm and fence treatment will be constructed by the developer in conjunction with the development subdivision stage.

The proposed multiple-family residential area is intended to provide an alternative housing type within the Plan Area. The area proposed for multiple-family use is located in the northeast portion of the Neighbourhood, adjacent 87 Avenue (*Suder Greens Drive*) and 207 Street. Access will be provided to this area from an all-directional access point on 207 Street which has been approved by the Transportation Department. *Multiple-family parcels in this area will be designated RA7 under the Zoning Bylaw to permit low-rise apartment development at a medium density.*

Amended by editor

*Bylaw 12413
October 11, 2000*

Some planned lot housing may be included within the area designated as single family, depending upon market conditions. If this type of housing is developed, however, it will not comprise more than 20% of the total amount of single detached housing in the Plan Area, and it will be designed to integrate into the neighbourhood.

The central cluster and a portion of the north cluster are designated as "low density residential".

*Bylaw 11865
September 14, 1998
and
Amended by Editor*

Areas designated as “low density residential” land use areas are intended to accommodate a range of low density residential land use types that could include housing forms permitted under the RSL, RPL, RF1, and RF4 districts of the Zoning Bylaw. These housing form could therefore include:

Bylaw 11865
September 14, 1998
and
Amended by Editor

- a) *Single Detached Housing*
- b) *Single Detached Housing with attached garages in a suburban setting that provides the opportunity for the more efficient utilization of undeveloped suburban areas.*
- c) *Single Detached Housing that provides the opportunity for the more efficient utilization of suburban areas, while maintaining the privacy and independence afforded by Single Detached Housing forms; and*
- d) *Semi-detached Housing, including groups of semi-detached housing units created for condominium ownership, on appropriately designed parcels of land.*

4.3 Circulation System

4.3.1 The Road Network

The circulation system proposed to serve the land use pattern of the Plan Area is shown on Figure 4. The circulation system consists of a well defined hierarchy of roadways which include:

- a) the peripheral arterial roadways which form part of the planned arterial roadway grid of the Lewis Farms area including Winterburn Road (215 Street) to the west, 87 Avenue to the north, 207 Street to the east, and 79 Avenue - Whitemud Drive to the south;

According to information provided by the *Transportation and Streets Department* 207 Street is planned as a 6 lane urban arterial divided roadway up to the neighbourhood collector intersection and north of this intersection as a 4 lane divided roadway; 87 Avenue will be an urban arterial divided roadway with 4 lanes; Winterburn Road (215 Street) will be developed as a 6 lane urban arterial divided roadway; and 79 Avenue will become a 6 lane urban freeway divided roadway. In addition the *Transportation and Streets Department* has indicated that a 1.5 m berm, centred on the property line, with a 1.8 m uniform screen fence will be required along the south boundary of the Plan Area adjacent to 79 Avenue.

Amended by Editor

- b) a system of collector roadways (accessing 87 Avenue (*Webber Greens Drive*) from the north, 207 Street from the east, and Winterburn Road (215 Street) from the west) to provide a well defined internal collector roadway system for the Neighbourhood; and
- c) local residential roads, comprising mainly loops or cul-de-sacs, which create relatively small enclaves of residential development which will not be exposed to through traffic.

All road islands, boulevards and medians associated with the proposed Neighbourhood collector and local roadways will be developed as maintenance free by the developer and to the satisfaction of the *Community Services* Department at the subsequent subdivision stage.

Public transit to the area will be accommodated on the loop collector roadway within the Neighbourhood.

4.3.2 Golf Course Crossings of Roads

The golf course will extend over arterial roadways between Neighbourhoods 1, 2, 3 and 4 in the Lewis Farms Plan Area. At the location where the golf course is required to connect across an arterial road (on 207 street between Neighbourhoods 1 and 2) a grade-separated crossing will be constructed to convey traffic beneath the arterial roadway. The location of this underground connection for golf course traffic is identified on the Development Concept - Figure 3 and, will avoid conflict between vehicle traffic on arterial roadways.

Within Neighbourhood 2, two grade-level crossings of a neighbourhood collector roadway are planned for golf course traffic. These crossings are identified on the Development Concept - Figure 3. The golf course crossings are not proposed on the loop collector roadway which will serve as the bus route. Signage will be posted by the developer at the proposed crossing locations in accordance with requirements of the Off-Highway Vehicles Act.

The *Transportation and Streets Department* has reviewed the proposed grade-separated crossing and concurs with the crossing location.

4.3.3 Pedestrian Circulation

Pedestrian circulation in Neighbourhood 2 will be accommodated primarily on a sidewalk system developed in conjunction with the internal roadway network.

A secondary system of pedestrian circulation will provide a walkway connection from the Neighbourhood to 87 Avenue in the northeast corner of the Plan Area. The purpose of this

connection would be to provide a northerly east-west pedestrian connection between Neighbourhood 1 and Neighbourhood 2 in the Lewis Farms Plan Area for school students attending the Public Elementary School to be developed in Neighbourhood 1. It is intended that pedestrians from Neighbourhood 2, upon reaching the public sidewalk on the south side of 87 Avenue, would proceed eastward along the *road* to the controlled intersection crossing of 207 Street, and then southeasterly, on another designated walkway, into Neighbourhood 1. The Edmonton Public School Board and the *Community Services* Department have reviewed this pedestrian walkway proposal and support it.

Amended by Editor

No provisions for formal pedestrian access onto the golf course are accommodated in the Plan. The developer will fence the perimeter of the golf course area to discourage unauthorized public access and shortcutting, and to ensure the integrity of the golf course is protected.

The *transmission pipeline* and the *minor flowline* rights-of-way in the south residential cluster of the Neighbourhood will be incorporated for the most part into the golf course. No formal pedestrian connections will be constructed within the golf course across these utility rights-of-way to connect residential nodes on the north and south sides of the rights-of-way. The area these rights-of-way occupy outside of the golf course lands will function as open space for the passive recreational use of residents. No pedestrian access will be provided from this open space area to Winterburn Road (215 Street).

Amended by Editor

Community Services Department requirements for grading, seeding and landscaping pipeline rights-of-way will be undertaken by the developer, to the satisfaction of the pipeline operator and the *Community Services* and *Transportation and Streets* Departments, as part of the development implementation process.

Amended by Editor

The pedestrian linkages described for the northeast corner of the Neighbourhood will be developed in accordance with the *Community Services* Department standards. Such development will include a 1.5 m wide concrete walk and landscaping.

4.4 Social and Demographic Profile

The estimated number of housing units, future population and school generation within the Neighbourhood is summarized, on Table 2. The estimated future population of the Neighbourhood is 2001 persons and the overall density of planned development is 38.4 persons/gross ha. (15.6 persons/gross ac.).

*Bylaw 12413
October 11, 2000*

4.5 School Facilities

No schools are proposed within the Plan Area, consistent with the Lewis Farms A.S.P.. School students living in the Area will attend other nearby schools within the Lewis Farms area, and west Edmonton. Public Elementary School students will be accommodated in the Potter Greens neighbourhood school to the east, and other students will be accommodated in schools located outside Neighbourhood 2, either in future facilities to be developed at locations identified in the Lewis Farms A.S.P. or in existing schools located in west Edmonton.

**Table 1: BRECKENRIDGE GREENS NEIGHBOURHOOD STRUCTURE PLAN
LAND USE ALLOCATION**

As Amended by Bylaw 12413, October 11, 2000

and

As Amended by Editor

			AREA	
			Hectares	Acres
Total Gross Area:			52.1	128.7
	Hectares	Acres		
Golf Course Lands: (Area subject to Deferred Reserve Caveat)	9.9	24.4		
Public Utility Lot (T.O.P.C. and Leddy)*:	0.3	0.7		
	10.2	25.2	10.2	25.2
Gross Developable Area:			41.9	103.5
Residential:				
Single Family	19.2	47.4		
Low Density Residential	7.5	18.3		
Multiple Family	2.3	5.9		
	29.0	71.6	29.0	71.6
Circulation:				
Local Roads	5.6	13.9		
Collector Roads	3.2	7.9		
Arterial Roads**	4.0	9.4		
Walkways	0.1	0.1		
	12.9	31.3	12.9	31.3

* portion of pipeline rights-of-way outside golf course lands

** one half of required right-of-way for 207 Street and 87 Avenue

Table 2: Demographic Information
BRECKENRIDGE GREENS NEIGHBOURHOOD STRUCTURE PLAN
As Amended by Bylaw 12413, October 11, 2000

1. Estimated Housing Units and Population

Land Use	Area		Units/Area		Total Units	Persons Per Unit	Population
	Hectares	Acres	Per Ha.	Per Ac.			
Single Family Low Density Residential	19.2	47.4	16	6.5	307	3.46	1,062
Multiple Family (RA7)	7.5	18.5	16	6.5	120	3.46	415
	2.3	5.7	125	50.5	288	1.82	524
<hr/>							
TOTAL Neighbourhood	29.0	71.6			715		2,001

2. Density of Neighbourhood Development

Total Gross Area of Neighbourhood: 52.1 (128.7 Ac)
 Total Population 2,001
 Neighbourhood Density: 38.4 people/gross hectare (15.6 people/gross acre)

3. Student Generation

	<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>
Public:	215	97	80
Separate:	98	44	27

Figure 4: Circulation System

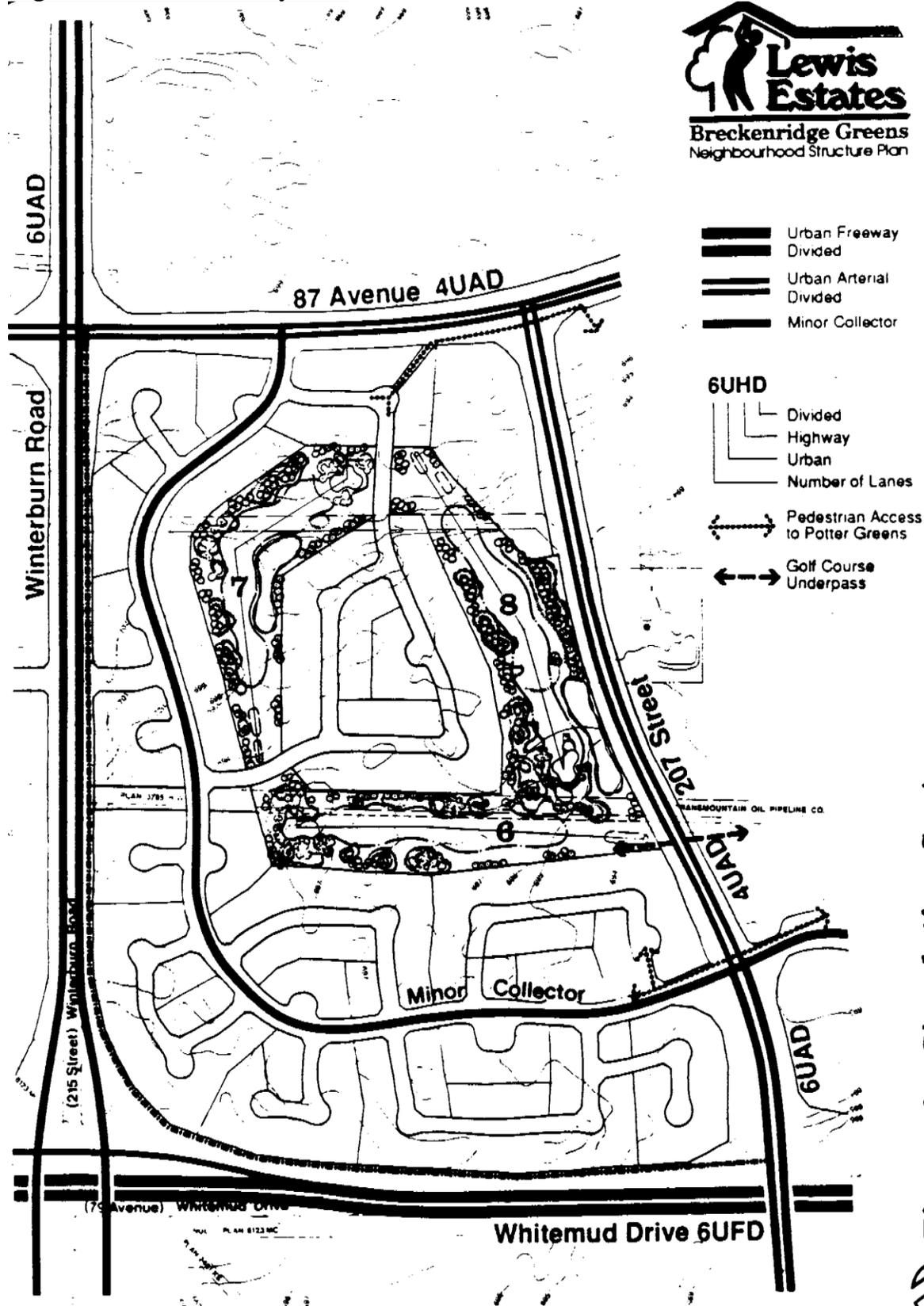


Figure 4 • Circulation System

Chapter 5: Plan Implementation

5.1 Provision of Municipal Utility Services

The general locations of major municipal utility infrastructure facilities required to serve development of the Plan Area are summarized on Figures 5, 6, 7, 8 and 9.

5.1.1 Stormwater Drainage

The patterns of the major and minor storm sewer systems proposed for Neighbourhood 2 by I.D. Engineering Company Ltd. are shown on Figures 5 and 6 respectively. More precise details of the storm sewer systems are given in the Master Drainage Plan (M.D.P.) which they prepared for the drainage area which includes the Plan Area, and in a supplemental drainage report which was approved as technically acceptable by the Drainage Tactical Planning section of the Transportation Department in June, 1991.

As required by current City standards both a minor and major storm sewer system will be provided. The minor system will be comprised of piped storm sewers with a capacity to accommodate a 1 in 5 year storm event with no surcharging in the pipes. The major system will provide surface drainage routes to accommodate storm flows in a storm which exceeds the 1 in 5 year event. The major system will be designed such that depths of flooding in an extreme storm event do not exceed the levels and depths specified in the latest revisions to the City's design standards. At some locations the golf course which is on private land will be utilized as part of the major overland drainage system. The use of the golf course to provide major overland drainage routes will alleviate the flooding of adjacent roadways in a major storm event.

The outfalls from Neighbourhood 2 are intended to discharge to the east, to the stormwater management system in Neighbourhood 1.

The Master Drainage Plan indicates that lakes in Neighbourhood 1 will be sized to provide storage for the most severe recorded storm event. In accordance with the City's latest design criteria the lakes will be designed to discharge off-peak; ie. their outflow will be reduced to zero during peak periods when the downstream sewers are overloaded.

The Master Drainage Plan also indicates that the sewer system up-stream of the lakes,

including the storm sewers in Neighbourhood 2, will be sized to accommodate a 5-year storm event, and will be designed to meet the latest revision to the City's design standards. The major or surface drainage system will be designed to accommodate a 100-year storm event.

5.1.2 Sanitary Sewerage

The general pattern of the sanitary sewerage system for Neighbourhood 2 is shown on Figure 7. More precise details are outlined in the Master Drainage Plan (M.D.P.) prepared by I.D. Engineering Company Ltd..

The onsite sanitary sewers will be a gravity system draining to the east side of Neighbourhood 2. Generally the sewers will flow from west to east with slopes roughly matching the general fall of the surface terrain. There will be no requirement for lift stations within Neighbourhood 2 or across any of the south half of Lewis Farms.

The M.D.P. indicates that the sanitary sewers will be designed to meet the latest revisions to the City's design standards and infrastructure performance criteria. As elsewhere in the City, sump pumps will be required to handle discharge from weeping tiles. The sanitary sewer pipes will be sized using a design which includes an allowance and safety factor for potential infiltration and incorrect connections to the sanitary system. However all practical steps possible will be taken in order to minimize both of these situations.

The M.D.P. also indicates that the sanitary sewer system in Neighbourhood 2 will discharge to the east to connect to the proposed sanitary sewer system in Neighbourhood 1. That system has sufficient capacity to accommodate all of the south half of Lewis Farms using current design standards.

5.1.3 Water Supply

The general pattern of the proposed system of water supply mains for Neighbourhood 2 is shown on Figure 8, as derived from the Water Network Analysis completed for the entire Lewis Farms Area by I.D. Engineering Company Ltd., and supplemented by a Water Network Analysis (dated March 27,1991) which was approved by the Environmental Services Department.

The analysis indicates a booster station is required on the east side of Neighbourhood 1 (*Potter Greens*) at the point of connection to an existing 1350 mm transmission main.

Amended by Editor

The requirement for a future water reservoir and its future location are established in the approved Lewis Farms Area Structure Plan. On the basis of the Water Network Analysis completed for the entire Lewis Farms Area it is not anticipated that the ultimate water reservoir will be required until after Neighbourhoods 1, 2 and 3 of the approved Lewis Farms Plan are completely developed. The booster station is being constructed as part of the first stage of development in Neighbourhood 1.

The booster station will remain in operation until after construction of the first stage of the pumphouse at the site of the proposed reservoir, and installation of water transmission lines on 95 Avenue (*Webber Greens Drive*) between 199 Street and Winterburn Road, on Winterburn Road from 95 Avenue to 87 Avenue (*Suder Greens Drive*), on 87 Avenue from Winterburn Road to 207 Street (*Lewis Estates Boulevard*), and on 207 Street from 87 Avenue to 79 Avenue (*Whitemud Drive*).

Amended by editor

Generally Neighbourhood 2 is intended to be serviced by 300 mm looped watermains along the main collector roadways. A 750 mm connection to the Grange to the south is intended to be installed on 207 Street. A 900 mm line will be built on Winterburn Road from the reservoir to 87 Avenue. A 750 mm line will be built on 87 Avenue from Winterburn Road to 207 Street, and on 207 Street from 87 Avenue to south of 79 Avenue.

It is planned that the above noted transmission systems will be installed prior to the booster station reaching its full capacity.

Design and construction of the proposed water facilities which comprise the water supply system for Neighbourhood 2 will meet the latest revisions to the City's design standards.

Any public utility lots required within the Plan Area will be identified at the subsequent subdivision stage.

5.1.4 Shallow Utilities

Natural gas, telephone, electric power, and cable T.V. systems are proposed to be extended to serve the initial stages of development within the Neighbourhood from existing systems.

.1 Natural Gas

Permanent gas supply to Neighbourhood 2 will emanate from a major gate station facility to be constructed by Northwestern Utilities Limited (NUL) on a site south of 79 Avenue, and near an existing high pressure gas main in The Grange. The Grange Area Structure Plan Bylaw No. 9294 indicates provision of the Gate Station site in a planned business park area of The Grange.

.2 Telephones

Telephone service to residents in Neighbourhood 2 will originate from a new telephone switching centre which is being constructed by Edmonton Telephones on a site in Neighbourhood 1, located directly east of the intersection of 207 Street and 79 Avenue.

.3 Power

Adequate electrical capacity exists to provide service to the first stages of development. Edmonton Power has advised that a power substation to be located on a site north of the Lewis Farms Plan Area and Highway 16, and west of the TUC. The new substation will provide full capacity for Neighbourhood 2 and subsequent Neighbourhoods in the Lewis Farms Plan Area.

5.2 Staging of Development

The general staging sequence according to which development is expected to occur within the Neighbourhood is outlined schematically on Figure 9. This sequence envisions three stages of development over a three year construction period to achieve complete development of Neighbourhood 2. The first stage of development will consist of the south residential cluster, the second stage will be the central residential cluster; and the third stage of development will be the north residential cluster.

The first stage of development *was* scheduled for 1992 construction and for lots to be marketed in 1992. Within the area designated as the first stage, initial development is expected to occur immediately west of 207 Street, south of the *transmission pipeline*. Access to this first stage of development would be provided from 207 Street and 79 Avenue. Future permanent access locations to Winterburn Road (215 Street) and 87 Avenue will be constructed by the developer as part of the third stage construction.

Amended by Editor

Each stage of development will be serviced in accordance with an I.P.C. Residential

Servicing Agreement between the City of Edmonton and the developer, and roadway construction will be completed in accordance with prevailing policy established by City Council.

5.3 Subdivision and Redistricting

Development within the Neighbourhood will take place through successive applications to subdivide and redistrict portions of the proposed development area on an orderly, incremental basis. Submission requirements, and approval requirements, for subdivision applications and redistricting applications will be processed in accordance with the adjusted plan approval process described in Appendix B of the approved Lewis Farms A.S.P. document.

5.4 Municipal Reserves

Land will be dedicated as Municipal Reserves to be used for schools and parks in accordance with The Planning Act. The Lewis Farms Area Structure Plan assumed that, in calculating the developable area from which 10% would be dedicated for Municipal Reserves, the area proposed for golf course use would be included as land which would be subject to reserves. The Lewis Farms A.S.P. was amended by Bylaw 9390, to incorporate the Potter Greens Neighbourhood Structure Plan and amend the method of calculating Municipal Reserves for golf course lands.

This plan also amends the Lewis Farms A.S.P. according to the same principles established for calculating Municipal Reserves in approved Bylaw 9390. Because the proposed golf course will be constructed in part on lands possessing marginal development potential, and because the golf course will serve as a recreational facility for residents of the area, the land area used by the golf course will not be required to dedicate Municipal Reserves when adjacent lands are subdivided for residential use. Future Municipal Reserve requirements that may be attributable to golf course lands, estimated to be 1.01 Ha., will be identified by means of a Deferred Reserve Caveat that would be registered on the parcels of land used for the golf course. The Municipal Reserves that will be dedicated from non-golf course lands within the neighbourhood are estimated to be 4.15 ha., and will be provided in the normal course of subdivision of residential areas in the neighbourhood.

Figure 5: Major Storm Sewer System

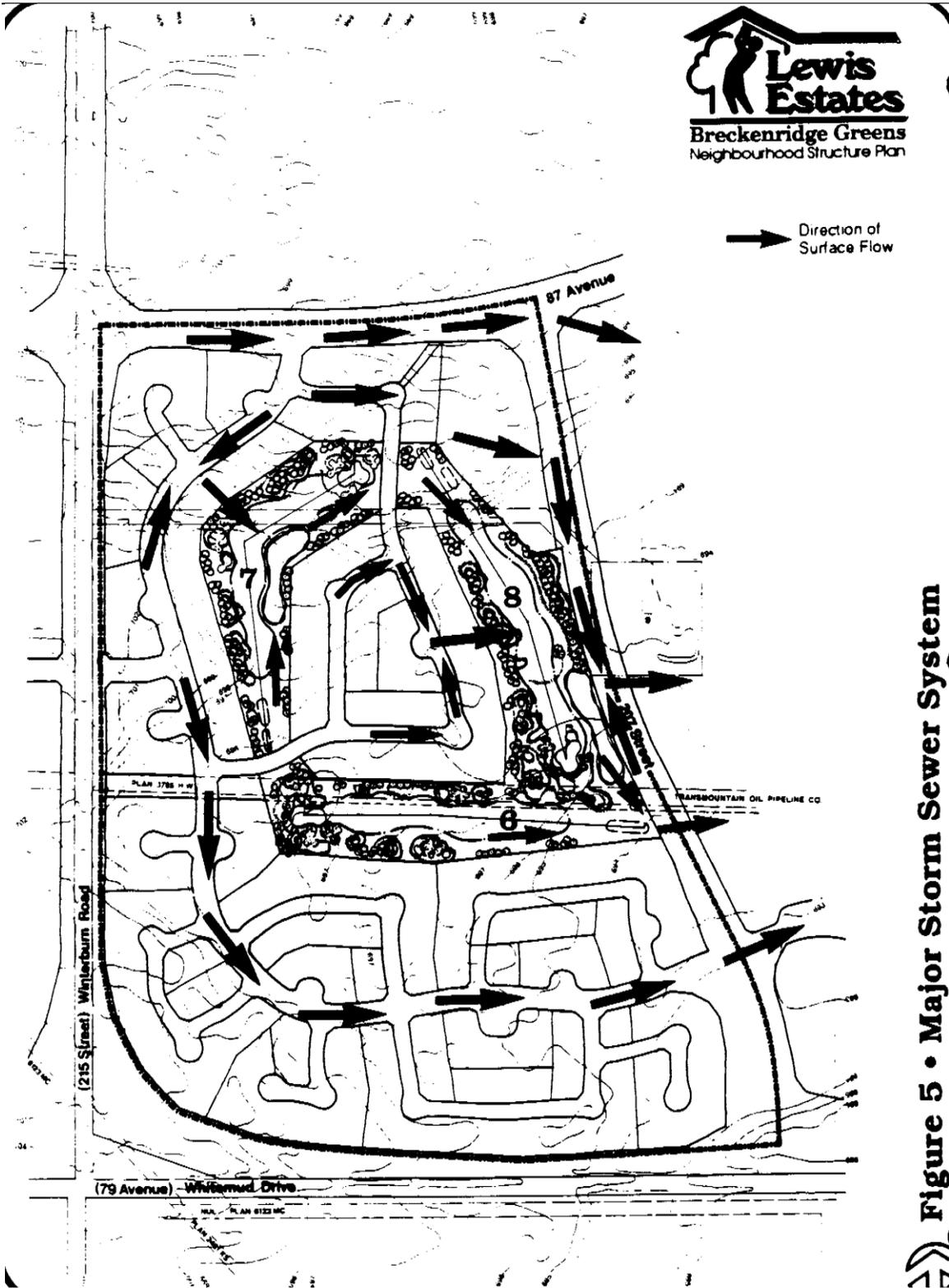


Figure 5 • Major Storm Sewer System

Figure 6: Minor Storm Sewer System

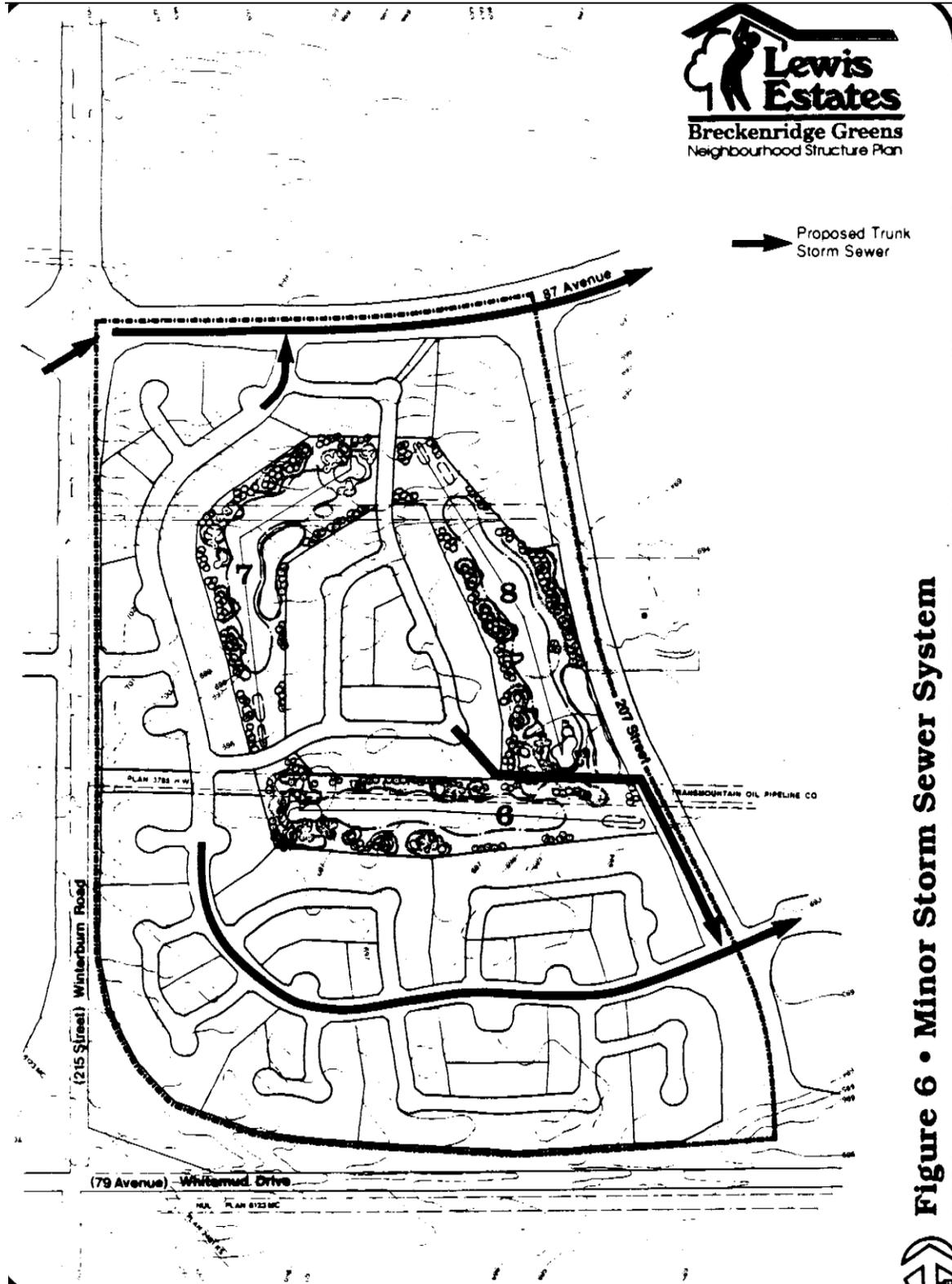


Figure 7: Sanitary Sewerage

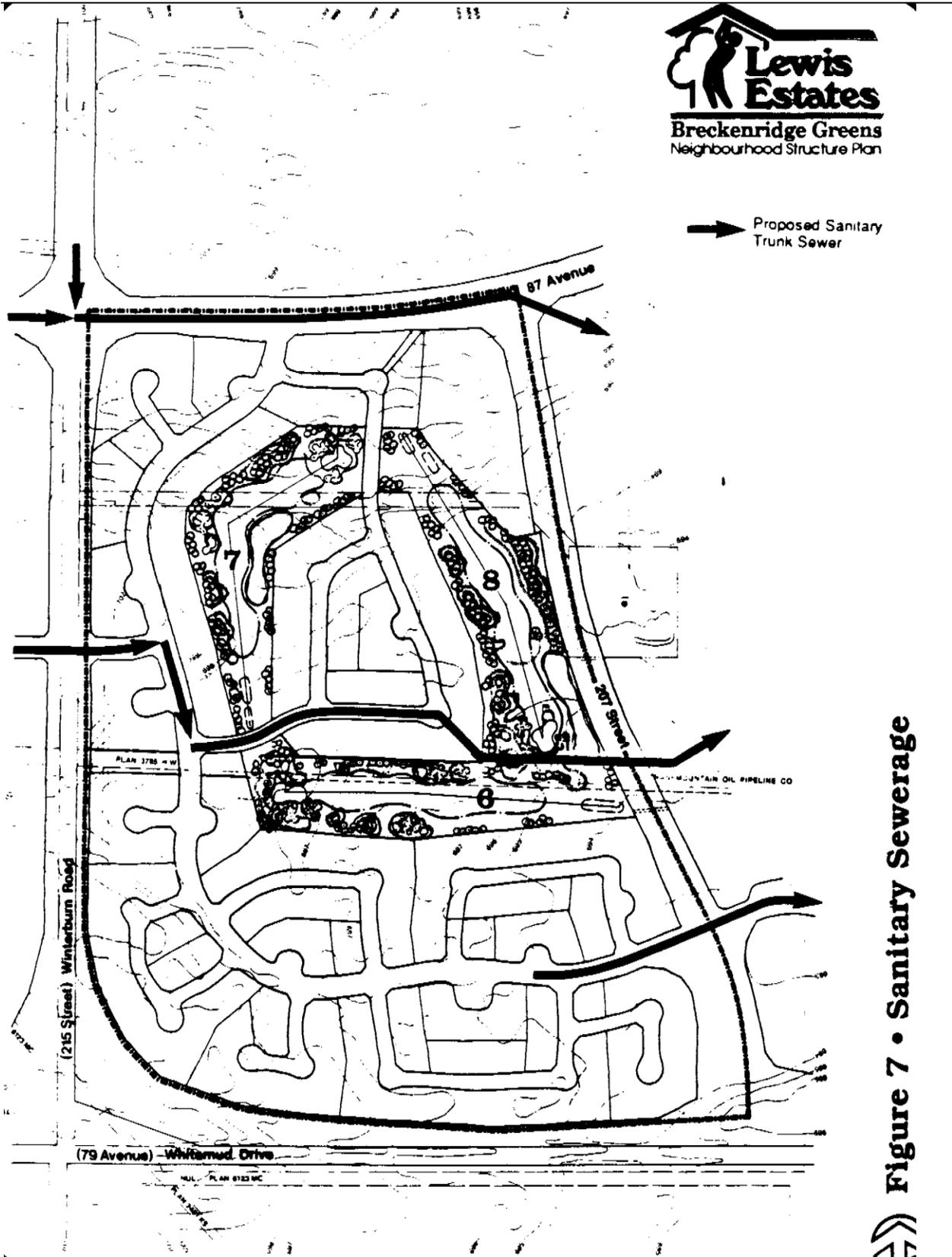


Figure 7 • Sanitary Sewerage

Figure 9: General Staging System

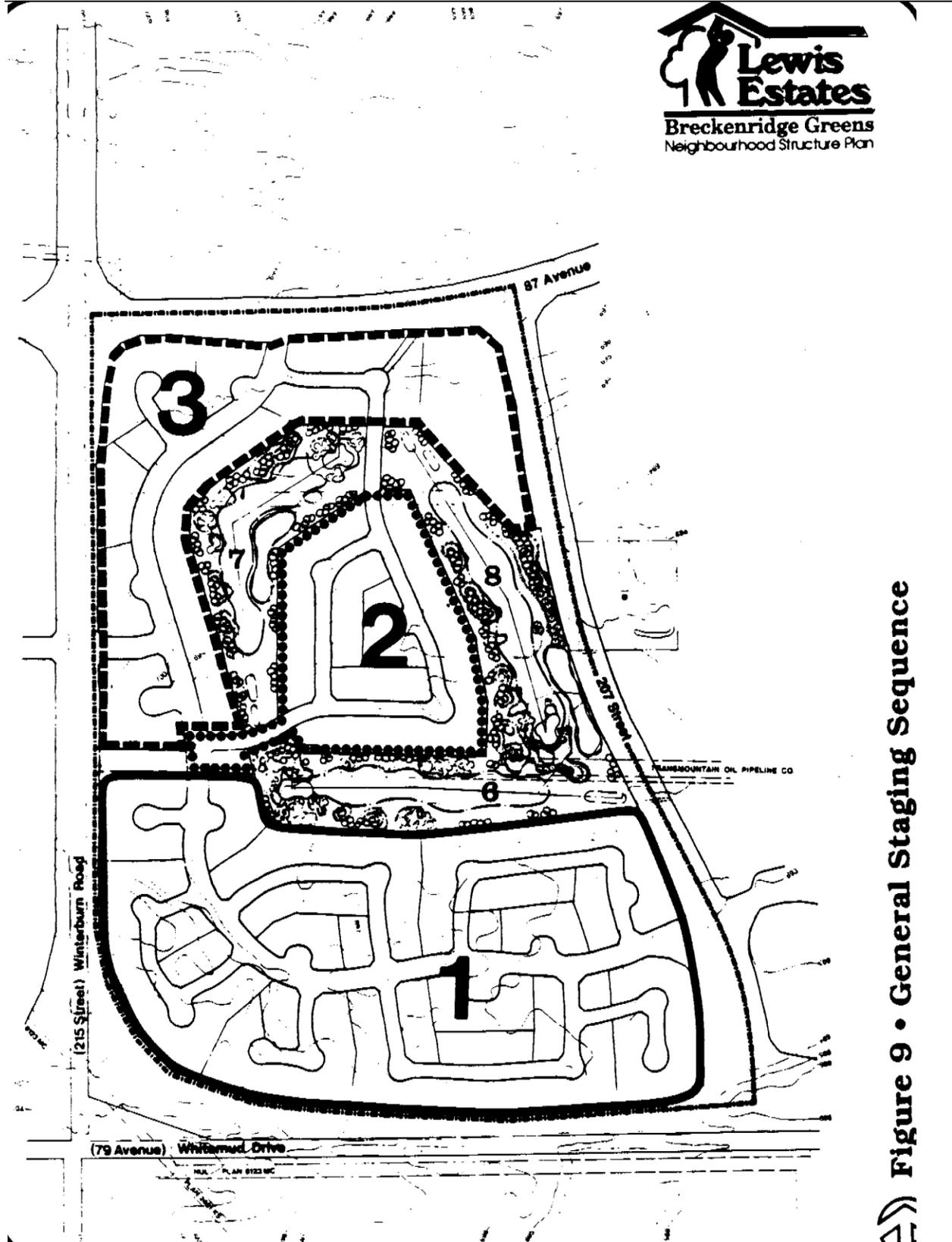


Figure 9 • General Staging Sequence

Appendix A: Land Ownership Profile

Table 3 (as Amended by Editor)

Land Ownership

Section 30-52-25-W4M

SW *A Private Corporation* 46.04 Ha

NW *A Private Corporation* 5.90 Ha

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