

TOWN OF BROOKS

SOUTHEAST SECTOR

AREA STRUCTURE PLAN





TOWN OF BROOKS

BYLAW NO. 03/07

A BYLAW OF THE TOWN OF BROOKS IN THE PROVINCE OF ALBERTA TO AMEND BYLAW NO. 02/19 BEING THE SOUTHEAST SECTOR AREA STRUCTURE PLAN.

WHEREAS it is desirable to amend Bylaw 02/19 being the Southeast Sector Area Structure Plan to describe changes in future land use and infrastructure within the Southeast Sector.

AND WHEREAS amendments to the existing Southeast Sector Area Structure Plan for portions of land within the Southeast Sector are necessary to increase residential and/or commercial development through the use of prescribed land use designations and policies.

AND WHEREAS a Public Hearing, as required by Section 692 of the Municipal Government Act, will be held on August 5, 2003, prior to second and third readings of this bylaw.

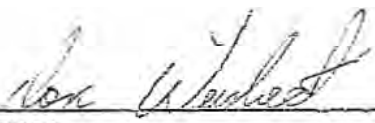
NOW THEREFORE, the Council of the Town of Brooks duly assembled, enacts as follows:

1. That Bylaw No. 02/19 is amended as shown in Schedule A attached to and forming a part of this bylaw.
2. That this Bylaw shall take effect upon final passing thereof.

Read a first time this 7th day of July, 2003.

Read a second time this 5th day of August, 2003.

Read a third time and finally passed this 19th day of January, 2004.



Mayor



Manager of Administrative Services

SCHEDULE A
(January 19, 2004)

Bylaw No. 02/19 is amended as follows:

1. Maps 1 to 10 are deleted and replaced as shown in the attachment to this Schedule.
2. The wording in Section 3.4 – Density is replaced in its entirety by the following:

“Defining density at this stage of the planning process may not be as meaningful as at the outline plan stage because many of the development cells are undefined. Market demand will influence the type and style of land use and the development ultimately sought and overall densities may vary from expected projections. Based on a total net developable area of 229.80 acres, the projected dwelling unit and population densities are anticipated to range from 2003 to 3129 dwelling units [(21.54 upnha to 33.65 upnha) or (8.72 upna to 13.62 upna)] for a population of 5410 to 8447 persons. The number of dwelling units and population will vary depending upon the type and density of multi-family residential anticipated within the Southeast Sector.”
3. The second bullet in Policy 3.6.1.2.4 is deleted.
4. The second and third bullets in Policy 3.6.2.10 are deleted and replaced with the following:

“Boulevard landscaping may be required of the developer to the satisfaction of the municipality where a manufactured home community fronts onto a collector roadway.
An amenity area equivalent to ten percent (10%) of the development area **may** be required in lieu of municipal reserve to the municipality.”
5. Policy 3.6.1.2.12 is amended by deleting the wording, “...range of 19 to 30 units per net hectare (7 upna to 12 upna)...” and replacing with the following wording, “... range of 22 to 34 dwelling units per net hectare (9 upna to 14 upna)...”
6. **Section 4.4.1. is amended by including the following policy:**
 - 4.4.1.10** **A storm water detention pond may be required within a portion of the NW ¼ Sec. 34-18-14-4 in proximity to the One Tree Creek within the area identified as Business Park. This detention pond may be necessary in order to minimize the amount of fill required to develop a portion of these lands. The necessity, size and location of the detention pond will be depended upon the land owner or developer, and is, therefore, not shown in this area structure plan but will be**

shown in any outline plan developed for this portion of the Plan Area.

7. The wording in Section 4.6 is amended by deleting reference to 22nd Street East in the first sentence. In addition, the second paragraph is deleted and replaced by the following wording:

“The proposed highway interchange is also shown on Map 10. The alignment is shown as approximate because the design and location was not finalized at the time this Plan amendment was adopted. In the event that Alberta Transportation’s proposed alignment is constructed, this Plan need not be amended. Proposed land uses will be as shown in Map 4 – Land Use Concept. Access points and internal road networks will be defined at the outline plan/land use amendment stage for individual development cells affected by the final location of College Road/Meadowbrook Drive alignments.”

7. Policy 4.6.1.2 is amended by deleting the first sentence and replacing it with “Second Avenue East will be designated as a boulevard collector and Meadowbrook Drive, 4th Avenue East and 17th Street East will be designated as collectors.”
8. Policy 4.6.1.11 is deleted and subsequent policies renumbered.
9. The existing Policy 4.6.1.12 is amended by deleting reference to 22nd Street East.
10. **The existing Policy 4.6.1.17 is replaced with the following:**

“The right-of-way of Meadowbrook Drive south of College Drive will be a minimum of 30 m to the intersection of 17th Street East to accommodate four-lane traffic, turning lanes, sidewalks and entrance boulevard landscaping. Meadowbrook Drive south of the 17th Street East intersection will have a 20 m right-of-way, where necessary, to 2nd Avenue East.”

11. The third paragraph in Section 5.3 Special Land Use Regulations is amended by including the following wording after the existing sentence, “The provisions of the Direct Control Residential District (DC-R) as they relate to the appendices contained within the 1995 Southeast Sector Area Structure Plan will continue until such time as the land use bylaw is amended by the municipality.”
12. Appendix 1 is deleted and replaced as shown in the attachment to this Schedule.

APPENDIX 1

LAND USE STATISTICS

19 January 2004

DENSITY CALCULATION

Single Family Residential

Gross Developable Area	183.87 acres
- Circulation (20% GDA)	36.77 acres
-10% Municipal Reserve	18.39 acres
Net Developable Area	128.71 acres

Population

128.71 acres x 6 du/ac =	772.26 du x 2.7 ppu = 2085 persons
128.71 acres x 8 du/ac =	1029.68 du x 2.7 ppu = 2780 persons

Multi-Family Residential

Gross Developable Area	55.90 acres
-Circulation (10% GDA)	5.59 acres
- 10% Municipal Reserve	5.58 acres
Net Developable Area	44.41 acres

Population

44.41 acres x 18 du/ac =	799.38 du x 2.7 ppu = 2158 persons
44.41 acres x 36 du/ac =	1598.76 du x 2.7 ppu = 4317 persons

Manufactured Home Community

Gross Developable Area	33.15 acres
- Open Space (Defined by Outline Plan)	2.70 acres

South Brooks Manufactured Home Community Outline Plan identified that at full build out, the manufactured home community would have 229 dwelling units. Total population was based on 2.75 persons/dwelling unit. Total population was estimated to be 618 in the 2004 document.

Population

618 persons (based on 229 dwelling units x 2.75 persons/du)

Existing Multi-lot Development

Meadow Lake Estates:

Net Developable Area	7.35 acres
Population:	58 du x 2.7 ppu = 157 persons

Meadowbrook Greens

Net Developable Area	5.89 acres
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Population:

Single Detached Residential:	68 du x 2.7 ppu = 184 persons
Multi-family Residential	136 du x 2.7 ppu = 367 persons

Greystone Pointe

Net Developable Area 7.37 acres
Population: 37 du x 2.7 ppu = 100 persons

14th Street East

Net Developable Area 5.62 acres
Population: 40 du x 2.7 ppu = 108 persons

Notes:

1. Du = dwelling unit
2. Ppu = persons per unit

Table 1. Number of Dwelling Units and Persons Proposed within the Southeast Sector.

Type of Dwelling Unit	Number of Dwelling Units	Number of Persons	Net Developable Area (Acres)
Single Family	772 - 1030	2085 - 2780	128.71
Multi-Family	799 - 1599	2158 - 4317	44.41
Manufactured Home Community	229	618	30.45
Existing Multi-lot Development	203 - 271	549 - 732	26.23
Total	2003 - 3129	5410 - 8447	229.80

Density: 8.72 – 13.62 dwelling units/net developable area (acres)
21.54 – 33.65 dwelling units/net developable area (hectares)

Table 2. Area Structure Plan Statistics.

Land Use	Area (acres)	Percentage
Residential	299.15	29
Commercial	93.79	9
Institutional	89.08	9
Open Space/ Recreational	319.74	31
Roads	137.77	14
One Tree Creek & Water Bodies	53.78	5
Development Constrictions	28.11	3
Total	1021.42	100.0

Notes:

- Institutional includes detention ponds; lift stations and areas under well site restrictions.
- Commercial land use category includes Special Policy Area and Business Park.
- Some rounding has occurred to achieve 100%.

19 January 2004

SOUTHEAST SECTOR

LAND USES	HA	AC	%
BUSINESS PARK	15.03	37.13	3
COMMERCIAL – HIGHWAY	15.97	39.43	4
COMMERCIAL – LIGHT INDUSTRIAL	2.94	7.26	1
COMMERCIAL – NEIGHBOURHOOD	1.78	4.41	1
CONSTRUCTIONS TO DEVELOPMENT ¹	11.38	28.11	3
INSTITUTIONAL	36.05	89.08	8
OPEN SPACE	41.76	103.18	10
PARKS & RECREATION	87.64	216.56	21
RESIDENTIAL – SINGLE FAMILY	74.41	183.87	18
RESIDENTIAL – MULTI-FAMILY	22.62	55.90	5
RESIDENTIAL – MANUFACTURED HOME COMMUNITY	13.42	33.15	3
SPECIAL POLICY AREA	2.25	5.56	1
SUB-TOTAL	325.25	803.64	
ROADS²	55.76	137.77	13
OTHER			
MEADOWBROOK GREENS DEVELOPMENT	2.38	5.89	1
MEADOWLAKE ESTATES DEVELOPMENT	2.98	7.35	1
14 TH STREET EAST DEVELOPMENT	2.27	5.62	1
GREYSTONE POINTE DEVELOPMENT	2.98	7.37	1
WATER BODIES ³	21.76	53.78	5
SUB-TOTAL	32.37	80.01	
TOTAL	413.38	1021.42	100

NOTES:

¹Constrictions to development include detention ponds, sanitary sewer pump-house and well-site setback requirements.

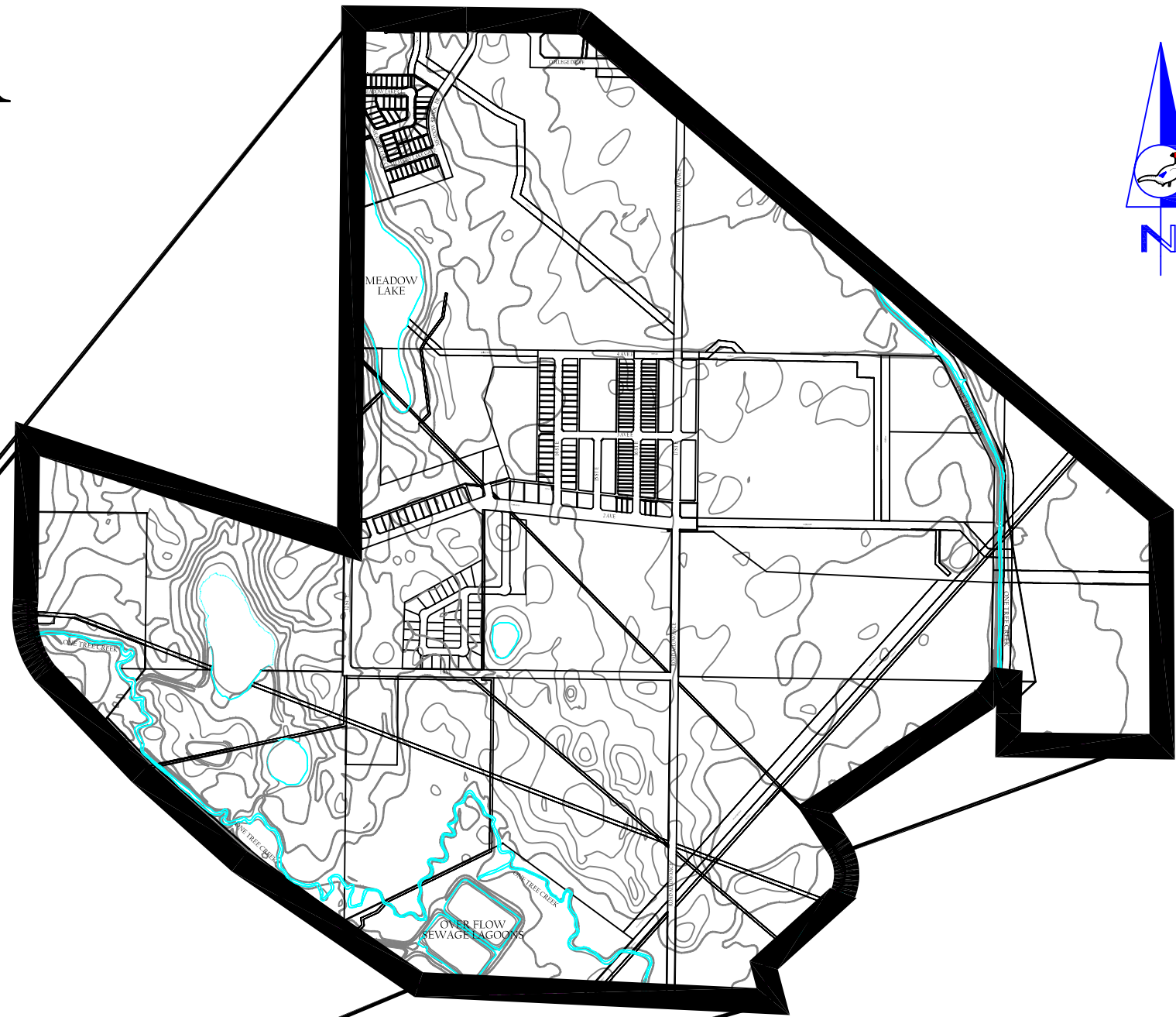
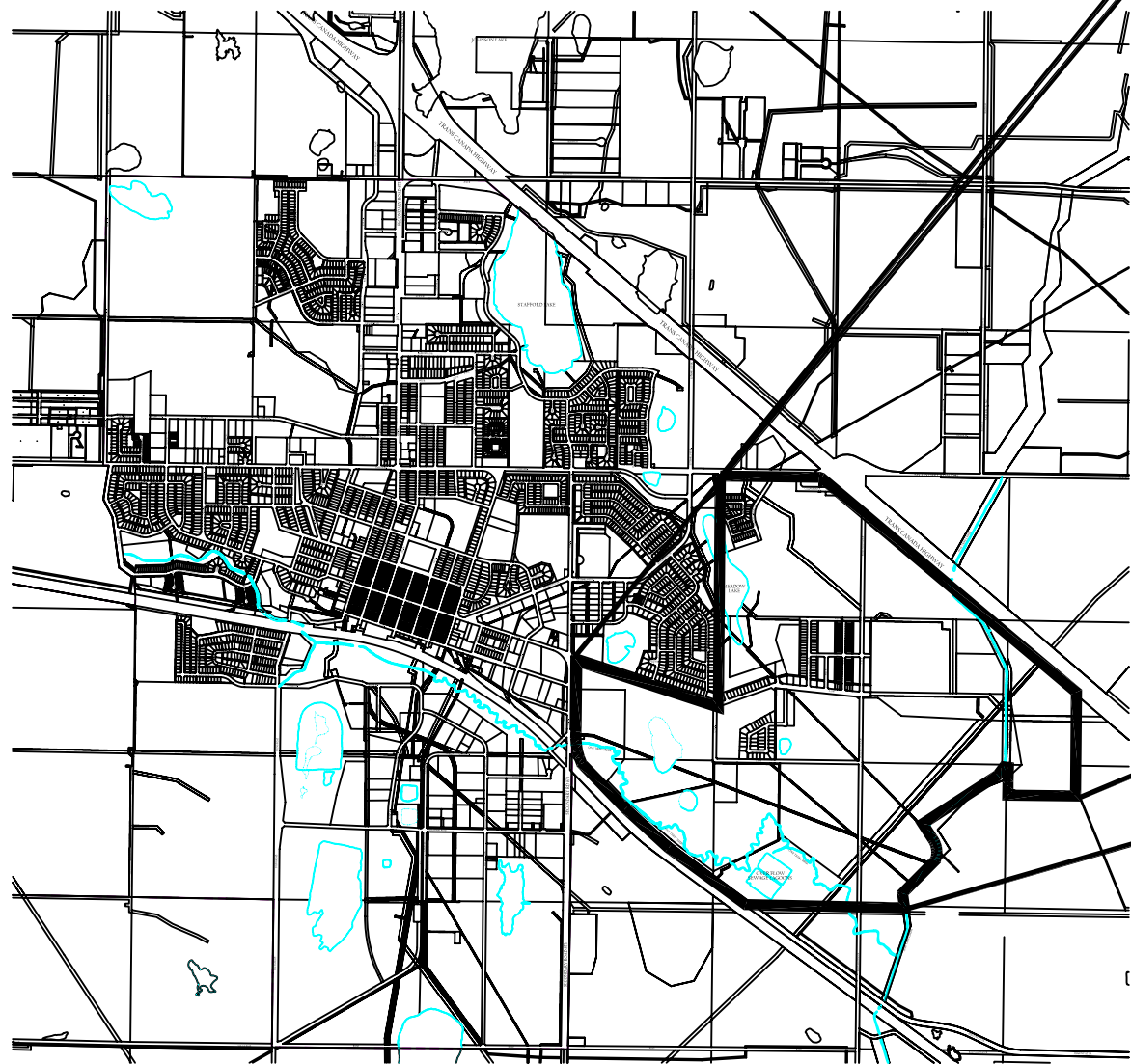
²The total figure includes arterial roadways, collector roadways, boulevard collector roadways and local roadways identified as existing or rights-of-ways. The area of local roads within individual development cells will not be known until outline plans or subdivision plans are prepared for each one. Total area also includes highway interchange lands and the Old #1 Highway right-of-way.

³The figure for water bodies includes the One Tree Creek, existing water bodies within Brooks Golf Course and Town-owned lands within the SE ¼ Sec. 33-18-14-4 and overflow sewage lagoons. When sewage lagoons are closed and reclaimed, the area shown as water bodies will be included in the open space category.

SOUTHEAST SECTOR

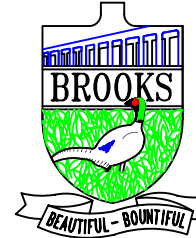
AREA STRUCTURE PLAN

LOCATION MAP



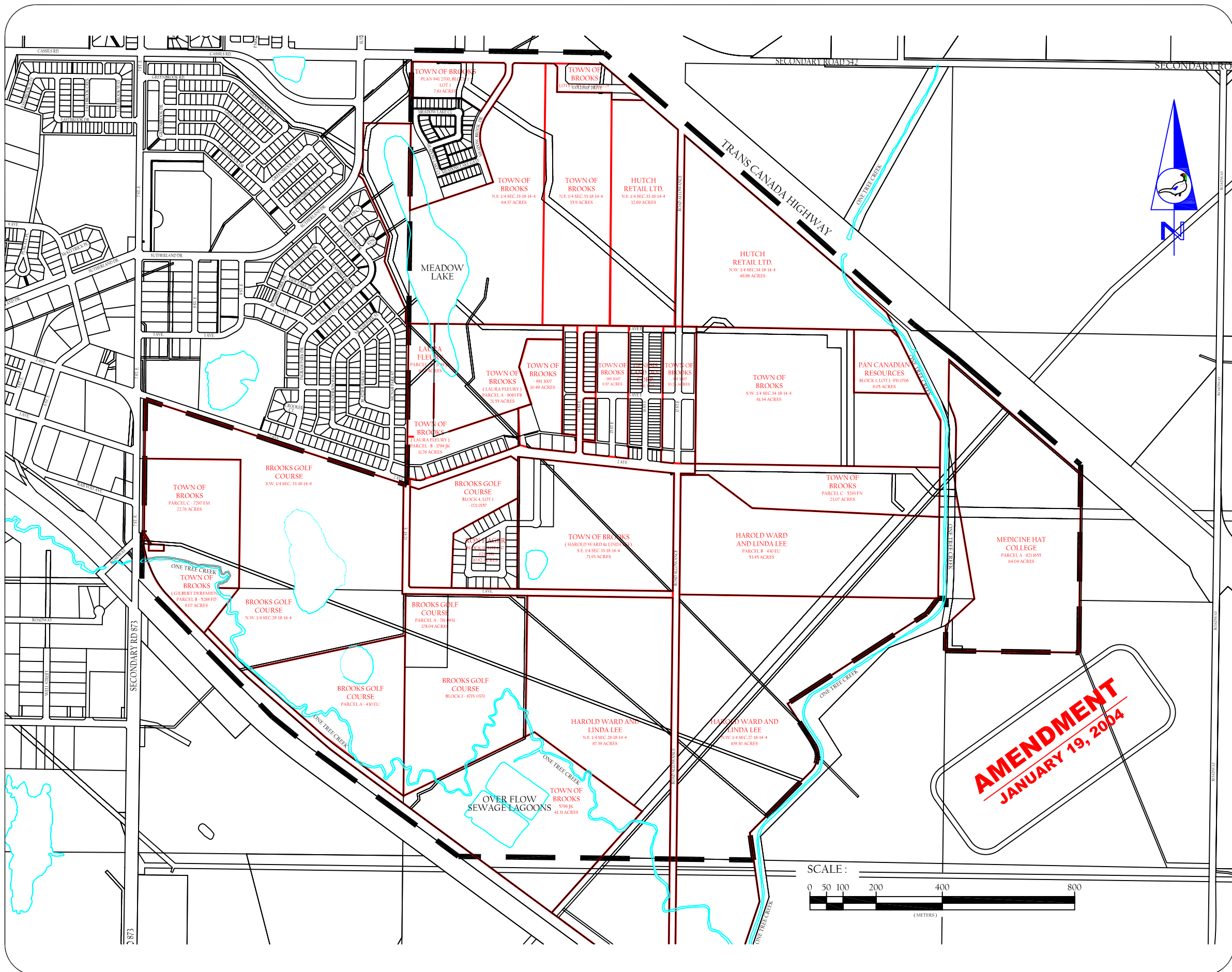
AMENDMENT
JANUARY 19, 2004

TOWN OF BROOKS
PLANNING SERVICES




DATE : 15/07/02



MAP 1



TOWN OF BROOKS
PLANNING SERVICES



LEGEND

-  AREA STRUCTURE PLAN BOUNDARY
-  OWNERSHIP PARCELS

NOTES: THIS MAP IS APPROXIMATE ONLY, PLEASE REFER TO INDIVIDUAL TITLES.

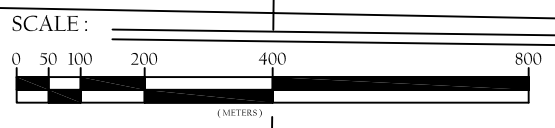
SOUTHEAST SECTOR
AREA STRUCTURE PLAN

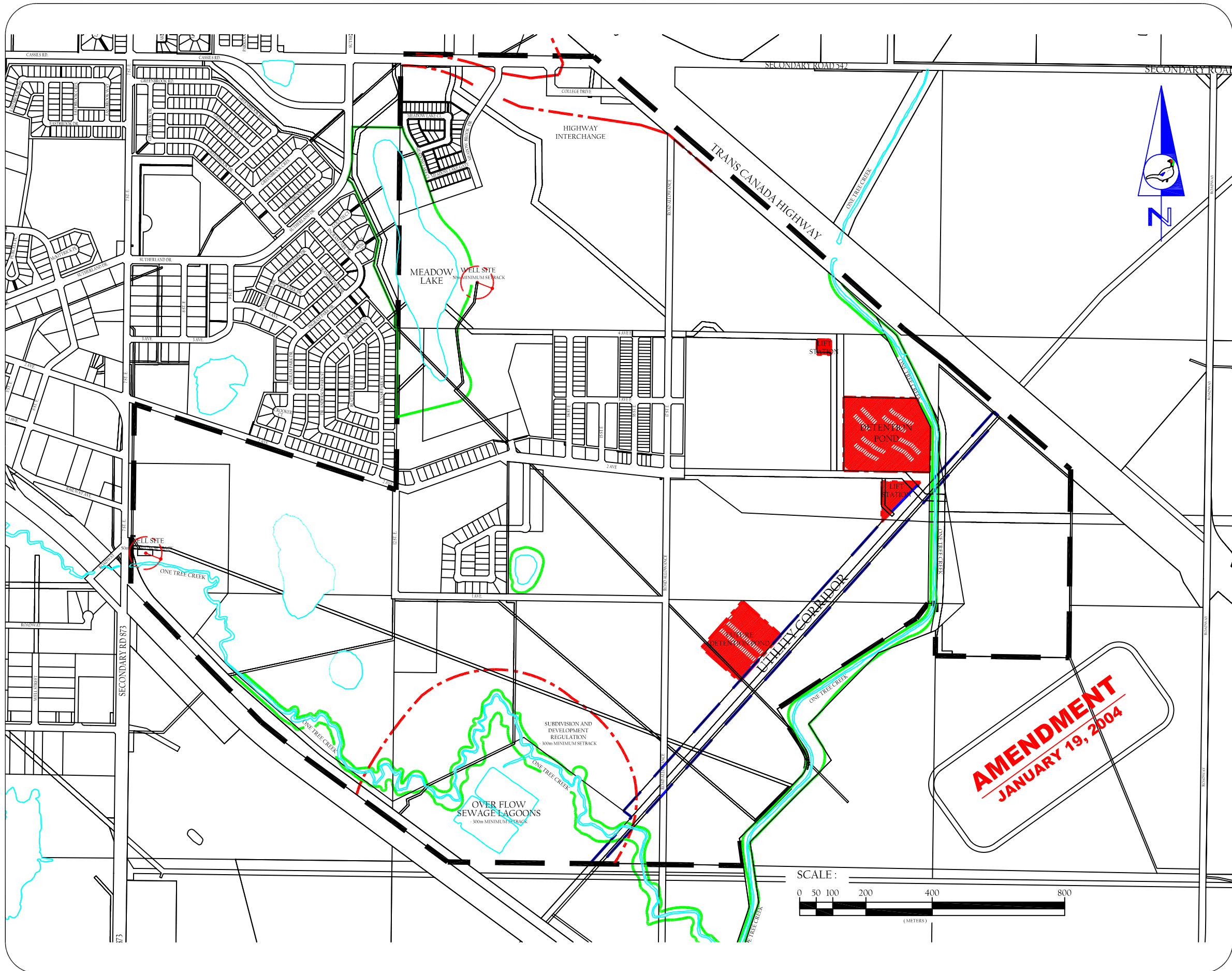
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LAND OWNERSHIP

MAP 2

AMENDMENT
JANUARY 19, 2004





LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	ENVIRONMENTALLY SENSITIVE LANDS
	SUBDIVISION & DEVELOPMENT REGULATION SETBACKS
	UTILITY CORRIDOR

NOTES: DEVELOPMENT CONSTRAINTS WITHIN THIS MAP WERE IDENTIFIED FOR THE S.E. SECTOR AREA STRUCTURE PLAN. DEVELOPMENT CONSTRAINTS MAY BE IDENTIFIED AT THE OUTLINE PLAN / LAND USE AMMENDMENT STAGE FOR INDIVIDUAL DEVELOPMENT CELLS.

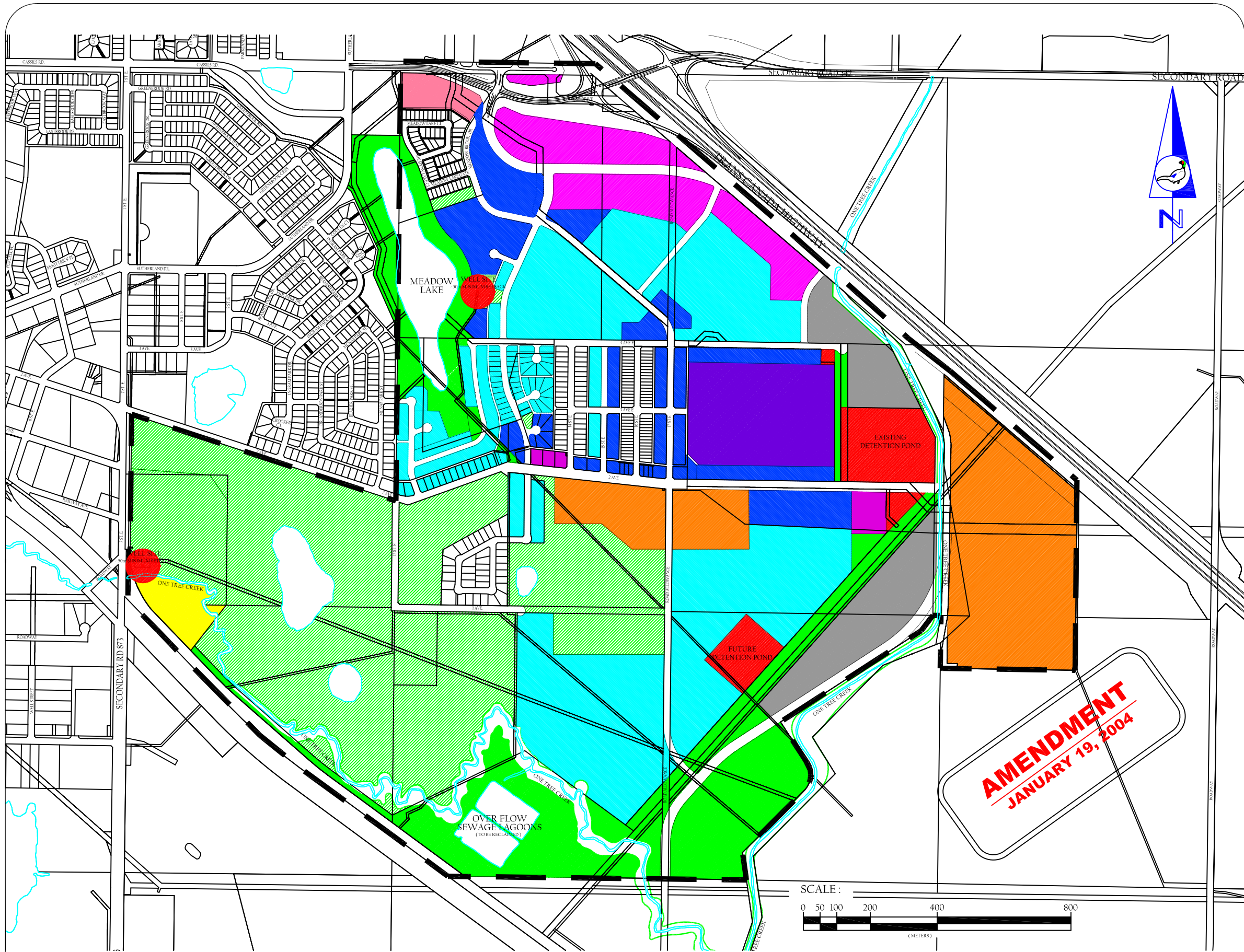
SOUTHEAST SECTOR
AREA STRUCTURE PLAN

DATE : 15/07/02
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DEVELOPMENT CONSTRAINTS

MAP 3

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JANUARY 19, 2004



LEGEND

[Black dashed line]	AREA STRUCTURE PLAN BOUNDARY
[Grey box]	BUSINESS PARK
[Pink box]	COMMERCIAL - HIGHWAY
[Yellow box]	COMMERCIAL - LIGHT INDUSTRIAL
[Light blue box]	COMMERCIAL - NEIGHBORHOOD
[Orange box]	INSTITUTIONAL
[Green box]	OPEN SPACE
[Hatched green box]	PARKS & RECREATION
[Light blue box]	RESIDENTIAL - SINGLE FAMILY
[Dark blue box]	RESIDENTIAL - MULTI - FAMILY
[Purple box]	RESIDENTIAL - MANUFACTURED HOME COMMUNITY
[Pink box]	SPECIAL POLICY AREA
[Red box]	DEVELOPMENT CONSTRUCTIONS

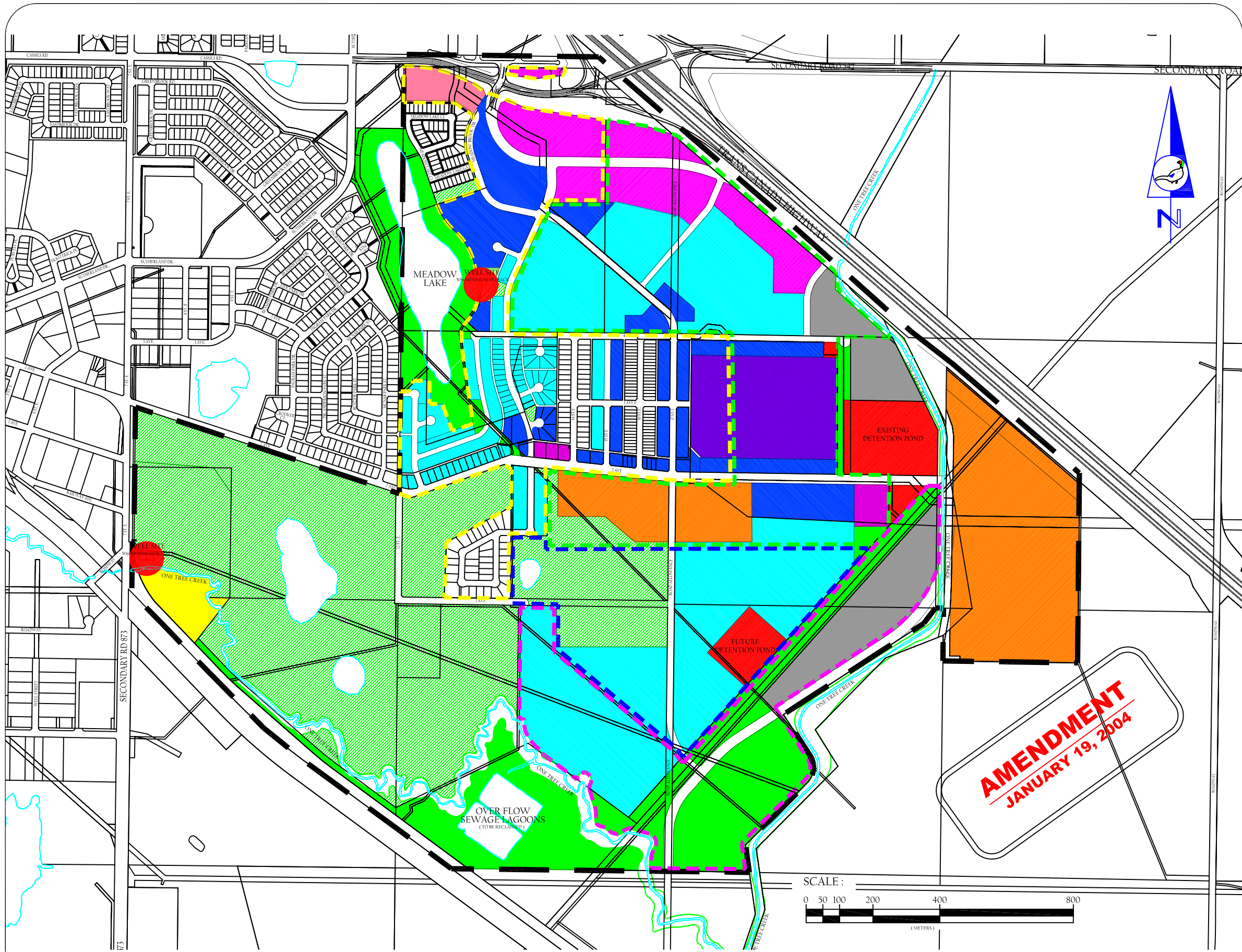
NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.
IN AREAS THAT ARE NOT DESIGNATED, REFER TO THE RELEVANT LAND USE DISTRICT IN THE TOWN OF BROOKS LAND USE BYLAW.
LOCATION OF THE ARTERIAL ROAD AND TRANS CANADA SERVICE ROAD TO BE CONFIRMED WITH THE COUNTY OF NEWELL, AFFECTED LAND OWNERS, AND ALBERTA TRANSPORTATION FOR ROAD ALIGNMENT OUTSIDE OF THE TOWN BOUNDARY.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : N/A

LAND USE CONCEPT

MAP 4



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	PHASE 1
	PHASE 2
	PHASE 3
	PHASE 4

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

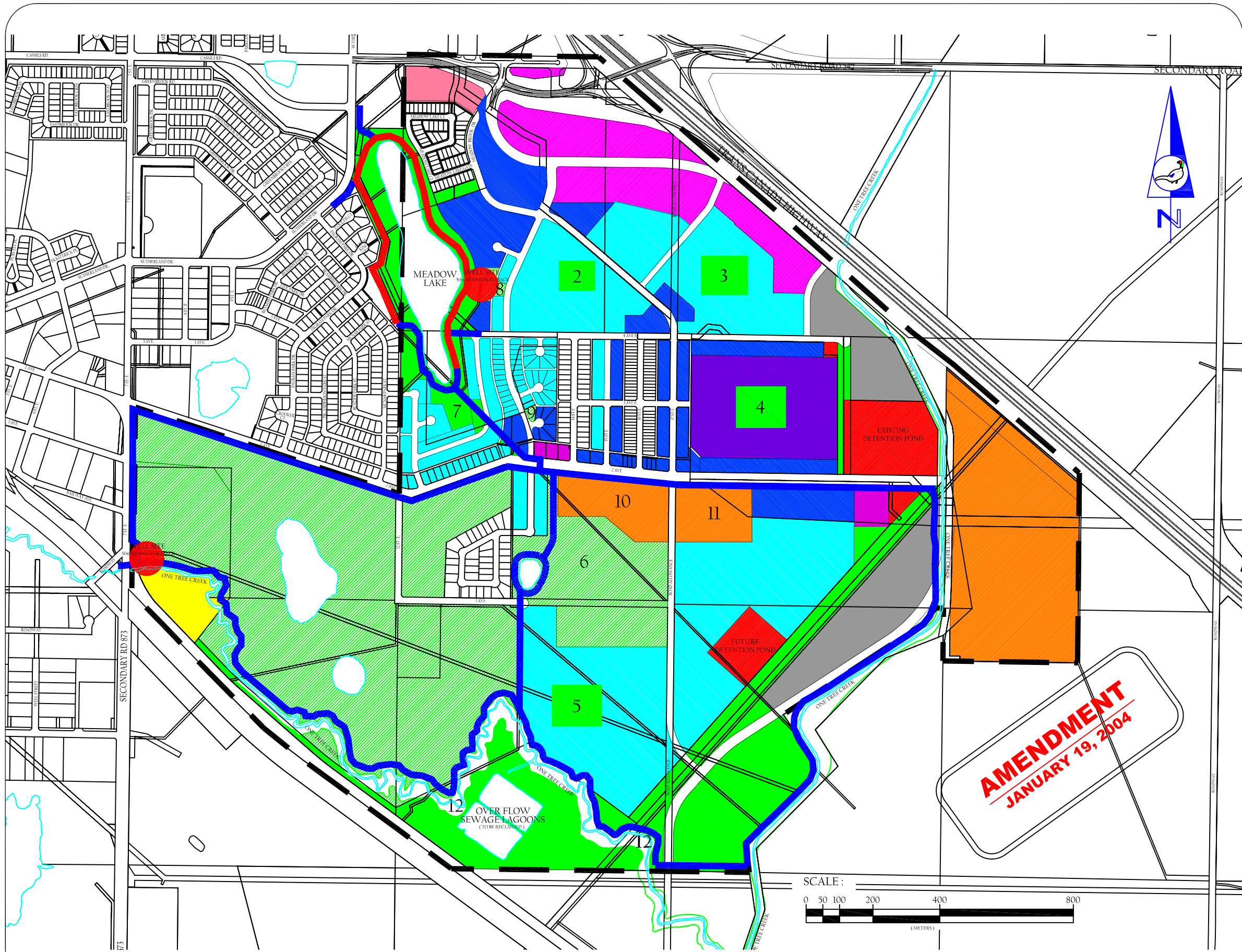
**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

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SCALE : AS SHOWN

DEVELOPMENT PHASES

MAP 5

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JANUARY 19, 2004



LEGEND

- AREA STRUCTURE PLAN BOUNDARY
- EXISTING PATHWAYS
- PROPOSED PATHWAYS
- PROPOSED MUNICIPAL RESERVE PER LAND USE

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

MUNICIPAL RESERVE	
1. 0.488 ha.	1.21 ac.
2. 1.041 ha.	2.57 ac.
3. 1.653 ha.	4.08 ac.
4. 1.966 ha.	4.86 ac.
5. 1.912 ha.	4.73 ac.
6. 15.337 ha.	37.90 ac.
7. 13.075 ha.	32.30 ac.
8. 1.384 ha.	0.34 ac.
9. 1.069 ha.	0.26 ac.

SCHOOL RESERVE	
10. 5.141 ha.	12.75 ac.
11. 4.000 ha.	10.00 ac.

ENVIRONMENTAL RESERVE	
12. 3.795 ha.	9.38 ac.

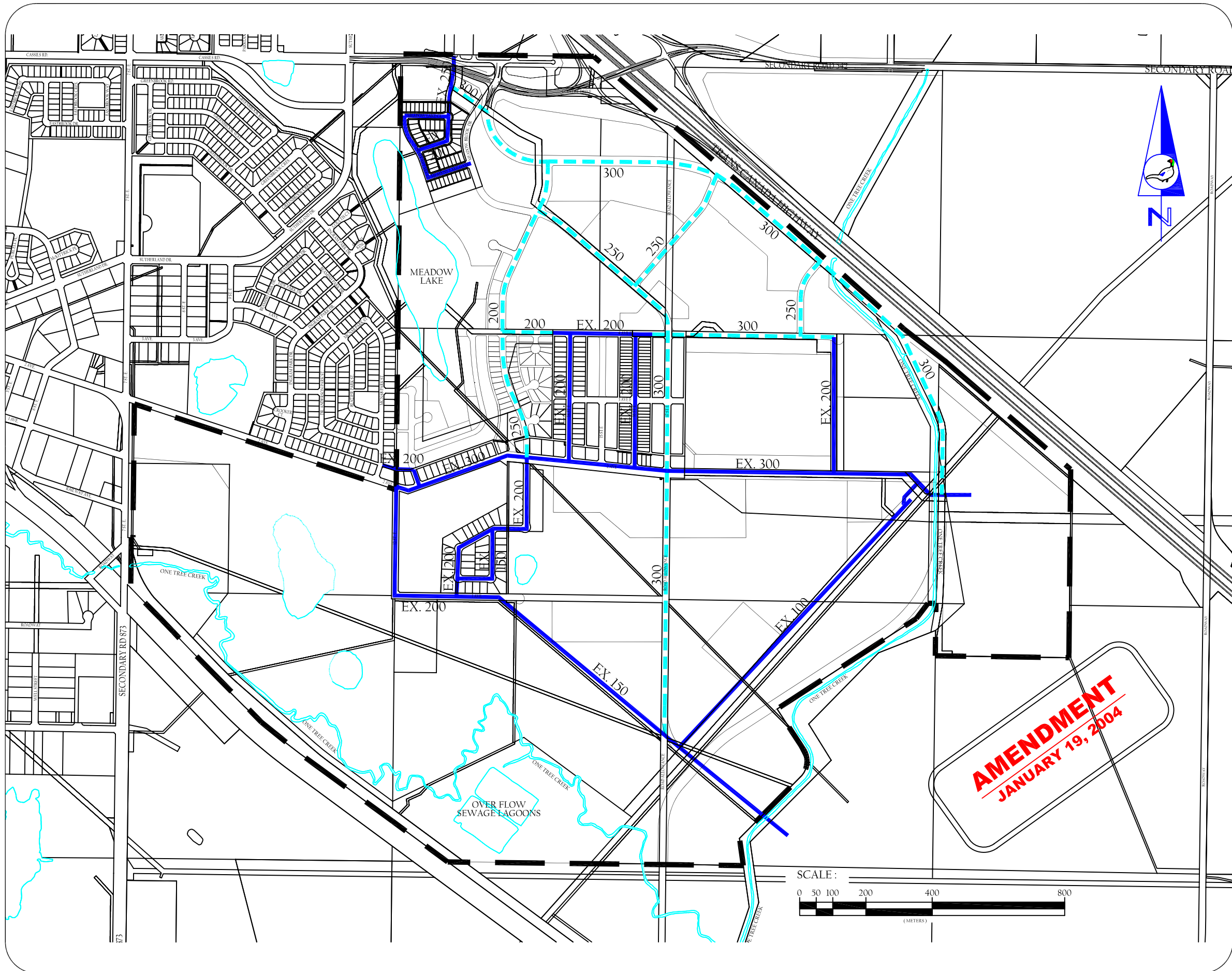
**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

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SCALE : AS SHOWN

**AMENDMENT
JANUARY 19, 2004**

**PARK SITES & LINEAR
PATHWAYS**

MAP 6



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	EXISTING WATER DISTRIBUTION
	PROPOSED WATER DISTRIBUTION

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

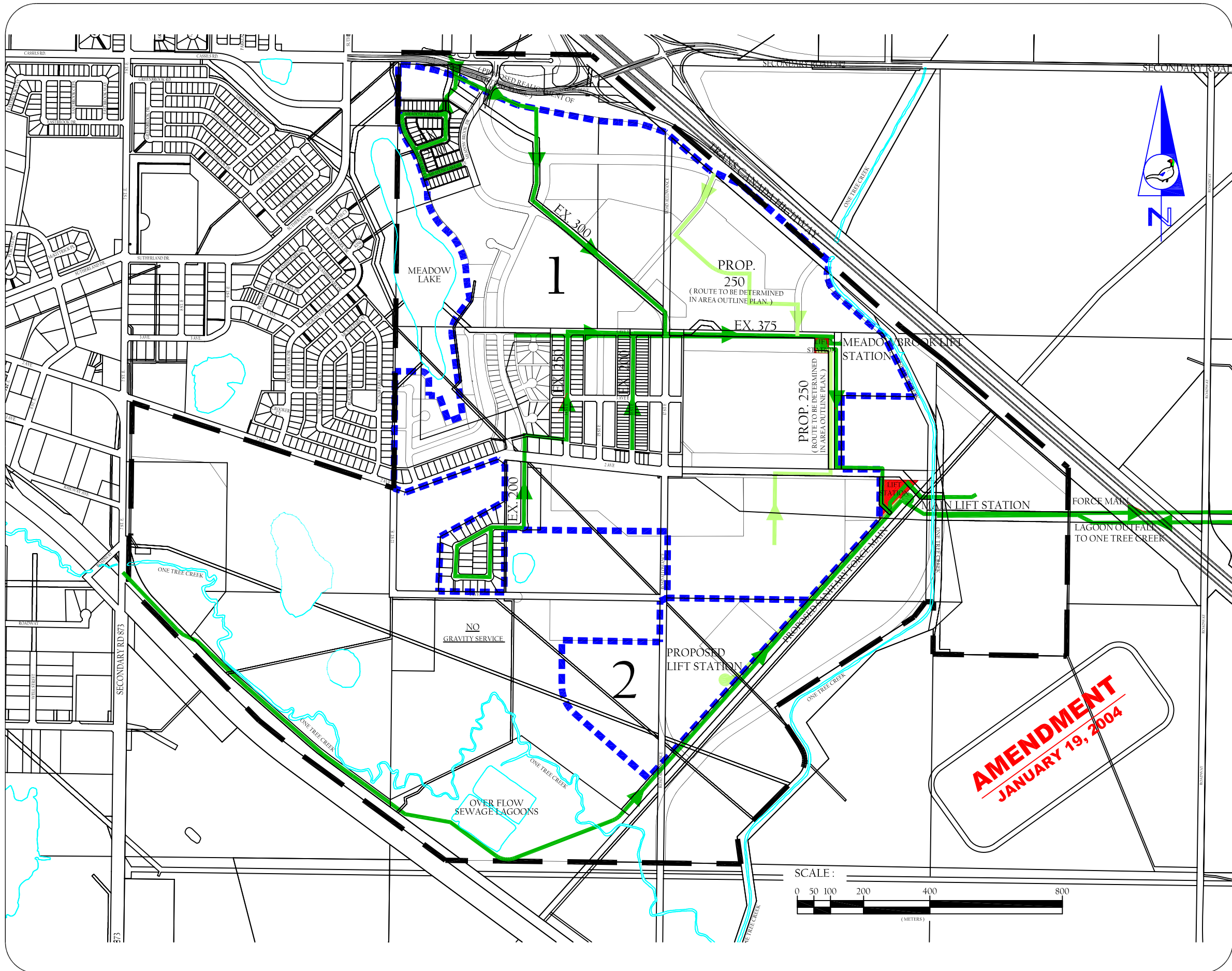
**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

AMENDMENT
JANUARY 19, 2004

**PROPOSED WATER
DISTRIBUTION SYSTEM**

MAP 7



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	EXISTING SANITARY SEWER SERVICE
	PROPOSED SANITARY SEWER SERVICE
	SANITARY AREA BOUNDARY

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

SANITARY CATCHMENT AREAS

AREA 1
AREA - 162 ha.
POPULATION EQ. - 6480
PEAK FLOW - 159.6 L / sec.
AVE. FLOW - 39.9 L / sec.
AREA 2
AREA - 8.9 ha.
POPULATION EQ. - 365
PEAK FLOW - 9.6 L / sec.
AVE. FLOW - 2.25 L / sec.

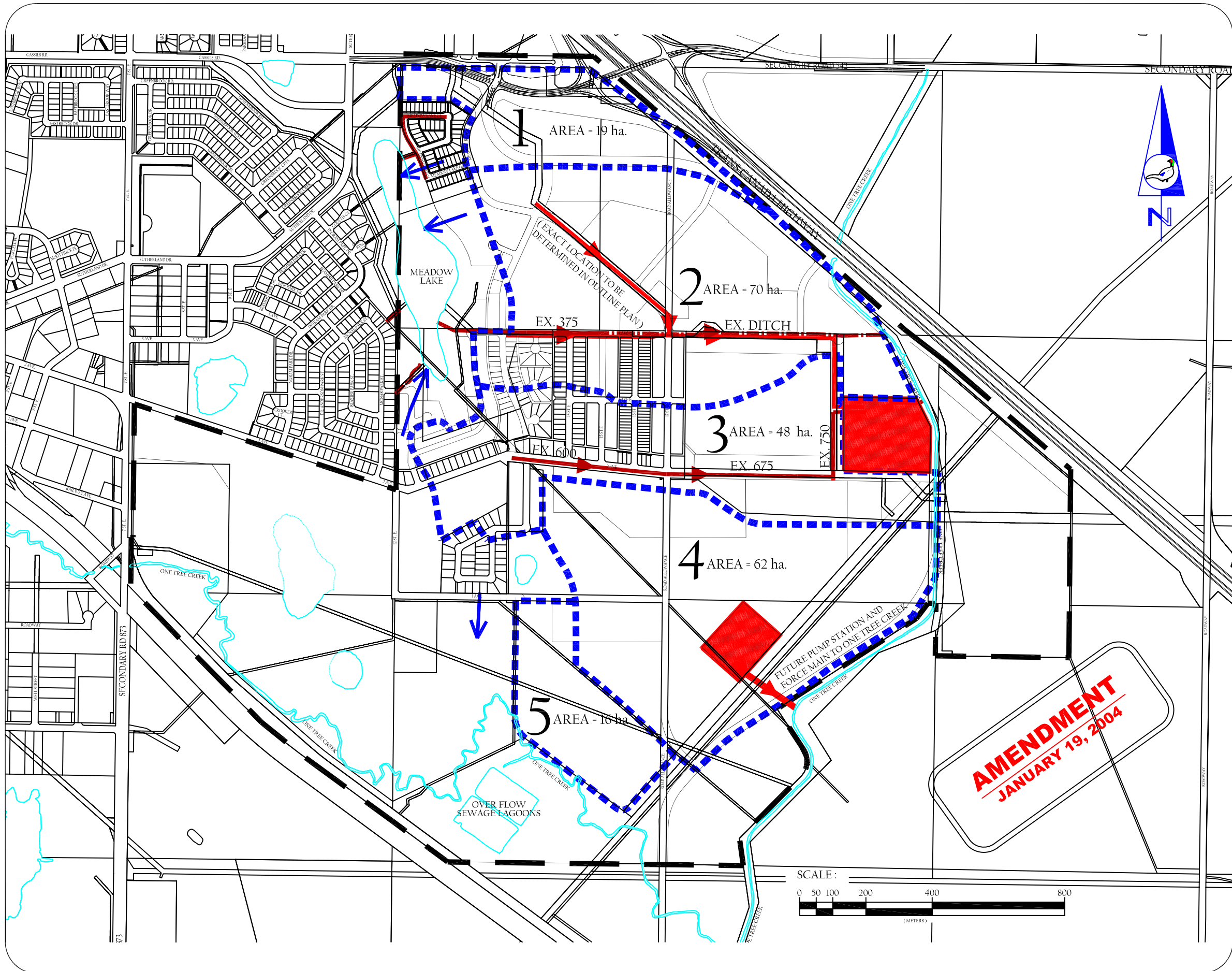
**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

**PROPOSED SANITARY
SEWER SYSTEM**

MAP 8

**AMENDMENT
JANUARY 19, 2004**



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	EXISTING STORM DRAINAGE DITCH
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	STORM CATCHMENT AREA BOUNDARY

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

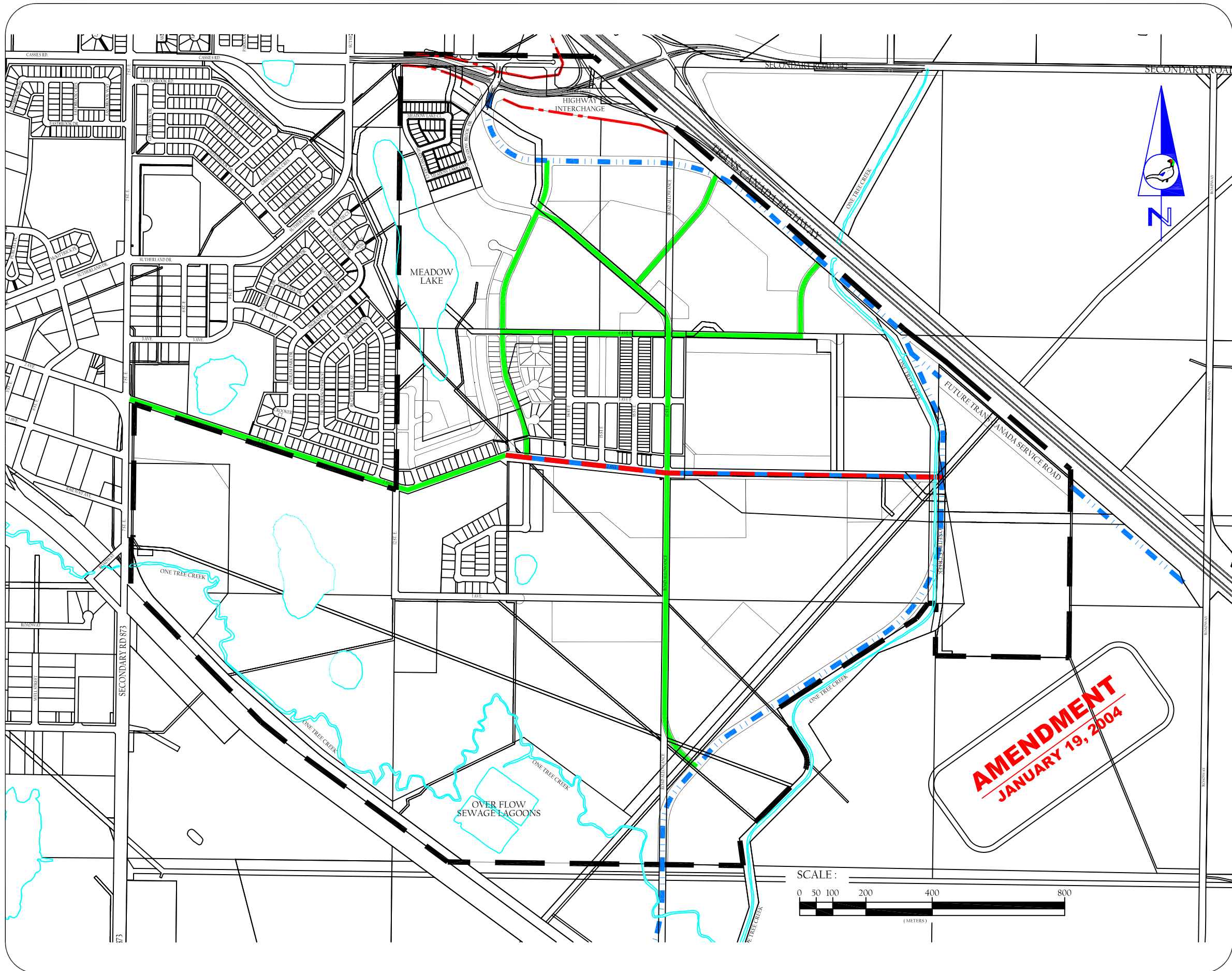
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AREA STRUCTURE PLAN

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AMENDMENT
JANUARY 19, 2004

PROPOSED STORM
WATER MANAGEMENT

MAP 9



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	ARTERIAL ROAD
	BOULEVARD COLLECTOR
	MAJOR COLLECTOR

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.
IN AREAS THAT ARE NOT DESIGNATED, REFER TO THE RELEVANT LAND USE DISTRICT IN THE TOWN OF BROOKS LAND USE BYLAW.
LOCATION OF THE ARTERIAL ROAD AND TRANS CANADA SERVICE ROAD ARE TO BE CONFIRMED WITH THE COUNTY OF NEWELL, AFFECTED LAND OWNERS, AND ALBERTA TRANSPORTATION FOR ROAD ALIGNMENT OUTSIDE OF THE TOWN BOUNDARY.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

AMENDMENT
JANUARY 19, 2004

**PROPOSED
ROAD NETWORK**

MAP 10



TOWN OF BROOKS

BYLAW NO. 02/19

A BYLAW OF THE TOWN OF BROOKS IN THE PROVINCE OF ALBERTA TO ADOPT THE SOUTHEAST SECTOR AREA STRUCTURE PLAN.

WHEREAS in accordance with Section 633 of the Municipal Government Act, 2000, M-26, and all amendments thereto, the Council of the Town of Brooks deems it advisable to adopt an Area Structure Plan.

AND WHEREAS the Area Structure Plan will control the following:

- The sequence of development;
- The land uses for the area;
- The general density of the population;
- The general location of major transportation routes and public utilities;
- Subdivision design and planning principles.

AND WHEREAS a public hearing as required by Section 692 of the Municipal Government Act was held on July 15, 2002.

NOW THEREFORE, the Council of the Town of Brooks in the Province of Alberta enacts as follows:

1. The Southeast Sector Area Structure Plan, controlling sequence of development, proposed land use, population density, location of major transportation routes and utilities and subdivision design and planning principles be adopted by the Council of the Town of Brooks.
2. The Southeast Sector Area Structure Plan shall contain an area as follows:

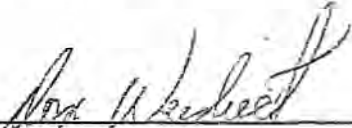
"That part of the Town of Brooks located north of the Old #1 Highway, south of the Trans Canada Highway and Cassils Road, east of 7th Street East and west of the Horticultural Centre and parts of the County of Newell as shown within Map 1 on Schedule "A" attached containing 413.75 ha (1022.37 acres) more or less."
3. That the Southeast Sector Area Structure Plan attached hereto as Schedule "A" forms part of this Bylaw.
4. This Bylaw shall be effective from the date of the final passing.

5. Bylaw Nos. 95/36, 98/25 and Schedule "A" of Bylaw 99/28 are hereby repealed.

Read a first time this 3rd day of June, 2002.

Read a second time this 15th day of July, 2002.

Read a third time and finally passed this 15th day of July, 2002.



Mayor



Manager, Administrative Services

PREFACE

The Southeast Sector Area Structure Plan and Supporting Information is a planning document prepared for adoption by Town Council under provisions of the Municipal Government Act, 2000, M-26. The document consists of the area structure plan that is adopted by bylaw. The area structure plan establishes the conceptual framework for more detailed planning to follow. The second part is the Supporting Information Section, which provides the background to the Plan.

This statutory plan repeals the existing one adopted by bylaw in 1995 as well as amendments thereto.

PUBLISHING INFORMATION

Title:	Southeast Sector Area Structure Plan
Author:	Town of Brooks, Planning Services & Economic Development Department
Status:	Adopted July 15, 2002
Printing Date:	July 2002
Additional Copies:	The Town of Brooks 201 – 1 st Avenue West Bag 880 Brooks, AB T1R 0Z6 Ph#: (403) 362-3333 Fax#: (403) 362-4787 E-mail: eng@town.brooks.ab.ca

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Map 9 - Proposed Storm Water Management

Map 10 - Proposed Road Network

APPENDICES

Appendix 1 Land Use Statistics

Appendix 2 Excerpt from Southeast Infrastructure Servicing Report

Appendix 3 Road Cross Sections

1.0. INTRODUCTION

1.1. PURPOSE

The purpose of the Southeast Sector Area Structure Plan (ASP) is to provide a policy framework to support the existing development in the Southeast Sector and to ensure the orderly development of those portions of the Plan Area that are undeveloped. The purpose is also to ensure the effective integration of existing with future development.

This area structure plan outlines, in general, the future pattern of subdivision by defining:

- land use types, size and location;
- the transportation network;
- the servicing requirements;
- the general location of community facilities;
- the sequencing of development; and,
- other development issues specific to the Southeast Sector.

The purpose of this area structure plan is to establish the planning context on individual parcels in the Plan Area.

This area structure plan has been prepared in conformity with Section 633 of the Municipal Government Act. An area structure plan must achieve two things. It must be in keeping with the Town of Brooks' responsibility to protect the broader public interest by promoting the design of neighbourhoods that are fiscally, socially, and environmentally sustainable in the long-term. At the same time, it must be flexible enough so that the development community can respond to prevailing market conditions and exercise creativity and innovation in design details.

The Southeast Sector Area Structure Plan presently governs the Southeast Sector and Supporting Guidelines adopted by Bylaw 95/36 on December 18, 1995. This statutory plan was subsequently amended by Bylaws 98/25 and 99/28. This statutory plan repeals the previous one and amendments. Part I of this document forms the statutory plan. Part II contains supporting information and does not form part of the statutory plan.

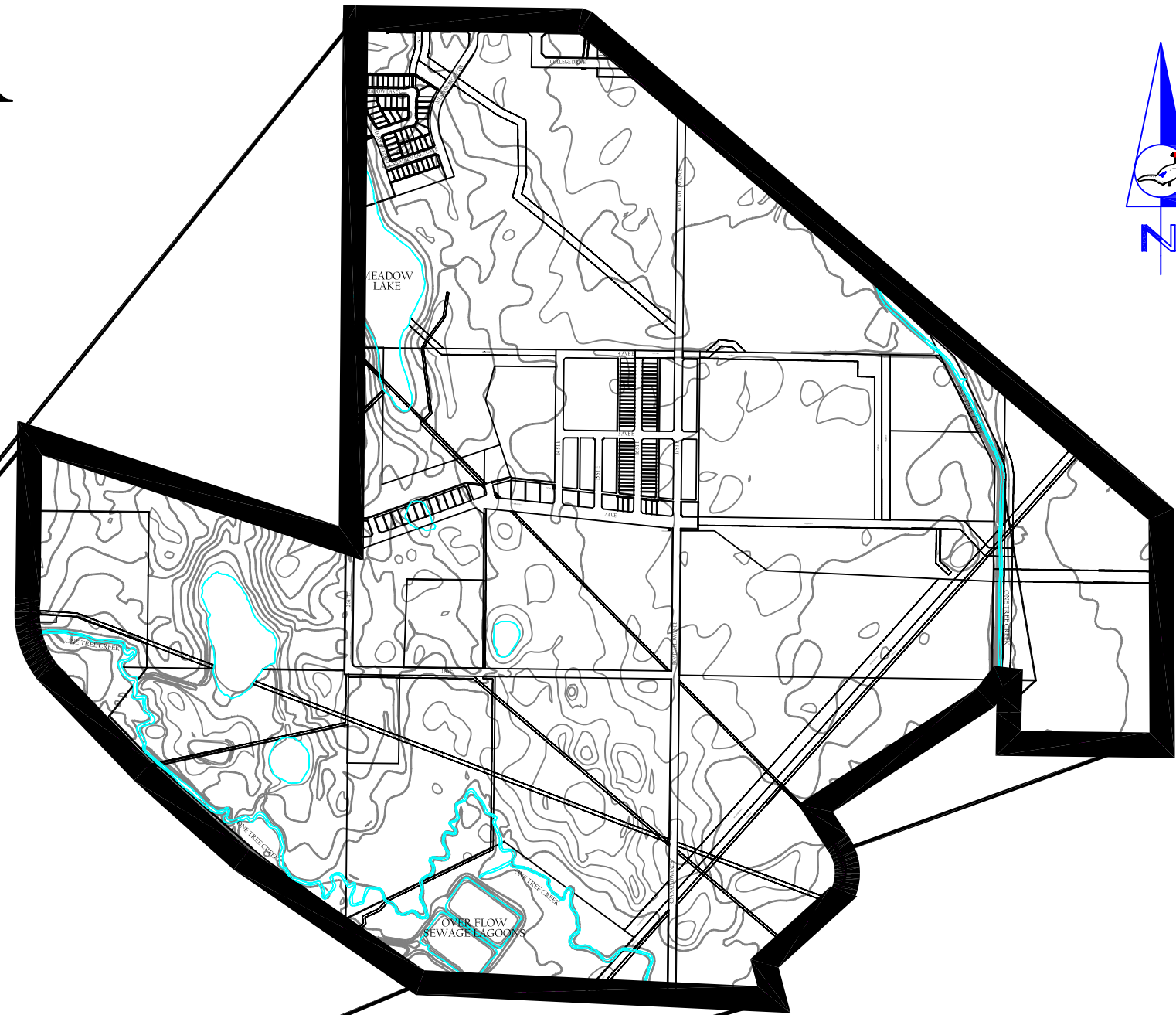
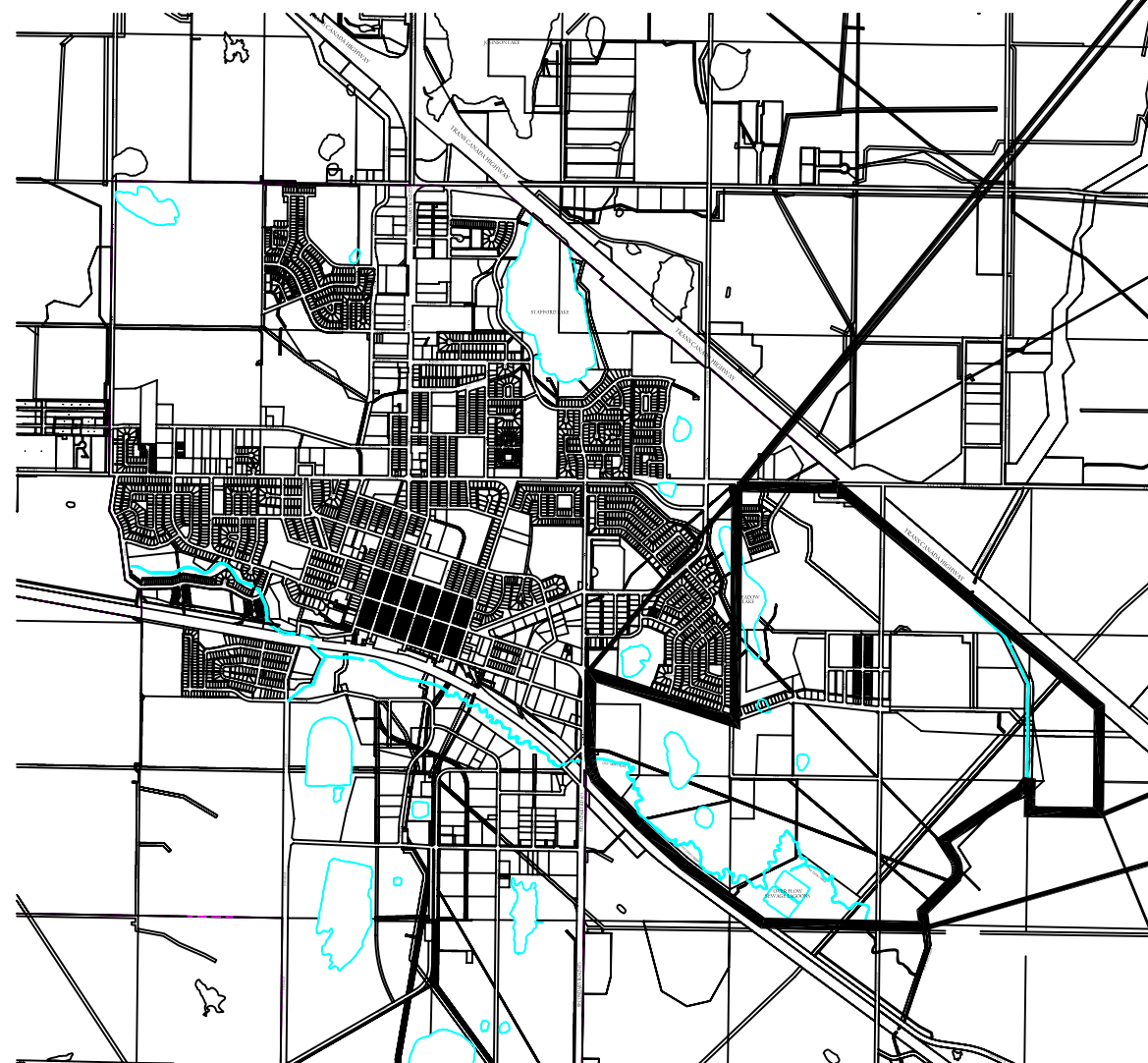
1.2. SITE LOCATION AND ACCESS

The Southeast Sector is located in the southeast section of the community (Map 1). It lies to the east of 7th Street East, north of the Old #1 Highway, south of the Trans Canada Highway and Cassils Road, and west of the Horticultural Centre and parts of the County of Newell.

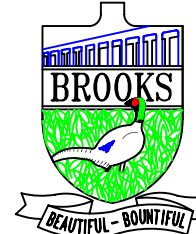
SOUTHEAST SECTOR

AREA STRUCTURE PLAN

LOCATION MAP



TOWN OF BROOKS
PLANNING SERVICES



DATE : 15/07/02

MAP 1

Access to the Plan Area is by 2nd Avenue East and Meadowbrook Drive. The Plan contemplates additional linkages to existing and proposed roadways.

The Plan Area comprises approximately 413.78 ha (1022.42 acres). Approximately 39.92 ha (98.64 acres) have been developed in the Plan Area. The Town owns approximately 158 ha (390 acres) of land within the Plan Area.

1.3. LAND OWNERSHIP

The majority of the lands remain in an un-subdivided state. Earlier development resulted in lands being subdivided under Plans 9412700, 9813007, and 0211591. The Town of Brooks is the major landowner of undeveloped lands within the Plan Area (Map 2). Some of these lands are anticipated to have development in the near future. Major landowners include EnCana Corporation, the Medicine Hat College, Laura Fleury, Harold & Linda Ward, Ron & Terrie Hager, Gilbert Deremiens, Genesis Land Development Corporation, and the Brooks Golf Course.

A right-of-way comprising approximately 9.25 ha (22.88 acres) runs in a northeast to southwest direction in the eastern portion of the Plan Area. This right-of-way constitutes a utility corridor and consists of municipal and franchise facilities.

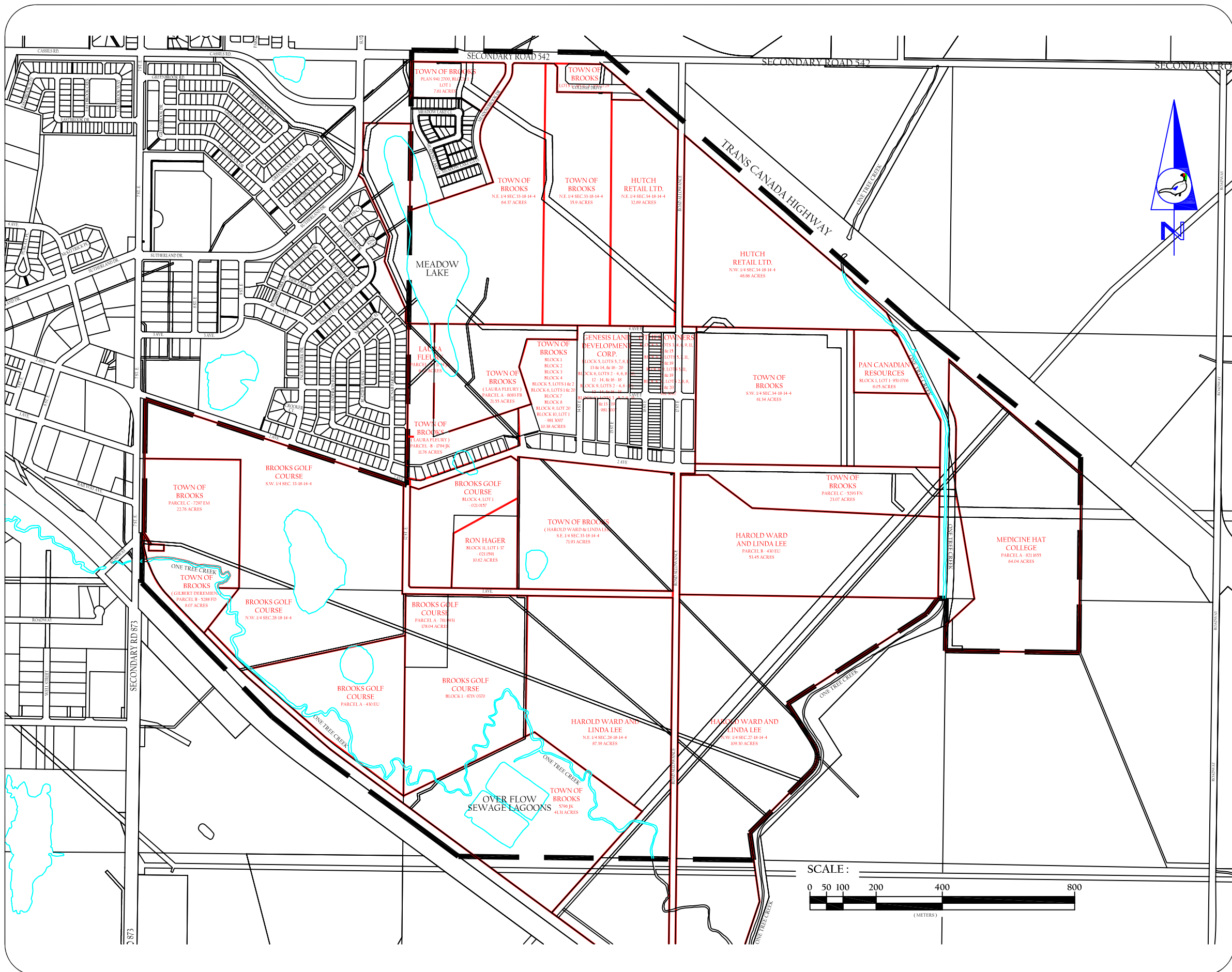
1.4. BACKGROUND

The Southeast Sector has experienced several statutory plans over the years. The 1995 Plan is the most recent area structure plan for the Southeast Sector. The 1995 Plan was prepared, “for the anticipated increase in demand for housing, to attempt to preserve the present character of the Town, to fully integrate the new residential areas of the Town into the community and to attempt to contribute to an effective supply of affordable housing for present and future residents of the Town.”¹

The 1995 Plan Area has been amended twice since its adoption: (1) in 1998, and (2) in 1999. These amendments addressed development proposals in the Southeast Sector that did not “fit” the “new urbanism philosophy” contemplated in that plan. Since the 1995 Plan was adopted, growth in this area has been slower than initially expected. Three residential neighborhoods had been developed in the Southeast Sector up to the date this Plan was adopted: (1) Meadow Lake Estates; (2) Meadowbrook Greens; and (3) Greystone Pointe.

Renewed interest in the Southeast Sector resulted in the Town reviewing land uses in this area. Several initiatives in 2001 lead to the Town revisiting the 1995 Plan to determine if it could satisfy these initiatives. In response, the Town determined that the 1995 Plan needed to be repealed in order to address emerging trends.

¹ The Town of Brooks, 1995, Southeast Sector Area Structure Plan and Supporting Guidelines, Page 1.



LEGEND

- AREA STRUCTURE PLAN BOUNDARY
- OWNERSHIP PARCELS

NOTES: THIS MAP IS APPROXIMATE ONLY, PLEASE REFER TO INDIVIDUAL TITLES.

SOUTHEAST SECTOR
AREA STRUCTURE PLAN

DATE : 15/07/02
SCALE : AS SHOWN

LAND OWNERSHIP

MAP 2

Contemporary trends, market conditions, and community needs made the 1995 Plan unsuitable. A direct result of these factors is the lack of development in the Southeast Sector despite the large amount of developable land found in this area.

These trends, combined with a Municipal Development Plan recommendation to review the Southeast Sector Area Structure Plan and Supporting Guidelines, have been the impetus for the creation of an updated statutory plan to address current and future community needs and preferences and to ensure a continuous supply of land for urban development.

1.5. PROPOSED CHANGES

The following summarizes the changes between the 1995 Plan and the proposed Southeast Sector Area Structure Plan. This Plan provides for:

- An affordable housing site with potential for expansion in the future.
- A variety of residential types including single and multi-family.
- Local commercial that services the Southeast Sector. Highway commercial is included to address businesses interested in locating adjacent to the Trans Canada Highway.
- A regional athletic park to contain multi-sport facilities. School sites have been located in proximity to this site for use of recreational facilities.
- A linear pathway throughout neighbourhoods tying open spaces together within the Southeast Sector and the general community.
- An arterial roadway to allow traffic to link to the South Industrial Park through the County of Newell from the proposed interchange at Cassils Road and the Trans Canada Highway.
- A future Service Road to provide access from the highway commercial area to the Trans Canada Highway east of the Plan Area.
- Elimination of church site designations. Such sites will be defined at the Outline Plan/Land Use Amendment stage.
- Locating fire protection and other emergency services within the Plan Area, if required.
- Neighbourhood staging reflects the 2002 Growth Study as well as current engineering and planning standards in regard to the provision of logical and economic extension of services. Staging will generally radiate north and south of 2nd Avenue East and west from 16th Avenue East to McNabb Park Street in the first phase. Subsequent phases will be contingent upon market conditions.

2.0. THE PLANNING CONTEXT

2.1. SITE FEATURES

2.1.1. Natural Environment

The Plan Area generally consists of native grasses with some mature trees located in areas around Meadow Lake and within the Brooks Golf Course. The Plan Area has generally been heavily disturbed through past cultivation.

The slope of the land is generally from west to east with some undulation in the former. The site is level with some low, wet areas in the southeast. Several small sloughs and Meadow Lake are found within the western half of the Plan Area.

There are no outstanding physical features within the Plan Area other than Meadow Lake and adjacent areas around this water body.

2.1.2. Existing Development

The Plan Area is partially developed. This includes Meadowbrook Greens being a residential development adjacent to 16th Street East between 2nd Avenue East and 4th Avenue East. Meadow Lake Estates is a manufactured home community in the northwest corner of the Plan Area adjacent to Meadowbrook Drive and individual homes south of 2nd Avenue East. Greystone Pointe is a thirty-seven lot single-family residential development located south of 2nd Avenue East. Individual homes are also located within the Plan Area.

The Brooks Golf Course occupies a significant area within the southwest of the Plan Area. The Kinsmen Rodeo Park occupies land east of 7th Street East. The Town's overflow sewage lagoons occupy an area in the southeast corner of the Plan Area. There is also a storm detention pond located west of the Medicine Hat College and north of the right-of-way for 2nd Avenue East.

The Medicine Hat College is located along the eastern boundary of the Plan Area.

At the time this Plan was prepared, the following residential developments were being planned:

- A forty-lot development adjacent to 14th Street East between 2nd Avenue East and 4th Avenue East.
- A manufactured home community east of Meadowbrook Drive between the arterial/truck route and 4th Avenue East.

Long range transportation plans by the Provincial Authority, show the development of an interchange at the junction of Cassils Road and the Trans Canada Highway. Development

within this area must take this into account. Design and construction of this interchange is dependent on funding approval from the Provincial Government.

There are several existing rights-of-ways located within the Plan Area. UtiliCorp Networks Canada (Alberta) Ltd. has facilities within a utility corridor located on a northeast to southwest diagonal through the Plan Area. The Town has a water line to provide service to the Horticultural Centre. ATCO Gas has facilities within a right-of-way that extends on a diagonal from the eastern boundary in a northwest direction to Meadow Lake.

A number of rights-of-ways are associated with the main sanitary sewer lift station immediately west of the college site. A water line, power line, and sewer line connect to the facility from the southwest and the force main from the lift station runs east, across the college property, continuing to the Town's sewage lagoon site 2 km (1.24 miles) to the east.

The Town also has a sanitary sewer right-of-way extending in a southeast direction from Cassils Road to the eastern boundary of the Plan Area.

2.2. COMPLIANCE WITH PROVINCIAL AND MUNICIPAL POLICIES

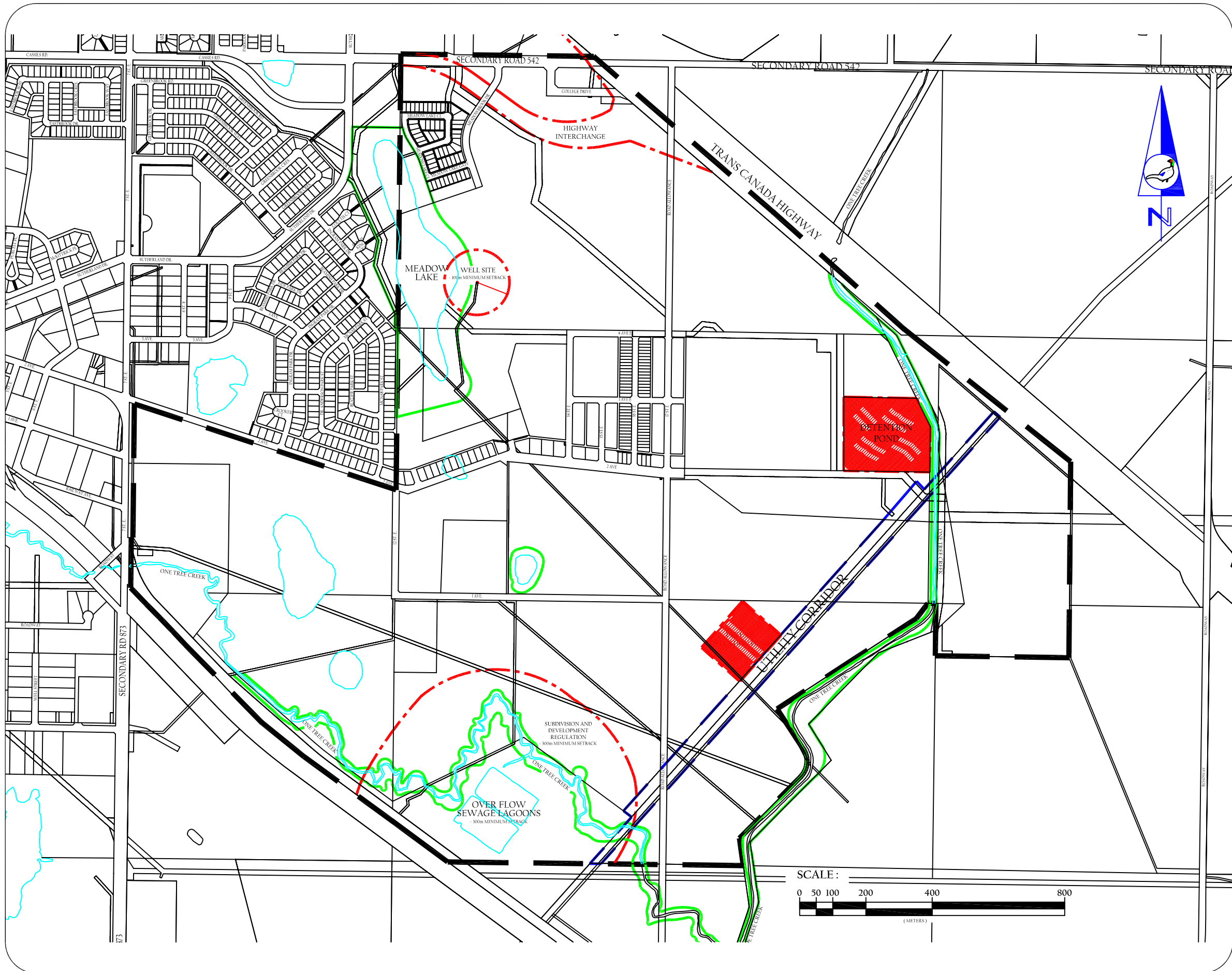
This Plan conforms to the spirit and intent of the statutory planning framework; land use bylaw and other policy documents identified in Part II – Supporting Information Section.

This Plan provides the linkage between the more general or broader-based planning documents and the actual plans of subdivision that will be submitted by developers or landowners.

2.3. PLANNING CONSTRAINTS

A number of constraints need to be considered in planning for the Southeast Sector (Map 3). These include:

- multiple landowners;
- high water table in portions of the Plan Area;
- environmentally sensitive areas such as One Tree Creek and Meadow Lake;
- land for commercial development in the vicinity of the Trans Canada Highway and for neighbourhood services must be provided;
- future upgrading of the Trans Canada Highway – Cassils Road intersection will require the provision of land on the south side of Cassils Road;
- only one access point into the Plan Area is available from Cassils Road;
- utility rights-of-ways occupy areas of the Plan Area that will constrain future development;
- topography affects the design of sewage and surface drainage facilities;



TOWN OF BROOKS
PLANNING SERVICES



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	ENVIRONMENTALLY SENSITIVE LANDS
	SUBDIVISION & DEVELOPMENT REGULATION SETBACKS
	UTILITY CORRIDOR

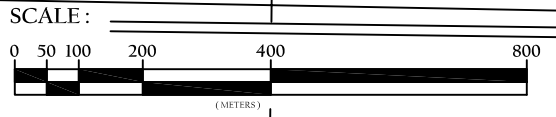
NOTES: DEVELOPMENT CONSTRAINTS WITHIN THIS MAP WERE IDENTIFIED FOR THE S.E. SECTOR AREA STRUCTURE PLAN. DEVELOPMENT CONSTRAINTS MAY BE IDENTIFIED AT THE OUTLINE PLAN / LAND USE AMMENDMENT STAGE FOR INDIVIDUAL DEVELOPMENT CELLS.

SOUTHEAST SECTOR
AREA STRUCTURE PLAN

DATE : 15/07/02
SCALE : AS SHOWN

DEVELOPMENT
CONSTRAINTS

MAP 3



- subdivision and development regulations limit development within 300 m of the overflow sewage lagoons until they are closed and reclaimed;
- development in proximity to the well site within the Plan Area is subject to a 100 m minimum setback distance unless relaxed by the AEUB;
- access to the Trans Canada Highway limited to approved points by the Provincial Approving Authority;
- future storm water detention pond required south of 2nd Avenue East to service development cells in that area.

2.4. PLANNING PROCESS

2.4.1. Public Consultation

Preparation of the Southeast Sector Area Structure Plan included consultation with area landowners, adjacent landowners, interested stakeholders, as well as referral agencies. Through 2001 and early 2002, Administration and Council met with landowners to identify preferred land uses within the Southeast Sector.

An Open House was held February 12, 2002, to allow additional input from earlier meetings. All landowners within the Plan Area and those immediately adjacent to the statutory plan boundary were notified by mail of the Open House. The Open House was also advertised in local papers. Additional notices were circulated to referral agencies such as the County of Newell No. 4. A questionnaire was available at the Open House to be completed by those who attended it. Additional information was provided at the 2002 Spring Trade Show. A public hearing was held to receive additional information prior to adoption of the Plan.

2.4.2. Plan Approval

Direction for the preparation of this Area Structure Plan was provided by Section 13.6(c) of the Town of Brook's Municipal Development Plan. The Southeast Sector Area Structure Plan was given three readings by Town Council and a public hearing in accordance with Provincial legislation.

3.0. THE DEVELOPMENT CONCEPT

3.1. VISION OF COMMUNITY

The vision of the Southeast Sector Area Structure Plan is to create neighbourhoods in which a variety of housing is available for different income levels and ages set within an oasis of open space with linkages to other parts of the community.

3.2. DEVELOPMENT OBJECTIVES

The goal of the Plan is to provide a framework for the efficient, attractive, safe, and orderly development of land within the Southeast Sector.

Key objectives of the Area Structure Plan are the following:

- to provide a range and variety of housing opportunities to meet current and future market conditions;
- to ensure that urban development proceeds in an orderly and efficient manner;
- to provide a safe and convenient circulation network that reflects the character of the intended development and meets the unique needs of the Plan Area;
- to provide an open space system with opportunities for trail linkages to surrounding natural areas;
- to ensure that the transition between differing land uses is compatible;
- to identify a general location of an emergency services facility if it is necessary in this section of the community;
- to ensure that school site requirements are met;
- to provide for a regional athletic park to service the neighbourhood, community, and region;
- to encourage detailed Outline Plan preparation by individual landowners and developers as each development cell is developed in the future; and
- to ensure integration of local transportation networks with the proposed Trans Canada Highway interchange, proposed service road, and arterial roadway;
- To ensure the protection of One Tree Creek and other environmentally sensitive features.

3.3. DEVELOPMENT CONCEPT

The Southeast Sector will be a residentially-oriented community comprised predominantly of low density residential development and manufactured housing interspersed with multi-family residential situated along collector and arterial routes, as shown on Map 4 – Land Use



LEGEND

[Black dashed line]	AREA STRUCTURE PLAN BOUNDARY
[Grey box]	BUSINESS PARK
[Yellow box]	COMMERCIAL - LIGHT INDUSTRIAL
[Cyan box]	RESIDENTIAL - SINGLE FAMILY
[Blue box]	RESIDENTIAL - MULTI - FAMILY
[Purple box]	RESIDENTIAL - MANUFACTURED HOME COMMUNITY
[Orange box]	INSTITUTIONAL
[Red box]	DEVELOPMENT CONSTRUCTIONS
[Pink box]	SPECIAL POLICY AREA
[Green box]	OPEN SPACE
[Light green box]	PARKS & RECREATION
[Magenta box]	COMMERCIAL - NEIGHBORHOOD
[Light blue box]	COMMERCIAL - HIGHWAY

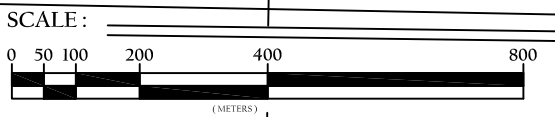
NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.
 IN AREAS THAT ARE NOT DESIGNATED, REFER TO THE RELEVANT LAND USE DISTRICT IN THE TOWN OF BROOKS LAND USE BYLAW.
 LOCATION OF THE ARTERIAL ROAD AND TRANS CANADA SERVICE ROAD TO BE CONFIRMED WITH THE COUNTY OF NEWELL, AFFECTED LAND OWNERS, AND ALBERTA TRANSPORTATION FOR ROAD ALIGNMENT OUTSIDE OF THE TOWN BOUNDARY.

SOUTHEAST SECTOR
AREA STRUCTURE PLAN

DATE : 15/07/02
 SCALE : AS SHOWN

LAND USE CONCEPT

MAP 4



Concept Plan. Appendix 1 identifies the area of land as well as percent required for each land use.

School sites are identified either within or in proximity to the proposed regional athletic park. The intent of locating school sites within this area of the Plan is to make possible use of these facilities by the schools. Prior to either the school sites or athletic park developing, each school division and the municipality should discuss and negotiate a joint-use agreement for facilities within this area. In the event that this athletic park is not constructed before a school, it may be necessary for the school to develop its own facilities. This will need to be monitored in the future.

The regional athletic park will be a major recreational feature for the Southeast Sector, community and region. This facility will contain baseball and soccer fields, possibly an indoor soccer facility as well as other miscellaneous recreational-oriented facilities. The regional athletic park facility will complement the Brooks Golf course located to the west and southwest of it.

Significant open space is contemplated for the Southeast Sector to reinforce its image as an “oasis within an oasis.” Areas around Meadow Lake will be left in their natural state with the exception of trail installation and maintenance. A trail network is envisioned to allow access to all major natural areas within the Southeast Sector and connections to other areas within the community.

A storm water management facility was constructed in the 1990’s to accommodate major storm events. This facility has the capacity to accommodate surface water runoff from areas north of 2nd Avenue East. Development of additional storm water management facilities will need to be evaluated for areas south of 2nd Avenue East. A location for a storm water detention pond has been identified for the area south of 2nd Avenue East. If necessary, a Master Drainage Plan may be required for each development cell as part of the Outline Plan process. Regulatory demands are increasing the need for such information. In addition to their technical necessity, storm water facilities can provide a recreational amenity for the community.

An arterial roadway extending eastward from Meadowbrook Drive provides access to areas in the north of the Southeast Sector as well as the Medicine Hat College and the Horticultural Centre. Second Avenue East, 4th Avenue East, Meadowbrook Drive, 17th Street East and 22nd Street East will serve as collectors. Access to other parts of the community is provided via 2nd Avenue East and Meadowbrook Drive.

3.4. DENSITY

Defining density at this stage of the planning process may be suspect since many of the development cells are undefined. The preference is to have an Outline Plan to better define density within each development cell. Market demand will influence the type and style of land use and development ultimately sought and overall densities may vary from expected

projections. Based on a total net developable area of 216.15 acres, the projected unit and population densities are anticipated to range from 1689 to 2573 units [(19.26 upnha to 29.34 upnha) or (7.81 upna to 11.90 upna)] for a gross population of 4559 to 6947 persons. The number of units and population will vary depending upon the type and density of multi-family residential anticipated within the Southeast Sector.

3.5. PHASING

Individual development phases are shown in Map 5. It is likely that the first phase of development will primarily occur on Town owned lands and some private land. Development elsewhere within the first phase will be contingent upon market conditions and provision of services into these areas. Subsequent phases will primarily be driven by market conditions.

The phasing of development within this Plan should be approved only where there are contiguous roads and utilities. If developers wish to develop land-requiring extensions of existing roadways and utilities, all costs of such extensions should be borne by them. The Town may consider the principle of endeavor to assist where development of one site benefits another.

All detailed designs and construction will be approved by the Town to ensure that safe and attractive neighbourhoods are provided within the Southeast Sector.

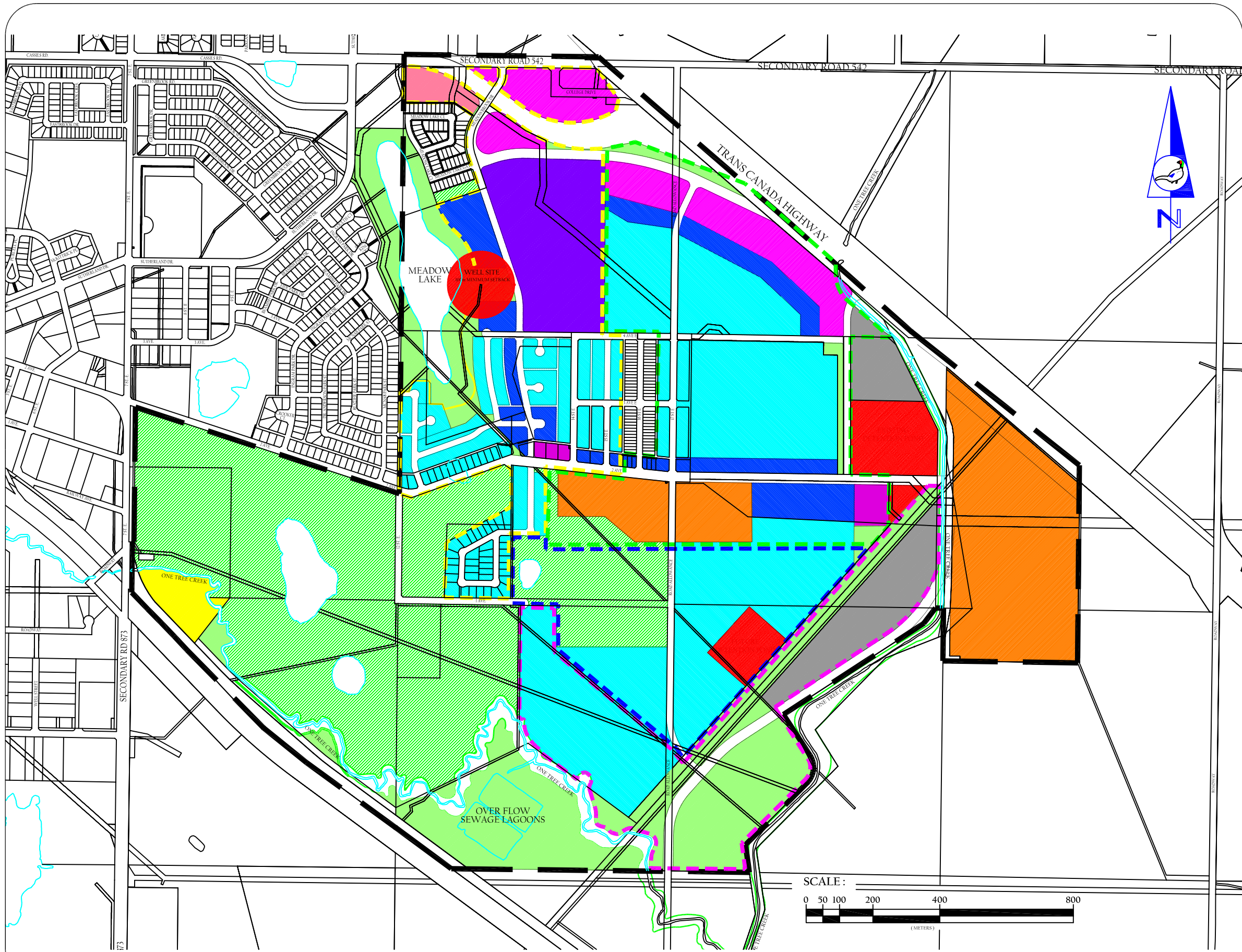
3.6. LAND USE POLICIES

3.6.1. Residential Development

The following policies refer to residential development within the Plan Area.

3.6.1.1. Objectives

1. To provide for alternative forms of housing in order to fulfill market niches presently not satisfied in the community.
2. To provide within the community a variety of housing types and tenure to accommodate differences in age, family size, and income.
3. To ensure that new developments provide an attractive residential environment with adequate parking, landscaping, and amenities.
4. To ensure a proper interface between residential and non-residential uses through the use of building or site design.
5. To provide for pedestrian scale walk-able neighborhoods with linkages to existing social, cultural, or economic facilities within the community.



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	PHASE 1
	PHASE 2
	PHASE 3
	PHASE 4

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

DEVELOPMENT PHASES

MAP 5

3.6.1.2. Policies

- 3.6.1.2.1. Creative site planning and design that responds to the context of the site and natural features will be encouraged.
- 3.6.1.2.2. A range of tenure options should be encouraged in residential areas including fee simple, condominium and rental housing units.
- 3.6.1.2.3. The integration of lower cost housing in the form of an apartment building or other forms will be encouraged within the Southeast Sector. Any affordable housing project design should integrate well with the surrounding area.
- 3.6.1.2.4. Higher density multiple family developments will be encouraged in the following areas:
- Intersection of Meadowbrook Drive and 2nd Avenue East;
 - Along 17th Street East north of 4th Avenue East;
 - Along 2nd Avenue East.
- 3.6.1.2.5. Design guidelines may be applied to all multi-family dwellings and single detached, duplex, and semi-detached dwellings. Multi-family housing will ensure the following:
- External design, character, and appearance of the building must ensure the architectural integrity of the site and surrounding dwellings;
 - Comprehensive site planning will be encouraged in order to ensure a proper relationship with existing and proposed development in the area;
 - Site design will ensure proper egress/access to major roadways;
 - Buffering or screening may be required along the edge of the property for development that has the potential to create land use conflicts with existing or potential residential areas.
 - Development adjacent to 2nd Avenue East and other major collectors will reflect appropriate design being in highly visible locations. Design will ensure amenity space is provided for each dwelling unit and is sensitive to existing or proposed development in the area. Building orientation should be directed to the street in order to enhance the experience of the pedestrian, to enhance the safety of the community and the development, and to facilitate opportunities for social exchange.
 - Each dwelling unit should be designed with consideration of privacy, territoriality, individuality and identity, and access to sunlight for habitable rooms and private amenity spaces.
- 3.6.1.2.6. Development in the area designated for single-family residences in the NE 28-18-14-W4M within the setback requirement of the overflow sewage lagoons will not be permitted until such time as this facility is closed and reclaimed.

Closure and reclamation of this facility will need to be reviewed by the municipality. It is likely, however, that closure and reclamation will not be considered until after 2010 at the earliest.

- 3.6.1.2.7. Residential development adjacent to commercial land uses will ensure proper orientation and screening to minimize potential conflict within the residential-commercial interface where commercial exists before the residential development.
- 3.6.1.2.8. Mixed uses that permit residential units constructed over commercial will be supported in the neighbourhood commercial sites.
- 3.6.1.2.9. Secondary suites within single-detached dwellings may be permitted provided a separate entry point is provided and the suite satisfies the Alberta Building Code, the Alberta Fire Code and provision is made within the land use bylaw.
- 3.6.1.2.10. Within the area designated as Manufactured Home Community the following guidelines apply:
- Uniform fencing will be required to the satisfaction of the municipality at the time of subdivision or development approval around the perimeter of the property to be maintained by the operator/developer or others.
 - Boulevard landscaping will be required of the developer to the satisfaction of the municipality along Meadowbrook Drive, the arterial roadway to the north of the proposed location, and 4th Avenue East, as each phase of the development occurs.
 - An amenity area equivalent to approximately 1.54 ha (3.8 acres) or more will be required in lieu of municipal reserve to the municipality.
- 3.6.1.2.11. The approval of any residential development may require that the developer enter into a development agreement within the municipality to deal with the construction of roads, the provision of services, or any other matter that Council may require to be addressed.
- 3.6.1.2.12. The density of residential development in the Southeast Sector will be in a range of 19 to 30 units per net hectare (7 upna to 12 upna). However, specific sites within the area may be developed at densities above or below this range. The distribution of density for each subdivision will be established through the Outline Plan process.
- 3.6.1.2.13. Dwelling units in proximity to the well site within the Plan Area will not be permitted to encroach onto the 100 m setback requirement. The Town may apply to the Provincial Authority for a relaxation provided the well operator agrees to the distance selected for the relaxation. Site design will reflect any setback requirement.

3.7.1. Commercial Development

Commercial development within the Southeast Sector is contemplated to include: (1) highway commercial, (2) neighbourhood commercial, (3) business park, and (4) commercial industrial.

Each of these uses will provide goods and services to different economic sectors. Each of these uses are positioned either adjacent to arterial or collector roadways and generally at the intersection of them. No commercial sites are designated internally within residential development cells. Recent experience in other municipalities is that such facilities may become the focus of unavoidable land use and traffic conflicts. The only existing commercial use is EnCana Corporation adjacent to College Road.

3.7.1.1. Objectives

1. To ensure that the opportunity for local commercial land use is available within the Plan Area.
2. To guide new commercial development in the Plan Area, to suitable locations and ensure proper development of individual sites.
3. To encourage a high standard of design and minimize the impact of commercial use on adjacent residential areas.
4. To encourage a mix of residential use within commercial buildings at select locations within the Plan Area that is compatible with adjacent residential areas.

3.7.1.2. Policies

- 3.7.1.2.1. Highway commercial development will be promoted as an important element of the municipality's long-term supply of commercial land. Due to the indirect access from the TransCanada Highway, areas designated as Highway commercial south of the proposed interchange may not necessarily be considered as traditional highway commercial servicing the traveling public. Instead, this area may be oriented to uses requiring large land parcels and high visibility from the TransCanada Highway.
- 3.7.1.2.2. Mixed use development that contains residential units over commercial/retail uses will be permitted within neighbourhood commercial sites adjacent to 2nd Avenue East.
- 3.7.1.2.3. Only those commercial uses that are compatible and appropriate adjacent to residential areas will be permitted. Commercial sites adjacent to residential areas will ensure that the quiet enjoyment of residential neighbourhoods is not affected.
- 3.7.1.2.4. Highway commercial buildings will be designed and sited to reinforce Brooks as a pleasant and desirable place to live and visit by:
 - Increasing setbacks so that screened parking areas can be provided within the setback;
 - Ensuring mechanical appurtenances are properly screened from view and designed to minimize noise transference to such areas;

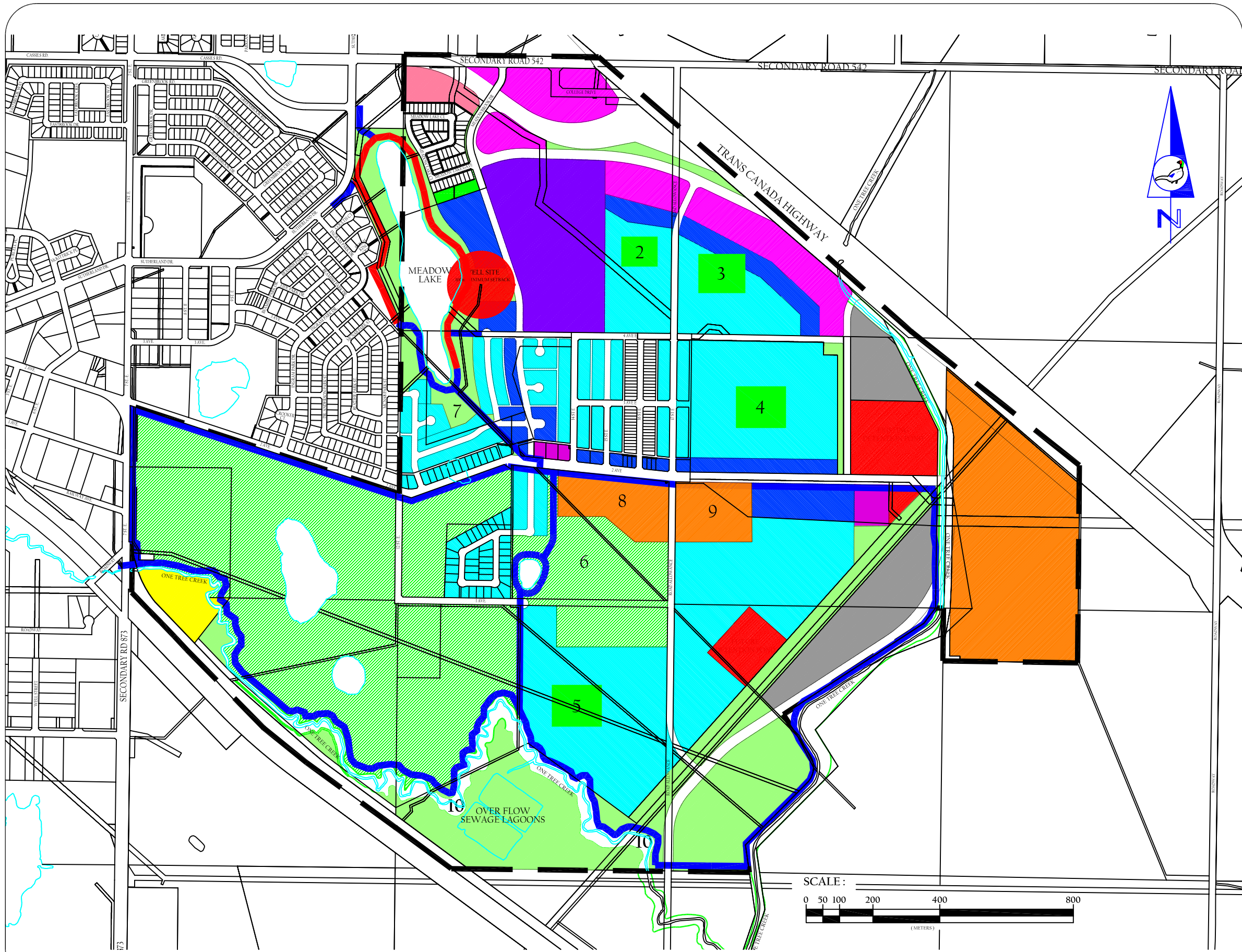
- Utilizing building materials that are aesthetically pleasing and complement the character of the adjacent residential area;
 - Ensuring that larger buildings are divided into smaller masses to reduce bulk and create visual variety by breaking up the building footprint, offsetting walls, shifting rooflines to vary height and articulating building elevations.
 - Ensuring landscaping of boulevards and other areas visible from the TransCanada Highway to the satisfaction of the municipality.
 - Ensuring a higher architectural design standard in both design and exterior building finishes.
- 3.7.1.2.5. Neighbourhood commercial will be limited to convenience commercial, personal services, and support offices to home based businesses.
- 3.7.1.2.6. Business park uses will be limited to such uses as business services, research and development, and communications and accessory activities or other similar businesses.
- 3.7.1.2.7. The municipality will prepare design guidelines for the business park designated within the Southeast Sector within two (2) years of this Plan being adopted by Council. Such guidelines will address lot configuration, access, relationship to adjacent uses, pedestrian access, landscaping and parking.
- 3.7.1.2.8. The location and size of the neighbourhood commercial facilities will be established through the Outline Plan/Land Use Amendment process.

3.7.2. Institutional and Open Space System

The Plan identifies institutional and open space land uses in Map 6. The Medicine Hat College is the dominant institutional land use within the Plan Area. This institution should have sufficient land within its control to provide for future expansion of its physical facilities.

Two school sites are identified within the Southeast Sector. One site is identified within the proposed regional athletic park and will be approximately 5.15 ha (12.7 acre) in area. This site is a replacement for the site formerly designated along 14th Street East. A second site is identified adjacent to 2nd Avenue East and 17th Street East and is approximately 4.0 ha (10.0 acres) in area. Both school districts have identified an interest in a school site in the Southeast Sector. The larger school site may accommodate a K-12 school depending upon the configuration of the building and the use of facilities within the regional athletic park. The smaller site will likely accommodate an elementary school.

The Brooks Golf Course and Kinsmen Rodeo Grounds have been long-term land uses within the Southeast Sector. It is expected that these uses will continue within their respective locations for the life of this Plan.



LEGEND

- AREA STRUCTURE PLAN BOUNDARY
- EXISTING PATHWAYS
- PROPOSED PATHWAYS
- PROPOSED MUNICIPAL RESERVE PER LAND USE

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

MUNICIPAL RESERVE	
1. 0.488 ha.	1.21 ac.
2. 1.041 ha.	2.57 ac.
3. 1.653 ha.	4.08 ac.
4. 1.966 ha.	4.86 ac.
5. 1.912 ha.	4.73 ac.
6. 15.337 ha.	37.90 ac.
7. 13.075 ha.	32.30 ac.

SCHOOL RESERVE	
8. 5.141 ha.	12.75 ac.
9. 4.000 ha.	10.00 ac.

ENVIRONMENTAL RESERVE	
10. 3.795 ha.	9.38 ac.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

**PARK SITES & LINEAR
PATHWAYS**

MAP 6

Long-term development of the former overflow sewage lagoon site was contemplated during the preparation of this Plan. The site is isolated by the One Tree Creek from other land uses in the Plan Area. The use of this facility is expected to continue until at least 2010. Prior to that time, the Town may review the use of this facility to determine when, or if, the facility should be closed and reclaimed. If the lagoons are not closed and reclaimed, lands north of this facility within the setback requirement will have to remain either in their existing state or be designated as open space.

A site is identified in the northwest corner of the Plan Area for an emergency service facility. It is possible the existing fire hall on 1st Avenue West may be relocated to this site and amalgamated with the ambulance and 9-1-1 services presently at the Brooks Hospital. It is also possible that the facility may be located further west on Cassils Road. The location within the Plan Area provides access to a major thoroughfare within the community as well as the Trans Canada Highway for response to emergencies. This facility is described in more detail in Section 3.7.3.

The open space system comprises four major elements: (1) neighbourhood parks; (2) community parks; (3) District Park, and (4) linear pathways. All will be designed to provide a mosaic of interconnectivity within the Plan Area and meet the requirements of the Master Plan for Parks, Recreation and Culture adopted in 2000.

3.7.2.1. Objectives

1. To maintain and enhance the quality of existing open space and recreation facilities to meet the needs of the residents within the Plan area.
2. To ensure the development of linear linkages between community open spaces and improve the community parks for walking, cycling, and other forms of recreational activities.
3. To encourage joint use of facilities with school divisions to reduce capital and operating costs.
4. To ensure land use around Meadow Lake is carefully planned so that this area may retain its natural state as much as possible.
5. To ensure that an appropriate level of public emergency services is available to the residents of the Plan Area.
6. To ensure that establishment of neighbourhood and community parks occur in such a manner that each residence is within 400 m of these facilities.
7. To reinforce the Medicine Hat College as the major focus point for institutional facilities not only for the Plan Area but also the community.

3.7.2.2. Policies

- 3.7.2.2.1. The municipality will encourage development of a network of open spaces within the Plan Area encompassing both cultivated and natural areas for active and passive recreational activities.

- 3.7.2.2.2. Meadow Lake and One Tree Creek will be protected in their natural state wherever possible. Any construction of a linear corridor will reflect the integrity of the natural habitat around these features.
- 3.7.2.2.3. The municipality will work with adjacent landowners to cooperatively protect contiguous natural habitat.
- 3.7.2.2.4. Emergency vehicle access will be maintained within natural areas for fire fighting purposes.
- 3.7.2.2.5. The municipality will ensure that neighbourhood and community parks are located a maximum of 400 m from a residence as per the Master Plan for Parks, Recreation, and Culture. These sites will be located approximately as shown in Map 6. The existing municipal reserve south of Meadow Lake Estates will serve lands north of 4th Avenue East and east of Meadowbrook Drive. Individual locations and sizes will be determined at the Outline Plan/Land Use Amendment stage.
- 3.7.2.2.6. Neighbourhood and community parks provided by developers as a result of subdivision will not require upgrades or improvements from the municipality and will be to the satisfaction of the Parks and Recreation Department.
- 3.7.2.2.7. An integrated hierarchy of active and passive parks and recreation facilities will be provided in order to meet the needs of the residents within the Plan Area. The hierarchy of parks will include municipal reserve parklands and natural environmental reserve areas. Where possible, the system of parks will be linked to a community-wide pathway system. Map 6 identifies conceptual requirements for individual residential development cells. Individual park sites and requirements will be better defined at the Outline Plan/Land Use Amendment or subdivision stage.
- 3.7.2.2.8. The school sites will be developed as warranted by demand and utilization rates, and as funds become available. The School Districts will need to determine the most appropriate location for facilities within each proposed site.
- 3.7.2.2.9. Should the overflow sewage lagoons be reclaimed within the lifetime of this Plan, the Town will need to review appropriate uses within this area given its proximity to the One Tree Creek. It is possible that passive or active recreational uses may occur within this site once the lagoons are closed and reclaimed. Timing of the closure and reclamation will be contingent upon the need for these facilities and budget approval from Council.
- 3.7.2.2.10. The Town will work with the College to emphasize its role as an educational, social, and cultural centre for the community.
- 3.7.2.2.11. Consideration will be given to having up to a 13 m wide linear pathway along the south boundary of 2nd Avenue East where feasible. This pathway should be uninterrupted where possible. Linear pathways will be better defined at the Outline Plan/Land Use Amendment or subdivision stage.
- 3.7.2.2.12. Where possible, the environmental reserve adjacent to One Tree Creek in areas outside the existing Golf Course lands will be up to 13 m wide to ensure

integrity of the streamside habitat. Where possible, the linear pathway system may be incorporated within this 13 m environmental reserve.

- 3.7.2.2.13. The Brooks Golf Course and Kinsmen Rodeo Grounds will be reinforced as the principal recreational land uses within the Southeast Sector along with the regional athletic park when it is developed.
- 3.7.2.2.14. The Town will ensure that the integrity of the One Tree Creek is maintained by providing for a buffer between land uses and the creek channel as well as appropriate land uses in proximity to this watercourse.
- 3.7.2.2.15. The regional athletic park may be extended into lands south of the SW 33-18-14-W4M in order to accommodate proposed facilities. Dependent upon facility requirements, this may be phased in and will likely not be required for several years. Any development in this general area will need to consider the future extension of the regional athletic park.
- 3.7.2.2.16. Should the regional athletic park require irrigation, the existing water body within the SW 33-18-14-W4M may be considered as a source. If this occurs, the Town will need to consider improvements to the water supply for this water body. The Town will review irrigation sources as part of the development of the regional athletic park.
- 3.7.2.2.17. Only light industrial activities that do not create nuisance odours, smoke, dust or noise will be permitted within the land legally described as Plan 5228 FD, Parcel B. Development applications for this property must demonstrate how the buildings and related activities will be buffered from the adjacent Kinsmen Rodeo Grounds and the Brooks Golf Course to the satisfaction of the Approving Authority.

3.7.3. Special Policy Area

The area between the museum and Meadowbrook Drive on the south side of Cassils Road may require a special treatment due to the proposed interchange. In order to access property south of Cassils Road, it may be necessary to construct a service road similar to that proposed north of this roadway. The Town may consider alternative access arrangements that are approved by the Provincial Authority. This may allow some type of commercial land use to be established at this location. At the time this Plan was prepared, however, it was undetermined what type of land use should occur on lands south of Cassils Road within the Plan Area. As a result, property between Cassils Road and the north end of Meadow Lake Estates and from the eastern boundary of the museum to Meadowbrook Drive are deemed to be a Special Policy Area governed by policies identified in Section 3.7.3.1.

3.7.3.1. Policies

- 3.7.3.1.1. If an emergency services building is required for this site, the building will be designed to accommodate fire services, ambulance services and the 9-1-1 Service. Alternative locations may be determined for the ambulance and 9-1-1 services.
- 3.7.3.1.2. The parcel size required for the emergency services building will reflect the type of services provided at the site. If the ambulance and 9-1-1 services are not required at this site, the parcel size may be reduced.
- 3.7.3.1.3. The building will be designed to minimize potential impact on residential properties to the rear of this site. Potential mitigative measures may include building orientation, hard and soft landscaping measures or site design.
- 3.7.3.1.4. Access and egress to Cassils Road will be designed in consultation with Provincial Approving Authorities to ensure safe turning movements and general public safety.
- 3.7.3.1.5. If an emergency services building is not required at this location, than consideration may be given to an extension of the Meadow Lakes Estates development. Any development fronting onto Cassils Road will ensure proper landscaping treatment given that this site is a gateway approach to the community. The remaining undeveloped area may be considered as open space or as a boulevard treatment area.
- 3.7.3.1.6. If residential development is deemed not to be suitable in this area, than consideration may be given to having highway commercial at this site. Commercial development at this location will need to ensure a proper separation and treatment of the interface between the residential properties to the south of this site and any commercial development. Development proposals will require a professional landscaping plan detailing the buffering between the commercial development and the existing residential development as part of their applications. Commercial development in this area will need to be designed in a manner that reflects its location as a gateway approach to the community. Finally, all access and egress will be to the satisfaction of the approving authorities.

4.0. SERVICING THE PLAN

4.1. MUNICIPAL INFRASTRUCTURE

Municipal services have been installed in part of the Southeast Sector. These services are defined within Part II – Supporting Information, Section 7.5.

4.2. WATER DISTRIBUTION

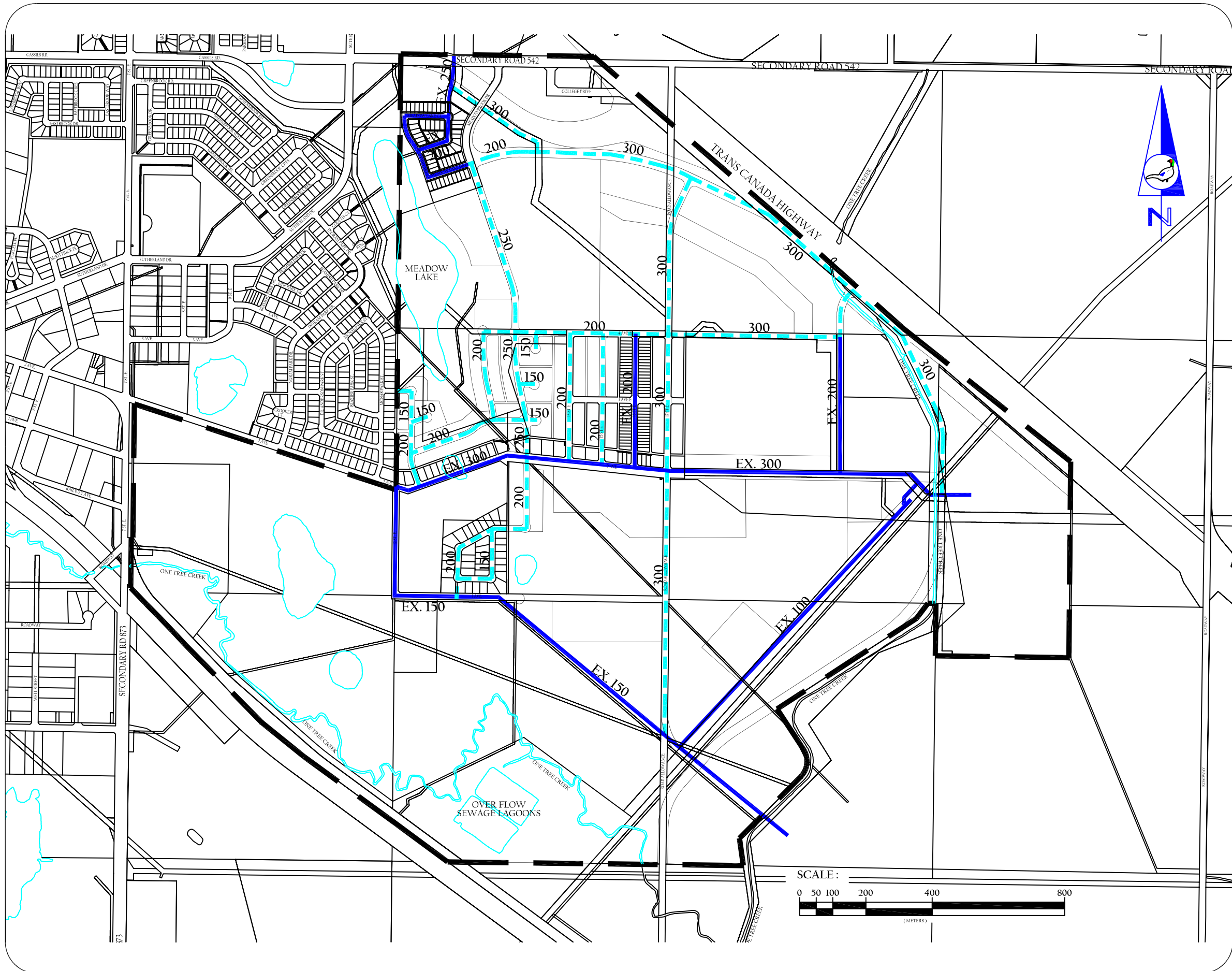
The Plan Area can be serviced with the addition of oversized (greater than 200 mm) mains along the following routes (Map 7):

1. A 300 mm main from the existing 250 mm main at Cassils Road and following the proposed arterial roadway to 2nd Avenue East.
2. A 300 mm main along 17th Street East, tying in to the existing 150 mm main to the Horticultural Centre.
3. A 250 mm main along Meadowbrook Drive tying in at the north end to the existing 200 mm main at Meadow Lake Gate, and a proposed 200 mm main along the proposed arterial roadway.
4. A 300 mm main along 4th Avenue from the intersection of 17th Street East connecting to the existing 200 mm main to the EnCana Corporation facility, and the proposed 300 mm main on the arterial roadway.




The remainder of the Plan Area can be serviced with 200 mm mains and 150 mm mains in cul-de-sacs and short runs. A network analysis should be undertaken at the Outline Plan/Land Use Amendment stage of development to confirm pipe sizes and routing within each development area.

The 1995 Southeast Infrastructure Construction Servicing Report identified that the existing water distribution system is capable of supplying adequate peak demands and fire flows for an approximate total population of 11,600 people. The report proposed that an additional treated water storage and pumping (booster) station be located in the Southeast Sector. Subsequent reports (2000 Water & Wastewater Systems Evaluation, and 2002 Growth Study) recommended additional treated water storage and pumping upgrades are constructed at the water treatment plant. At the time of Plan preparation, the Town was scheduling the design and construction of treated water expansion and pumping upgrades at the water treatment plant in 2003/04. These upgrades will be contingent upon budget approval from Council.

No additional storage or pumping facilities are proposed within the Southeast Sector, provided that storage and pumping capacity is increased at the water treatment plant.



LEGEND

-  AREA STRUCTURE PLAN BOUNDARY
-  EXISTING WATER DISTRIBUTION
-  PROPOSED WATER DISTRIBUTION

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

**PROPOSED WATER
DISTRIBUTION SYSTEM**

MAP 7

4.2.1. Policies

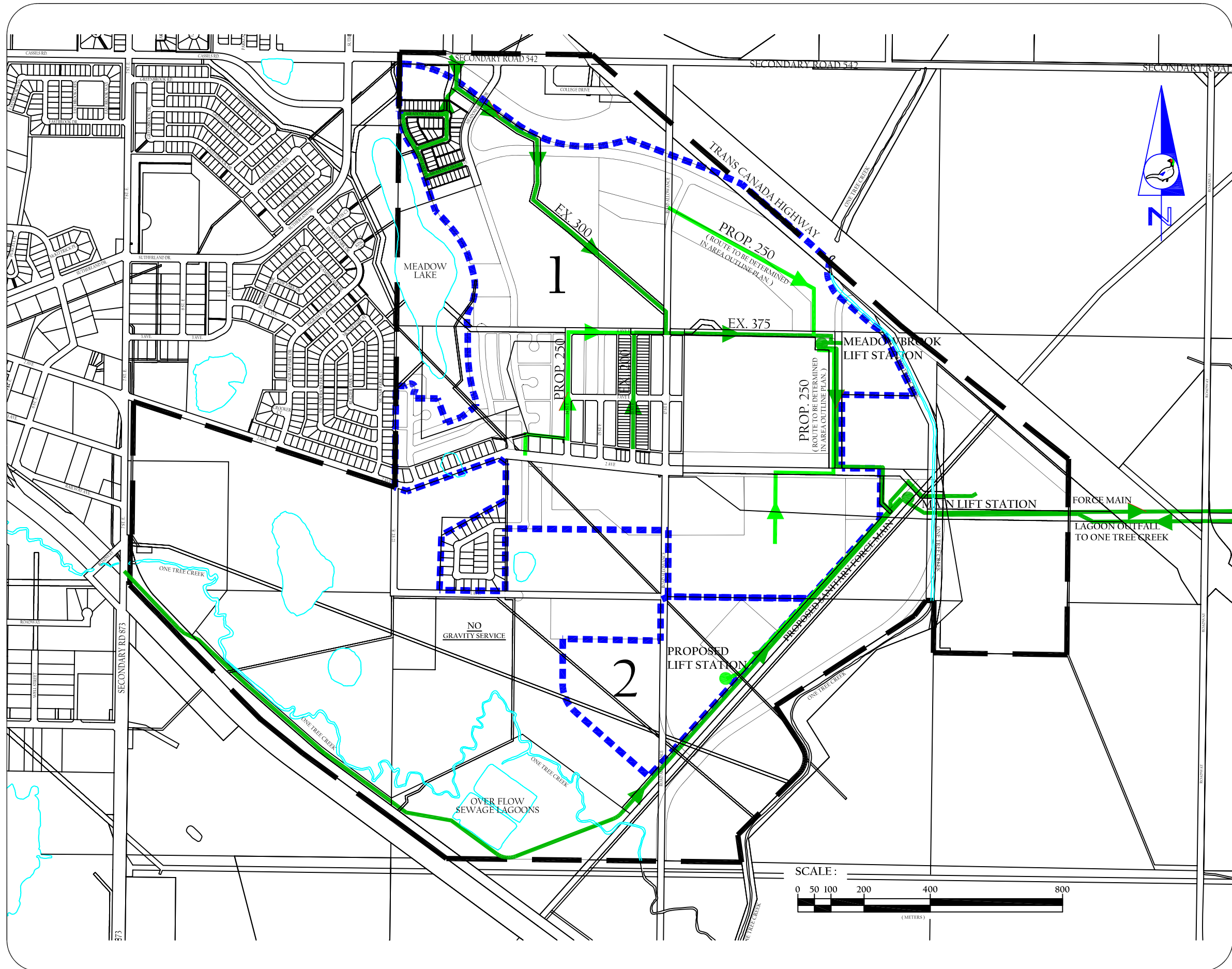
- 4.2.1.1. All water mains will be designed and constructed to Town standards. Minimum pipe size shall be 150 mm.
- 4.2.1.2. A distribution pipe network analysis will be conducted at the Outline Plan/Land Use Amendment stage to confirm the size, routing and adequacy of the network to deliver peak domestic and fire flows.
- 4.2.1.3. Development phasing will provide looping of the water mains to existing systems to ensure that no more than 75 units are connected to a single feed on a temporary basis and no more than 40 units are on a single feed permanently.
- 4.2.1.4. Water conservation practices are encouraged in the design of developments in the Southeast Sector, including the use of low flow household fixtures, retention and reuse of rainwater, and connection to a raw water irrigation system.
- 4.2.1.5. All connections to the water system will be metered as a means to provide for equitable billing, to monitor water consumption and to encourage water conservation.
- 4.2.1.6. Subject to the Town or a developer providing a raw water irrigation pumping system and pipe network in the Southeast Sector, development should endeavor to connect to such a system for irrigation of lawn, park and boulevard spaces as a means of conserving treated water consumption.

4.3. SANITARY SEWAGE SYSTEM

The area identified in Map 8 as Area 1 can be serviced by gravity to the Meadowbrook Lift Station. Proposed 250 mm trunk mains are shown on the map, although exact alignments will be determined at the Outline Plan/Land Use Amendment stage.

The Meadowbrook Lift Station will require a pumping capacity upgrade as the Southeast Sector develops. This will be required once peak flows reach the existing capacity of 44.2 l/sec. The 2002 Growth Study identified this is expected to occur within the 2006 – 2011 time horizon.

The most southerly areas of the Southeast Sector (Area 2) cannot be serviced by gravity without the addition of another sanitary sewer lift station. The most southwesterly areas are identified as being not serviceable by gravity sewer. If the area develops, alternative sewage disposal methods such as holding tanks/pump outs or low-pressure sewage force mains must be considered. An engineering assessment of these two areas should be undertaken prior to any developments being proposed to determine the suitability of the land for development as well as the feasibility and extent of gravity service to a new lift station.



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	EXISTING SANITARY SEWER SERVICE
	PROPOSED SANITARY SEWER SERVICE
	SANITARY AREA BOUNDARY

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

SANITARY CATCHMENT AREAS

AREA 1
AREA - 136 ha.
POPULATION EQ. = 5445
PEAK FLOW = 134.4 L / sec.
AVE. FLOW = 33.6 L / sec.
AREA 2
AREA - 8.9 ha.
POPULATION EQ. = 365
PEAK FLOW = 9.6 L / sec.
AVE. FLOW = 2.25 L / sec.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

**PROPOSED SANITARY
SEWER SYSTEM**

MAP 8

4.3.1. Policies

4.3.1.1. All sanitary sewers and sewage facilities will be designed and constructed to Town standards, minimum sanitary sewer main size shall be 200 mm.

4.3.1.2. At the Outline Plan/Land Use Amendment stage, the sanitary sewage flows must be calculated and the sewage collection mains sized to accommodate the anticipated flows. The engineering assessment must also verify availability of capacity in the existing system including gravity mains, the Meadowbrook lift station and force main to the main lift station.

4.4. STORM WATER MANAGEMENT

Storm water management within the Southeast Sector has been addressed in three previous studies prepared by UMA Engineering Ltd. The first study was prepared in 1984 is entitled *Town of Brooks South and Southeast Area Servicing Study*. The second was prepared in 1991 is entitled the *Town of Brooks Storm Sewer Drainage Study*. The third was prepared in 1995 is entitled the *Southeast Infrastructure Construction Servicing Report*. An excerpt of the 1995 report is included as Appendix 2. This Plan updates these reports.

Five drainage catchment areas are identified as shown on Map 9. Lands west of Meadowbrook Drive and northwest of the proposed residential area south of Meadow Lake will drain into Meadow Lake.

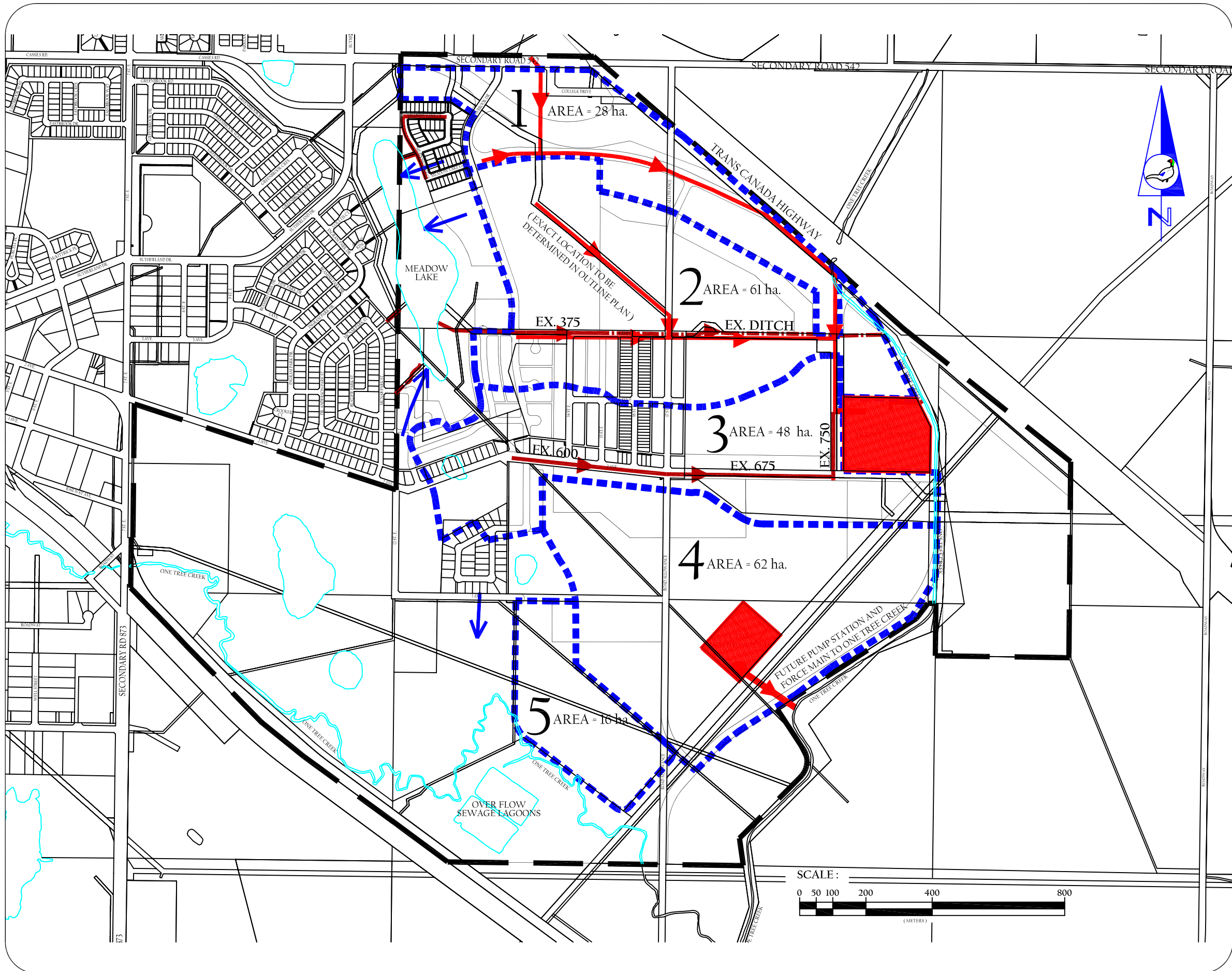
Area 1 – This area will collect runoff from the Cassils Road Interchange and commercial developments along the arterial roadway. A storm water management plan for this area must be prepared in conjunction with the interchange and associated road network designs.

Area 2 – A gravity storm sewer will be constructed from the existing detention pond along 4th Avenue to Meadowbrook Drive. The Meadow Lake outfall line will parallel this main and discharge into One Tree Creek.

Area 3 – This area will be serviced via the existing gravity storm main along 2nd Avenue East. It is anticipated that some land south of 2nd Avenue East can be serviced by the existing main and detention pond.

Area 4 – This area south of 2nd Avenue East will require the construction of a second storm water management pond. The size and location will be determined at the Outline Plan/Land Use Amendment stage.

Area 5 – Storm water may be discharged within the area to a storm water management pond, or an alternate storm water management plan may be prepared for development in this area, with a separate discharge to the adjacent One Tree Creek.



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	EXISTING STORM DRAINAGE DITCH
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	STORM CATCHMENT AREA BOUNDARY

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 15/07/02
SCALE : AS SHOWN

**PROPOSED STORM
WATER MANAGEMENT**

MAP 9

4.4.1. Policies

- 4.4.1.1. All storm water management facilities will be designed and constructed to Town standards.
- 4.4.1.2. At the Outline Plan/Land Use Amendment stage, the capacity of existing storm water facilities must be confirmed and conceptual design of proposed storm water management facilities must be provided.
- 4.4.1.3. A storm water management plan must be prepared for each development cell and in accordance with Policy 6.3.2. of the Municipal Development Plan and must be approved by the Town. Each storm water management plan will be circulated to the County of Newell No. 4 for review and comment.
- 4.4.1.4. Post–development storm run-off rates will not exceed pre-development rates.
- 4.4.1.5. The use of Best Management Practices for storm water quality will be followed.
- 4.4.1.6. The Town will prepare a storm water management plan for Areas 4 and 5 prior to development occurring within these areas. The plan will identify the location of any detention pond as well as any means to ensure that water quality within One Tree Creek will remain the same or better after development occurs in these areas. This plan will be circulated to the County of Newell No. 4 for review and comment.
- 4.4.1.7. The Town as per Policy 4.2.1.6 will encourage the use of a raw water irrigation system. If storm water detention ponds are utilized as part of the delivery system, the Town will ensure that the quality of water is maintained to an irrigation quality standard.
- 4.4.1.8. The existing storm water detention pond north of 2nd Avenue East will be reviewed by the Town to determine its appropriateness as a recreational site within the dry pond portion. If it is determined that the site is suitable as a recreational site, any development will be contingent upon funding approval by Council.
- 4.4.1.9. Whenever a storm water pond is required, the Town and developers will be encouraged to develop the pond on their respective properties so that the pond becomes an attractive feature within neighborhoods. The municipality at the Outline plan or subdivision design stage will review design and operation of these facilities.

4.5. SHALLOW UTILITIES

Natural gas distribution lines, power, telephone, and cable systems exist in the Southeast Sector to service existing developments. These utilities must be expanded and extended to service proposed developments.

4.5.1. Policies

- 4.5.1.1.** All shallow utilities shall be designed and submitted to the Town for review and approval prior to commencement of construction.
- 4.5.1.2.** All work on shallow utilities involving excavation will require an excavation permit from the Town.
- 4.5.1.3.** Installation of utilities must be coordinated to ensure the sequence of construction follows installation of deep utilities and finished grades are established.

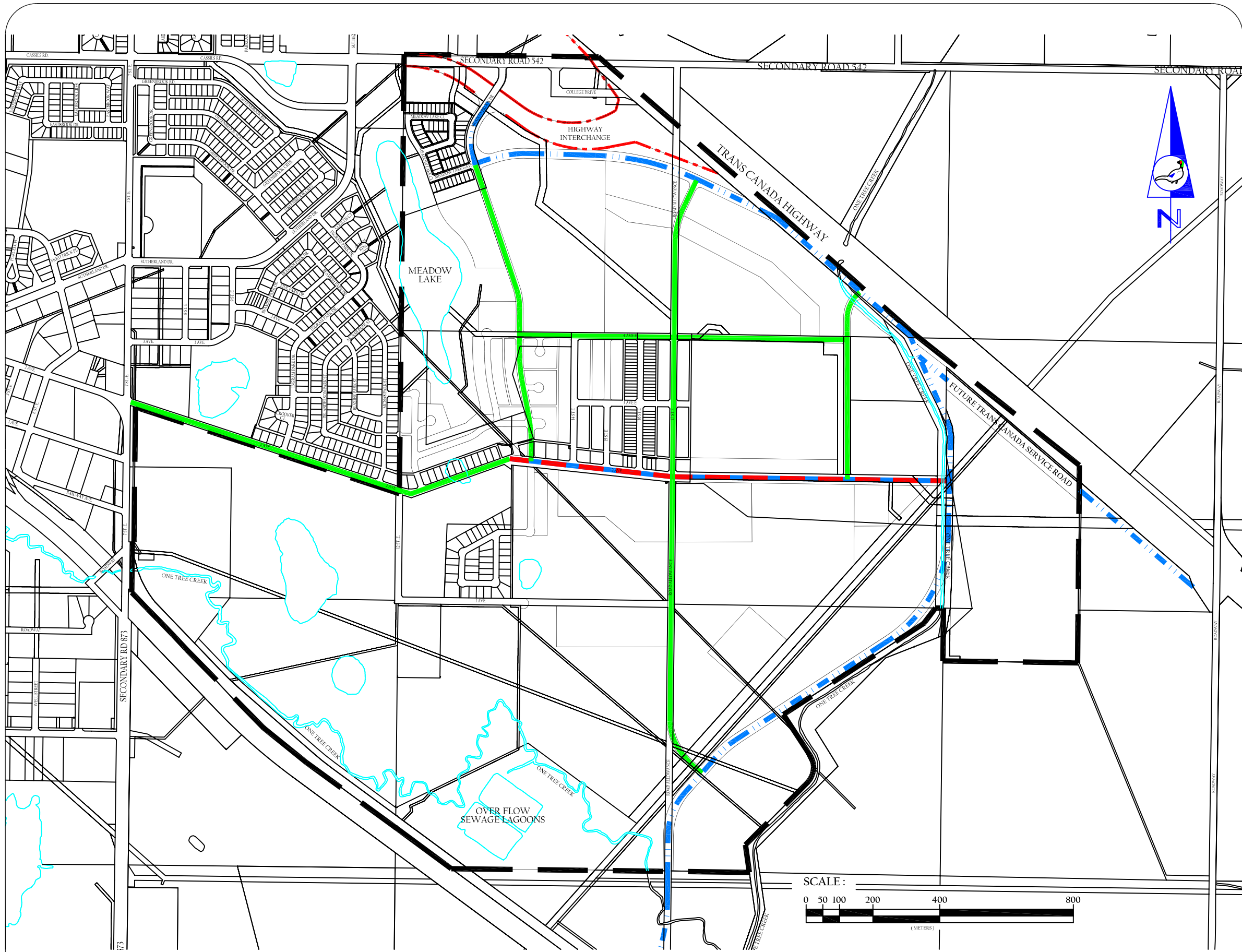
4.6. TRANSPORTATION

The roadway system to serve the Southeast Sector will be comprised of collector roadways identified as 2nd Avenue East, Meadowbrook Drive, 4th Avenue East, 17th Street East, 22nd Street East, and an arterial roadway. Individual cross-sections are shown for each type of roadway within Appendix 3. An arterial roadway is proposed to service the northern portion of the Plan Area as well as being a bypass to the South Industrial Park. Individual development cells will have internal roads that will be planned at the Outline Plan/Land Use Amendment stage. Each development cell will be expected to provide suitable connections to roads identified in Map 10. Access to other areas within the Town of Brooks will be provided via 2nd Avenue East and Meadowbrook Drive.

The proposed highway interchange is also shown on Map 10. The alignment is shown as approximate because the design and location was not finalized at the time this Plan was adopted. The intersection at Meadowbrook Drive and the highway interchange will need to be controlled to ensure proper access to the highway interchange and the Southeast Sector.

4.6.1. Policies

- 4.6.1.1.** The road network proposed within this area structure plan is conceptual only. As individual development cells occur, there may be a need to alter the alignment location. This may be done without amending this statutory plan provided the intent of the alignment remains the same.
- 4.6.1.2.** Second Avenue East will be designated as a boulevard collector and Meadowbrook Drive, 4th Avenue East, 17th Street East, and 22nd Street East will be designated as collectors. The arterial roadway will have limited access from adjacent development cells. All roadways will be to the Town of Brooks' standards.
- 4.6.1.3.** The arterial roadway will be planned with the Provincial Authority, the County of Newell No. 4, and affected landowners to ensure its proper alignment. As part of the route alignment review, the Town will undertake a study of One Tree Creek to ensure that water quality can be maintained before, during and



LEGEND

	AREA STRUCTURE PLAN BOUNDARY
	ARTERIAL ROAD
	BOULEVARD COLLECTOR
	MAJOR COLLECTOR

NOTES: THIS MAP IS CONCEPTUAL ONLY AND SUBJECT TO CHANGE.
IN AREAS THAT ARE NOT DESIGNATED, REFER TO THE RELEVANT LAND USE DISTRICT IN THE TOWN OF BROOKS LAND USE BYLAW.
LOCATION OF THE ROAD AND TRANS CANADA SERVICE ROAD TO BE CONFIRMED WITH THE COUNTY OF NEWELL, AFFECTED LAND OWNERS, AND ALBERTA TRANSPORTATION FOR ROAD ALIGNMENT OUTSIDE OF THE TOWN BOUNDARY.

**SOUTHEAST SECTOR
AREA STRUCTURE PLAN**

DATE : 03/06/02
SCALE : AS SHOWN

**PROPOSED
ROAD NETWORK**

MAP 10

after construction of a roadway within this area. Alternative route alignments for a bypass road will also be reviewed with the Provincial Authority, County of Newell No. 4, and affected landowners. A road plan will be required to replace the existing right-of-way plan. This may be done as part of the planning for the alignment of this roadway. In the event that an alternative location is selected, the arterial roadway may terminate at the intersection with 2nd Avenue East. Access to properties south of this intersection may be from a local road.

- 4.6.1.4.** The future service road will be planned with the Provincial Authority, the County of Newell No. 4, and affected landowners to ensure a proper alignment is maintained with the proposed arterial roadway, the Trans Canada Highway and Rge 14 Rd 2.
- 4.6.1.5.** The extension of existing major and collector standard roads into the Southeast Sector are to occur in conjunction with the phasing of development.
- 4.6.1.6.** A traffic impact study may be required with each Outline Plan/Land Use Amendment submission addressing the capacity and safety of the existing road network to support the proposed development. The traffic impact study will identify the necessary roadway improvements required to support the proposed development.
- 4.6.1.7.** The municipality and/or the developer will ensure that a boulevard beautification program is followed on Meadowbrook Drive and 2nd Avenue East as the major gateway points into the community. Appropriate selection of tree species will be determined by the Parks Department and a planting program established as these traffic corridors are developed. Individual segments adjacent to parcels will be the responsibility of the developer as part of development approval. Boulevard treatment will be addressed by developers at the Outline Plan/Land Use Amendment stage. Each boulevard area must have an automatic underground irrigation system installed by the developer to the satisfaction of the municipality.
- 4.6.1.8.** The internal road system and subdivision design should account for the long term potential for public transit.
- 4.6.1.9.** No on-street parking will be permitted along the arterial roadway. Parking will be permitted on collector roadways until such time as traffic volumes warrant no parking zones. No parking will be permitted on Meadowbrook Drive north of the intersection with the arterial roadway.
- 4.6.1.10.** Access to the arterial roadway, 17th Street East and 2nd Avenue East should be limited to ensure continuous traffic movement. Access may be limited to identified intersections within this Plan or by restricting driveway access to these streets.
- 4.6.1.11.** The intersection of Meadowbrook Drive and the arterial roadway will be located opposite to Meadow Lake Gate. The right-of-way in this area will be protected for long-term four-lane cross-sections at 17th Street including provision for dedicated left turning bays.

- 4.6.1.12.** Industrial truck traffic destined for the South Industrial Park will be directed to follow the arterial roadway through the use of signage and enforcement in order to ensure that short-cutting does not occur via 17th Street East or 22nd Street East.
- 4.6.1.13.** All local residential streets within the Plan Area will be paved and include curb and gutter plus sidewalks at least on one side. Short cul-de-sacs may be exempted from the requirement to have a sidewalk. Collector streets may have sidewalks on both sides to the satisfaction of the municipality.
- 4.6.1.14.** Unless otherwise specified by this Plan or within a development agreement, the road right-of-ways will conform to the road cross sections identified in Appendix 3 of this Plan. Road specifications may be amended without the need to amend this statutory plan. When amendments to the road specifications occur, those outlined in Appendix 3 will conform to the amended specifications. The arterial roadway will have a minimum of a 30 m right-of-way from Meadowbrook Drive to the Town boundary where deemed necessary by the municipality.
- 4.6.1.15.** Road Plan 7413 BM will need to be closed and consolidated with the SE 33-19-14-W4M if deemed appropriate by the municipality.
- 4.6.1.16.** The roadway within the proposed Highway Commercial property south of Cassils Road may need to be closed and consolidated with that parcel or Plan 9312729, Lot 1 if the municipality deems it appropriate.
- 4.6.1.17.** The right-of-way of Meadowbrook Drive will be widened from the intersection with the Trans Canada Highway interchange to Meadow Lake Gate to accommodate four-lane traffic, a turning lane, sidewalks and entrance boulevard landscaping. Meadowbrook Drive south of the proposed arterial roadway will have a 24 m wide right-of-way, where necessary, to 2nd Avenue East.
- 4.6.1.18.** The Town will monitor the Old No. 1 Highway within the Plan Area to ensure that roadway surface conditions are appropriate.

5.0. IMPLEMENTING THE PLAN

5.1. PHASING OF DEVELOPMENT

Subject to Section 5.2, the phasing of development in the Southeast Sector, through the Outline Plan/Land Use Amendment approval process, should occur in a contiguous manner. It is possible, however, that some landowners in the Southeast Sector may be uninterested in development. This may result in leapfrog development where areas are developed that are not contiguous. Where this occurs, and where permanent access is not reasonable in the short-term, interim access may be considered until such time as permanent access can be provided.

Where noncontiguous development occurs, this may only be permitted provided that:

- (ii) Roadway and utilities can be extended to the area at the cost of the developer;
- (iii) The development “fits” into the overall land use plan context of this Plan;
- (iv) The developer provides an on-site park to serve the immediate resident population if the site is greater than 400 m from an existing one.

5.2. COMPREHENSIVE PLANNING

Individual development cells will require an outline plan to be prepared by the developer that comprises an entire neighbourhood area. Where this is not possible, the developer may be required to demonstrate through a conceptual design of residual areas, that these areas can be developed in a logical and comprehensive manner. An Outline Plan will show how density and housing mix requirements relate in each of the development cells.

As part of the Outline Plan/Land Use Amendment process, developers will be required to include the following information to the satisfaction of the Approving Authority:

- (i) Context plan showing the relationship of the subject site to areas within the development cell and lands outside of the Outline Plan/Land Use Amendment Area.
- (ii) Density Phasing Plan that shows the intended phasing of subdivision within the Outline Plan/Land Use Amendment area and the proposed number and type of dwelling units within each phase.
- (iii) Commercial Development Plan for applicants proposing a significant change to the size or location of any of the commercial components of this plan that includes a market analysis and other information supporting the change.
- (iv) Open Space Plan that demonstrate by means of a concept plan how specific municipal reserve parcels are to provide a diversity of recreational opportunities that meet the passive and active needs of the neighbourhood. Preliminary grading information should be provided that demonstrates that the park space will be graded relatively flat and as functional open space.

- (v) Roadway Network Plan that describes the proposed phasing, road types and special features of the internal roadway network.
- (vi) Utility and Storm Water Management Plan that describes connections to existing infrastructure and servicing requirements for each neighbourhood, impacts on existing infrastructure and addresses storm water management within the catchment area.

5.3. SPECIAL LAND USE REGULATIONS

Subject to future amendments to the Land Use Bylaw that will have the same effect, all or part of the Plan Area not zoned at the time this Plan was prepared, may be designated as Direct Control District (DC), or some other similar zone, in order that land use requirements can be customized to the specific needs of the community.

The land use bylaw may need to be amended for those districts that include design or policy references to the 1995 Plan. This may include the following districts:

- a. Direct Control Residential District (DC-R)
- b. Direct Control Business Park District (DC-BD)
- c. Direct Control Highway Commercial District (DC-HC)

The municipality will undertake to amend the respective districts to ensure conformity with this statutory plan within two (2) years of its adoption.

The municipal development plan may need to be amended to reflect the land uses proposed within this statutory plan and to ensure conformity with Section 638 of the Act. If an amendment is required, the municipality will undertake to amend the municipal development plan within two (2) years of adoption of this Plan.

5.4. INTERMUNICIPAL REFERRALS

For the Plan Area the Town will refer to the County of Newell No. 4 the following:

- (a) All proposed statutory plans and amendments;
- (b) All proposed concept plans, outline plans, and amendments;
- (c) All proposed land use bylaw redesignations and amendments;
- (d) All proposed subdivisions;
- (e) All dedication or disposition of environmental, municipal, and/or school reserves, public utility lots or road allowances;
- (f) All discretionary non-residential development applications;
- (g) All general planning studies.

Subject to an individual agreement or an intermunicipal development plan, the above list may be added to or items removed without the need to amend this Plan. The Town will consider

the comments of the County of Newell No. 4 prior to a decision on any of the above applications.

Unless otherwise agreed to by both municipalities, the responding municipality will have the following time frame to reply to an intermunicipal circulation:

- (a) Thirty (30) days from the date of circulation for statutory plans, concept plans, outline plans, and land use bylaw amendments or redesignations;
- (b) Twenty-one (21) days from the date of circulation for all other issues.

If the County of Newell No. 4 does not reply within the maximum response period for any intermunicipal circulation, or does not request an extension to the maximum response period for any intermunicipal circulation, which extension may be granted at the sole discretion of the Town of Brooks, it will be assumed that the responding municipality has no comment or objection to the referral.

5.5. PLAN MONITORING

Plan review will occur on a regular basis to ensure that ongoing development is effectively guided by this Plan's Policies. Amendments may be required in response to changing development trends, unanticipated external forces or changes in Council's priorities.

Council will determine the timing of a comprehensive review and update of this Plan. A comprehensive review should be considered between five to ten years after adoption, or sooner if conditions warrant it.

Council will ensure effective public information and consultation in support of proposed amendments to this Plan as required by the Act.

6.0. SUMMARY

This area structure plan fulfills the requirements of Section 633(1) of the Municipal Government Act by defining the sequence of development for the Southeast Sector, major land uses within the neighbourhoods, the density of population for the community and the general location of major transportation routes and public utilities.

This area structure plan is in response to evolving trends, market conditions, community needs and preferences. Council determined that the 1995 statutory plan although a bold initiative no longer seemed to satisfy emerging trends in urban planning or the general desire of the community. The Plan Area has been designed to meet a variety of residential uses and densities to meet the current and future housing needs of the municipality. Particular attention is given to ensure a sensitive transition between various residential typologies.

The area structure plan is designed to be flexible to allow innovative housing or subdivision design to accommodate a wide range of interests. Individual development cells may be better defined at the Outline Plan/Land Use Amendment stage along with density, internal traffic circulation patterns and servicing.

The planning process included a community consultation process that featured meetings with land owners with large land holdings within the Plan area, circulation to adjacent landowners and referral agencies, an open house, individual mailings and a Spring Trade show display and a public hearing so that as much public input could be included in this area structure plan as possible.

Community concerns and issues addressed in the area structure plan include: a sensitive transition between different land uses and densities, provision for alternative affordable housing designs, provision for ample park space and a circulation network that is safe and convenient.

This area structure plan complies with the policies of the municipality's development guidelines and planning documents.

PART II – SUPPORTING INFORMATION

7.0. PLAN AREA

The Plan Area is located within the Southeast Sector of the community bounded on the east by the Medicine Hat College and the County of Newell No. 4, on the west by McNabb Street and 7th Street East, on the north by Cassils Road and the Trans Canada Highway and on the south by the Old #1 Highway. Located in this area are the following:

- Meadowbrook Greens
- Meadow Lake Estates
- Brooks Golf Course
- Kinsmen Rodeo Park
- Medicine Hat College
- EnCana Corporation's building
- Ron & Terrie Hager's residence
- Harold & Linda Ward's residence
- Laura Fleury's residence
- Gilbert Deremiens' residence
- Town-owned land

The Plan Area is approximately 413.78 ha (1022.43 acres).

7.1. EXISTING USES & CONDITIONS

Existing development consists of: Meadowbrook Greens (2.34 ha : 5.79 acres), Meadow Lake Estates (3.89 ha : 9.62 acres), Medicine Hat College (25.92 ha : 64.04 acres), EnCana Corporation (3.27 ha : 8.08 acres), Greystone Pointe (4.30 ha 10.62 ac) and private land holdings. The Town of Brooks is the largest landowner (158 ha : 390 acres). The majority of the Plan Area is currently vacant.

The Brooks Golf Course and the Kinsmen Rodeo Park occupy a significant area within the Southeast Sector. The Town also has a lift station and other related infrastructure including a detention pond for storm water runoff. The overflow sewage lagoons are located on a parcel of land along the southern boundary of the Plan Area. There are several rights-of-ways that occupy the Plan Area that are publicly or privately owned.

7.2 TOPOGRAPHY

The Plan Area has a gentle slope from west to east with some undulation in the former. The site is generally quite level with low, wet areas in the vicinity of the former sewage lagoons and One Tree Creek. Several small sloughs and Meadow Lake are situated in the west half of the Plan Area.

7.3 ENVIRONMENTALLY SIGNIFICANT AREAS

The Plan Area contains some environmentally significant areas. This includes the lands around Meadow Lake, the slough within the SE 33-18-14-W4M as well as the riverine areas along One Tree Creek. These areas are deemed to be environmentally sensitive for the following reasons:

- Uniqueness of the physical form of the meandering creek surrounded on both sides by low-lying prairie lands.
- Marshland at the south end of Meadow Lake creates a riverine habitat for migrating waterfowl.
- Lands adjacent to Meadow Lake and the slough within SE 33-18-14-W4M act as a transition from a riverine environment to prairie.

Native grasslands as well as disturbed cultivated lands can be found in other locations of the Plan Area. These areas are deemed to be non-environmentally sensitive. There is a cluster of mature trees located south of Meadow Lake. These are the only mature trees within the Plan Area with the exception of those found within the Brooks Golf Course. The planning implications of these environmentally sensitive areas is that they can provide habitat for wildlife within the Plan Area and it is important that they remain as intact as possible.

7.4. POLICIES & STUDIES AFFECTING THE PLAN

7.4.1. Provincial & Municipal Policies

The following is an overview of the legislative and policy framework that applies to the Plan.

7.4.1.1. Municipal Government Act

The Municipal Government Act, RSA 2000, M-26, sets out the requirements for an Area Structure Plan in Section 633(2) as follows:

“An Area Structure Plan

- a) must 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.
- b) may contain any other matters that council considers necessary.

7.4.1.2. Subdivision and Development Regulation (AR 43/2002)

The Subdivision and Development Regulation (AR 43/2002) governs the Plan. In Part 2 of the Regulation, restrictions around sewage lagoons are described. The overflow sewage lagoons within the Southeast Sector are used on an emergency basis should the lift station fail. According to the Regulation, an approving authority must not approve a development or subdivision application for a school, hospital, food establishment, or residence within 300 m of the working area of an operating or non-operating wastewater treatment site. This legislation will limit these types of uses in the southeast corner of the Plan Area until such time as the facility is closed and reclaimed.

The well site within the Plan Area is also subject to the Subdivision and Development Regulation. No dwelling unit is permitted within 100 m of the well site. In order to be located closer than this distance, the well site operator and the AEUB will need to give approval.

7.4.1.3. Land Use Policies (Order in Council 522/96)

The Land Use Policies adopted by the Provincial Government sets out the planning philosophy that municipalities are to follow when undertaking land use planning. Each municipality is expected to incorporate the Land Use Policies into its documents and planning practices. Section 622(3) of the Municipal Government Act requires that municipal statutory plans, land use bylaws, and planning decisions and actions be consistent with the Land Use Policies.

7.4.1.4. The Municipal Development Plan (2001)

A municipal development plan (MDP) is a general statement of a municipality's broad objectives respecting the form and character of existing and proposed land use and servicing requirements. The Town's MDP was adopted in 2001.

The Long Range Land Use Concept Map in the MDP identifies several land uses within the Southeast Sector including residential, commercial business park, institutional, recreational, and natural open spaces.

Policies from the MDP that are applicable to the Plan include the following:

Residential

- Policy 7.4.3.1(a) Competition will be encouraged in the development and sale of housing so that consumer's choice and competitive pricing is promoted.
- Policy 7.4.3.1(b) Creative site planning and design that responds to the context of the site and natural features will be encouraged.
- Policy 7.4.3.1(c) New neighbourhoods will provide an adequate supply of multiple dwelling housing (possibly including garden apartments and ground-oriented townhouses) and a mix of dwelling units, including single-detached, small lot single-detached, duplex and semi-detached units.
- Policy 7.4.3.1(h) Design guidelines will be applied to all multiple family dwellings and small lot single detached, duplex and semi-detached units.
- Policy 7.4.3.1(i) Buffering will be required for new developments that create land use conflicts with existing residential areas.
- Policy 7.4.3.1(j) Large lot residential development will be encouraged to be integrated with other residential development in new residential areas.
- Policy 7.4.3.1(k) Large lot residential subdivisions will be considered in areas designated for residential use.
- Policy 7.4.3.4(a) The Southeast Sector shall be primarily a single detached residential neighbourhood as designated in the Southeast Area Structure Plan.
- Policy 7.4.3.4(b) Multi-family and small lot residential developments in the Southeast Sector shall adhere to Design Guidelines established by Council.
- Policy 7.4.3.4(c) Manufactured home communities may be considered in the Southeast Sector as an appropriate use subject to other governing policies contained in this Plan.

Commercial

- Policy 7.5.3.1(c) Highway Commercial development will be promoted as an important element of the Town's long term commercial development strategy.
- Policy 7.4.3.1(f) Commercial sites adjacent to residential areas shall not affect the quiet enjoyment of residential neighborhoods and will provide adequate screening, such as fences and landscape planting to screen uses.
- Policy 7.5.3.3(a) Neighbourhood commercial developments that support residential uses will be encouraged where such activities do not disrupt the character of the neighbourhood and where:
- The development is located at the corner of collector roads;
 - Pedestrian access from the residential community is encouraged;
 - The development is buffered and screened from adjacent residential uses;

- Uses are restricted to convenience commercial, personal services, and support offices to home based businesses;
- Parking does not dominate the character of the development and is landscaped to reduce visual impact.

- Policy 7.5.3.4(a) A highway commercial area will be encouraged along the Trans Canada Highway.
- Policy 7.5.3.4(b) Automobile and associated services oriented to the traveling public will be encouraged in highway commercial areas which will be distinct from the Central Commercial Business District.
- Policy 7.5.3.4(c) A high standard of site and building design is desired along the Trans Canada Highway to reinforce Brooks as a pleasant and desirable place to live and visit.

Parks and Open Space

- Policy 7.7.3(b) Provision of public access to permanent water bodies and natural drainage features will be incorporated into subdivision plans for development adjacent to water courses.
- Policy 7.7.3(d) An integrated hierarchy of active and passive parks and recreation facilities will be provided in order to meet the diverse needs of the Town of Brooks' population. This hierarchy of parks will include municipal reserve park land and natural environmental reserve areas. Where feasible, the system of parks will be linked to a town-wide pathway system.
- Policy 7.7.3(e) Significant natural features and sensitive environmental areas will be preserved, where feasible.
- Policy 7.7.4(e) Wherever possible, the Town will work with school authorities to integrate recreational and school infrastructure.
- Policy 7.7.5(c) Where possible, developers of lands adjacent to water bodies should incorporate public pathways along the water bodies; connecting such pathways to the community pathway system.
- Policy 7.7.5(d) Where feasible, grade separated crossings should be considered when pathways intersect with major transportation systems.
- Policy 7.7.5(e) Except within parks, major and minor pedestrian paths and bicycle routes shall be located along or be visible from streets and linked to local destinations. Bicycle parking facilities should be provided at key locations.

Transportation

- Policy 8.3.1(b) Acknowledging its status as a major centre along transportation routes otherwise managed and maintained by the County of Newell No. 4 and the Province of Alberta, the Town will endeavor to ensure that Town

transportation systems intersecting with or continuing to or from such routes are designed and developed in a manner complementary there with.

Policy 8.3.1(c) In the event the Town shall consider it necessary or advisable to advocate the development of major bypass routes or other major transportation facilities extending beyond the boundaries of the Town, then the Town will, in the course of any such proposal, consult with the County of Newell on issues of concern to the County, generally, and on particular issues raised by County stakeholders through the facilities of the County.

Policy 8.3.2(h) A new access to the industrial lands south of the CPR Mainline will be constructed in the future to reduce truck traffic through residential areas and to provide a more direct route to the Trans Canada Highway as financial ability and priorities permit.

7.4.1.5. Newell-Brooks Intermunicipal Development Plan (Draft)

The County of Newell and the Town of Brooks negotiated extensively for several years to adopt an Intermunicipal Development Plan. The intent of the Intermunicipal Development Plan was to provide a policy framework that considered the objectives of both municipalities for development and subdivision within the urban fringe area surrounding the Town. The Southeast Sector Area Structure Plan is located in an area designated as an Urban Area Structure Plan. There were limited policies within this draft statutory plan that apply to this area structure plan. Most important of these policies are the following related to development and transportation:

Policy 3.3.6 The Town of Brooks and County of Newell will coordinate land use planning with Alberta Infrastructure in the vicinity of highways within the Plan Area to provide for the appropriate development of future highway commercial uses.

Policy 3.3.7 Commercial and industrial development adjacent to primary or secondary highways should be planned and developed to a higher standard relative to other industrial and commercial areas within the Plan Area. Consideration is to be given to the following:

- a) Access to and from the Highway;
- b) Visual screening of outdoor storage areas;
- c) Landscaping;
- d) Architectural appearance of buildings; and
- e) Dust control in parking and storage areas.

Policy 3.4.3 The Town of Brooks and the County of Newell No. 4 will cooperate to ensure that the future road development and alignments within the Plan area are not compromised through development adjacent to the rights-of-way of these roads identified in Policy 3.4.2.

Policy 3.4.4 When development in one municipality will require access to a road located in the other municipality, the municipality that is making the decision on the development permit will circulate the application to the other municipality for comment and a written response. The developer will be required to obtain approval for access to the road from the municipality in whose jurisdiction the road is located, prior to commencing the development.

7.4.1.6. Land Use Bylaw No. 91/06

The Land Use Bylaw (LUB) identifies that the Plan Area contains several land uses including; (1) Direct Control District (DC); (2) Special Light Industrial District (M-1); (3) Direct Control Residential District (DC-R); (4) Residential Mobile Home District (R-4); (5) Public & Quasi-Public Service District (P-1); and (6) Public Park and Open Space District (P-2).

The LUB was being reviewed during the same time as preparation on this Plan occurred. It is likely that some of the land use districts may change as a result of that review. Subject land parcels will have to be redesignated to the appropriate land use districts when the municipality receives a subdivision application.

7.4.1.7 Town of Brooks Transportation Study (1991)

This report by UMA Engineering Ltd. identified transportation planning strategies and infrastructure requirements for population thresholds of 15,000 and 20,000 people.

7.4.1.8 Town of Brooks Storm Sewer Drainage Study (1991)

This report forms the basis of a storm water management plan for the Town. Design parameters and rainfall intensity-duration curves were developed. Proposed facilities for the Southeast Sector included two retention ponds with a total capacity of 63,000 m³ each having a pump station to discharge water into One Tree Creek at a rate of 150 l/sec.

7.4.1.9 Southeast Infrastructure Construction Servicing Report (1995)

This report presented the servicing requirements for the 1995 Southeast Sector Area Structure Plan. The water distribution system can be expanded with a network of 150 mm to 300 mm diameter mains that are networked to the existing 300 mm main along 2nd Avenue and the 250 mm main along Cassils Road. The water distribution system was identified to require an additional treated water reservoir and pumping station once the Town's population reached 11,500. A site was identified in the Southeast Sector Area Structure Plan for this facility. Proposed sanitary sewer requirements involve gravity collection sewers that drain into two lift stations, with force mains to the Town's main (Horticultural) lift station. The system also collects sewage from the Parkland lift station and a future lift station to service developments located north of Cassils Road. Proposed storm water management included the need for two storm water detention ponds, and a network of gravity storm sewers.

Subsequent to this report, infrastructure has been constructed in the Southeast Sector. It includes the first of the two required sewage lift stations plus a gravity trunk sewer that collects sewage from the Parkland lift station located north of Cassils Road. A storm water management pond was constructed along with a storm sewer along 2nd Avenue East. This pond services primarily lands located north of 2nd Avenue East.

7.4.1.10 Town of Brooks Water and Wastewater Systems Evaluation (2000)

This report was prepared by Reid Crowther and evaluated the existing water and wastewater system and identified upgrades to meet existing and future needs to a population threshold of 16,000. Of significance is that the need for a new pump station and reservoir in the Southeast Sector was not identified. The report does identify an expansion of treated water storage and high lift pump upgrades at the existing water treatment plant.

7.4.1.11 Master Plan for Parks, Recreation, and Culture (2000)

The Town of Brooks reviewed its parks, recreation, and cultural services in 1999 - 2000. The intent was to prepare a planning document that provided the basis for decision-making by approving authorities over the next decade. A master plan was adopted in 2000. Several recommendations provide a context for the Plan.

- The Town should identify and secure a large site suitable for long-term development as a high level athletic park. A good candidate for this initiative would be the college owned site adjacent to the local college campus. Although not very central and easily accessible, it is a large site relatively suitable for development.
- Development of first phases of the athletic park should include two full-sized soccer pitches.
- All updates of the General Municipal Plan and Area Structure Plans should seek ways of creating connections to existing trails and extensions of the trail system so that residents can get to the system from all areas of the Town and can use loops of the system of various lengths for leisure and fitness purposes. Specifically, a perimeter loop should be developed as the most cost effective long term element of the overall system.
- Seek ways of consolidating neighbourhood play areas such that there will be fewer but higher quality play parks in the future, while maintaining a standard where almost all residents have access to a play area within 400 m of their residence.

7.4.1.12. Brooks Growth Study (2002)

The Town of Brooks Growth Study was undertaken to ensure that future growth of the Town is planned in an orderly and efficient manner. The study provided a long-term growth strategy to guide the community by addressing growth requirements both inside and outside of it. The Growth Study built upon the Town of Brooks Municipal Development Plan

(MDP), which sets out the policy and physical framework for land development within the community, including the provision of land use designation and identifying community objectives. In general, this study identified the Plan Area as a preferred area for residential development in the community.

This report did not identify a need for a new reservoir and booster station in the Southeast Sector, instead echoing the findings of the Reid Crowther report for expanded treated water storage and pumping upgrades at the water treatment plant. The Meadowbrook Lift Station was identified as requiring a pumping upgrade in the future.

7.5. MUNICIPAL AND FRANCHISE INFRASTRUCTURE

7.5.1. Water

A number of water distribution mains exist in the area. At the north end, Meadow Lake Estates and serviced by a 250 mm water main from Cassils Road and 200 mm mains within the subdivision. A 300 mm main runs along 2nd Avenue to the Medicine Hat College. Sixteenth Street East residential lots are serviced off the 2nd Avenue main to the south, a 150 mm water main follows the Brooks Golf Course's road and continues to the southeast to service the Horticulture Centre. This line is looped to the 300 mm main on 2nd Avenue via a 100 mm line that parallels the main gravity sewer line from Town. The EnCana Corporation's building is serviced via a 200 mm waterline connected to the 300 mm main.

7.5.2. Sanitary Sewer

The major sanitary sewer infrastructure necessary for servicing most of the Southeast Sector was constructed in 1998 and 1999. It consists of the following:

1. Meadow Brook sewage Lift Station with a firm capacity of 44.2 l/sec. Sewage is pumped via force main to the main (Horticultural) Lift Station.
2. A 375 mm sanitary trunk main along 4th Avenue from 16th Street West to Meadow Brook lift station.
3. A 300 mm sanitary trunk main from Cassils Road connecting to the 375 mm main at 17th Street East. This main transports sewage from the Parkland Lift Station catchment area.

Current peak flows at Meadow Brook Lift Station are estimated to be 22.5 l/sec.

7.5.3. Storm Sewer

Major storm water management infrastructure for the Southeast Sector was constructed in 1998. It consists of a storm water detention pond located south of EnCana Corporation property and north of 2nd Avenue. The pond is designed to accommodate all storm water runoff north of 2nd Avenue in the Southeast Sector. It includes a settling basin for improving water quality before being pumped at a maximum discharge rate of 150 l/sec into One Tree

Creek. A 675 mm storm sewer exists along 2nd Avenue from the detention pond to Meadow Brook Drive.

7.5.4. Shallow Utilities

Natural gas, electricity and telephone lines are located within the Plan Area and may be extended to service future development cells as required.

7.6. COMMUNITY SERVICES

Community services will be provided as follows:

7.6.1. Schools & Playfields

Provision has been made for school sites within the Plan Area. At the time of Plan preparation both School Districts indicated a possible need for a school site within the Southeast Sector. There was no definite time period when either school division may require a site within the Plan Area. This will be dependent on enrollment and funding allocation from individual school boards and the Provincial Government. The proposed sites allow for the use of facilities within the municipality's proposed regional athletic park.

Neighbourhood parks have been identified for each residential development cell. The amount of municipal reserve for each development cell is identified within Map 6. The location of parks within individual development cells will be determined at the Outline Plan/Land Use Amendment stage.

7.6.2. Police Services

Police services will be provided by the existing facility at the intersection of 4th Street West and 3rd Avenue West.

7.6.3. Fire Protection and Emergency Medical Services

Fire protection will be provided from the existing facility at Centre Street and 1st Avenue West until such time as the proposed site in the Southeast Sector is developed. Emergency medical services are provided from Brooks Hospital until such time as this location changes. The 9-1-1 Service is also provided from the Brooks Hospital.

7.6.4. Public Health Services

Health services are available from the Brooks Hospital as well as private clinics located elsewhere in the community.

APPENDIX 1

LAND USE STATISTICS

19 January 2004

S.E.SECTOR

<u>LAND USES</u>	<u>ACREAGE</u>
BUSINESS PARK	32.51
COMMERCIAL - HIGHWAY	40.42
COMMERCIAL - NEIGHBORHOOD	4.4
CONSTRUCTIONS - DETENTION PONDS & SEWAGE PUMPHOUSE	22.61
INSTITUTIONAL	80.9
OPEN SPACE	153.51
PARKS & RECREATION	215.28
RESIDENTIAL - SINGLE FAMILY	195.12
RESIDENTIAL - COUNTRY ESTATE	38.05
RESIDENTIAL - MULTI-FAMILY	42.76
RESIDENTIAL - MANUFACTURED HOMES	38.08
	<hr/>
	863.64
<u>ROADS</u>	
COLLECTOR ROADS	35.49
ARTERIAL ROADS	27.3
BOULEVARD COLLECTOR ROADS	9.73
	<hr/>
	72.52
<u>OTHER</u>	
HIGHWAY INTERCHANGE	17.36
CASSILS ROAD & SERVICE ROAD	9.61
GENESIS DEVELOPMENT	5.9
MEADOWLAKE ESTATES	9.98
E.I.D. - ONE TREE CREEK - WEST	26.26
E.I.D. - ONE TREE CREEK - SOUTHEAST	4.27
E.I.D. - ONE TREE CREEK - NORTHEAST	1.54
OLD #1 HIGHWAY	11.29
	<hr/>
	86.21
	<hr/>
	<hr/>
TOTAL	1022.37

DENSITY CALCULATION

Single Family Residential

Gross Developable Area	202.91 acres
- Circulation (20% GDA)	40.58 acres
-10% Municipal Reserve	20.29 acres
Net Developable Area	142.04 acres

Population

142.04 acres x 6 du/ac =	852.24 du x 2.7 pp/unit =	2301 persons
142.04 acres x 8 du/ac =	1136.32 du x 2.7 pp/unit =	3068 persons

Multi-Family Residential

Gross Developable Area	32.64 acres
-Circulation (20% GDA)	6.53 acres
- 10% Municipal Reserve	3.26 acres
Net Developable Area	22.85 acres

Population

22.85 acres x 18 du/ac =	411.30 du x 2.7 ppu =	1111 persons
22.85 acres x 36 du/ac =	822.60 du x 2.7 ppu =	2221 persons

Manufactured Home Community

Gross Developable Area	37.55 acres
-Circulation (20% GDA)	7.51 acres
-10% Municipal Reserve Equivalent	3.76 acres
Net Developable Area	26.28 acres

Population

26.28 acres x 7 du/ac =	183.96 du x 2.7 ppu =	497 persons
26.28 acres x 8 du/ac =	210.24 du x 2.7 ppu =	568 persons

Existing Multi-lot Development

Meadowlake Estates:

Net Developable Area	9.62 acres
Population:	58 du x 2.7 ppu = 157 persons

Meadowbrook Greens

Net Developable Area

5.79 acres

Population:

Single Detached Residential: 68 du x 2.7 = 184 persons

Multi-family Residential 136 du x 2.7 = 367 persons

Notes:

1. du = dwelling unit
2. ppu = persons per unit

Table 1. Number of Dwelling Units and Persons Proposed within the Southeast Sector.

Type of Dwelling Unit	Number of Dwelling Units	Number of Persons	Net Developable Area (Acres)
Single Family	852 - 1136	2301 - 3068	142.04
Multi-Family	411-823	1111 - 2221	22.85
Manufactured Home Community	184 - 210	497 - 568	26.28
Existing Multi-lot Development	126 - 194	341 – 524	15.41
Total	1573 - 2363	4250 – 6381	206.58

Density: 7.61 – 11.44 dwelling units/net developable area (acres)
18.80 – 28.26 dwelling units/net developable area (hectares)

Table 2. Area Structure Plan Statistics.

Land Use	Area (acres)	Percentage
Residential	288.51	30.31
Commercial	95.42	7.56
Institutional	88.96	11.10
Open Space/ Recreational	317.18	37.05
Roads	110.78	10.84
One Tree Creek	32.07	3.14
Total	1022.36	100.0

Note: Institutional includes detention ponds and lift station.

**APPENDIX 2
EXCERPT FROM SOUTHEAST
INFRASTRUCTURE SERVICING
REPORT**

**TOWN OF BROOKS
SOUTHEAST INFRASTRUCTURE
CONSTRUCTION
SERVICING REPORT**

Prepared for:

The Town of Brooks

Prepared by:

UMA Engineering Ltd.

November, 1995

File No.: 0103-270-00-02

4. STORM WATER MANAGEMENT

4.1 General Description

The development of land results in increased runoff rates and volumes due to the increase in the impervious area. The degree of increase in runoff will vary, depending upon the extent to which the development has changed the existing hydrologic regime. If not properly managed, post-development runoff can have detrimental impacts, such as flooding and erosion of existing downstream drainage systems and receiving water bodies.

In addition to water "quantity" impacts, urbanization can also have impacts on the "quality" of storm runoff. Urban runoff can contain high levels of dissolved and suspended solids, Biochemical Oxygen Demand (B.O.D.) and nutrients, and can have significant concentrations of salts and other contaminants. The recently adopted Environmental Protection and Enhancement Act (Alberta) requires municipalities to deal with the quality of storm effluent.

An urban drainage system has two components. One is the piped system, generally referred to as the convenience or minor system. This system is designed to carry runoff from small, frequent storms away from the subdivision. The second component, the overland or major system, is the drainage path which accommodates surface runoff from a storm which exceeds the capacity of the minor system. This system exists whether or not it is planned; therefore, failure to consciously design a major system may result in unnecessary flood damage. Streets, lanes, ditches, drainage swales, culverts, easements, walkways, and parks act as open "channels", draining water overland to ponds or natural receiving bodies (e.g. creeks, rivers, lakes).

The objectives of a storm water management system can be summarized as follows:

- Minimize potential risks to health and property within the development boundaries.
- Minimize potential for downstream flooding and erosion.
- Minimize inconvenience caused by surface ponding and flooding.

- Integrate system design to conform with municipal drainage plans.
- Minimize impacts on surface water and groundwater resulting from sediment and erosion problems during and following construction.
- Reduce contaminant loadings from urban storm drainage runoff by use of detention storage or alternative treatment systems as appropriate.

4.2 Existing Drainage

The topographic information and existing drainage features are shown on Figure 4.1. Generally, the land is level with a slight slope to the east of approximately 0.5%.

Storm runoff generally ponds in various low areas located throughout the site. One Tree Creek, an existing Eastern Irrigation District irrigation spillway, is located along portions of the east limit of the site. An existing storm sewer and ditch, which serves as an outlet for Meadow Lake to the One Tree Creek Spillway, is located at about the midpoint of the site.

A more detailed description of the existing drainage system is provided in the "Town of Brooks Storm Sewer Drainage Study-1991" prepared by UMA Engineering Ltd.

4.3 Previous Studies

The storm drainage for the study area has been considered in two previous studies:

1. "Town of Brooks South and Southeast Area Servicing Study - 1984" prepared by UMA Engineering Ltd.; and
2. "Town of Brooks Storm Sewer Drainage Study-1991" prepared by UMA Engineering Ltd.

The 1991 Study established updated design criteria, determined subcatchment drainage areas and the drainage concept for these lands, and indicated preliminary storm pond locations, size and related pumping facilities.

The storm drainage concept proposed for the southeast sector consisted of two sub-catchment areas, each draining into a storm detention pond. Discharge from these storage facilities would be provided by pumping and force main to the One Tree Creek Spillway at a rate of 150 litres per second from each pond.

4.4 Design Criteria

The following design criteria, as established in the 1991 Drainage Study, has been used in this drainage analysis.

Rainfall Intensity - Duration Curves

- 2 year return period $I = \frac{289.14}{(T_c + 5)^{0.719}}$
- 100 year return period $I = \frac{1620.83}{(T_c + 15)^{0.846}}$

Minor System

- Storm sewer designed for 2 year return period.
- The Rational Method used for storm sewer design:
 $Q = CIA \times 2.78$ where:
 - Q = Runoff (L/s)
 - C = Runoff Coefficient
 - I = Intensity (mm/hr)
 - A = Runoff area (ha)
 - 2.78 = Conversion factor
- The initial time of concentration of 20 minutes.
- Minimum pipe size of 300 mm.

Major System

- Storm runoff detention for the 100 year return period.
- Discharge rate of 150 litres per second from each of two proposed storm ponds.

- Provision made to convey major flow via streets, lanes, utility easements, walkways, parks, and swales to the storm water detention ponds.

Other

- Discharge foundation drain (weeping tile) by methods other than direct connection to the storm sewer. This measure will ensure that basements will not flood due to the surcharging of the storm sewer system during major storms. This measure will also permit a shallower storm sewer system and consequently lower construction costs.
- The maximum depth to top of house footing is 1.2 metres.

4.5 Proposed Storm Water Management System

The proposed storm water management system is shown on Figure 4.1. This drawing also shows the proposed land use and subcatchment drainage areas which were the basis of the drainage analysis to size the detention facilities. Figures 4.2 and 4.3 shows a typical pond cross-section and Figure 4.4 indicates the preliminary storm water pump station schematics.

An analysis using the Otthymo 89 computer model was carried out to establish the post development runoff for the 100 year return period. A 24 hour Chicago design storm utilizing the Brooks IDF curve data was used in this calculation.

As presented in the 1991 drainage study, two storm detention facilities are proposed for providing the required storage. Following is a summary of the design data for each storm water detention pond:

<u>Pond No.</u>	<u>1</u>	<u>2</u>
Subcatchment Drainage Area (ha)*	135	96
Pumped Outlet Rate (L/s)	150	150
Storage Volume (ha.m.)	6.3	4.3
Storage Depth (m)	1.5	1.5
Maximum Side Slopes	5:1	5:1
Force Main (mm)	300	300

*Only minor flow from Areas 3 and 5A to Pond 1.

Storm Water Pumping Stations

The pumping station for each pond will transfer a fixed rate, 150 l/s, against a head of approximately 10 metres TDH. The time required to drain the pond will, therefore, vary depending on the severity of the storm occurring.

The facility will consist of a standard duplex pump system with two identical pumps, one operating and one standby. The pumps will be self-priming, non-clogging type, located at grade and drawing from a wet well situated below the pumps. All motor and level controls are prewired and contained within the station. The station enclosure consists of a removable fibreglass housing, complete with full size access door, vents, lighting, prewired heater, and thermostat to prevent freezing.

At the operator's option, the station can be drained down and disconnected for the winter.

Figure 4.4, Typical Storm Water Pump Station, shows the general arrangement of the stations.

4.6 Water Quality

Presently, Alberta Environment has no specific design criteria with respect to the enhancement of storm water effluent, but is in the process of developing criteria. In the interim, they are requesting, where practical, the provision for future water quality improvement features.

Where practical, features will be designed into the proposed dry ponds to provide for improvement of water quality. It is envisioned, at this time, that this may take the form of reduction of sediments.

4.7 Meadow Lake Outlet

Meadow Lake receives storm water runoff from approximately 175 ha of developed land in the eastern portion of Brooks. The water level of Meadow Lake is controlled

by a 375 mm pipe which discharges into a ditch and ultimately the One Tree Creek Spillway.

The proposed development in the Southeast Sector will result in the removal of the ditch portion of the Meadow Lake outlet. The following alternatives were considered to provide for the future discharge from the lake.

Alternative No. 1

- Mechanically control and delay the outflow from Meadow Lake by means of a valve.
- Permit discharge from the lake to Pond 1 when the pond is empty.
- This procedure would enable the use of the storm pump station at Pond 1 without necessitating an increase in the size of the pond.
- However, this alternative will require an analysis of the impact on the Meadow Lake storage capacity and water levels resulting from a delayed discharge.

Alternative No. 2

- Increase the pump capacity at Pond 1 to enable a "flow through" from Meadow Lake. This would mean increasing the pump capacity from 150 L/s by approximately 80 L/s (assuming existing 375 mm at 0.2% slope) to 230 L/s.

Alternative No. 2 is the preferred option requiring no control on the Meadow Lake outflow or impact on the water levels in the lake.

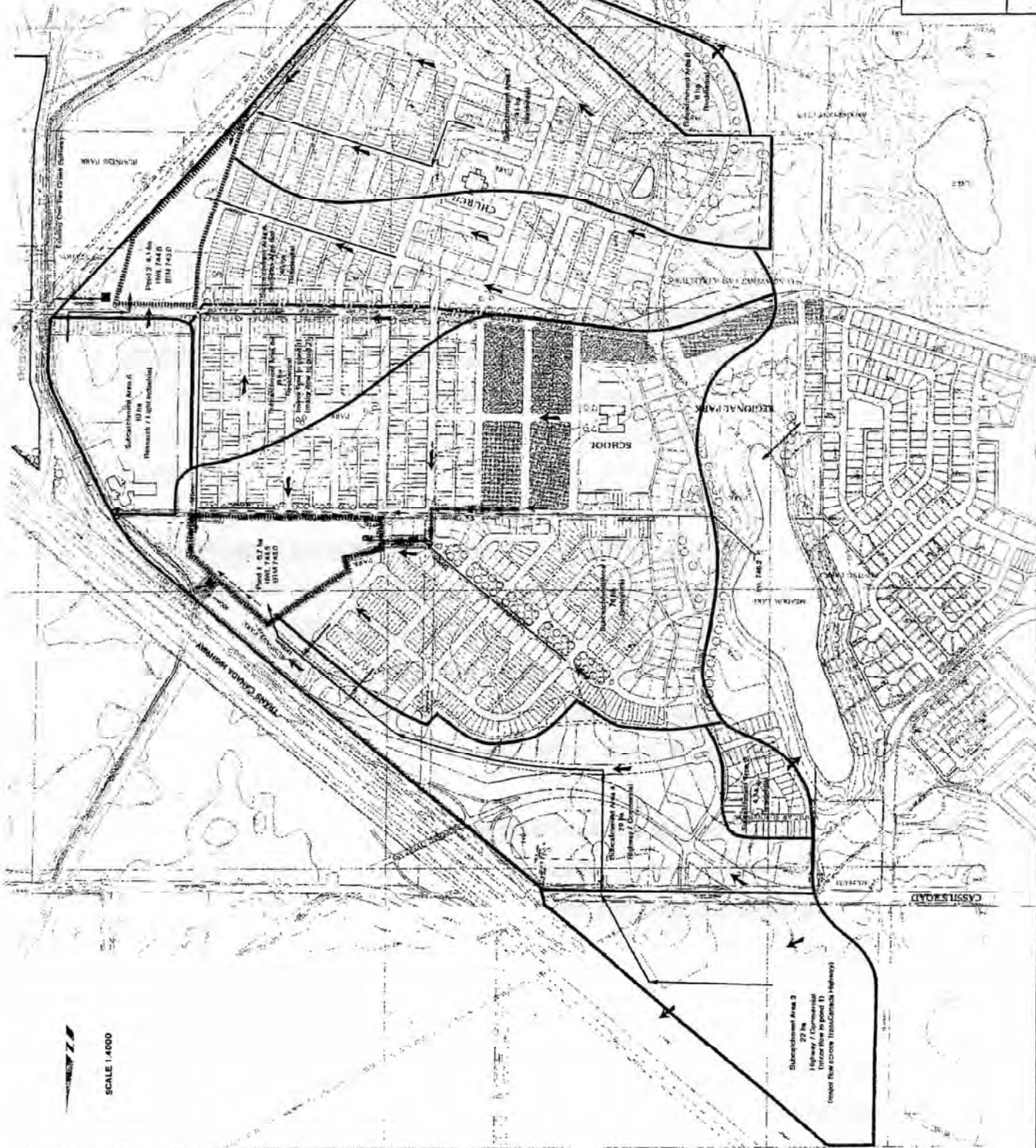
As noted in Section 3.4, a small portion of land in the southwest corner of the study area is uneconomical to service with sanitary sewer. This is also similar for storm sewer trunks and, therefore, this area should be considered in with development of lands to the south.

TOWN OF BROOKS
 SOUTHEAST INFRASTRUCTURE
 CONSTRUCTION SERVICING REPORT
 PROPOSED STORM WATER
 MANAGEMENT SYSTEM
 FIGURE 4.1

Project Number: 100-000000-0000
 Date: 08/11/2011
 UTM

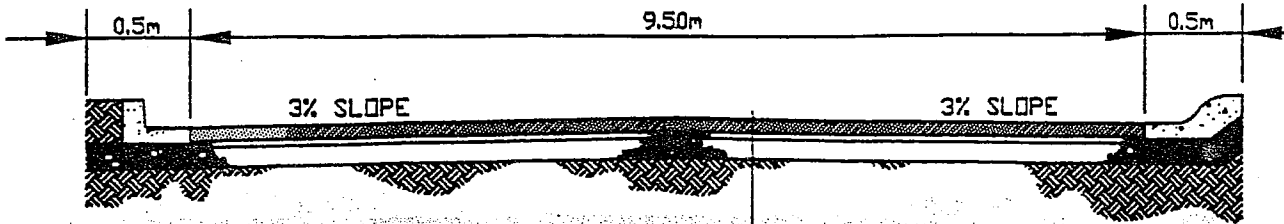
LEGEND

	Existing In Channels
	Existing Storm Sewer
	Existing Ditch
	Proposed Stage 1 Development
	Proposed Subcatchment Damages Link
	Proposed Storm Storm Storm
	Proposed Under Flow
	Proposed Overland Damages Check Space
	Proposed Storm Water Pump Station
	Proposed Storm Water Force Main
	Proposed Storm Water Detention Pond
	Proposed Storm Water Pump Station
	Proposed Storm Water Pump Station



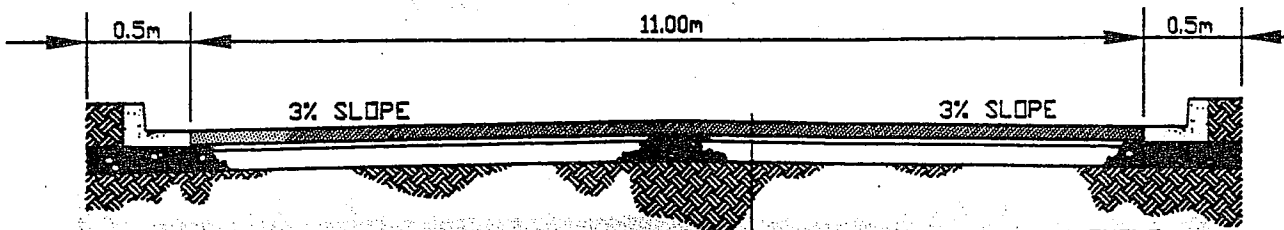
Subcatchment Area 3
 Highway / Overland
 (Interflow to pond 1)
 (Interflow to pond 1)
 (Interflow to pond 1)

APPENDIX 3
ROAD CROSS SECTIONS



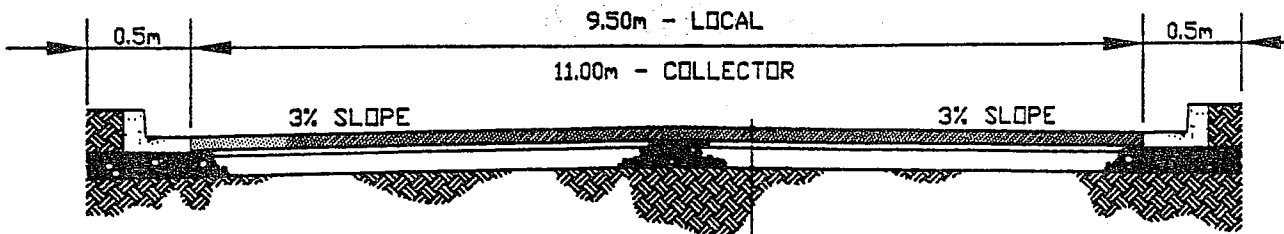
- 65mm HOT MIX PAVEMENT
- 50mm BASE DRESSING (16mm OR 19mm CRUSH)
- 300mm BASE (40mm CRUSH)
- GEOTEXTILE - NILEX GTF 200 OR AMOCO 2002 (BETWEEN BASE AND SUBGRADE)
- SHAPED AND COMPACTED SUBGRADE TO 98% STD. PROCTOR

LOCAL RESIDENTIAL ROADS



- 100mm HOT MIX PAVEMENT
- 50mm BASE DRESSING (16mm OR 19mm CRUSH)
- 300mm BASE (40mm CRUSH)
- GEOTEXTILE - NILEX GTF 200 OR AMOCO 2002 (BETWEEN BASE AND SUBGRADE)
- SHAPED AND COMPACTED SUBGRADE TO 98% STD. PROCTOR

RESIDENTIAL COLLECTOR ROADS



- 125mm HOT MIX PAVEMENT
- 50mm BASE DRESSING (16mm OR 19mm CRUSH)
- 300mm BASE (40mm CRUSH)
- GEOTEXTILE - NILEX GTF 200 OR AMOCO 2002 (BETWEEN BASE AND SUBGRADE)
- SHAPED AND COMPACTED SUBGRADE TO 98% STD. PROCTOR

LOCAL & COLLECTOR - INDUSTRIAL & COMMERCIAL ROADS

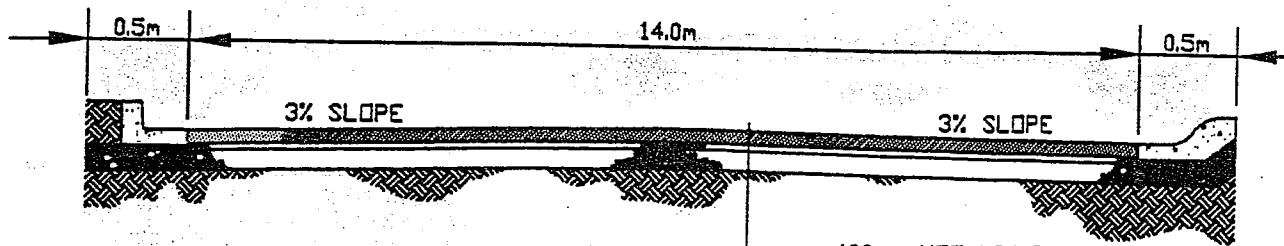
ENGINEERING SERVICES

TOWN OF BROOKS



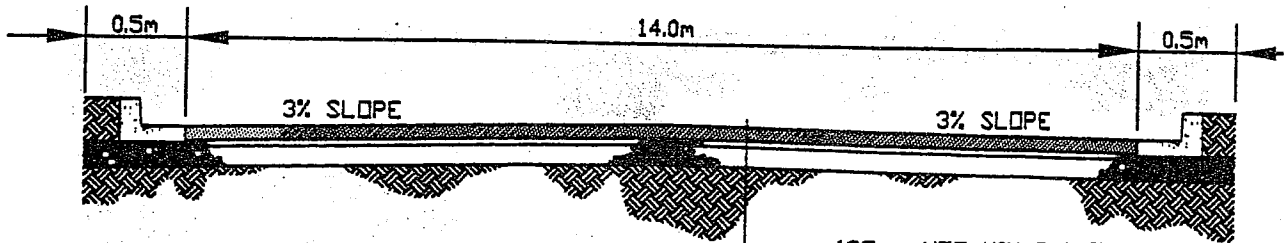
ROAD CROSS SECTIONS

DRAWN BY:	DATE	REVISION	DESCRIPTION	DRAWING NO.	SHEET
MH	06/03/01			BRKS-0047	
CHECKED BY:	DATE				



- 100mm HOT MIX PAVEMENT
- 50mm BASE DRESSING (16mm OR 19mm CRUSH)
- 300mm BASE (40mm CRUSH)
- GEOTEXTILE - NILEX GTF 200 OR AMOCO 2002 (BETWEEN BASE AND SUBGRADE)
- SHAPED AND COMPACTED SUBGRADE TO 98% STD. PROCTOR

MINOR ARTERIAL ROADS



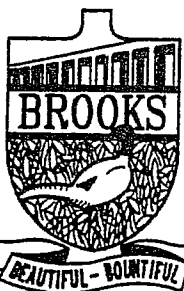
- 125mm HOT MIX PAVEMENT
- 50mm BASE DRESSING (16mm OR 19mm CRUSH)
- 400mm BASE (40mm CRUSH)
- GEOTEXTILE - NILEX GTF 200 OR AMOCO 2002 (BETWEEN BASE AND SUBGRADE)
- SHAPED AND COMPACTED SUBGRADE TO 98% STD. PROCTOR

MAJOR ARTERIAL ROADS

ENGINEERING
SERVICES

TOWN OF BROOKS

ROAD CROSS SECTIONS



DRAWN BY:	DATE	REVISION	DESCRIPTION	DRAWING NO.	SHEET
MH	06/03/01			BRKS-0048	
CHECKED BY:	DATE			SCALE N.T.S.	