

NORTH CENTRAL AREA STRUCTURE PLAN

Office Consolidation April 2025

North Central Area Structure Plan Bylaw C-477-03 was adopted by Council on July 14, 2003.

This “Consolidated Edition” was published April 2025, and it incorporates all amendments and additions to Bylaw C-1169-21 as referenced below:

- Bylaw C-515-04 passed March 22, 2004, changing a site from high density to medium density residential.*
- Bylaw C-520-04 passed April 13, 2004, amending a site from low density to medium density residential.*
- Bylaw C-532-04 passed June 14, 2004, to reconfigure land uses in the western (Deer Park) ASP area (W½ 9-53-27-W4M) and related text amendments.*
- Bylaw C-567-05 passed September 12, 2005, to amend part of Basin 5 stormwater detention/natural wetland from a dry pond to wet pond.*
- Bylaw C-620-06 passed September 11, 2006, amending a low-density area to medium density residential and correct a map error on abutting Park site.*
- Bylaw C-626-06 passed September 24, 2007, updating Land Use Concept to reflect: registered parcels; Dog Creek E.R. survey; stormwater management; parks/open spaces; transportation; and, reconfiguring for less low density and more medium density residential use.*
- Bylaw C-692-08 passed August 19, 2010, changing low density to medium density residential, and a medium density area into high density residential.*
- Bylaw C-789-11 passed September 15, 2011, to amend a low-density area to medium density residential.*
- Bylaw C-901-15 passed July 17, 2015, to amend a low-density area to medium density residential.*
- Bylaw C-997-17 passed June 12, 2017, to change an area into low to medium density residential density, adjust park, and update/correct statistics/map.*
- Bylaw C-1001-17 passed August 14, 2017, to change low density residential to medium density residential and commercial.*
- Bylaw C-1169-21 passed January 10, 2022, to expand a Commercial site and reduce a Medium Density Residential site by the same amount.*

All reasonable attempts were made to accurately reflect the original Bylaws, and except as noted within this paragraph, all text changes are referenced in the right margin and italicized.

This “Consolidated Edition” is intended for convenience only, and in case of uncertainty the reader is advised to consult the original Bylaws that are available at the City Clerk’s Office.

City of Spruce Grove
Planning and Development

CITY OF SPRUCE GROVE

BYLAW NO. C-477-03

NORTH CENTRAL AREA STRUCTURE PLAN

Being a Bylaw to adopt the North Central Area Structure Plan for the City of Spruce Grove, in the Province of Alberta.

Pursuant to Sections 633 of the Municipal Government Act, S.A. 2000, c. M-26.1, including amendments thereto, the Council of the City of Spruce Grove, DULY ASSEMBLED HEREBY ENACTS as follows:

1. The Plan applies to the entire undeveloped portion of the south and north quarters of Sections 9 and 10, Township 53, Range 27, West of the Fourth Meridian.
2. The North Central Area Structure Plan attached hereto as Schedule A to this Bylaw is hereby adopted.
3. The Plan provides a framework for the development of the Plan area as described in the text and mapping of Schedule A.
4. The Plan shall become a guide for the preparation of detailed plans and subdivision and development agreements.
5. Development of the subject lands of the Area structure Plan shall conform to the land uses set out in the Plan.

This Bylaw shall take effect on the date of its final reading.

First Reading Carried 10 March 2003

Public Hearing Held 26 May 2003

Second Reading Carried 26 May 2003

Public Hearing 14 July 2003

Third Reading Carried 14 July 2003

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EXECUTIVE SUMMARY

Focus Intec, on behalf of the City of Spruce Grove, is pleased to present the North Central Area Structure Plan. The Plan is a result of input received from the area landowners, Municipal officials, and affected stakeholders, and represents development parameters and objectives for 393 hectares of land in the northern portion of the City of Spruce Grove.

The North Central Area Structure Plan provides for a new residential community and establishes the objectives and principles to guide the location, intensity, and character of land uses. The Plan also determines the transportation and circulation pattern, organization and design of the community. More specifically, the Area Structure Plan (ASP) calls for the development of:

- A variety of residential densities and dwelling units comprehensively planned and integrated with the existing residential development of the Plan area;
- A range of convenient commercial land uses to serve the community and neighborhood needs;
- An interconnected pedestrian trail system that links the major open space areas within the Plan and those of the surrounding communities;
- A hierarchical transportation system to connect the neighborhoods within the Plan area and those to the south;
- A stormwater management system to control the flow and intensity of stormwater flows into Atim Creek;
- Two new school sites to accommodate the needs of both the Evergreen and Parkland School Districts;
- The general servicing scheme required to complete the neighborhood; and,
- An approximate phasing sequence for development.

The Plan is sensitive to the existing developed areas within its boundaries, the need for a specifically planned stormwater drainage system, and the ensuing closure of Calahoo Road and alterations to highway access. The goal of the ASP is to set forth in precise terms the type, location, and intensity of land uses, but also creates a liveable and attractive community. Although the Plan sets forth the goals and objectives for development of the area, it is intended to be inherently flexible in its implementation. Specific details of location, site design, minor circulation patterns and lot layout, particularly for the higher intensity land uses, will be the responsibility of the site developer and subject to further review.

1.0 Introduction and Background

1.1 Forward

In co-operation with two of the major landholders within the Plan area (Melcor Developments Ltd. and Mr. Arlie Jespersen), the City of Spruce Grove has authorized the preparation of an Area Structure Plan. All major landowners were given the opportunity to be involved with the development of the ASP. The ASP recognizes the planning previously done for the area and also incorporates current directions, visions and standards, which resulted in some changes. The subject lands are legally referred to as the N ½ and part of the S ½ of Sections 9 and 10, Township 53, Range 27, West of the 4th Meridian (see **Figure 1**). This document is the Area Structure Plan hereinafter referred to as the **North Central Area Structure Plan**. The North Central Area Structure Plan provides a strategic framework for future subdivision and development in a manner that is compatible and complementary to existing development within the north central area of the City of Spruce Grove.

With the build-out of the comprehensive Plan area, the residents of Spruce Grove will be offered a variety of recreational and commercial amenities together with a diversity of residential lifestyle choices. The overall formulation and intent of this document is to ensure the orderly and regulated implementation of this comprehensive North Central Area Structure Plan.

1.2 Background

The Plan area is a culmination of numerous studies, bylaws, and area structure plans with no cohesive structure. The City of Spruce Grove requested the formulation of a comprehensive area structure plan to guide future development within the Plan area and to ensure orderly and efficient development of the site.

The interchange and associated ramping requirements for the Highway 16 and *Jennifer Heil Way* intersection will not allow for an additional highway access at Calahoo Road. Furthermore, the decision to eliminate the connection of Calahoo Road with Highway 16 called for a revisitation to the area and conceptual design of a neighborhood that would link to the existing Spruce Grove community. In addition, the location of the TransAlta Tri- Leisure Centre will make *Jennifer Heil Way* a more significant thoroughfare and further justifies the interchange location and need for an all-encompassing transportation network. As a result, it was deemed necessary to formulate an area structure plan that would address such transportation issues.



Legend





-  North Central Area Structure Plan Boundary
-  Amendment Area
-  City of Spruce Grove Boundary
-  Westerly Sub-Area "B"

Figure 1 Location

ARMIN A. PREIKSAITIS
& ASSOCIATES LTD.

CITY OF SPRUCE GROVE

Deer Park Estates
Amendment to North Central Area Structure Plan

Historical drainage problems in Parkland and Sturgeon Counties along Atim Creek and west of Big Lake have also resulted in more stringent storage and outflow requirements from Alberta Environment. The City of Spruce Grove's stormwater system presently utilizes Atim Creek for drainage purposes, and the additional development of the North Central ASP involves a modification to the rate and direction of stormwater flow towards this area, due to the expected stormwater increases. The main consequence of impacts being changes to the stormwater management plans for the areas, resulting in a complex system of stormwater basin and drainage routes. Details of this are further examined in Section 6, however the impacts affect the overall land use concept.

1.3 Purpose

The purpose of this document is to:

- Provide a comprehensive document outlining the planning and design goals for the North Central Area Structure Plan;
- Establish the objectives and principles to guide the location, intensity, and character of the land uses, and the circulation pattern;
- Detail the land use and transportation standards that will guide future development in the Plan area;
- Identify an extensive stormwater management system for the Plan area, in conjunction with the existing drainage from the community of Spruce Grove and the restrictions of flows to Atim Creek as imposed by Alberta Environment

1.4 Scope of the Plan

The Area Structure Plan as proposed provides for the orderly staged development of the Plan area. The Plan will specify land uses, residential density patterns, park and school requirements and locations, major roadway alignments, transportation and utility requirements, and staging in accordance with the provisions of the Municipal Government Act. The design for the area incorporates municipal requirements, as well as the desires of private landowners, and the surrounding community of Spruce Grove. The Plan is intended to establish an overall framework within which development occurs for the area, in order that consistent and coordinated development may take place responsive to the needs and requirements of the future residents. The Plan is intended to be flexible, thus able to respond to changing market demands over time.

The Area Structure Plan will provide a sound framework within which the municipal planning and review agencies may properly and fully evaluate subsequent detailed subdivision applications.

1.5 Policy Context

Since 1981 and the adoption of Bylaw 558-81, the “North Annexation Area Structure Plan”, there have been a number Area Structure Plans and amendments within the Plan area. It is the objective of the Area Structure Plan to integrate the existing development with new development intentions, within the framework of the policies and goals of the current City of Spruce Grove’s Municipal Development Plan, Land Use Bylaw, and relevant studies.

A number of statutory plans and subsequent amendments currently affect the Plan area. These include the westerly section of the Plan area, which is governed by the Northwest Area Structure Plan (Bylaw 310-97), and North Annexation Area Structure Plan (Bylaw 558-81), which has been modified in the southwest with the Aspenglen Amendment (Bylaw C91-90). The southeast corner falls under the Glen Park Amendment (Bylaw 77-89) with a subsequent amendment in the southwest portion (Bylaw C96-90); and the central area has been amended (Bylaw 301-96). All of the above plans will be rescinded with the adoption of the North Central ASP, and are illustrated in **Figure 2**.

2.0 Physical Features

2.1 General

In the preparation of the North Central Area Structure Plan it was necessary to examine existing site conditions and inventory active influences, and identify opportunities and constraints, both natural and man-made. The identification and evaluation of those factors, including a review of the development strategy led to the selection and refinement of the concept for the Plan area.

2.2 Location and Urban Context

The lands to be encompassed within the North Central Area Structure Plan are depicted graphically on **Figure 3**. Highway 16 forms the north boundary of the Plan, while Grove Drive defines the southerly limits. Century Road and *Jennifer Heil Way* define the east and west boundaries respectively. These major roadways intrinsically create an enclosed area that should be developed in a comprehensive and cohesive manner. Approximately 400 hectares of landform the Plan area, wherein over 50% are presently developed, including an 18-hole golf course, leaving approximately 180 hectares of undeveloped lands.



2.3 Existing Land Use

The current land uses assigned at present for both developed and undeveloped areas total approximately 393 hectares and are identified in **Figure 3**. This existing composition is critical to the designation of new land uses within the Plan area, as it affects compatibility, densities, and spatial relationships between uses and needs. The Plan area is divided into two sub-areas, the easterly and westerly, which are, for the most part, divided by the Calahoo Road alignment. A summary of both land use and zoning patterns are as follows:



Melcor Developments Ltd.
North Central Area Structure Plan Amendment
Proposed
Parks And Open Spaces
Figure - 3

2.3.1 Easterly Sub-Area “A”: Section 10-53-27-W4

These lands form the balance of the North Annexation ASP area including all of the Bylaw 301-96 amendment area, and a portion of the Bylaw 77-89 amendment area. The total area covered is 201.17 hectares, of which 43.33 are presently developed excluding the golf course. These lands have been developed as a residential community within and around the Links Golf Course. While the golf course is substantially developed and mature, the residential component is only 22% complete with approximately 100 hectares yet to be developed. Located in approximately the center of this ¼ section is future elementary school/park area serving these and adjacent communities. A multi-family site and church are situated at the south entrance of Fieldstone Drive.



2.3.2 Westerly Sub-Area “B”: Section 9-53-27-W4

The total area for the westerly sub-area is approximately 190 hectares, of which 39 hectares are developed (20%), with the remaining 151 hectares undeveloped. The Aspenglen area, consisting of low-density residential development, has begun immediately west of the Calahoo Road alignment and north of Grove Drive. Similarly, the first phases of the Deer Park Estates have been developed north of and westwards along Grove Drive. In addition to the single-family residential development, two small convenience commercial sites have been designated along Grove Drive, as well as a larger park site at the northwest corner of Grove Drive and Calahoo Road. The remaining lands forming the majority of this area are undeveloped agricultural lands, falling under an Urban Reserve designation.

2.4 Natural Resources

There has been no aggregate or other resource extraction from within the Plan area, except for limited sand removal along the northern portion of the easterly sub-area.

2.5 Historical Resources

Subject to Sections 28(2) and (3) of the Historical Resources Act, the Province owns all archaeological and paleontological resources. Municipalities are encouraged to contribute to the preservation of these resources. As a result, in preparation of the North Annexation Area Structure Plan Amendment adopted by Bylaw No. 652-82, Settlement Surveys Ltd. conducted a Historical Resources Inventory and Assessment. This assessment was performed on the majority of the land within the Plan area excepting only the Westerly $\frac{1}{2}$ of 9-53-27-W4th. The assessment identified three potential sites. Their findings indicate that no attempt should be made for preservation, as each site has shown considerable disturbances and interference by way of agricultural activities.

2.6 Soils

Reid Crowther performed a geotechnical analysis in 1991 and again in 1997. These studies have indicated that the soils within the Plan area are relatively stable and suitable for residential development. Near surface groundwater was found sporadically throughout the northern portion of the Plan area. The soils contained in the most northerly portion are classified as No. 2 and No. 3 soils. The southerly and central portions of the Plan area consist of good quality soils, with a No. 1 Canada Land Inventory classification. The proposed phasing of development will ensure the delayed consumption of agricultural lands.

The surrounding road network and existing development pockets have fragmented this area from larger agricultural tracts north of Highway 16. As a result, the proposed development is not considered to contravene Section 622 of the Municipal Government Act, which encourages municipalities to limit the fragmentation of agricultural lands and their premature conversion to other uses.

2.7 Vegetation and Natural Features

The vegetation within the Plan area is very limited and consists of a few scattered wood lots, which are to be preserved as park open space. Two wood lots are located in the NW $\frac{1}{4}$ Sec. 9 and NE $\frac{1}{4}$ Sec. 10 portions of the Plan area, whereas a mixture of vegetation and trees line both side of Dog Creek, all of which are to be incorporated into the proposed concept plan. Only those trees that directly impede construction of buildings and services may be removed. Trees of sufficient numbers and maturity to enhance the appearance of the development will replace those trees that are removed. The majority of the undeveloped area is under cultivation.



2.8 Topography

The topography and directional drainage of the lands within the Plan area is illustrated by **Figure 4**. Generally, the lands within the north ½ of Section 9 drain from the south along a centrally located drainage basin towards the northeast. The southeast corner of these lands, drain westward towards Dog Creek, which is a natural drainage channel that severs the easterly ½ of Section 9. This creek carries the flow of water across Highway 16 to Atim Creek and onward to the Sturgeon River.



The northeast ¼ of Section 9 also contains a small number of hills with random areas of depression. The topography within this specific area promotes the collection of stormwater, and in the future could form part of a stormwater management system for the Plan area.

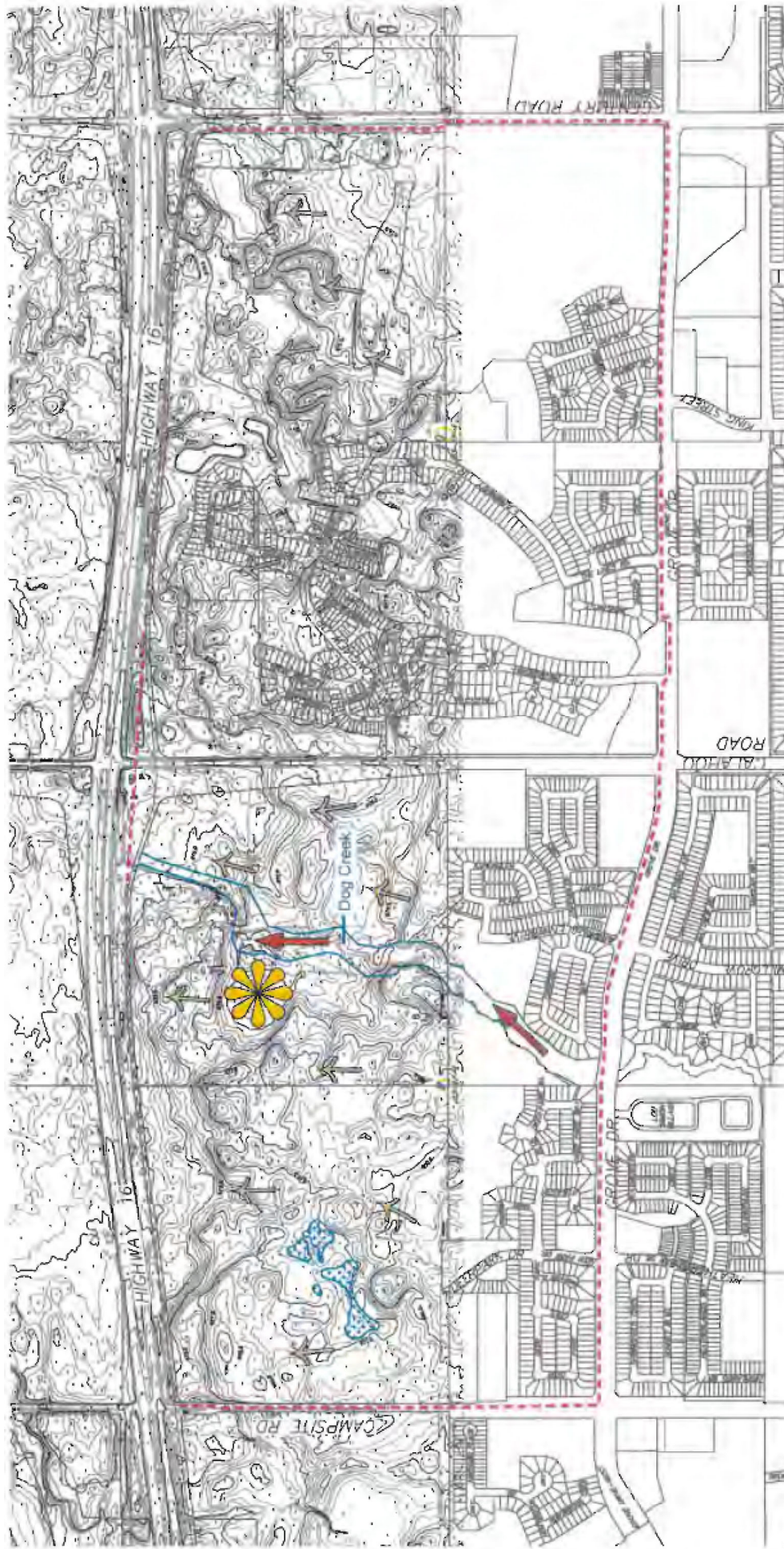
The remaining lands generally slope from the southwest to the southeast small slough or low-lying marshy areas are located intermittently throughout these lands. The design of the golf course has taken advantage of the topography of this area, thus offering a challenge to the golf enthusiasts. The remaining low-lying areas should be utilized as part of a stormwater management system where possible.

2.9 Transportation Facilities

Highway 16 defines the northern boundary of the Plan area and forms part of the Provincial north/south Trade Corridor. A number of urban arterial roadways define the remaining plan boundaries offering excellent access to the Provincial transportation network. *Jennifer Heil Way* will ultimately link to Highway 16 with the proposed interchange construction. Similarly, Century Road will function as a high volume arterial with a linkage to Highway 16.

Grove Drive, forming the southern boundary, is a major arterial handling a significant amount of east-west traffic and is planned for expansion to four lanes.

Future collector roads will move traffic throughout the North Central Area Structure Plan and will provide connection to the adjacent arterials. These will include King Street, Fairway Drive, Fieldstone Drive, Aspenglen Drive, Calahoo Road, and Deer Park Drive.



- Area Structure Plan Boundary
- City Boundary
- Direction of Slope
- Low Lying Area
- Direction of Flow
- Standing Water



NORTH CENTRAL AREA STRUCTURE PLAN

2.10 Land Ownership

The Plan area contains several different landowners as shown on **Figure 5**, and on the following table, which outlines the approximate area of all titled undeveloped lands within the Plan area:

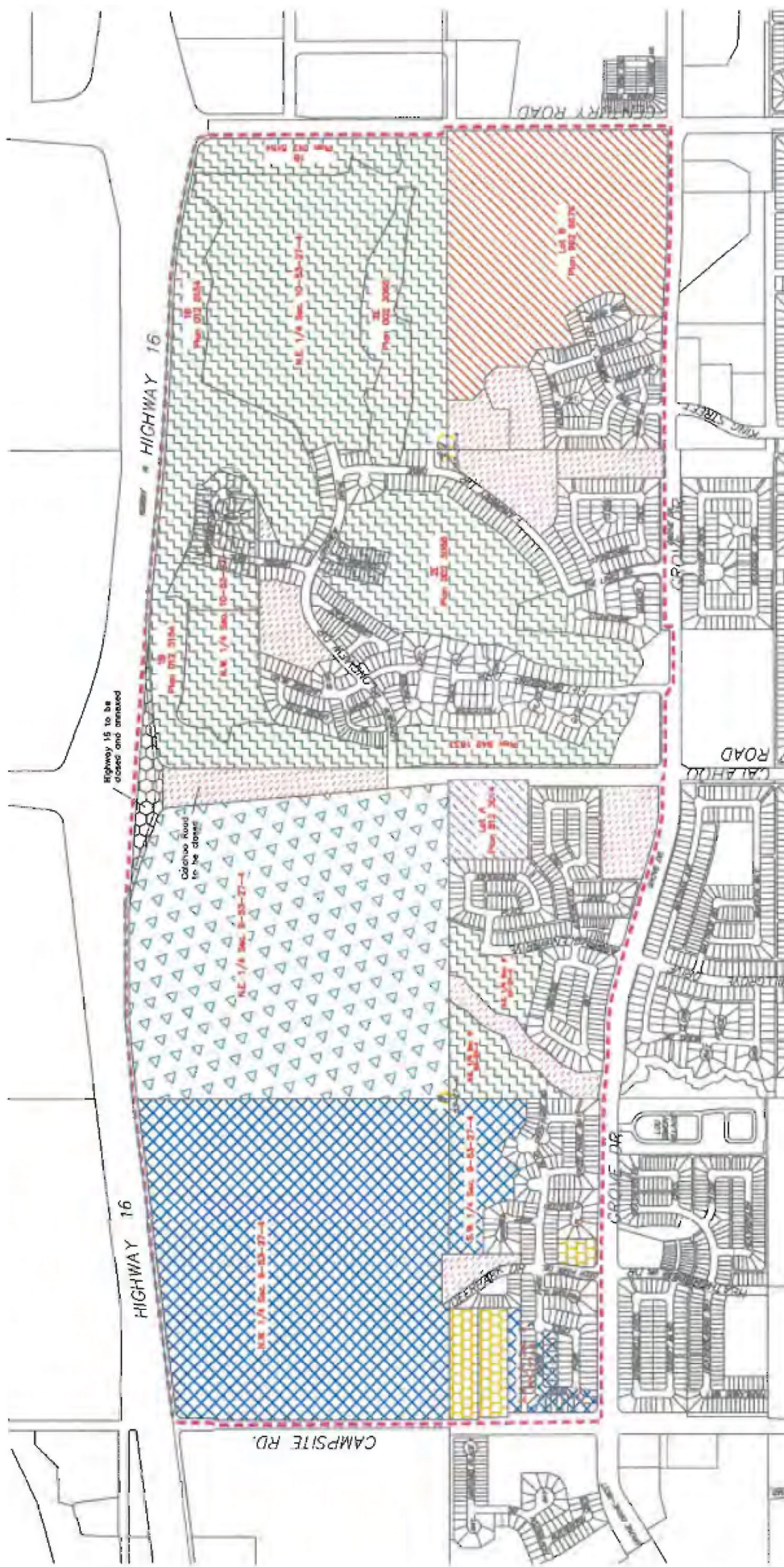
Table 1: Land Ownership

	Ownership	Legal Description	Area (ha)
1.	<i>Private Owner</i>	Lot 3 Plan 842 1633; Lot1B Plan 0125154; Lot 2E Plan 002 3068; Lot 35; B/L8 Plan 892 1650	57.64
2.	<i>Private Owner</i>	N.W. ¼ 10-53-27-W4	9.33
3.	<i>Private Owner</i>	N.E. ¼ 10-53-27-W4	34.08
4.	<i>Private Owner</i>	N.W. ¼ 9-53-27-W4	58.61
5.	<i>Private Owner</i>	N.E. ¼ 9-53-27-W4	59.70
6.	<i>Private Owner</i>	S.W. ¼ 9-53-27-W4	9.20
7.	<i>Private Owner</i>	Block 1, Plan 4609 RS	2.02
8.	<i>Private Owner</i>	Block 2, Plan 762 2301	1.99
9.	<i>Private Owner</i>	S.E. ¼ 9-53-27-W4	7.29
10.	<i>Private Owner</i>	Lot B, Plan 992 6679	29.72
11.	<i>Private Owner</i>	Lot A Plan 812 3014	4.05
12.	Queen in the Right of the Province	Highway 16 Calahoo Rd	1.72
13.	<i>Private Owner</i>		119.86
Total			393.54

2.11 Surrounding Land Uses

The framework for existing and future development of adjacent lands has been established within a number of statutory planning documents. The Grove Meadows Area Structure Plan, as amended, for the area East of Century Road, identifies schools sites, open space, a range of housing densities, and commercial sites. Those lands immediately south of Grove Drive were developed while under the original North Annexation Area Structure Plan (Reid Crowther & Partners Ltd., 1996) and consist of predominantly low to medium density residential development.

The south half of SW ¼ 9-53-27-4, south of Grove Drive, falls under the Spruce Woods Area Structure Plan. In addition to low and medium density single-family housing, a Mobile Home Park has been developed. The lands to the west and north are undeveloped agricultural lands and will be covered by the West Spruce Grove ASP.



Arise Structure Plan Boundary

City Boundary

Malabar Developmental Ltd.

Continued

Private Owners

City of Spruce Grove

Continental Across Ltd.

309842 Alberta Ltd.

Groundwork Development Center, Inc.

University of Illinois at Chicago

CLUBS IN RIGHT OF PROVING
OF ALBERTA INFRASTRUCTURE

MELCOR

FOCUS

**NORTH CENTRAL
AREA STRUCTURE PLAN**

Figure 5
Ownership Plan

N:\1100236\Planning\1100235-10-ASP-0.dwg

3.0 Policy Factors Influencing the Plan

The Area Structure Plan provides the overall policy framework for the development of the area. The recognition of the role and potential bearing of existing policies and statutory plans has been analyzed and summarized below.

3.1 Land Use Districts

Existing land use zoning within the Plan area is illustrated in **Figure 3**, and is mainly composed of urban reserve sites in the north portion of the Plan area and residential sites to the south. Intermittent convenience commercial sites can be found along Grove Drive and general recreation areas to the east of Calahoo Road in the form of The Links golf Course. This existing zoning pattern will be integrated into the ASP as effectively and efficiently as possible.

3.2 Existing Plans and Policies

Several planning and policy documents affect future land use and development in the North Central ASP area, the most significant of which is the City of Spruce Grove Municipal Development Plan. In addition, a number of studies produced for the City of Spruce Grove and certain changes to the existing Area Structure Plans – North Annexation and Northwest Area Structure plans – directly affect the future Plan area.

3.2.1 City of Spruce Grove Municipal Development Plan

The following policies are of relevance to the direction taken by the North Central Area Structure Plan:

Part III Land Use Plan and Policies

- (2.5) The City will require area structure plans to identify the locations of significant types of vegetation, including woodlots, hedge rows, windbreaks, and mature trees, and wherever feasible, propose methods for their integration into the urban landscape.
- (2.6) The City will ensure the integrity of the Water regime through the protection of aquifers and aquifer recharge areas. Creeks and rivers will be maintained in as natural a condition as possible to retain wildlife habitat and to ensure the maintenance of hydrological functions in the watersheds.



- (2.8) The City will require area structure plans that specifically address the future management of those environmental management areas identified in order that these areas remain viable and retain their environmental and amenity value. Appropriate buffering must be provided through area structure plans, subdivision layouts, and in municipal servicing designs.
- (2.10) The City will encourage continued agricultural production on lands designated for urban development until such lands are required for urban purposes.
- (2.12) The City will plan for optimum rather than maximum use levels of open space, thereby preventing over-use and environmental damage or deterioration.

Neighborhood Development Policies

- (3.1) The City will require area structure plans to demonstrate the use of community design principles to emphasize the development of distinct neighborhood identities.
- (3.3) The City will endeavor to ensure that new residential areas are designed to conserve land and energy.
- (3.4) The City will encourage innovative approaches to the design and organization of neighborhoods to meet a variety of housing needs within individual neighborhoods.
- (3.6) The City will encourage the location of multiple unit housing in areas adjacent to community facilities, major roads, schools, recreation and commercial facilities, institutional buildings, or significant natural amenities.
- (3.7) To encourage neighborhood vitality, to provide local employment opportunities, and to promote energy conservation, the City will consider the incorporation of compatible non-residential development in new residential neighborhoods. In addition to traditional local convenience commercial uses, minor manufacturing and other such uses, which will not create, undue negative impacts (e.g. traffic, noise) may be permitted in residential neighborhoods.
- (4.7) The City will utilize a hierarchy of commercial use classifications to facilitate their designation, through area structure plans, in locations appropriate to their function, market area, and the transportation network.
- (4.8) Area structure plans will be required to designate appropriate locations for convenience and district commercial facilities. Generally, such facilities should be located along or at intersections of major roads, and should be combined with other public facilities and/or open space features to serve as a visual and activity focus within the community.
- (4.9) Particularly at the neighborhood level, the City will encourage the development of compact commercial nodes rather than scattered commercial development.
- (6.3) Development will be designed to respond to the natural landscape. Only topographical modifications necessary for the construction of buildings and services may be carried out, so that as much topographical variation as possible is maintained to enhance the appearance of the development.

- (6.4) When considering a proposed development, the City may require that the developer enter into an agreement, whereby only those trees that directly impede the construction of buildings and services may be removed. Removed trees are to be replaced by trees of sufficient number and maturity, to enhance the appearance of the development at the time it is completed.
- (6.5) Area structure plans, subdivision, and site developments should be designed to achieve a variety of visual effects, which may be produced by road alignments, management of enclosed and open areas, the use of building materials and colors, and the use of landscaping and architectural styles.
- (6.7) The City will require that particular consideration be given to the appearance of development at entrances to the City, along major roads, and at other strategic locations.

Community Services

- (2.3) Neighborhood and subdivision design will ensure that all parks and leisure areas are easily accessible from the residential areas served, and that this access is clearly defined and visible to the public.
- (2.4) The City will ensure that a balanced system of park areas is provided with appropriate emphasis on neighborhood, district, Citywide, and special use needs.
- (2.5) The City will require ten percent (10%) of the gross parcel of land being subdivided as municipal reserve, school reserve, or municipal and school reserve, less the land required to be provided as environmental reserve or land subject to an environmental reserve easement, pursuant to Section 666 of the Municipal Government Act 1994. The City will consider a combination of land and money in lieu of reserve land, in limited circumstances only.
- (2.7) To assist in creating distinct neighborhood identities, the City will encourage the equitable provision of leisure facilities and services, which vary in type between neighborhoods.
- (2.8) The City will utilize its open space policies and standards to ensure that sufficient open space will be provided for residents.
- (2.15) The City will require area structure plans to designate sites for schools, parks, protective services, and other community service facilities in such a way as to form a coherent focus for the community.
- (2.17) The City will support comprehensive school and park site design in new development areas.
- (2.18) The City will endeavor to locate elementary school sites, so those young children do not have to cross major arterial or other barriers.

Servicing Infrastructure

- (2.3) The City will apply a general road hierarchy in which the design of roadways is consistent with their function.
- (2.11) The City will endeavor to adequately buffer adjacent land uses from major roadways.

- (2.12) The City will co-operate with developers and other agencies to develop a continuous pedestrian and bicycle circulation system, which links residential areas, schools, commercial facilities, parks, and leisure facilities.
- (2.13) The City will require area structure plans to identify public transit routes, which provide for the development of an overall transit network in Spruce Grove.
- (2.14) In new residential development areas, the City will encourage the use of collector roads with residential frontage on both sides. In such cases, rear lanes will be required to ensure the safe functioning of the collector road.
- (2.16) To minimize congestion, to encourage pedestrian use of local and collector streets, and to derive the security benefits of dispersed neighborhood activity, the City will encourage the provision of multiple pedestrian and vehicular routes within neighborhoods.

Implementation

- (1.2) The City will require area structure plan boundaries to create logical planning units defined by natural features, by planned or existing man-made features, and/or by utility servicing boundaries. Because they are arbitrary, or minimally related to land use planning principles, existing property lines should receive a low priority as determinants of area structure plan boundaries.
- (1.3) In addition to requirements identified elsewhere in this plan, the City will require, in accordance with its "Area Structure Plan Guideline" (as revised), the provision of appropriately detailed information on site conditions in and adjacent to proposed area structure Plan areas. This information will include, but not be limited to, major utility and transportation facilities, historical, archaeological, and/or paleontological resources, and extractable natural resources.
- (1.5) The City will provide formal and informal public involvement opportunities in the planning and approval processes relating to physical development and the provision of community services in the City.
- (1.6) The City will direct expansion on the basis of an orderly and economical staging program, based on the existence of municipal servicing in order to minimize servicing costs.
- (1.7) The City will attempt to ensure that competition in developed land markets is maintained by permitting development in more than one area at a time, but in keeping with Policy 1.6.

3.2.2 City of Spruce Grove Studies

The North Central ASP must also implement the standards set by the following studies prepared on behalf of the City of Spruce Grove in developing the framework for development and subdivision of the Plan area:

- (a) Master Drainage Plan dated December 1999;
- (b) Parks and Open Space Master Plan dated January, 2000;

- (c) Waterworks System Study up-dated November, 1992, and;
- (d) Sanitary Sewerage Master Plan dated September 1990.

a) Master Drainage Plan

The City of Spruce Grove Master Drainage Plan is the blueprint for the flooding and drainage issues in the City of Spruce Grove. The Plan, completed in 1995 by Associated Engineering, identified the general stormwater management requirements for both outside and within the Plan area. This study was augmented by Focus following discussions with Alberta Environment and the City of Spruce Grove. Results of the Focus evaluation as well as the impacts of the study are discussed in Section 6.

b) Parks and Open Space Master Plan

Randall Conrad & Associates, on behalf of the City of Spruce Grove, completed a Parks and Open Space Master Plan in January 2000. The Plan provided for the overall policy direction for open space opportunities throughout the City, including future district park locations, trail connections, natural area retention, and the provision of neighborhood parks. This ASP recognizes the policies and recommendations contained in the Master Plan, including the provision of a District level park, the retention of the Dog Creek natural area, the provision of neighborhood level parks, and the identification of an interconnecting trail network.

The following policies and recommendations from the Parks and Open Space Master Plan pertain to this ASP with respect to municipal reserve allocations:

- 1) Municipal Reserve – That the taking of cash in lieu of reserve be used as a means of assembling reserve land in appropriate locations.
- 2) Municipal Reserve Credit for Storm Water Management Public Utility Lots – That policies be developed that will allow for consideration in taking municipal reserve credit (part of the 10%) based on the demonstrated amenity and/or recreation value of public utility lots to the general public.
- 3) Municipal Reserve Credit for Trails and Walkways – That reserve credit not be given for the first 6 m in width of any trail or walkway that has a circulation function.
- 4) Municipal Reserve Credit for Buffers – That buffers to separate incompatible land uses be provided on site (i.e. on the individual lots) wherever possible. That buffers to separate roads from adjacent development not receive municipal reserve credit.
- 5) Timing of Provision/Development of Sites – That every effort be made to acquire and develop school/park and open space sites as early as possible in the neighbourhood development process.

3.2.3 North Annexation and North West Area Structure Plans

This ASP contemplates several changes to what is shown in the existing Area Structure Plans -North Annexation and Northwest Area Structure Plans, with associated amendments. These changes are summarized for reference purposes only. The existing Plans will be rescinded upon adoption of the Bylaw for this ASP.

North West ASP September 1997 and North Annexation Area ASP

1. Change in Stormwater Management Facility adjacent to highway and corresponding change in land use (Northwest);
2. Addition of a central park to accommodate vegetation conservation and presentation and recognition of Municipal Reserve credit allowance, in accordance with the Parks and Open Space Master Plan (Northwest);
3. The addition of a centrally located school site (Northwest and North Annexation);
4. The provision of a joint use facility for recreation and stormwater management facility (North Annexation);
5. Removal of commercial area, relocation of medium density and refining of stormwater management facility (North West);
6. Identification of Dog Creek as environmentally sensitive area (North Annexation);
7. Closure of Calahoo Road and consequential redesign of collector roadway system (North Annexation);
8. Redesignation of medium density site to institutional;
9. Refinement of stormwater management system (North Annexation);
10. Redesign of internal collector system to minimize shortcutting through Hilldowns (North Annexation);
11. Provision for higher density residential development with appropriate transitional provisions (North Annexation);
12. Elimination of small central commercial development (North Annexation);
13. Recognition of overall planning unit as being defined by surrounding major roadways (both);
14. Provision for Municipal focal point.

4.0 Plan Objectives

The North Central Area Structure Plan provides the overall policy framework and objectives for the development of the area.

The recognition of the potential role of the development area as an important segment of the urban fabric of the City of Spruce Grove, leads to the formulation of a number of objectives that should guide the development of the area. The area is a combination of commercial, institutional, residential, and recreational components and will be developed in accordance with the following objectives:

4.1 Overall Objectives

- a) To conserve and optimize the use of the natural environment through the sensitive integration of development with natural features. Examples of this include the sensitive integration of Dog Creek into the NE ¼ Section 9-53-27-4 area, the area west of Calahoo Road.
- b) To develop a community that is consistent and compatible within itself and the adjacent neighborhoods, while being reasonably self-sufficient in terms of surrounding amenities and open space opportunities that define its sense of community.
- c) To provide effective services to the standards of the City of Spruce Grove.
- d) To offer a partial range of commercial employment opportunities in close proximity to residential areas, sensitively integrated into the area through the use of development controls in order to protect against any adverse visual, aesthetic, health, or other such impacts
- e) To provide planning flexibility in order to stimulate innovation in the planning and design of residential areas through the use of architectural and development controls.
- f) To encourage energy efficiency in planning, wherever possible, with the use of proper site orientation, grading techniques, and use of vegetation.
- g) To allow for continued economically phased development, consistent with municipal policies and market demands.

4.2 Residential Objectives

- a) To provide the needed residential units in the area as an additional, affordable housing alternative, in order to create an attractive residential community that would accommodate approximately 12,000 people.

- b) To conform to neighborhood planning requirements through the use of quality urban design principles.
- c) To promote the establishment of a heterogeneous community and establish a hierarchy of neighborhood and sub-neighborhood units containing a variety of housing types.
- d) To create sub-neighborhood sectors, which are flexible to change at subsequent planning stages, dependent upon area analysis and market conditions at that time.

4.3 Commercial Objectives

- a) To provide a range of convenience commercial land uses in order to serve the community and neighborhood needs of the North Central Area Structure Plan residents.
- b) To promote commercial site locations that will offer opportunities for compatible commercial uses, at key intersections along major roadways, to serve as a visual and activity focus for the community.

4.4 School Objectives

- a) To establish the locations for schools which meet the requirements of the municipality and the Evergreen and Parkland School Districts, having due consideration for their respective regional school needs.
- b) To provide a 3.67 ha (7.5 acres) separate elementary school site in accordance with the City of Spruce Grove agreement.
- c) To meet the future needs of the Parkland Public School District through the existing transportation system and schools to the south and west, while recognizing that construction of a public primary or secondary school within the ASP area is unlikely.

4.5 Open Space/Park Objectives

- a) To meet the needs of future residents for parks and open space.
- b) To recognize and conserve ravine areas as open space and recreational opportunities.
- c) To fulfill the statutory requirements of the Municipal Government Act by providing up to 10% of the area as Municipal Reserve, in the form of land or money-in-place of land, or a combination thereof.
- d) To maintain urban park trail linkages as provided for in the Parks and Open Space Master Plan.

- e) To acknowledge the value that stormwater facilities may have for recreational use, and consider those lands for municipal reserve credit in accordance with City Policy and with illustration of their use by detailed design.
- f) To recognize the importance of the trail system, and the pedestrian and bicycle trail connections throughout the Plan area.

4.6 Transportation Objectives

- a) To provide safe and convenient access for vehicles and pedestrians.
- b) To provide an efficient hierarchical circulation system for automobiles, pedestrians, and bicycles to connect to surrounding major arterials.
- c) To recognize Highway 16 as a major thoroughfare and provide adequate access to that facility by way of connections to Grove Drive, *Jennifer Heil Way* and Century Road.
- d) To recognize the increased importance of *Jennifer Heil Way*, including the proposed construction of a grade separated interchange at Highway 16.
- e) To recognize the functional requirements of the grade separated interchanges at *Jennifer Heil Way* and Century Road, and that their combined influence will result in the closure of the Calahoo Road access to Highway 16.
- f) To eliminate the potential for shortcutting traffic through residential neighborhoods by those individuals utilizing the golf course.

4.7 Utility Objectives

- a) To provide an economical servicing system and phasing sequence based upon the logical extension of municipal services.
- b) To utilize stormwater retention and detention facilities in the plan as an amenity area wherever possible.
- c) To recognize water quality improvement techniques through systematic stormwater retention and detention ponds prior to discharge into Atim Creek.
- d) To recognize the stormwater discharge restrictions into Atim Creek as imposed by Alberta Environment.
- e) To maximize the use of stormwater detention facilities by incorporating recreational uses during dry periods.

5.0 Land Use Concept

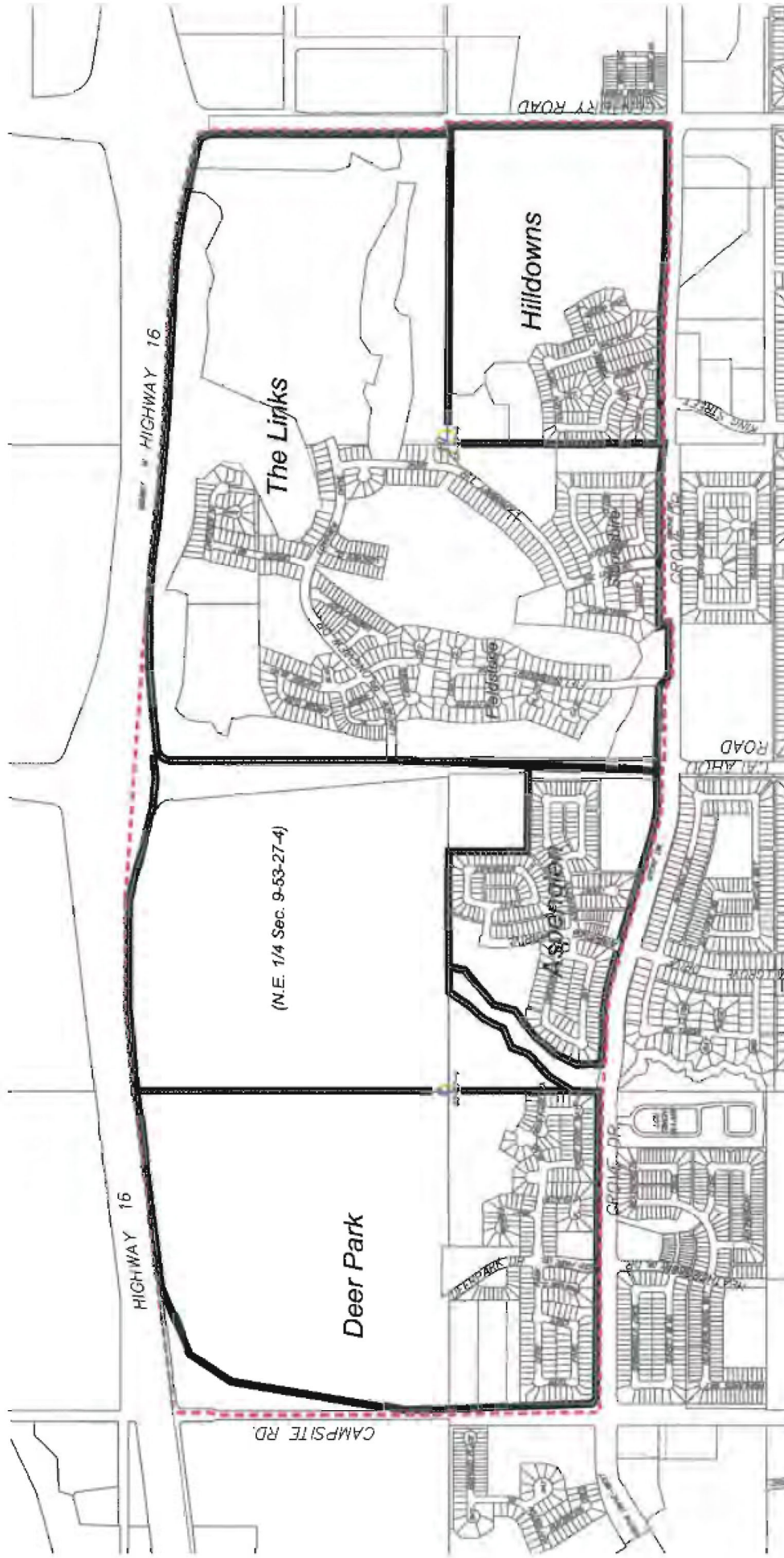
The Concept Plan proposed for the North Central ASP area is illustrated by Figure 6, it is a general conceptual plan and not a detailed description of the Plan area. It has evolved fully cognizant of the existing plans and amendments, and recognizes the nature and composition of the existing development.

The development of the North Central Area Structure Plan will result in several benefits to the Spruce Grove community, including numerous park and open spaces that are connected by an extensive pedestrian linkage system, which further links with existing pathway systems surrounding the Plan area. Furthermore, the addition of several different residential types located throughout the Plan area, and convenience commercial sites located in accessible focal points within the community, provides for an inclusive design meeting the needs of present and future residents. These will become amenities for the whole community and will enhance the overall character of the place making it an attractive, livable neighborhood.

5.1 General

Overall, the Concept Plan establishes the framework for development offering a range of residential uses and densities, supported with strategically positioned commercial areas and open spaces. More specifically the Plan provides for:

- The creation of neighborhoods which have individual identities, yet are interlinked with one another to promote social interaction (**see Figure 7**);
- The conservation and enhancement of the City's natural open space resources through their integration with urban development;
- The directive to ensure that future stormwater drainage is adequately planned for the density contemplated for the Plan area;
- The proposed land use pattern and development density to be efficiently and effectively served by a transportation network, in light of limited highway access, as contemplated by Alberta Transportation.



Area Structure Plan Boundary
City Boundary



**NORTH CENTRAL
AREA STRUCTURE PLAN**



NOTE: Neighbourhood Names are conceptual only and are to be determined at more advanced planning stages

Figure 7
Neighbourhood Plan

The Plan also has regard for the information from supporting studies and investigations including:

The City's Municipal Development Plan and existing studies which this Plan will work in unison, specifically referenced as the Spruce Grove Transportation Study (July, 2000), Parks and Open Space Master Plan (January, 2000), Sanitary Sewerage Master Plan (September, 1990) and Waterworks System Study (November, 1992);

Appendix 1 sets out the Land Use Statistics for the Plan area.

5.2 Residential

Four neighborhoods describe future residential development areas in the Plan area: Deer Park, NE ¼ Sec.9-53-27-4, The Links, and Hilldowns, (as depicted in **Figure 7**). These neighborhoods build upon the existing residential development, and will continue in a manner that is effective, efficient, and market driven.

The majority of the land, outside of the Links Golf Course, within the Plan area is designated for residential development (± 199.99 ha.) and provides for a range of densities thus offering a choice of accommodation. At full build-out, the projected population for the ASP area is estimated to be 15,170 persons. The more densely populated areas will be found around the medium and high-density sites, which are anticipated to consist of $\pm 2,051$ units. The concept plan strategically positions medium (*minimum 40* units/ha) and high density (maximum 150 units/ha) residential development adjacent to, or within close proximity to the collector/arterial roadways, so as to increase accessibility to these areas. *A Mixed Low to Medium Density Residential area is located west of Dog Creek, and the Land Use Bylaw's integrated density use provisions would apply here to allow approximately 474 units.*

The remaining residential units will be of a typical single family nature, in excess of 2,525 lots covering ± 126.25 hectares of land. Single-family housing clusters have been planned to remain connected by means of the pedestrian circulation system through pedestrian corridor opportunities. Market conditions over the duration of the development may result in the need for flexibility within the Plan, in order to adjust the planned densities and type of housing product anticipated and permitted.

5.3 Commercial

The Plan has identified *four* commercial sites to serve the neighborhood needs within the various development areas. The location of the commercial nodes has been strategically situated at the intersections of collector roads, so as to promote the economic viability of such a development. The commercial sites will vary in size up to a maximum of 2.5 acres/site and will total approximately 3.14 hectares collectively. It is anticipated that up to 50,000 sq. ft. of neighborhood convenience commercial space may eventually be developed in the Plan area.

5.4 Open Space, Reserve Lands and Natural Areas

Municipal Reserve will be provided throughout the Plan area in various forms, such as neighborhood parks, linear parks, walkways, smaller parks and open spaces, and passive and active recreational opportunities. A description of what constitutes the various reserve classifications is provided below. The proposed open space systems are illustrated in **Figures 6 and 8**.

5.4.1 Municipal Reserve

Municipal Reserve for the Plan area (illustrated in **Figure 8**) will be provided in accordance with the policies set out in the Parks and Open Space Master Plan (POSMP), City Policy and Bylaws/Plans and the provisions of the MGA. Municipal Reserve within the Plan area will be taken as land wherever possible. Cash-in-lieu will be considered only in extraordinary circumstances. *Where an over-dedication of Municipal Reserve may occur at subdivision to achieve the desirable parks and open space concept in the Jesperdale and Stoneshire areas, any over-dedication can be transferred to other lands owned by the developer in the City.* The Plan area includes a significant amount of open space area, as described below.

*Bylaw C-626-06
Sept 24, 2007*

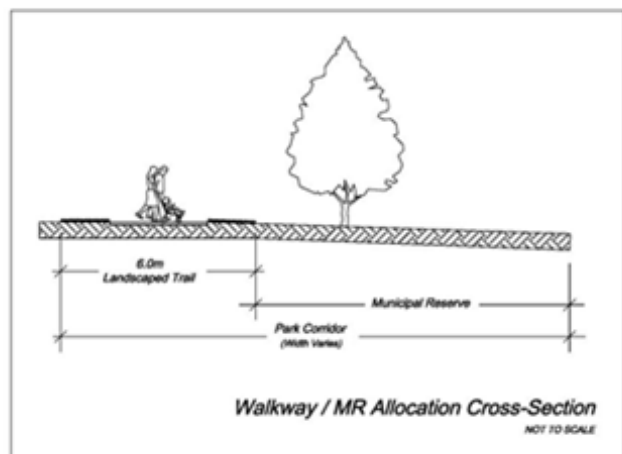
Major District Park

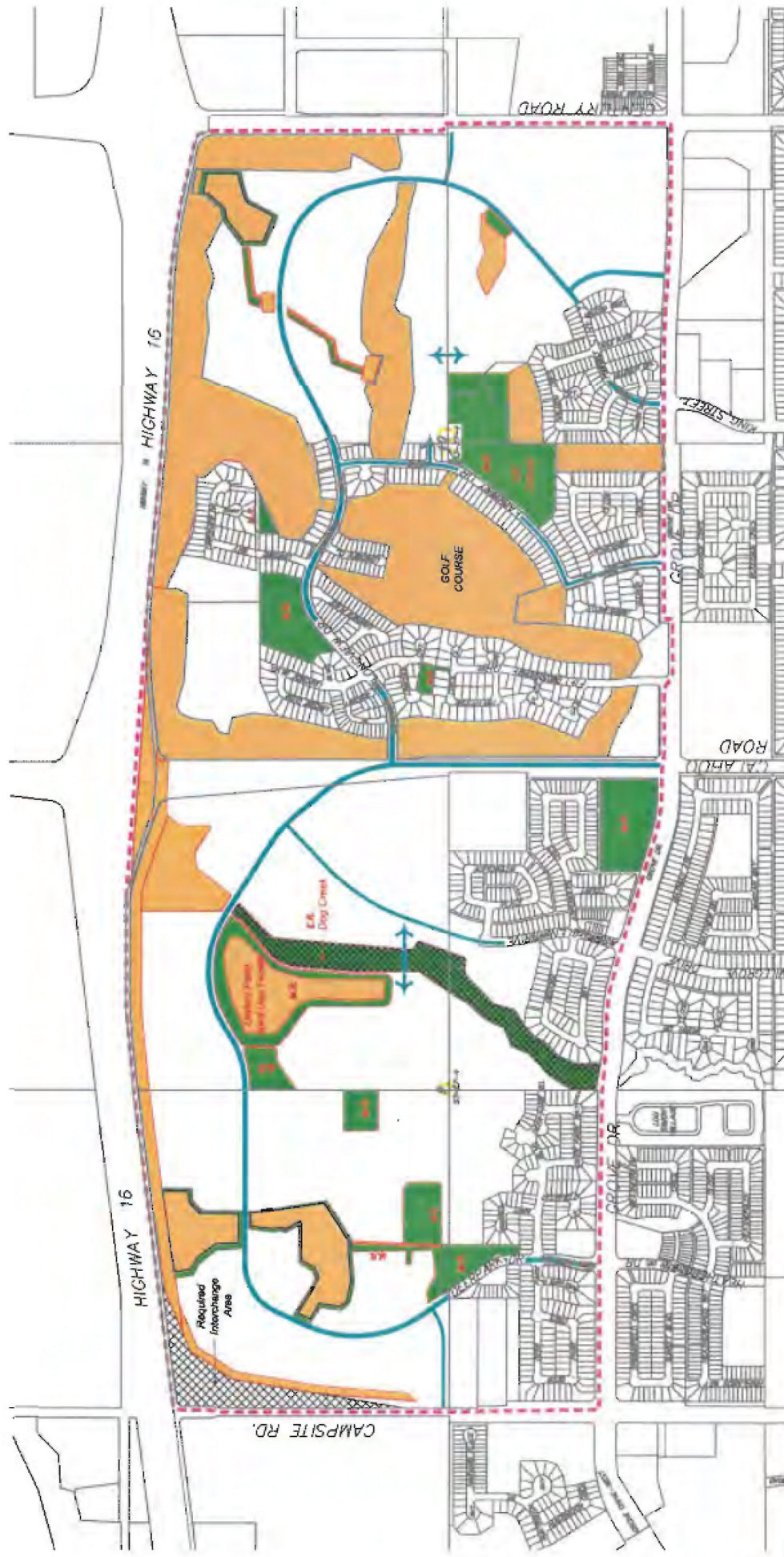
The need for a Major District Park within the North Central ASP was evaluated through a park/recreation review and was found to not be required.

*Bylaw C-626-06
Sept 24, 2007*

Trails and Walkways

The POSMP provides for the requirement of an extensive pedestrian linkage system, and Plan further provides for the dedication of Municipal Reserve land for primary trail connections in excess of 6 metres in width for a linear parkway. The Plan accommodates these principles throughout. The following graphic illustrates the area that could be dedicated for municipal reserve beyond the 6 metre trail.





- Area Structure Plan Boundary
- City Boundary
- Environmental Reserve
- Municipal Reserve
- Open Space

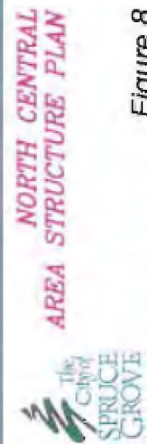
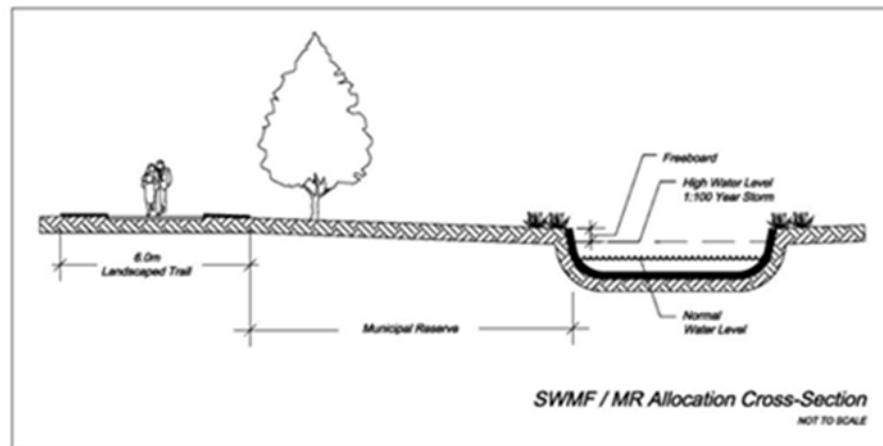


Figure 8
Conceptual
Municipal Reserve & Open Space Plan

NOTE: The Municipal Reserve credit consideration, actual sizes and configuration of land uses are conceptual only and are to be determined at more detailed planning stages

Bylaw C-626-06
Sept 24, 2007

Municipal Reserve credit for trails and walkways in conjunction with storm facilities will be based on the lands over the 1:100 year elevations. Furthermore, the park space that is to be developed around the storm facilities will be to a level acceptable to the City, including recreational facilities as required, pathways, and landscaping. *The two “wet ponds” adjacent to Highway 16 provide opportunities for trail development, wildlife viewing, and socializing. Trail connections here from the collector roadway (Calahoo Road) open this amenity area up to the larger community.* Municipal Reserve credit considered for a portion of a storm water management facilities will be based on illustration of use with detailed design and applicable City policy.



Neighbourhood Level Parks

Bylaw C-626-06
Sept 24, 2007

In accordance with the provisions of the POSMP all neighborhood level parks will be at least 2 hectares (5 acres) in size. These park facilities will be designed with safe access to the open spaces through a multi-way lineal path system as shown on **Figure 6**. There are *eight* neighbourhood park sites and various smaller parks distributed throughout the Plan area of both passive and active functions (See **Figure 8**).

Bylaw C-532-04
June 14, 2004

In the NW ¼ Section 9-53-27-4 the parks and open space has been configured to provide a variety of park types linked via pathways. These parks consist of passive landscaped open spaces surrounding the stormwater management facilities, two parks that retain existing tree stands, and a more southerly park that will include a play structure.

Bylaw C-626-06
Sept 24, 2007

In NE ¼ Section 9-53-27-4 a park located west of Dog Creek provides opportunity for active recreation, and east of the creek a linear park is provided as a local open space for surrounding neighbours as well as a node along the area's pedestrian pathway network. Further south, in SE ¼ 9-53-27-4, a small park area has also been added adjacent to Dog Creek as an open space amenity and as 'node' along the Dog Creek trail.

Bylaw C-626-06
Sept 24, 2007

A tree stand east of Fairway Drive, located within the south of NE ¼ 10-53-27-4, is conserved by an approximate 1.0 hectare park that provides an attractive addition to the area's trail network. Further to the northeast, a minor drainage channel and linear stretch of natural trees and vegetation are being conserved on either side of Longview Drive. Additionally, an existing tree stand/wetland is conserved as park space in this quarter-section's extreme northeast corner upon determination that the area is not required for stormwater management.

The neighborhood park in Hilldowns, although less than the POSMP policy, will be constructed in conjunction with the adjacent pond, resulting in a total open space area of almost 2 ha. Therefore, the shortfall in size requirements recommended in the POSMP policy can be considered satisfactory in this situation.

The Links Golf Course

The most obvious concentration of open space area is the Links Golf Course. Although a privately owned and operated course, the Links offers a significant view and tranquil scenery, as well as some off-season recreational uses. During the off-season the Links Golf Course is utilized for cross-country skiing along the course pathways. Therefore, the provision of additional reserve lands that would normally be associated with development has been excused for all of the golf course lands under agreement, unless the golf course transitions to a different type of development at which time municipal reserve will be required.



The remaining gross developable lands within the Links area totals 98.43 hectares resulting in 9.8 hectares of land being required for municipal reserve dedication. This will be allocated generally in accordance with that shown in **Figures 6 and 8**. Any shortfall may be provided as cash-in-lieu of reserve.

The stormwater management facility in the northeast corner of the NE 10 will not be cleared of trees and it may be determined that it does not function as stormwater management for the area. Should this be established, the area will be eligible for Municipal Reserve credit according to City Policy.

Buffer Space

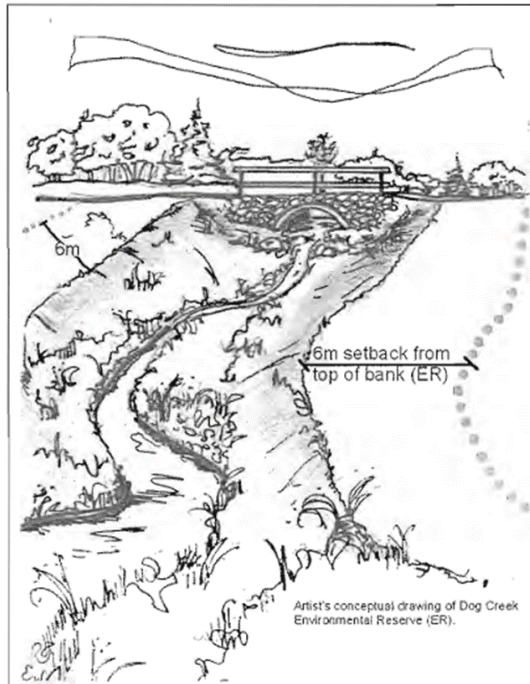
A 30 metre wide buffer area will be provided to separate the residential land uses from Highway 16 within Section 9-53-27-4 of the Plan area and will consist of approximately 3.65 hectares. The provision of this buffer area is in accordance with the POSMP recommendation that buffers separate incompatible land uses and be provided on site wherever possible. Due to the golf course, no buffer is necessary within Section 10-53-27-4 of the Plan area. The buffer area will be created as a public utility lot road widening and walkway and is not available for Municipal Reserve dedication, *except for the land around the stormwater management ponds and the berm, located between the ponds and Highway 16, that would support trail development, wildlife viewing, and socializing as determined by a detailed landscaping and facilities design.*

*Bylaw C-626-06
Sept 24, 2007*

5.4.2 Environmental Reserve

Bylaw C-626-06
Sept 24, 2007

Dog Creek is the only Environmental Reserve lands located within the Plan area. *The City's Environmental Reserve criteria for dedication along stream channels is the 1 in 100 year flood line plus 0.50 metres of additional "freeboard". Upon detailed survey, the creek channel has been refined and area the Environmental Reserve requirement has been defined to be approximately 5.60 hectares as shown on ASP **Figure 3 – Parks and Open Spaces**.*



The following **Table 1** generally outlines the amount of land that Municipal Reserve (MR) will be based on for each portion of the Plan area, according to the various criteria for MR and the proposed concept. The actual dedication shall be determined at the more detailed development stage.

Bylaw C-626-06
Sept 24, 2007

TABLE 1 – Proposed Municipal Reserve

MR Lands	Deer Park	NE ¼ Sec.9-53-27-4	Aspen Glen	(The Links) NW1/4 Sec.10-53-27-4	(The Links) NE1/4 Sec.10-53-27-4	(The Links) SW1/4 Sec.10-53-27-4	Hilldowns
Gross Area	89.05 ha	65.30 ha	37.69 ha	59.09 ha	53.51	43.56	44.34 ha
Less	4.38 ha Arterial Widening	2.97 ha E.R.	2.63 ha E.R.	24.58 ha Golf Course	18.79 ha Golf Course	14.26 ha Golf Course	0.54 ha Arterial Widening
GDA	84.67 ha	62.33 ha	35.05 ha	34.51 ha	34.72 ha	29.20 ha	43.80 ha

5.4.3 Natural Areas

Any wetlands or tree/shrub stands in the area and not identified by this plan shall not be removed until reviewed by the City and approved for removal. Where possible these shall be incorporated into the detailed design for the area.

5.5 Schools

School generation statistics were obtained from a recent study undertaken by Elk Island Public Schools in Strathcona County. Empirical data from this study found that 0.26 elementary, 0.11 junior high and 0.13 senior high school students are generated from each low-density residential dwelling unit. This information is slightly less than that which was previously used in metropolitan Edmonton, but also correlates with the ever-increasing supply of unused school sites. The study was therefore accepted as being indicative of the potential student generation in the Plan area.

*Bylaw C-1001-17
June 12, 2017*

*Bylaw C-1169-21
January 10, 2022*

Analysis of the projected student population within the Plan area revealed that *1,312* public and *404* separate elementary school students, *555 public* and *202* separate junior high school students, and *657* public and *101* separate senior high school students will be generated within the Plan area. Discussion with the Parkland and Evergreen School Divisions indicate that sufficient capacity exists for each of them in existing and future school outside of the Plan area. Notwithstanding that, two school sites have been allocated for the North Central ASP Plan area. The easternmost school site has previously been dedicated, is 3.67 hectares in size and has been allocated as a separate elementary school site for the Evergreen Catholic School Division. Although, this site is already registered as Municipal Reserve, development of a school site is not currently scheduled. A second site of 1.46 hectares in size has been identified in the western portion of the Plan area, adjacent to the joint use facility. As the Plan area is expected to generate over *1,312* public elementary school students. It was considered prudent to provide for an elementary site that could be utilized as a neighborhood park, yet could also accommodate an elementary school in the future, if the need arose. The northwestern school site will satisfy this requirement.

*Bylaw C-1169-21
January 10, 2022*

5.6 Institutional

Institutional uses within the Plan are limited to the St. Andrews United Church, which currently exists at the corner of Grove Drive and Field Stone Drive. This location minimizes the impact on surrounding streets and adjacent residential areas, and is therefore a suitable location. No additional church sites or other institutional uses have been proposed within the Plan area.

6.0 Servicing

Servicing for the Area Structure Plan area will be undertaken in accordance with the City of Spruce Grove standards and good engineering practices. Logical extension of services will be undertaken as the market warrants.

6.1 Sanitary Sewerage

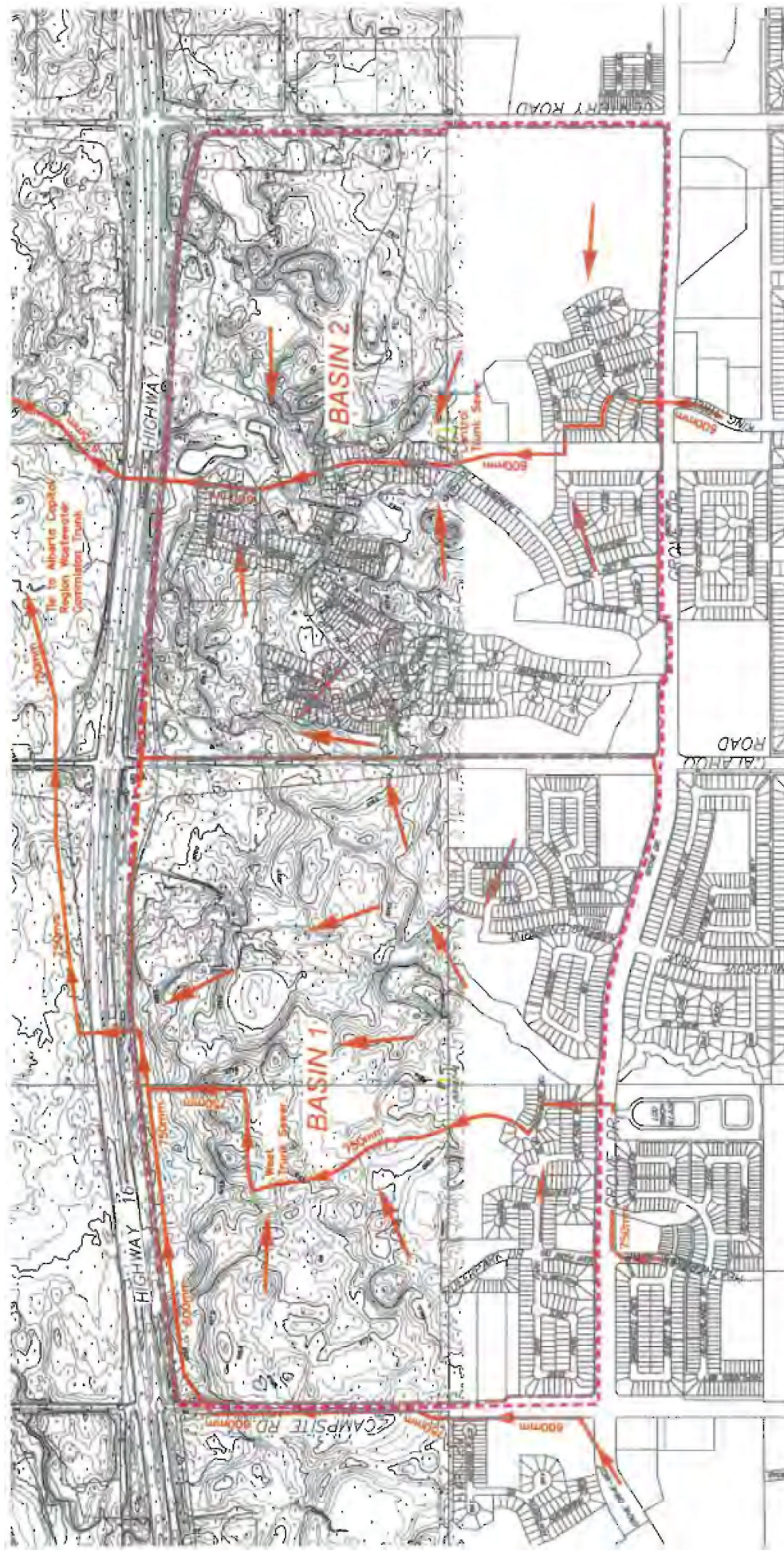
Associated Engineering in 1990 completed a master sanitary sewerage study. This Study operates as a guide to plan future subdivision servicing concepts, and as such, the guidelines therein will be applied for the future development of the Plan area. As shown on **Figure 9**, an existing 600mm diameter Central Trunk sewer serves to collect sewage from the Plan area east of Calahoo Road. A 750mm diameter west trunk sewer and an existing 375mm sanitary sewer collects flow from the Aspenglen area and serves to collect sewage from the Plan area west of Calahoo Road. The small 375mm sewer has a limited capacity available, however both trunks have been sized to provide adequate servicing capacity for the entire Plan area, and each conveys sewage to the Alberta Capital Region Wastewater Commission trunk north of Highway 16. Servicing within the subject lands will involve smaller collection mains connected to the existing trunk sewers.

6.2 Storm Water Drainage

Alberta Environment has restricted storm water flows towards Atim Creek and is requiring water quality measures be taken. These restrictions have affected the utility and planning requirements within the North Central Plan area, as illustrated in **Figure 10**. The proposed storm pond system considers the existing infrastructure development and lack of storm water storage. Increasing infrastructure build-out to the area would add to existing storage problems, which necessitates a comprehensive stormwater management system to control the rate of flow and discharge into Atim Creek.

The proposed stormwater management system for the ASP Plan area would utilize a combination of wet and dry ponds throughout the development area. The general concept would be to limit discharge within the City limits to 2.5 l/s/ha, and then utilize facilities north of Highway 16 to further reduce flows to 1.2 l/s/ha.





- Area Structure Plan Boundary
- City Boundary
- Sanitary Sewer Trunk
- Basin Boundary
- Direction of Flow

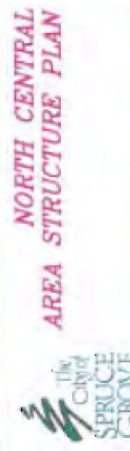


Figure 9
Sanitary Servicing

Bylaw C-626-06
Sept 24, 2006

It should be noted that the proposed facilities would also provide stormwater management for existing developments south of Grove Drive, that were constructed prior to the requirement of such facilities. The five Drainage Basins would be composed of *18.12 hectares* of wet ponds and *0.78 hectares* of dry ponds. The approximate location of the proposed stormwater management facilities and basin boundaries are shown in **Figure 10**.



6.2.1 Basin 1

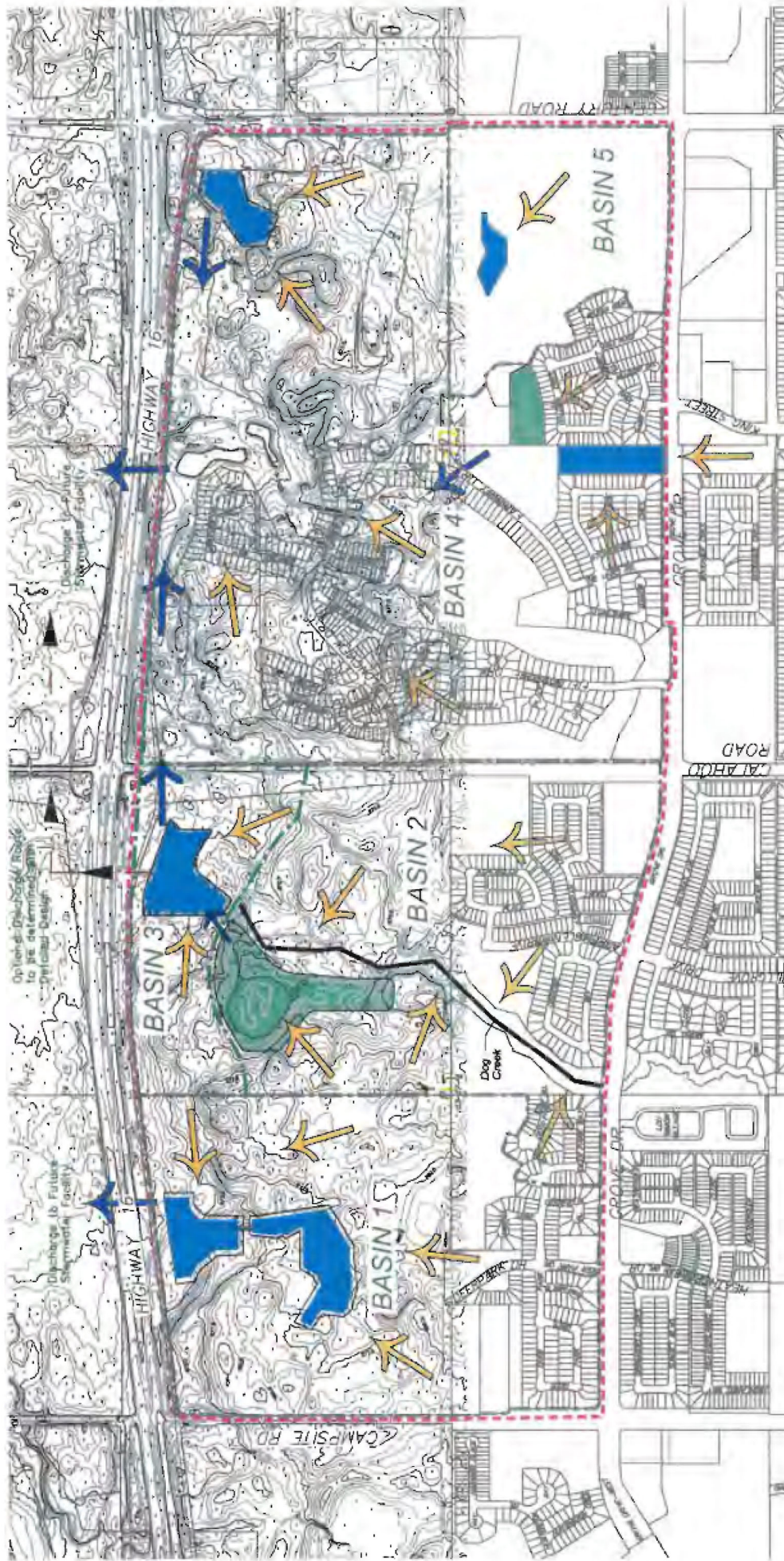
The proposed basin would be approximately 85 hectares in size and includes lands west of Dog Creek in the NW and SW $\frac{1}{4}$ of Section 9. Stormwater that flows from this basin would be directed towards two wet ponds, constructed in the NW $\frac{1}{4}$ Section 9-53-27-4. The ponds would be interconnected and total 6.92 hectares at high water level, with the ability to store a 1:100 year storm event. Discharge from these ponds would be limited to 2.5 l/s/ha and directed to a future storm facility, constructed from the excavation of the *Jennifer Heil Way/Highway 16 interchange*. Detention requirements would be satisfied in that pond to allow for a decrease in the outflow rate of 1.2 l/s/ha, in accordance with Alberta Environment guidelines.

6.2.2 Basin 2

Stormwater flows within Basin 2 (approximately 84 ha) would be directed to a wet pond facility located in the NE $\frac{1}{4}$ 9-53-27-4 adjacent to Highway 16, *which responds to the requirements established in the Dog Creek Drainage Basin – Stormwater Management Plan (2006)*.

Bylaw C-626-06
Sept 24, 2006

Discharge from the *wet* pond facility would eventually flow through Basin 3, and continue eastward along the south side of Highway 16, until crossing north or alternatively northward across the highway at Calahoo Road as shown on **Figure 10**. A second stormwater facility north of Highway 16 would serve to detain the severe event flows, and allow for controlled discharge at a rate of 1.2 l/s/ha into Atim Creek.



- Area Structure Plan Boundary
- City Boundary
- Drypond (SWMF)
- Wetpond (SWMF)
- Drainage Creek
- Basin Boundary
- Discharge Direction
- Drainage Direction



NOTE: The actual sizes and configuration of Stormwater Facilities are conceptual only and are to be determined at more detailed planning stages

6.2.3 Basin 3

Basin 3 would be one of the smallest basins in the Plan area at approximately 24 ha. Stormwater flows within Basin 3 would be directed towards a stormwater retention pond located in the N.E. ¼ Section 9-53-27-4, whereby discharge would be controlled to a rate of 2.5 l/s/ha. The retention pond in Basin 3 would also accept stormwater flows from Basin 2, as well as outside of the Plan area passing through Dog Creek. Flows would be conveyed through the pond, along the southern ditch of Highway 16, and would afterwards cross the highway, or could cross the highway at Calahoo Road as depicted in Figure 10 to the future detention pond on the north side of the highway. Stormwater detention in this north pond would reduce the eventual outflow to 1.2 l/s/ha as previously noted.

6.2.4 Basin 4

The proposed basin 4 (approximately 170 ha) would be essentially the Links golf course, including a limited amount of adjacent residential development. Stormwater flows would be directed through a series of stormwater detention and retention ponds, and could discharge through the north highway culvert at a maximum rate of 2.5 l/s/ha (as outlined in Figure 10). Comparable to Basins 2 and 3, the future north detention pond would serve to reduce these flows to 1.2 l/s/ha for outflow to Atim Creek.

6.2.5 Basin 5

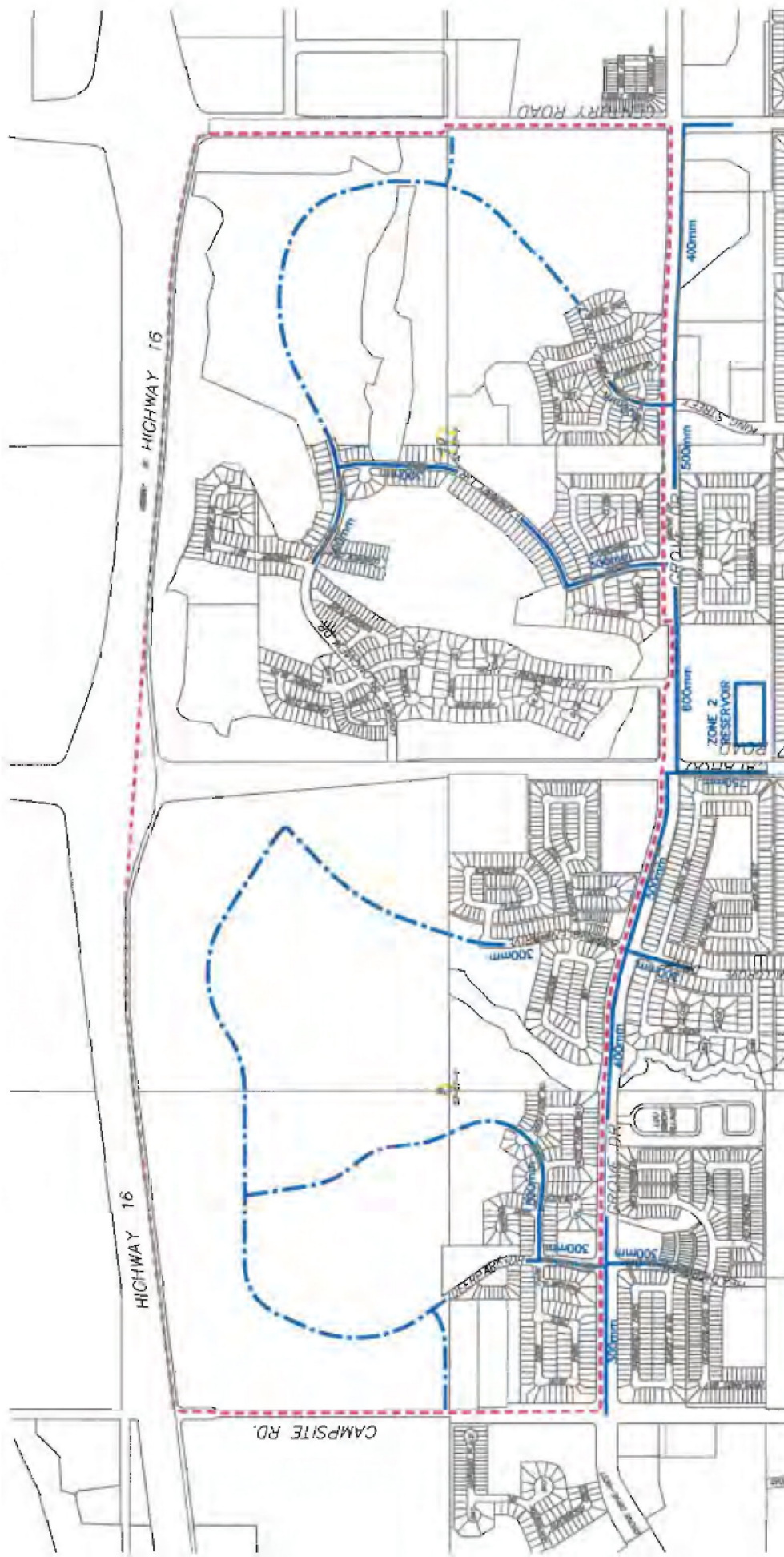
This basin would be located in the southeast corner of the Plan area (Figure 10) and is approximately 30 ha. Stormwater flows would be directed to a stormwater retention pond within Basin 5, and afterwards on to the stormwater detention/natural wetland area located in the northwest corner of this basin. Offsite flows would be accepted into this detention area/wetland from the King Street channel. Although a culvert exists upstream for this system, flows entering the Plan area at Grove Drive have the potential to reach maximums of 22.8 m³/s (estimated to be >70 l/s/ha) Based on Associated Engineering's Master Drainage Plan, which exceeds the capacity of the existing system. The wetland/detention pond would serve to mitigate these extremes by moderately reducing the flow rate through the golf course, reduce the volume of stormwater directed to the pond north of the Highway, and relieve some flooding pressures at the north highway crossing.

The currently designated Municipal Reserve parcel in the northwest corner of the basin could be graded to accommodate stormwater flows for severe rainfall events, and would also be utilized as an open space recreational opportunity during dry weather. *The east part of the Basin 5 stormwater detention/natural wetland area (i.e. Dry pond) will be a Wet pond.*

*Bylaw C-567-05
Sept 12, 2005*

6.3 Watering Serving

Associated Engineering, in 1992, performed a revision to an existing Waterworks System Study. The water distribution system that services the Plan area is within the City of Spruce Grove's Zone 2 system, which comprises the northerly portion of Spruce Grove. The Zone 2 reservoir site is situated just south of Grove Drive at Calahoo Road (see **Figure 11**). A primary water main, varying in size from 400mm to 600mm diameter, exists along Grove Drive on the south boundary of the Plan area. A 300mm diameter loop is provided both west and east of Calahoo Road to service new developments within the Plan area. Distribution mains will be constructed in local residential roadways emanating from the 300mm loops.



- Area Structure Plan Boundary
- City Boundary
- - - Proposed 300mm Watermain
- Existing City Watermain



THE CITY OF SPRUCE GROVE

NORTH CENTRAL AREA STRUCTURE PLAN

MELCOR
ENGINEERS

FOCUS inc.

Figure 11
Water Servicing

7.0 Transportation

The overall concept of the North Central Area Structure Plan transportation system is to connect the east and west sub-areas within the North Central Area Structure Plan, and to the existing Spruce Grove community south of Grove Drive. Circulation within and around the Plan area focuses upon both vehicular and pedestrian traffic. All traffic will be directed west, south, or east, as all future access to Highway 16 within the Plan area will be eliminated.

7.1 Vehicular Access and Circulation

A hierarchical transportation network (as illustrated in **Figure 12**), based upon major and minor collectors, and local roads will govern vehicular access and circulation. The overall premise is to provide safe and convenient access for vehicles, pedestrians, bicycles, and future public transit within the neighborhoods of the North Central ASP and surrounding community.

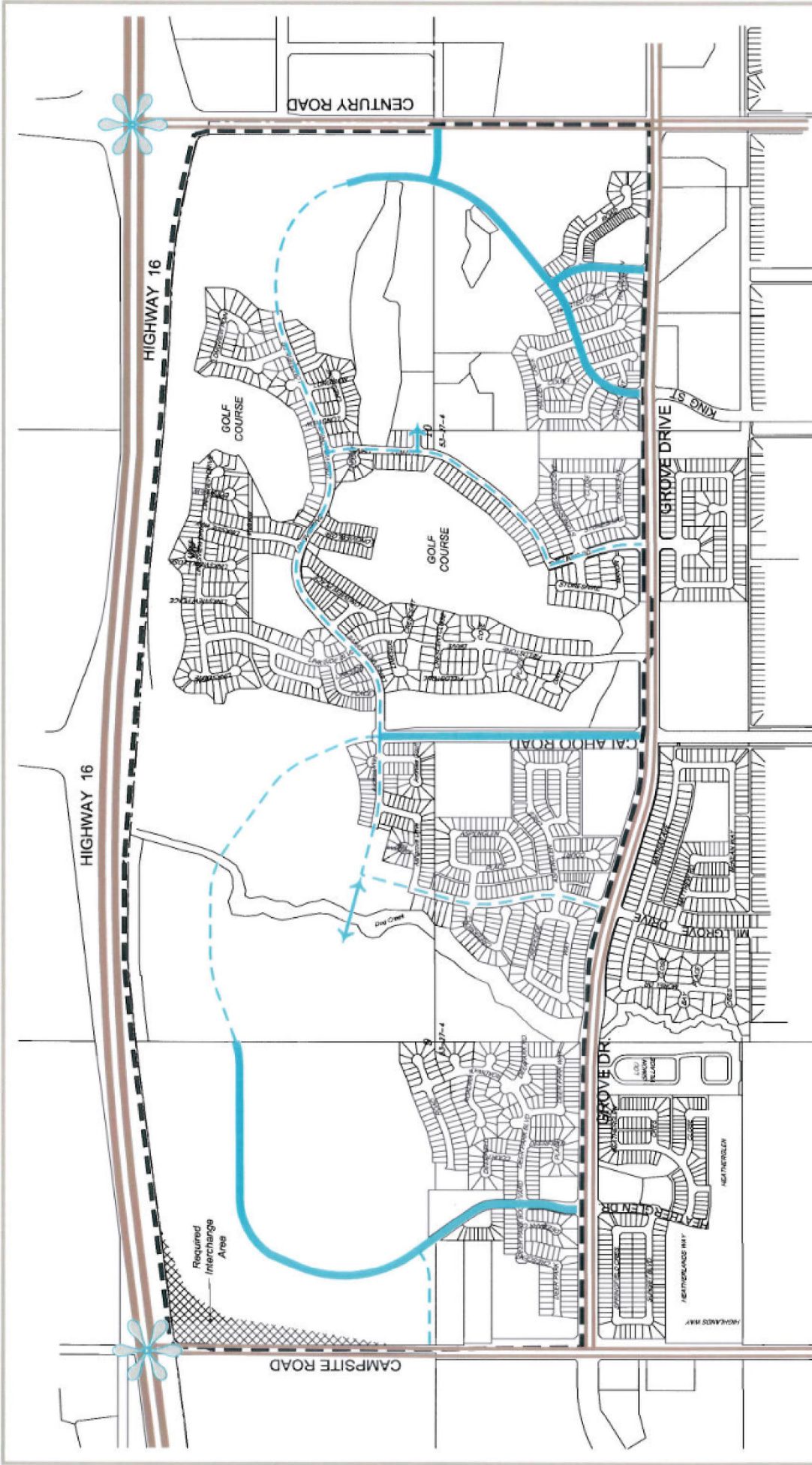
The City arterial roads outline the North Central ASP, and are composed of *Jennifer Heil Way* on the west boundary, Century Road on the east boundary, and Grove Drive which divides the existing build-out for Spruce Grove and this ASP. This ASP recognizes the one existing and one future freeway interchanges of Highway 16 (a Provincial Freeway), that are to be located at the intersections of Century Road and *Jennifer Heil Way* respectively. There are two major collectors connecting the plan area with Campsite and Century Roads, one is located to the west connecting *Jennifer Heil Way* to Deer Park Drive, the second is located in the east side connecting Century Road to King Street (major collector road).

The concept is founded upon the elimination of the Calahoo Road access to Highway 16. Calahoo Road is presently the physical dividing line between the easterly and westerly sub-areas, and will be reduced to form a connection with Deer Park and Longview Drive minor/major collector roads. Calahoo Road, north of Grove Drive should be considered for renaming in the future. This transportation network recognizes the importance of Grove Drive, as an arterial road that acts as both a dividing line between the Plan area and Spruce Grove, yet also as an arterial linkage physically and conceptually for new and existing residents.

Extending Longview Drive will direct traffic towards Grove Drive, as will Fairway Drive (minor collector road), thus circulating traffic throughout the easterly sub-area. The extension of King Street, and connections to Century Road and Longview Drive, will provide a collector road through the golf course and connect future residential neighborhoods within that sub-area and to adjacent neighborhoods.

The extension of the Deer Park Drive collector road, to circulate through the westerly sub-area, including connections to *Jennifer Heil Way* and *Avonlea Way* (minor collector road) will provide a transportation linkage for the existing and future residential areas. The movement of vehicular traffic on these roads is to be directed onto Grove Drive.

Bylaw C-626-06
Sept 24, 2006



Legend

- Provincial Highway
- Major Arterial Road
- Major Collector Road
- Minor Collector Road
- Area Structure Plan Boundary
- City Boundary
- Required Access Location
- Highway Interchange Location

Melcor Developments Ltd.
 North Central Area Structure Plan Amendment

**Proposed
 Transportation System**

Figure - 4

NOTE: The actual sizes and configuration of land uses are conceptual only and are to be determined at more detailed planning stages.

7.2 Pedestrian Circulation

The pedestrian circulation system of the North Central Area Structure Plan has been designed in accordance with the principles of the POSMP and the City of Spruce Grove. It is designed to meet the needs of future residents, connect future and existing park/open spaces and school sites, as well as connect the communities north and south of Grove Drive.

The North Central Area Structure Plan provides for convenient access internally within the Plan area and to adjacent areas through highlighting the best opportunities to locate pedestrian circulation routes and/or a trail system, as shown on Figure 12. Some of these links may be a normal sidewalk where others will be trail and separate trail where the design can be accommodated. Also, there are two potential pedestrian crossings within the Links golf course, one to the north adjacent to Highway 16 and the second to the south between Field Stone Drive and Fairway Drive. It is expected that the existing pedestrian trail system on the south side of Grove Drive, and the school sites located in the Plan area, be connected with that which is outlined in the ASP. Furthermore, a pedestrian circulation trail is also located along the Highway 16 buffer, which encloses the Plan area to the west, north, and east. Major connecting trails within developed areas are the responsibility of the developer.

7.3 Public Transit

Although there is no existing public transit for the Plan area, the design of the transportation collector system will accommodate a future public transit system. The Engineering and Public Works standards utilized by the City of Spruce Grove will determine the requirements for public transit roadways within the Plan area. Nonetheless, future transit will be restricted to collector roadways within the Plan area. The internal collectors will serve the needs of future residents for convenient transit access, and will result in most residents being within 400 m of the route, once implemented.

8.0 Community Consultation

8.1 Key Stakeholders

Prior to commencement of the ASP planning process, all of the major lands owners within the Plan area were contacted. Opportunities to participate in the development of the Plan were provided to each of them. Melcor Developments and Arlie Jespersen agreed to participate and have provided meaningful input throughout the plans development. Robson Developments (Hilldowns) and Broadview Developments (Deer Park) declined participating, but have also provided input and relevant information at various stages of the plans evolution.

Information sessions were convened with both school boards, whereby the information obtained identified their lack of need for school sites within the Plan area.

The Plan was circulated to Parkland County. They responded with little concern for the Land Use Concept but have identified some regional issues that are being addressed.

8.2 General Public

A public meeting was advertised in the local newspaper and held prior to the finalization of the North Central ASP. Approximately 30 people attended the meeting and their comments were evaluated in the context of the North Central ASP.

The comments received were generally positive in nature and supportive of the design of the ASP, particularly over the retention of existing tree stands and natural areas. Concern over the location and amount of high-density residential uses within the eastern portion of the Plan area was addressed in the present ASP. The location of medium and high-density sites are spread throughout the plan area, and are located along major collectors for easy access. The provision of three commercial nodes at very accessible locations adjacent to collector roads was also well received.

Very supportive comments were received for the transportation circulation system, particularly the closure of Calahoo Road. The addition of a comprehensive trails and park/open space design was received very well, particularly the interconnected trail system and pedestrian crossings through the golf course. The community consultation attendees very much approved of the comprehensive drainage plan for the ASP.

9.0 Implementation

Pursuant to the provisions of Section 633(1) of the Municipal Government Act, 1995, the City of Spruce Grove Council may adopt this ASP as the North Central Area Structure Plan. All subdivision and development within the North Central Area Structure Plan area shall be in accordance with the provisions and policies of this ASP.

Council may, from time to time, choose to amend this ASP. As part of the amendment process, the required public hearing process will ensure that the continued input of the landowners and residents is considered.

9.1 Phasing

It is expected that the Plan area will be developed over the next 10-15 years as the market demands. Development in the area has already commenced, as shown in the Neighborhood Plan, **Figure 7**, within the communities of Deer Park, Aspenglen, The Links, and Hilldowns, and will continue northward, generally, as outlined in **Figure 13**, in accordance with market demands and logical placement and direction of servicing.

9.2 Subdivision and Land Use Reclassification

Subdivision and land use reclassification will be undertaken as part of the normal development process in stages as market demands.

APPENDIX A - Development Statistics *(as amended to Bylaw C-1169-21)*

Preliminary Development Statistics North Central Area Structure Plan

	ha	%	Units	%	Population ¹	%
Gross Area	393.54					
less						
Future Highway Interchange	4.00					
Arterial Widening	0.92					
Environmental Reserve	5.60					
The Links Golf Course	58.56					
Subtotal	69.08					
Gross Developable Area (GDA)	324.46	100.0%				
Open Space / Parks	36.62	11.3%				
Drypond Facilities	0.78	0.2%				
Stormwater Management Facilities	18.12	5.6%				
Roads (20% of GDA)	65.00	20.0%				
Institutional	0.90	0.3%				
Commercial	3.14	1%				
Subtotal - Other Uses	124.56	38.4%				
Low Density Residential ²	126.25	38.9%	2,525	50.0%	8,585	56.6%
Mixed Low to Medium Density Residential ³	18.99	5.9%	474	9.4%	1,611	10.6%
Medium Density Residential ⁴	47.44	14.6%	1,423	28.2%	3,843	25.3%
High Density Residential ⁵	7.22	2.2%	628	12.4%	1,131	7.5%
Subtotal - Residential	199.9	61.6%	5,050	100.0%	15,170	100.0%
Net Unit Density:	25.27	units per net residential hectare (upnrha)				
Student Population⁶	Public	Separate	Total			
Elementary	1,312	404	1,716			
Junior High	555	202	757			
Senior High	657	101	758			
Totals	2,524	707	3,231			

Notes:

- 3.4 persons/unit for L.D.R. & Mixed L.to M.D.R., 2.7 persons/unit for M.D.R., 1.8 persons/unit for H.D.R.
- Unit total based on 20 units/net hectare
- Unit total based on 25 units/net hectare
- Unit total based on 30 units/net hectare
- Unit total based on 87 units/net hectare
- Student Generation: (students/unit)

	Public	Separate
Elementary	0.26	0.08
Junior High	0.11	0.04
Senior High	0.13	0.02