

# Glenview Crescents

## Neighbourhood Plan: *A new neighbourhood in the Hart of Prince George*



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## 1.0 Introduction

The Glenview Crescents Neighbourhood Plan Area is comprised of approximately 63 hectares of land that is situated immediately east of the termination of Knight Crescent and Chestnut Drive in the north-east sector of the City of Prince George, as illustrated on **F1 – Context Plan**. This area is currently undeveloped and, therefore, is subject to Policy 6.3.18 of the City of Prince George Official Community Plan Bylaw No. 7281. This policy states that undeveloped areas of greater than 40 hectares require the creation of a Neighbourhood Plan that addresses environmentally sensitive areas; transportation networks; phasing of City services; residential housing mixes, forms, and densities; commercial lands; public use sites; and trail linkages. The purpose of the Neighbourhood Plan is to create a clear and comprehensive land use vision in order to provide certainty for residents, land owners and developers regarding how an area can be developed. Neighbourhood Plans strive to balance the desires of residents with environmental considerations as well as economic realities and should result in land use documents that can be achieved over time. The plans are intended to provide direction for land use planning, rather than be used as strict regulatory tools. This document is the proposed Glenview Crescents Neighbourhood Plan.

The Glenview Crescents Neighbourhood Plan has been prepared by L&M Engineering Limited in consultation with City of Prince George. Additional professional opinion has been provided by School District No. 57, the Ministry of Transportation, the Ministry of Environment and Triton Environmental Consultants Limited. A reference in this Plan to a bylaw of the City of Prince George is a reference to the bylaw as amended, revised, consolidated or replaced from time to time.



## **1.1 Neighbourhood Overview**

The Glenview Crescents Neighbourhood Plan Area is located in the north-east sector of the City of Prince George and east of the existing Ranchland, Emerald Estates and Northside Park Neighbourhoods. The Plan Area is in close proximity to existing major transportation routes, including Highway 97 North, which is less than 1 kilometre from the Plan Area and serves as the major transportation route to the remainder of the City of Prince George. Schools and other public use facilities are close to the Glenview Crescents Neighbourhood, including Glenview Elementary School, Heather Park Elementary, and Kelly Road Secondary School as well as the Valleyview Reserve, a preserved natural area of the City. A proposed bicycle network is identified south of the Plan Area and will be easily accessible to the residents of the Glenview Crescents Neighbourhood.

Lands located immediately adjacent to the north, east and south of the Plan Area are currently undeveloped and are proposed for Urban Development by the City of Prince George Official Community Plan (OCP). Portions of the lands surrounding the Plan Area are also designated as Significant Slopes by the OCP. The Significant Slope designation has been included in the OCP as a means of preserving environmental quality and includes slopes with grades in excess of 20%. Sections 4.4.5 and 5.3.4 of the OCP address the Significant Slope designation, stating that these areas should be kept largely free from tree cutting, soil removal or development except for low intensity recreational activity.

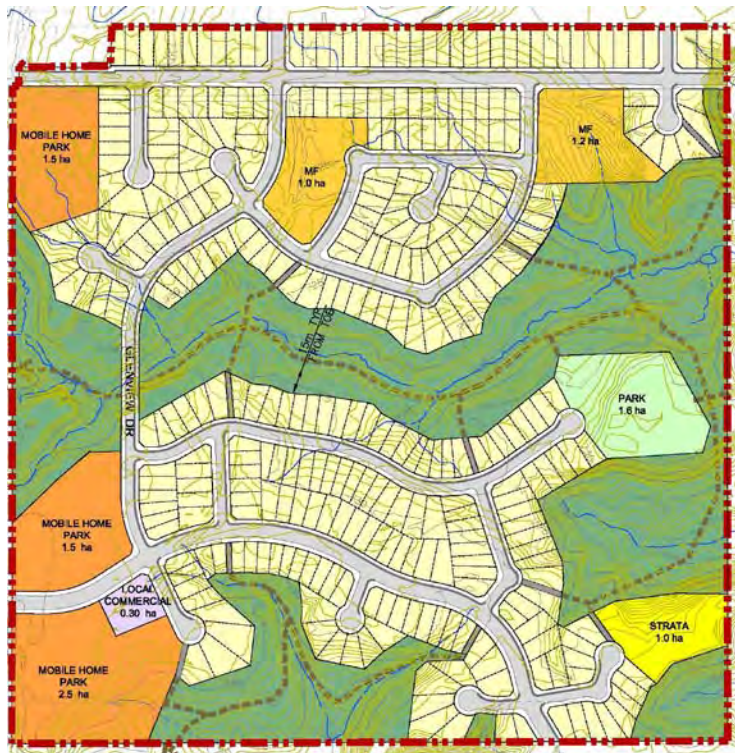
The Glenview Crescents Neighbourhood Area is an undeveloped property of approximately 63 hectares. The property is largely forested and contains several streamcourses. The rolling topography of this property combined with the natural features of the area make the Glenview Crescents Neighbourhood area an attractive site for future residential development.

As illustrated on **F6 – Existing OCP**, the Glenview Crescents Neighbourhood Plan Area is designated by the City of Prince George OCP for Urban Development, with a small area on the southern portion of the land designated as Significant Slopes. The Plan Area is currently zoned AF (Agriculture & Forestry) by the City of Prince George Zoning Bylaw No. 7850, 2007, and will require rezoning in order to permit appropriate residential, commercial as well as parks and recreational uses.

Chapter 12 of the Prince George OCP outlines the long range Utilities and Phasing policies of the City of Prince George. The purpose of development phasing is to maximize the use of existing utilities so that significant infrastructure investment is delayed as long as possible, without compromising the growth of the City. The objective of development phasing is to minimize costs to the City and its residents. The City of Prince George has four phases within the urban development boundary, with 1 being the most easily serviceable and 4 being the areas with the most significant servicing challenges and associated costs. The Glenview Crescents Neighbourhood Plan Area has been identified on Schedule B-1 (Urban Phasing) of the OCP as Phase 1 (north-west half of the subject land) and Phase 4 (south-east half of the subject



land). The southeast portion of the property is identified as Phase 4 due to new road link requirements which require significant extensions and upgrades in order to connect and safely access both Highway 97 to the west and Old Summit Lake Rd. to the east. For additional information regarding servicing and infrastructure improvements, please refer to Section 4.0 Neighbourhood Servicing.



## 1.2 Planning Process

The planning process for the Glenview Crescents Neighbourhood Plan began in 2006 with discussions between the property owner, L&M Engineering Limited and the City of Prince George. The planning process has consisted of the review of materials, including higher level plans, bylaws and development trends. These documents have been used to consider the provision of the following:

- Appropriate housing forms and densities;
- School sites;
- Parkland and trails;
- Commercial areas and;
- Infrastructure expansion, such as roads and utility services.

The planning process has involved consultation with School District No. 57, the Ministry of Transportation and the Ministry of Environment. In addition, Triton Environmental Consultants Limited helped prepare the Glenview Crescents Neighbourhood Plan along with L&M Engineering Limited.

**Section 3.0 - Glenview Crescents Neighbourhood Land Use Plan** of this document outlines the proposed land uses for the Glenview Crescents Neighbourhood in more detail. Included within the proposed land uses are greenbelt, parks, trails, transportation, residential and commercial uses.

### **1.2.1 Public Participation**

A city-wide open house was held in order to obtain public input into the Glenview Crescents Neighbourhood Plan. The open house was advertised on the L&M Engineering website, in the Prince George Citizen newspaper, and through a mailed/hand-delivered brochure to all property owners/residents within a minimum of 250 meters of the plan boundary. The brochure included information about the Neighbourhood Plan Area and the planning process; the time, date, and location of the open house; contact information for both L&M Engineering Limited and the Long Range Planning Division of the City of Prince George; as well as a copy of the public survey. The survey was made available on the L&M Engineering Limited website as well as at the public open house. Individuals were given the option of returning the public surveys either to L&M Engineering Limited or to the Development Services Department at the City of Prince George. The public participation package, newspaper advertisements, and categorized survey comments are included in the appendices of this document as Appendices A, B and D, respectively.

The purpose of the Public Open House was to provide the opportunity for the public to review the draft Glenview Crescents Neighbourhood Plan and ask questions of the attending professionals; discuss the plan with their neighbours and provide their comments and input into the planning process. Various land use and technical maps were on display and the public was given the opportunity to examine the drawings and ask questions during the open house.

A total of thirty-five members of the public attended the meeting. The general themes of the questions/comments included: the importance of addressing environmentally sensitive areas, increasing housing in the Hart area, and traffic issues with respect to safe access to Highway 97 and the condition of local roads. A synopsis of the public comments is provided in Appendix D while environmentally sensitive areas, a traffic overview and housing policies are provided in **Sections 3.2, 3.4 and 3.5** respectively.

## **1.3 Guiding Principles**

### **1.3.1 Official Community Plan Principles**

The City of Prince George Official Community Plan (OCP) provides the long-range vision for future land use in Prince George. Principles of the long-term vision of the City of Prince George include the following:

- Long-term planning should strive to improve the quality of life for Prince George residents and involve consideration of visual, social, environmental and economic impacts of development.

- New developments should strive to build strong neighbourhoods that will provide variety in housing options and opportunities to utilize services within the neighbourhood.
- We have a responsibility to be stewards of the environment and new developments need to recognize existing environmental features and the inherent value of environmental health.
- The northern identity of Prince George should be reflected in the design of new development through the application of Winter Cities Design Principles.

### 1.3.2 Quality of Life Principles

The Glenview Crescents Neighbourhood Plan seeks to provide the foundation for a new development in the City of Prince George that will improve the quality of life for its residents. Quality of life is a concept used to describe “the level of enjoyment, comfort and health in someone’s life” and relates to the enhancement of physical, social and environmental attributes (Cambridge Dictionary; Webster’s Dictionary). Researchers have developed quality of life indicators which gauge the level of individual comfort to assist policy makers in developing the conditions to improve quality of life in communities. For example, quality of life is represented in the extent to which the following conditions are provided in a community:

- Public safety;
- Recreational opportunities;
- Accessibility;
- Infrastructure;
- Environmental health;
- Shelter (housing opportunities);
- Social attachment, and;
- Urban aesthetics.



These quality of life indicators were referenced throughout the development of the Glenview Crescents Neighbourhood Plan and informed the land use and policy recommendations included within this document. Areas in which quality of life indicators have been highlighted include riparian protection (environmental health), provision of parks and trails (recreation) and opportunity for a range of housing types (shelter), among others.

### 1.3.3 Winter Cities Design Principles

Winter Cities Design is a form of climate sensitive design that tries to embrace seasonality and to encourage the year-round liveability of places often perceived to be hindered by colder climates through the maximization of solar exposure and the reduction of wind impacts.

A variety of design guidelines are common to Winter Cities Design, some of which are included in the following table (Prince George Citizen, 2005; Urban Systems, 2000):



**Table1: Winter Cities Design Considerations**

<b>Improving Walkability</b>	<b>Appropriate Use of Vegetation</b>	<b>Minimizing Wind/Cold</b>	<b>Other Design Considerations</b>
Handrails on sloped walkways	Use of street trees	Similar building heights to prevent wind tunnels	Seasonal lighting
Non-slip materials used at entranceways	Use of salt-resistant vegetation near streets	Sheltered transit stops	Continuous building facades
Slightly raised pedestrian crossings to reduce accumulation of snow/ice/water	Planting deciduous trees on south side of streets to shade in summer and allow sun through in winter	Covered entranceways	Use of warm colours
Roof design that minimizes snowmelt onto pedestrian areas	Planting coniferous trees on north and west side of streets for wind protection in winter	Placing pedestrian walks on 'sunny side' of street	

Many of these design guidelines are not enforceable through traditional regulatory means available in Prince George, for example, the *City of Prince George Subdivision & Development Control Bylaw*. However, there are a number of other ways these standards can be encouraged. For example, subdivision design professionals can include streetscape design of trees and vegetation in subdivision plans and can locate sidewalks appropriately. Further, building schemes can be registered at the time of subdivision that require warm, winter colours and appropriate building heights.

## 2.0 Current Land Uses

The Glenview Crescents Neighbourhood Plan area is comprised of undeveloped land owned by a single proprietor. The area of land is regulated by two Official Community Plan (OCP) designations and one zoning district. The Plan Area is designated for Phase 1 and Phase 4 Urban Development by the City of Prince George OCP (see **F7 –Urban Phasing**).

The purpose of the OCP is to demonstrate the current and long range objectives and policies for the City of Prince George, while the zoning districts demonstrate the current permitted land uses. The long range planning policies for the Hart area of Prince George require that approximately 75% of the land be used for low-density residential and 25% for medium-density residential. The Glenview Crescents Neighbourhood Plan has achieved a residential mix of 76% single family and 24% multiple family residential development. The OCP also recommends 1 Neighbourhood Park to complement the expected population in the Glenview Crescents Neighbourhood. This plan identifies the neighbourhood park in the central area of the plan and adjacent to the extensive greenspace to build on the natural habitat and experience of the park.

The vast majority of the Plan Area is designated for Urban Development, as indicated on **F6 – Existing OCP**. A small portion of the Plan Area near the southern boundary is currently designated as Significant Slopes. Land designated Significant Slopes will be protected as greenbelt as part of this Neighbourhood Plan.

The Plan Area is currently zoned AF (Agriculture and Forestry), which is intended to “conserve and manage agricultural and forestry land by providing for a compatible range of uses...” The land is designated for Urban Development in the OCP and therefore the Glenview Crescents Neighbourhood Plan is in keeping with the current and long range land use policies of the City of Prince George.

### 2.1 Existing Neighbourhoods & Services

The Hart area is primarily a fully serviced area of the City of Prince George. Several schools exist in relatively close proximity to the proposed Glenview Crescents Neighbourhood, including 1 secondary school (Kelly Road Secondary School) and 2 elementary schools (Heather Park Elementary and Glenview Elementary School).



Shopping facilities servicing the Hart area are located approximately 2 kilometres south of the Glenview Crescents Neighbourhood Plan Area. This shopping area is easily accessible from the

proposed Glenview Crescents Neighbourhood via Highway 97 and contains services sufficient to meet the needs of the Hart population.

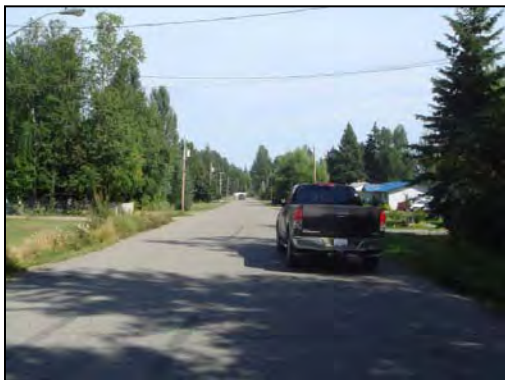
**F1 – Context Plan** illustrates the neighbourhoods surrounding the proposed Glenview Crescents Neighbourhood. The Ranchland Neighbourhood is located immediately west of the Plan boundary and is primarily zoned for AR3m (Rural Residential) development. The Ranchland Neighbourhood is partially developed and permits single family and mobile home residential development. There is one Neighbourhood Park, Glendale Green Space, in the Ranchland Neighbourhood.

The Emerald Estates Neighbourhood is located southwest of the Glenview Crescents Neighbourhood Plan Area. The Emerald Estates Neighbourhood is predominantly zoned RS1m (Suburban Residential) and allows for smaller lot single-family mobile home housing. The Emerald Estates Neighbourhood contains Opal and Nordic Park.

The Northside Park Neighbourhood is located northwest of the Glenview Crescents Neighbourhood Plan Area. The Northside Park Neighbourhood is zoned AF (Agriculture & Forestry) and is currently undeveloped.

## 2.2 Road Network

The transportation network for the Glenview Crescents Neighbourhood is illustrated on **F5 – Transportation Plan**. However, as transportation networks are not only comprised of roads but are the means by which people move throughout a community, no transportation network discussion is complete without addressing other transportation routes such as trails, greenways, bike lanes, and public transit. Please see **Sections 3.3 and 3.4** for a complete discussion of these topics. The existing road network is outlined below.



As illustrated on **F5: Transportation Plan**, Highway 97 serves as the major highway connecting the Glenview Crescents Neighbourhood to the downtown Prince George area. Existing local roads include:

- North Kelly Road, on the west side of Highway 97. North Kelly Road is a collector with a full movement, unsignalized “T” intersection with Highway 97.
- Knight Crescent currently terminates at the subject property. The road functions as a local road, connecting to the Highway 97 frontage road with no direct access to Highway 97;
- Estavilla Drive, functions as a collector road, connects directly to Highway 97 via a full movement, unsignalized intersection;

- Chestnut Drive currently terminates at the subject property. The road functions as a local road, connecting to the Highway 97 frontage road with no direct access to Highway 97.
- Nordic Drive functions as a collector road, connecting to Highway 97 via a full movement, unsignalized intersection;
- Weisbrod Road, functions as a collector road, connecting to Highway 97 via a full movement, signalized intersection.

As the lands north and east of the Plan Area are currently undeveloped, no road connections exist to the Plan Area from these directions, although development within the Plan area will provide future connections to the north and east. The area located immediately south of the Plan Area is also undeveloped with Nordic Drive terminating approximately 190 metres south of the Plan Area.

The OCP does not propose any future major roads in proximity to the Plan Area; however, the *City of Prince George Major Street Network Plan* has identified future road connections in proximity to the Plan Area, as well as identifying future, improved connections to Highway 97. The *Street Network Plan* is discussed in more detail in **Section 3.4 – Transportation**.

### **2.3 Public Open Space, Parks, Trails and Recreation**

There are many natural features surrounding the Glenview Crescents Neighbourhood Plan Area, including preserved greenways, parks, trails and streamcourses. Glendale Green Space lies just west of the Neighbourhood Plan boundary and Nordic Neighbourhood Park lies just southwest of the Neighbourhood Plan boundary. Opal Green Space is another small park in the proximity of the Glenview Crescents Neighbourhood Plan Area. There are informal residential trail networks connecting these parks within both the Ranchland Neighbourhood and the Emerald Estates Neighbourhood. In addition, the Valleyview Reserve Trail is located approximately 2 kilometres southwest of the Neighbourhood Plan boundary. The proposed parks and trails policies for the Glenview Crescents Neighbourhood are presented in **Section 3.0 - Glenview Crescents Neighbourhood Land Use Plan**.





## 3.0 Glenview Crescents Neighbourhood Land Use Plan

The following section presents the land use plan and policy recommendations of the Glenview Crescents Neighbourhood Plan. The proposed land uses being considered in the Neighbourhood Plan are discussed independently and have separate policy recommendations for each proposed use.

### 3.1 Vision

The Glenview Crescents Neighbourhood will provide a high quality environment for residents in the Hart area of Prince George. The neighbourhood will be predominantly residential in character, providing a variety of low to medium density housing options. Greenbelt, parks and trails will be provided throughout the neighbourhood that will preserve environmental features, enhance recreational opportunities and offer pedestrian and cyclist linkages within and without the Plan Area; all which are intended to provide a high quality of life for its residents.

**Table 2 - Land Use Summary** provides a synopsis of the Glenview Crescents Neighbourhood Plan based on the entire land area. As proposed, the gross area of the Glenview Crescents Neighbourhood Plan is approximately 63 hectares.

**Table 2: Land Use Summary**

Land Use	Area (ha)	Percentage of Gross Area
Residential		
- Single Family	24.8	38.8
- Multiple Family	7.7	12.0
Local Commercial	0.3	0.5
Greenbelt	19.4	30.4
Parks	1.6	2.5
Roads	10.1	15.8
Gross Area	63.9	100.0
<b>Net Developable Area</b>	<b>32.8</b>	<b>51.3</b>

The following land use policies for Glenview Crescents Neighbourhood consider many different components of land use and development practices, including zoning regulations and subdivision and development control regulations. The Official Community Plan and Neighbourhood Plan policies will help to guide decisions on planning and land use management within the area covered by the Plan. The presentation of the Land Use Plan begins with the natural environment and environmentally sensitive areas.

### 3.2 *Natural Environment and Environmentally Sensitive Areas*

The Glenview Crescents Neighbourhood Area consists of 63 hectares of undeveloped, forested land. Consultation with Triton Environmental Consultants Limited in spring 2007 comprised a preliminary environmental review, as well as a subsequent drainage assessment of the Neighbourhood Plan Area. Conclusions of this preliminary investigation determined that:

- The Neighbourhood Plan Area does not occur within an identified ungulate winter range; however, ungulates may use the south facing steep slopes located along the east-west streamcourse;
- Air photos indicate the Neighbourhood Plan Area has been previously disturbed by logging and would be unlikely to contain habitat for threatened plant and animal communities;
- Two small ponded areas exist within the Neighbourhood Plan Area and should be protected;
- The stream network contained within the Plan Area may be fish-bearing as it is a tributary of MacMillan Creek. The central east-west streamcourse should be protected by a 20 meter riparian setback as per Department of Fisheries and Oceans regulations.

In response to these environmental characteristics and recommendations, the streamcourse was surveyed to produce detailed topographic information. This survey information was used to develop the proposed road network and preliminary lot layout for the Neighbourhood Plan Area as well as to identify riparian protection areas. As a result, approximately 30% of the Plan Area will be protected by Greenbelt, including the steep slopes, the unconfirmed fish-



bearing stream and the ponded areas identified by Triton (see **F4 – Environmental Features**). This protected natural open space is integrated throughout the Neighbourhood Plan area. As such, the area will likely continue to be used by wildlife after development. Therefore, it will be important to reduce the risk of human-wildlife conflict. The Northern Bear Awareness Society has outlined a number of ways in which to manage bear attractants, such as: keep garbage cans, pet food, and bird seed in closed buildings; keep barbecues clean; regularly turn compost and avoid composting meat and dairy products; and, avoid planting fruit-bearing trees.

Subsequent stages of the development process will need to involve more detailed environmental investigation, including the development of an Environmental Management Plan as well as an Erosion and Sediment Control Plan. Both planning processes will be conducted prior to subdivision by a qualified environmental consultant and will be the responsibility of the developer. The Environmental Management Plan will consist of the identification and evaluation of potential environmental impacts and will include recommended mitigation strategies; whereas the Erosion and Sediment Control Plan will identify specific measures to be

taken during the phased development of the land that will mitigate erosion or sedimentation of soils into the stream network during construction.

### **3.2.1. Natural Environment and Environmentally Sensitive Areas Policy Recommendations**

1. As illustrated on **F4 – Environmental Features** a leave strip shall be retained which is 15 metres from the Top of Bank of the east-west streamcourse. This area shall become the property of the City of Prince George.
2. Any natural open space that includes, or is intended to include, public utilities such as trails and/or storm water drainage, shall become the property of the City of Prince George.
3. Notwithstanding small pockets throughout the Plan Area, the majority of lands exceeding 20% slopes will not be subject to development. Areas deemed to be too steep to be developed by a qualified professional shall be left as natural greenbelt. Prior to subdivision approval, the City of Prince George will determine which lands will become the property of the City of Prince George.
4. Detailed geotechnical and topographical investigation may reveal small areas, recognized by the Neighbourhood Plan as over 20% slope, to be developable.
5. Detailed subdivision design shall include retention of mature trees, where possible.
6. Site design and development that works to reduce human-wildlife conflict should be implemented, including banning fruit trees.
7. Developers are encouraged to consider building schemes that include design elements that reduce human-wildlife conflict. Although the City of Prince George cannot enforce building schemes, they can act to increase awareness for property owners.

## **3.3 Parks and Trails**

### **3.3.1. Official Community Plan and Master Plan Policy**

The Official Community Plan (OCP) considers the provision of parks and trails an essential component of community when it states (City of Prince George, 2001b, p. 71):

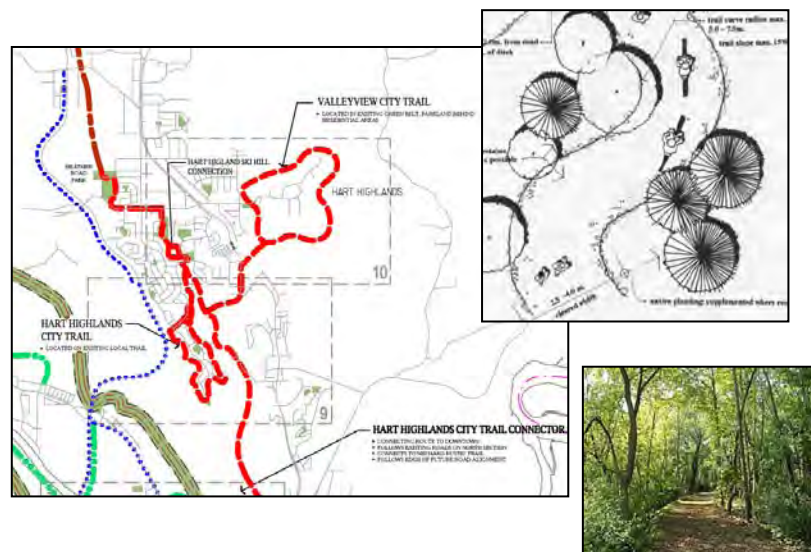
*A key attribute to the quality of life is the significant extent of park and open spaces in the community and the linkages offered by trails to connect various parts of the city.*

The OCP and the Prince George Parks and Open Space Master Plan (POSMP) outlines a hierarchy of parks and trails that are to be included in new neighbourhoods including City, District and Neighbourhood Parks as well as Multi-Use, Local, and Rustic trails, defined as follows:

- **City Parks** – cater to all residents and visitors in the city and the surrounding region and contains a variety of passive and active parks.
- **District Parks** – include athletic facilities established at a dispersed level to serve residents more directly than on a city-wide basis. District Parks are intended to serve approximately 8,000 surrounding residents.
- **Neighbourhood Parks** – provided at a neighbourhood level for residents within walking distance of their home. Neighbourhood Parks are intended to serve residents located within a five minute walking distance.
- **Multi-use Trail (City Trail)** – is a city wide route linking major residential areas to the downtown, riverfronts, destination parks, significant natural areas, regional recreation facilities and other amenities. City trails are asphalt with a trail width of 2.5 to 3.0 meters.
- **Local Trail** – is located in natural areas, neighbourhood open spaces, greenbelts and as secondary loops in destination regional parks and other open space areas. The trail surface is granular with a width of 1.5 to 2.0 meters.
- **Rustic Trail** – is located in natural settings to maximize aesthetics and trail experience. The trail is generally packed earth, crushed gravel, or granular with a width of 0.8 to 1.0 meters.

In addition, the City has the authority to require 5% of subdivided land for future park development or to take cash-in-lieu to the equivalent 5% parkland dedication. The priority for this dedication is land that is suitable for development as City, District, or Neighbourhood parkland.

In 1998, the *Prince George City Wide Trail System Master Plan* was prepared for the Leisure Services Department- Parks Division at the City of Prince George. The ‘Trails Master Plan’ identifies community desires, proposes trails by category, notes important transportation links and loops, and develops an action plan to address these preferences. Basic trail costs have also been outlined in this Master Plan.





### 3.3.2. Neighbourhood Plan Principles

The Official Community Plan (OCP) and Prince George Parks and Open Space Master Plan (POSMP) require that 1.2 hectares of Neighbourhood Park be provided for every 1,000 residents, with an approximate size of 2 hectares (4.9 acres). These parks are intended to provide a combination of active and passive space at the sub-neighbourhood level. Additionally, the OCP requires that 1 hectare of District Park is provided for every 2,000 residents with an optimum size of 8 hectares. It is estimated that approximately 1,665 residents will be accommodated in the Glenview Crescents Neighbourhood. **Table 3 – Park Requirements** indicates that 1 Neighbourhood Park is planned within the Glenview Crescents Neighbourhood to meet this demand.

**Table 3 – Park Requirements**

Type of Park	OCP Acquisition Standard	Total Population	OCP Park Requirements (ha)	Local Gov't Act Requirements (ha)	Parks Provided (ha)	Parks Provided (#)
Neighbourhood Park	2 ha / 1,000 residents = 0.002	1665	3.3	3.15	1.6	1

### 3.3.3. Neighbourhood Parks and Trails

The location of the proposed Neighbourhood Park is shown in conceptual form on **F10 – Proposed Parks & Trails**. This provides half of the required area for a Neighbourhood Park as per the Local Government Act. The remaining half will be given as cash in lieu. The receipt of which is to be governed by a Parkland Agreement with the City of Prince George.

The Glenview Crescents Neighbourhood Plan has incorporated the Trails Master Plan into the proposed trail network as seen in **F10 – Proposed Parks & Trails**. The proposed, future trail network will be anchored by a Rustic trail running east-west through the greenbelt bisecting the Plan Area. This trail will provide a connection between the greenbelt and the Neighbourhood. It will provide a route to the undeveloped lands east of the Neighbourhood Plan as well as a route to the adjacent Ranchland Neighbourhood west of the Plan boundary and will connect the Glenview Crescents Neighbourhood to the City-wide trail system. The trail may be located within the 15 metre setback from the Top of Bank.

Paved Multi-Use trails will be provided within the Neighbourhood Parks and where Rustic trails link to residential streets. The conceptual location of the proposed Rustic and Multi-Use trails is

indicated on **F10 – Proposed Parks & Trails**. The exact location of the trails will be determined at the detailed design stage.

The future Valleyview Reserve Trail is located approximately 2 kilometres southeast of the Glenview Crescents Neighbourhood Plan Area. The Valleyview Reserve Trail, one of two trail loops located in the Hart, is part of the City Wide Trail System which provides interconnected trail loops throughout the most populated areas of Prince George. The proposed rustic trail through the Glenview Crescents Neighbourhood will connect to the Valleyview Reserve Trail in order to provide accessible walking, biking, and recreational opportunities for its residents.



### 3.3.4. Trail Design Recommendations

1. All trails are to be designed to the City's standards, as outlined in the Prince George City Wide Trails Master Plan.
2. Wildlife/human interaction should be considered in all stages of design when parks and trails share land or boundaries with natural greenbelt or when greenbelt is preserved near neighbourhood development.
3. Where applicable, Winter Cities design guidelines for trails should be followed, as outlined by, but not limited to, the provisions included within **Table 1 – Winter Cities Design Considerations**.
4. Connections should be designed to connect trail standards, i.e. sidewalk to trail; bike route to multi-use trail.
5. Trails should consider safe crossings and, whenever possible, cross roads at intersections and always cross roads where there is an appropriate line of sight for both pedestrian and driver.

### 3.3.5. Parkland and Trail Policy Recommendations

1. The Glenview Crescents Neighbourhood shall provide 1 Neighbourhood Park as illustrated on **F10 – Proposed Parks and Trails**.
2. The future Neighbourhood Park shall become owned by the City of Prince George.
3. The unmet parkland dedication will be provided to the City of Prince George as cash in lieu.
4. Trails shall be planned and developed as part of subdivision with the objective of facilitating the movement of people throughout the Neighbourhood and to adjacent areas.
5. As a guiding policy, trails located within the Neighbourhood Park and that connect to streets shall be designed to the Multi-Use standard. All other trails shall be designed to a Rustic standard.
6. All trails should be designed as per the Prince George City Wide Trails System Master Plan design guidelines and the Trail Implementation Plan, when it is developed.



### 3.4 Transportation

The transportation system acts as a major organizing feature both within and surrounding the Glenview Crescents Neighbourhood Plan area by coordinating automobile, pedestrian and cycle activity. The transportation networks dictate the arrangement of residential development and strive to respect the topography and streamcourses present within the Plan boundary.

#### 3.4.1. Existing Road Networks

##### Official Community Plan Policies

The Transportation section of the Prince George OCP identifies the City's intentions with respect to arterial, collector, and local roads. Map 9 of the OCP, Major Road Network, does not identify any future major roads within the Plan area. Listed below are descriptions of these road types as they apply to the Plan area (City of Prince George, 2001b, p. 85).

- *Collector roads, the principal roads within neighbourhoods designed to collect and distribute traffic offering a medium level of mobility and access.*
- *City local roads, offering low mobility and high access.*

The OCP delineates the Plan Area into Phase 1 (north west) and Phase 4 (south east) as a result of required improvements to road connections as the area of the Hart east of Highway 97 develops in the long term. Accordingly, it is recommended that additional traffic analysis be completed as part of the implementation this Plan in order to ascertain the timing of future improvements as well as funding options.

The OCP outlines provisions for sidewalks and supports multiple-use of roads such that they accommodate various modes of transportation, including vehicles, cyclists, transit, and pedestrian movement. Similarly, it is recommended by the OCP that local streets and lanes be given priority for access to housing. Also in support of alternative transportation, the OCP states that (City of Prince George, 2001b, p.85-86),

*Future Neighbourhood plans should support small-scale commercial nodes, emphasize pedestrian and cycling routes, and address local traffic needs. It is recommended that traffic-calming techniques be considered to minimize the potential for through traffic infiltration in established or proposed neighbourhoods.*

**F5 – Transportation Plan** shows the existing and planned roads for the Glenview Crescents Neighbourhood which is in conformity with the Major Road Network policies set out in the OCP. The road network for the Neighbourhood Plan Area consists of collector and local roads, will be designed with pedestrian and cycling infrastructure, and will accommodate future transit services.

#### **City of Prince George Major Street Network Plan**

The 1992 *City of Prince George Major Street Network Plan* completed by the City of Prince George and the Ministry of Transportation and Highways identifies future, major roads throughout the City. The Network Plan identifies two major roads in proximity to the neighbourhood plan boundary, including one to the north and to the south and east (see **F5 – Transportation Plan**).

In addition, the Ministry of Transportation completed the *Highway 97 Conceptual Planning Study, Prince George B.C* in 1996 to identify future improvements to the Highway 97 corridor between the North Kelly Road intersection and the Weisbrod intersection. This study identifies the following future improvements to the intersections.

- North Kelly Road, as a full movement unsignalized “T” intersection (Improvements completed).
- Estavilla Drive as a future Right-In and Right-Out with improved frontage road access.
- Chief Lake Road/Chestnut Drive as a future full movement intersection with improved frontage road access.
- Nordic Drive as a future Right-In and Right-Out with improved frontage road access.
- Weisbrod Road/Handlen Road intersection as a full movement, signalized intersection with improved frontage road access.

These improvements will be required as warranted by traffic volumes as the area east of Highway 97 develops in the future.



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As proposed, the major north-south road through the Glenview Crescents Neighbourhood will be the Glenview Drive. The Glenview Drive will be built to a two-lane collector standard and will connect to both the existing Chestnut Drive and Knight Crescent.

Knight Crescent and Chestnut Drive are the proposed future east-west collectors and will also be constructed to the two-lane collector standard. Knight Crescent will extend eastward from its current terminus to the eastern Plan boundary thus providing opportunity to extend to lands beyond. As envisioned, Knight Crescent and Highway 97 will become a future, full movement intersection to facilitate traffic movements from the Glenview Crescents neighbourhood. This intersection is approximately 800 metres north of the Chief Lake Road/Chestnut Drive full movement intersection which meets the minimum arterial intersection spacing. Chestnut Drive will extend eastward from its current terminus ultimately providing the opportunity to extend to the southern lands beyond. The Chestnut Drive/Chief Lake Road intersection at Highway 97 is planned as a future full movement intersection thus providing appropriate highway access for the neighbourhood.

The remainder of the roads proposed for the Neighbourhood Plan will consist of local roads that will service the residential cul-de-sacs and crescents.

The design and timing of Improvements to the existing Knight Crescent and Glenview Drive, as well as future improvements to the highway intersections will be the subject of a Traffic Impact Study that must be completed as part of the first rezoning application within the Plan boundary.

### **3.4.2. Alternative Transportation**

The City of Prince George OCP contains policy direction for the provisions of alternative transportation opportunities, including pedestrian networks, cycling routes and transit services. Additionally, **Section 1.3.2 Quality of Life Principles** of this document identifies accessibility as an important determinant of a high quality of life. These factors combined support the need for the Glenview Crescents Neighbourhood Plan to provide alternative transportation opportunities.

#### **3.4.2.1. Pedestrian Networks**

Policy 11.6.4 of the City of Prince George OCP requires that pedestrian sidewalks are provided on one side of the road for collector and local roads. Further to this policy, the 2004 Pedestrian Network Study highlights the importance of quality pedestrian facilities as an essential component of transportation planning. As such, the provision of safe, accessible and quality sidewalks and crosswalks is an essential component of a well-planned neighbourhood.

### 3.4.2.2. Cycle Routes

The City of Prince George OCP has identified the preferred location of future cycle networks. Though the OCP does not consider cycle routes for the proposed Glenview Crescents Neighbourhood Plan Area, the 2000 Cycle Network Plan encourages planning for, and acceptance of, the bicycle as an important component of a transportation network.

### 3.4.2.3. Transit Services

Policy 11.6.9 of the City of Prince George OCP indicates that all new neighbourhoods shall be designed to facilitate public transit services. Additionally, the 2003 Prince George Transit Service Review identifies transit service design standards, as follows:

- Service within 400 meters walking distance of 90% of all residences;
- Service within 150 meters walking distance of major senior residences and other institutional facilities and;
- Service within 250 meters of all future medium and high density residential developments.



The 2003 Prince George Conventional Transit Service Policy outlines the staging of new transit services, as follows:

- Weekday peak period services when the subdivision is in the early stages of development;
- Weekday and Saturday peak period services during the middle stages of development and;
- Evening services when the subdivision is nearing completion.

Currently there are 2 bus routes which service the Hart area of Prince George. A local route services in proximity to the Plan Area as indicated on **F5 – Transportation Plan**. The City of Prince George will ultimately be responsible for the manner and extent to which transit services will be provided to the Glenview Crescents Neighbourhood Plan Area. This Plan strongly supports the provision of accessible transit services as a component of a well-functioning neighbourhood. Ultimately transit services will be influenced by ridership and current City standards.

### 3.4.2.4. Alternative Transportation Design Guidelines

1. Pedestrian infrastructure should be designed to the standards established by the Subdivision and Development Servicing Bylaw No. 7652.
2. On-street bicycle infrastructure should be designed to the standards established by the City of Prince George Subdivision and Development Servicing Bylaw No. 7652.

3. Transfer nodes should be created in areas expected to provide high volumes of transit riders.
4. Transit stop locations should be located near intersections and follow the design standards outlined in the 2003 Prince George Transit Network Study.
5. The development of transit services will be based on the 2003 Prince George Conventional Transit Services Policy.
6. High quality pedestrian access should be provided to all transit stops both on and off streets.
7. A transit stop should be located outside the local commercial site, resulting in a reduced number of vehicle trips required.
8. Bicycle parking should be required at all transfer stations until such a time as bike-and-board services are guaranteed on all transit trips.
9. Bus shelters should be constructed to protect transit users from the elements and to encourage use by all segments of society.
10. Winter Cities design guidelines and accessibility for those with limited mobility should be considered in the development of all pedestrian, cycle and transit facilities.

### **3.4.3. Transportation Policy Recommendations**

1. The proposed Chestnut Drive and Knight Crescent Extensions shall be constructed to a 2-lane collector standards.
2. Traffic Impact Analysis shall be conducted as part of the first rezoning application. The analysis will need to identify improvements to timing and funding for road and highway improvements.
3. Roads will be built in accordance with the City of Prince George Subdivision and Development Control Bylaw No. 7652.
4. As required by the Subdivision and Development Control Bylaw No. 7652, sidewalks will be provided on one side of urban collector roads and urban local roads.
5. Subdivision design will give consideration to the creation of a safe, pedestrian-oriented environment where traffic speeds and conflicts are managed.
6. Links from trails to roadways will be built to a Multi-Use trail standard in accordance with the design standards outlined within the City Wide Trail Master Plan.
7. Public transit may be provided on collector roads in accordance with the City's transit policies and as warranted by demand.
8. Marking of the cycling network is an endeavour to be undertaken by either the City of Prince George or the developer, as outlined in Policy 11.6.13 of the OCP, with efforts to extend the network into the Neighbourhood Plan Area.
9. Provision of street furniture, including but not limited to, bus shelters, benches and garbage receptacles, should be determined in consultation with the City of Prince George.
10. Transit networks should be developed in conjunction with higher density residential and commercial.
11. Connectivity between bus stops and trails should be considered when locating bus stops and designing municipal trails.

### 3.5 Residential

The OCP emphasizes the importance of striving to ‘build strong neighbourhoods’ when undertaking new residential development in Prince George. As per OCP policy, stated in Section 6.1 of the City of Prince George Official Community Plan, the Glenview Crescents Neighbourhood will reflect the following:

1. 76% Low Density Residential, which includes single-family housing
2. 24% Medium Density Residential, which includes multi-family housing

According to the Official Community Plan, single-family housing is expected to remain the preferred choice of housing choice for many residents in the City in the long-term. Single-family housing is expected to comprise 65-75% of all housing in the future, depending on the neighbourhood location. Multiple family housing will reflect life-style and market conditions.

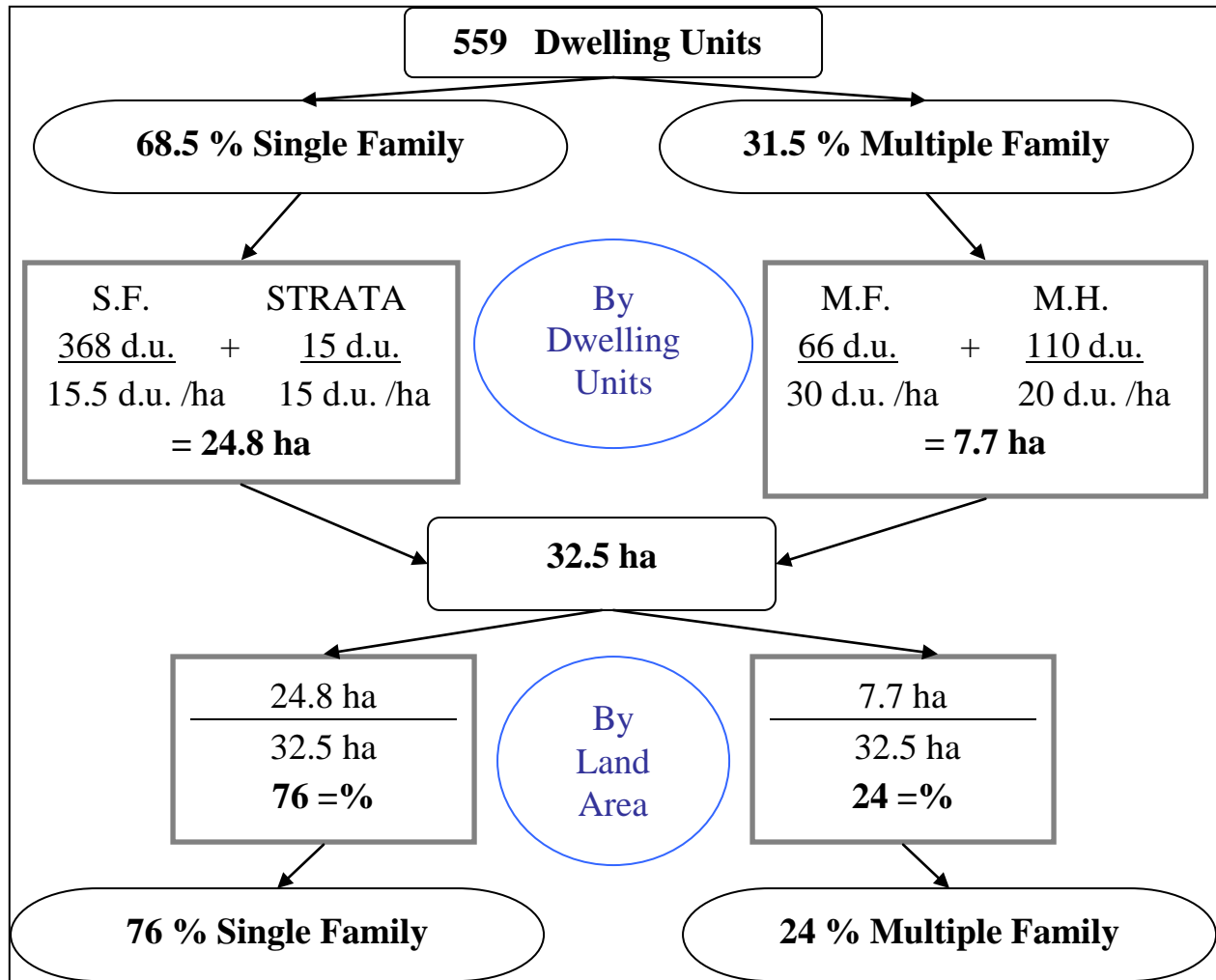


The following charts and tables outline the estimated number of single-family and multiple-family dwelling units that will be available for development within the Plan Area as well as the projected population of the future Glenview Crescents Neighbourhood.

**Table 4: Ratio of Residential Development**

Residential Designation	Total Area (ha)	Percentage of Total Plan Area	Dwelling Units/ ha	Number of Dwelling Units	Percent of Total Dwelling Units
<b>Single Family</b>					
Single Family	23.8	37.0	15.5	368	65.8
Strata	1.0	1.5	15	15	2.7
<b>Total SF</b>	<b>24.8</b>	<b>38.5</b>		<b>383</b>	<b>68.5</b>
<b>Multi Family</b>					
Mobile Home	5.5	8.6	20	110	19.7
Multi Family	2.2	3.4	30	66	11.8
<b>Total M F</b>	<b>7.7</b>	<b>12.0</b>		<b>176</b>	<b>31.5</b>
<b>Total</b>	<b>32.5</b>	<b>50.5</b>		<b>559</b>	<b>100</b>

**Chart 1: Proposed Residential Density**



**Table 5: Estimated Population**

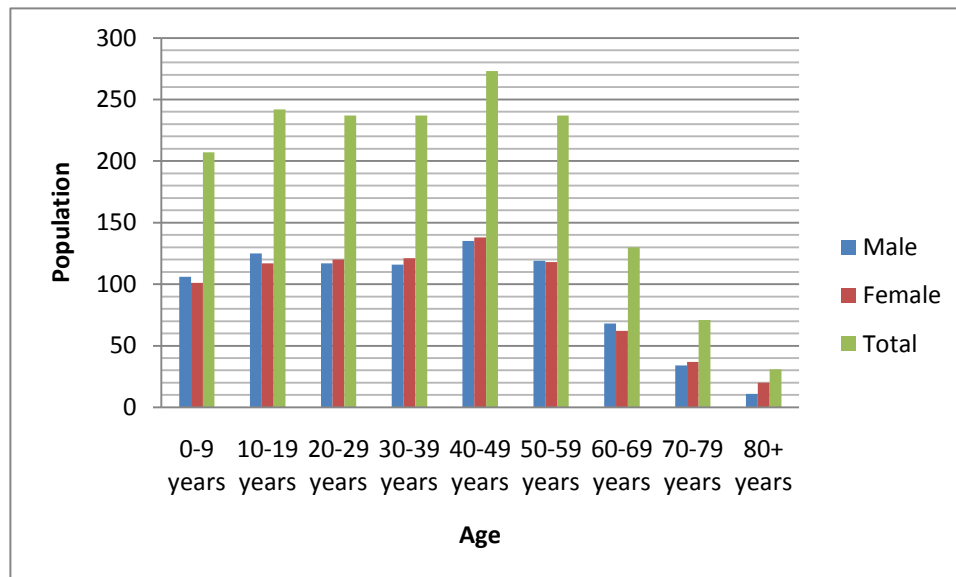
Housing Form	Total Area (ha)	Dwelling Units/ ha	Number of Dwelling Units	Person/ Dwelling Unit	Estimated Population
Single Family	23.8	15.5	368	3.2	1,177
Strata	1.0	15	15	3.2	48
Mobile Home	5.5	20	110	2.5	275
Multiple Family	2.2	30	66	2.5	165
<b>Total</b>	<b>33.5</b>		<b>578</b>		<b>1,665</b>



**Table 6: Age/Sex Population Breakdown**

	0-9 years	10-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80+ years	Total
<b>Male</b>	106	125	117	116	135	119	68	34	11	829
<b>Female</b>	101	117	120	121	138	118	62	37	20	835
<b>Total</b>	<b>207</b>	<b>242</b>	<b>237</b>	<b>237</b>	<b>273</b>	<b>237</b>	<b>130</b>	<b>71</b>	<b>31</b>	1665

**Chart 2: Age/Sex Population Breakdown**



### 3.5.1. Housing Forms

The Glenview Crescents Neighbourhood Plan will provide a range of housing densities to meet the needs of a diverse population. The range of housing densities will take 4 forms:

1. **Low density residential:** Low density single family residential has historically been the preferred housing option in Prince George. Low density residential will be permitted to a maximum density of 22 dwelling units per hectare on a minimum parcel size of 500m<sup>2</sup>. In addition, two-family residential development is included in low density residential category, as is strata cluster housing that can be comprised of both single and two family residences. Low density residential development will comprise the majority of the residential development in the Glenview Crescents Neighbourhood, as indicated on **F9 – Proposed Land Use & Lot Layout**. Secondary suites are permitted in all single family homes subject to Zoning Bylaw and BC Building Code compliance.

2. **Medium density residential:** Mobile home parks as well as row housing with a density of 22-40 dwelling units per hectare are included in this category. With the exception of mobile home parks, these housing forms are permitted to occur on all of the lots designated for multiple family developments, as indicated on **F9 – Proposed Land Use & Lot Layout**.

3. **Medium-High density residential:** This housing form permits fourplexes, condos, stacked row housing and apartments up to 4 storeys. For the Glenview Crescents Neighbourhood Plan area, the most appropriate form of medium-high density housing will be up to a maximum of 3 storeys. Consideration will be given to separate single family housing from any of the multiple family housing forms noted above along with appropriate setbacks, landscaping and/or terracing of the building form. Medium-high density residential has the potential to occur on any or all sites designated for multiple family developments, as indicated on **F9 – Proposed Land Use & Lot Layout**.



Medium-high density residential has the potential to occur on any or all sites designated for multiple family developments, as indicated on **F9 – Proposed Land Use & Lot Layout**.

4. **Mixed Use Local Commercial:** This housing form will incorporate mixed-use development options wherein multiple family housing is located above local commercial uses. The mixed-use local commercial housing form may only occur in the area designated for Local Commercial development, as illustrated on **F9 – Proposed Land Use & Lot Layout**, and has a permitted density of the lesser of 30 dwellings/ha or 6 dwellings/lot. The siting and development of this housing form shall be guided by Policy 7.4 of the OCP.

### 3.5.2. Design Guidelines

1. Residential housing forms and subdivision design should utilize Winter Cities design guidelines, as outlined by, but not limited to, the provisions included within **Table 1 – Winter Cities Design Considerations**.
2. Residential subdivision, housing forms and zoning regulations should emphasize the streetscape through the provision of reduced front yards. This design guideline can be implemented through a Development Variance Permit process during the rezoning stage of development.
3. Multiple family housing forms are encouraged to develop underground or semi-underground parking.
4. Residential lots should be generously landscaped in a manner which is appropriate to the region and local climate.
5. Mixed-use multiple family residential buildings should emphasize street access, wherein front yard setbacks can be reduced on the ground floor of buildings. This design

guideline can be implemented through a Development Variance Permit process during the rezoning stage of development.

6. Notwithstanding site coverage regulations within the Prince George Zoning Bylaw, small lot residential development is encouraged to have a reduced building footprint to maintain an appropriate building scale.
7. Building schemes that promote Winter Cities Design principles should be considered for residential subdivision.

### 3.5.3. Residential Land Use Policy Recommendations

1. Developers are encouraged to consider minimum lot sizes (500m<sup>2</sup>) in order to encourage compact development.
2. Secondary suites are only permitted within single family dwellings subject to the City of Prince George Zoning Bylaw No. 7850 and compliance with the BC Building Code.
3. Limits on density should be considered with respect to the location of two-family residential units. This housing form is to be located on a scatter-site basis throughout the area designated for single family development on **F9 – Proposed Land Use and Lot Layout** with a maximum of 20% of the lots developed as for two family units.
4. Where possible, medium density housing development should be maximized to increase residential densities.
5. A variety of housing options should be provided throughout the Glenview Crescents Neighbourhood, including rental opportunities.
6. Policy 6.3.20 of the OCP requires 1/200 ratio of zoning that permits Major Community Care Facilities. This policy is satisfied with the provision of approximately 3.5 hectares of multifamily housing sites.
7. Siting and building criteria for medium density housing shall be incorporated as outlined in the policies of the Official Community Plan.
8. Existing trees, natural features and significant slopes should be retained where feasible.
9. Detailed geotechnical and topographical investigations may reveal increases or decreases to the developable areas shown on **F9 – Proposed Land Use & Lot Layout**. The permitted uses defined by zoning (and as limited by any required Section 219 covenants) should be consistent with the developable area of the Plan, as confirmed by detailed geotechnical and topographical investigations to ensure all properties may be used safely for the use intended.
10. Lot configurations will be confirmed at the subdivision stage of development.
11. All multiple family, strata and bareland strata developments are subject to a Residential Development Permit, as outlined in Policy 6.4 of the OCP.
12. The Neighbourhood Plan achieves a residential density of approximately 76% single family and 24% multiple family, as outlined by the OCP.
13. Development of the mobile home park areas will be regulated through the Manufactured Home Park Bylaw No. 6091, 1993.

### 3.6 Commercial

The City of Prince George Official Community Plan outlines intended future commercial uses within Prince George. The OCP outlines a hierarchy of commercial uses ranging from large site regional shopping centres to smaller site local commercial uses. The Hart Shopping Centre currently serves as the Neighbourhood Commercial Shopping Centre for the Hart area of Prince George. The City of Prince George OCP identifies that the Hart Shopping Centre is to continue to serve as the neighbourhood shopping facility for the Hart area.

Local Commercial uses are defined by the OCP as “small neighbourhood convenience retail and service uses, to be dispersed in residential areas on collector and/or arterial roads” (p. 53, OCP). Local Commercial sites are limited to sites not greater than 3,000 m<sup>2</sup>. Uses permitted within a Local Commercial site include convenience stores, small offices and clinics and are subject to a Commercial Development Permit through the City of Prince George.



The closest commercially zoned lands exist along Highway 97 but are undeveloped and zoned for Highway Commercial uses. The closest Local Commercial uses to the Glenview Crescents Neighbourhood Plan Area are located approximately 1 kilometre to the southwest of the Plan boundary. Section 7.3, Policy 15 of the OCP supports the provision of Local Commercial lands within new neighbourhoods.

In an effort to fulfill the requirements of the Prince George OCP, the Glenview Crescents Neighbourhood Plan has allocated 3,000 m<sup>2</sup> of land at the proposed Chestnut Drive and Glenview Drive intersection for local commercial, as indicated on **F9 – Proposed Land Use & Lot Layout**. The Local Commercial site has been located within the Plan Area in an effort to increase opportunity for residents to walk or use alternative transportation within their neighbourhood. It is intended that the siting of the Local Commercial uses will encourage active lifestyles, reduce automobile usage and increase resident interaction – all of which improve the quality of life for residents.

#### 3.6.1 Commercial Design Guidelines

1. Parking should be located to the side or to the rear of the building, or, in the instance that the Local Commercial uses are combined in a mixed-use residential development, underground or semi-underground parking should be encouraged.
2. Design should emphasize pedestrian and bicycle access and provide appropriate sidewalks, bike racks and crosswalks.
3. Commercial development should utilize Winter Cities design guidelines, as outlined by, but not limited to, the provisions included within **Table 1 – Winter Cities Design Considerations**.

4. Sites should be generously landscaped in a manner which is appropriate to a northern, winter climate.

### 3.6.2. Commercial Land Use Policy Recommendations

1. Local Commercial development shall occur along the Chestnut Drive Extension, utilizing approximately 3,000 m<sup>2</sup> of land, as indicated on **F9 – Proposed Land Use & Lot Layout**.
2. Recommended design guidelines shall be incorporated into the Local Commercial development.
3. Local Commercial development will accommodate permitted uses, as defined in Section 7.3.15 of the OCP.
4. Local Commercial development is subject to a Commercial Development Permit, as outlined in Policy 7.4 of the OCP.
5. The proposed Local Commercial development site should first consider a mixed-use development which would permit medium density residential uses to be located above ground-oriented commercial uses.



### 3.7 Institutional

The City of Prince George Official Community Plan recognizes Institutional land uses as consisting of public educational facilities, places of worship and gathering, such as: community centres and libraries. In the case of education facilities, the OCP includes acquisition provisions for lands to be set aside for future school uses; however, in the case of additional community uses, there is no policy for land dedication within new developments.

According to the School District #57 District Sustainability Committee Report released in January 2009, enrolment in the Kelly Road zone is projected to decline. With recent school closures and reconfigurations, the Glenview Crescents Neighbourhood is now serviced by two elementary schools, Heather Park Elementary and Glenview Elementary, and one high school, Kelly Road Secondary.

According to the OCP, there is an average of 0.4 elementary students and 0.28 high school students per dwelling unit in Prince George. Based on these numbers, as seen in **Table 7: Projected School Requirements**, the Glenview Crescents Neighbourhood will not result in a population requiring an additional school to support the new population. As such, no institutional lands have been included as part of the Glenview Crescents Neighbourhood Plan. In addition, consultation with School District No. 57 has indicated that there are no plans to build new schools in the Hart area of Prince George in the foreseeable future due to excess capacity at existing schools in the area. Glenview Elementary, Heather Park Elementary and Kelly Road Secondary will be sufficient to service the educational needs of the Glenview Crescents Neighbourhood Plan area.



**Table 7: Projected School Requirements**

	Total Dwelling Units	Average Students/ Dwelling Unit	Number of Students	Average Students/ School	Total Schools Required
<b>Elementary Schools</b>	578	0.4	232	400	0
<b>Secondary Schools</b>	578	0.28	162	1,100	0

Institutional lands for places of worship and community facilities have not been included as part of the Glenview Crescents Neighbourhood Plan as these services appear to be sufficient in the proximate area. For example, library services are located at the intersection of the Hart Highway and Austin Road, and the Hart Community Centre and Eagles Hall are both located at the intersection of West Austin Road and Heather Road. In addition, several places of worship exist in the surrounding area. At this time, it is felt there are sufficient Institutional uses in proximity to the proposed Glenview Crescents Neighbourhood. However, this is not to preclude the development of neighbourhood level institutional, such as a community centre, should a neighbourhood need be identified.

## **4.0 Neighbourhood Servicing**

### **4.1. Water System**

#### **4.1.1. Overview**

The Glenview Crescents area is located between the 708m and 735m elevations within Pressure Zone 11 of the City of Prince George Water System. Pressure Zone 11 is part of what is referred to as the Nechako Water System and is serviced by reservoir PW817 which has a top water level of 801m. Pressure Zone 11 is supplied from the Fishtrap Island well PW660 via a 2.5 km, 750 mm diameter watermain through undeveloped land from booster pump station PW850 to reservoir PW817 near the intersection of Foothills Boulevard and Vellencher Road. This reservoir services all of Pressure Zone 11. There are two connection points that can be utilized for the servicing of the Glenview Crescents area, one on Knight Crescent and one on Chestnut Drive.

This section provides an overview of the existing constraints with regards to servicing this development utilizing the existing City water system. Further study and analysis will be required during subsequent re-zonings and subdivisions to determine offsite improvements as outlined below.

Based on PGMap information, the Glenview Crescents area may have static pressures in excess of 550 kPa (80psi) and, therefore, residential pressure reducing valves may be required within

the development to comply with the BC Plumbing Code. Where pressure reducing valves are used to interconnect pressure zones, the pressure reducing valves will generally be located at elevations where the maximum static water pressure is 760 kPa (110psi), with the valves set to reduce pressures to between 205 and 345 kPa (30 and 50 psi). Pressure Sustaining or Flow Limiting pilot controls may also be required on the PRV valves to limit flow between zones and maintain upstream pressures.

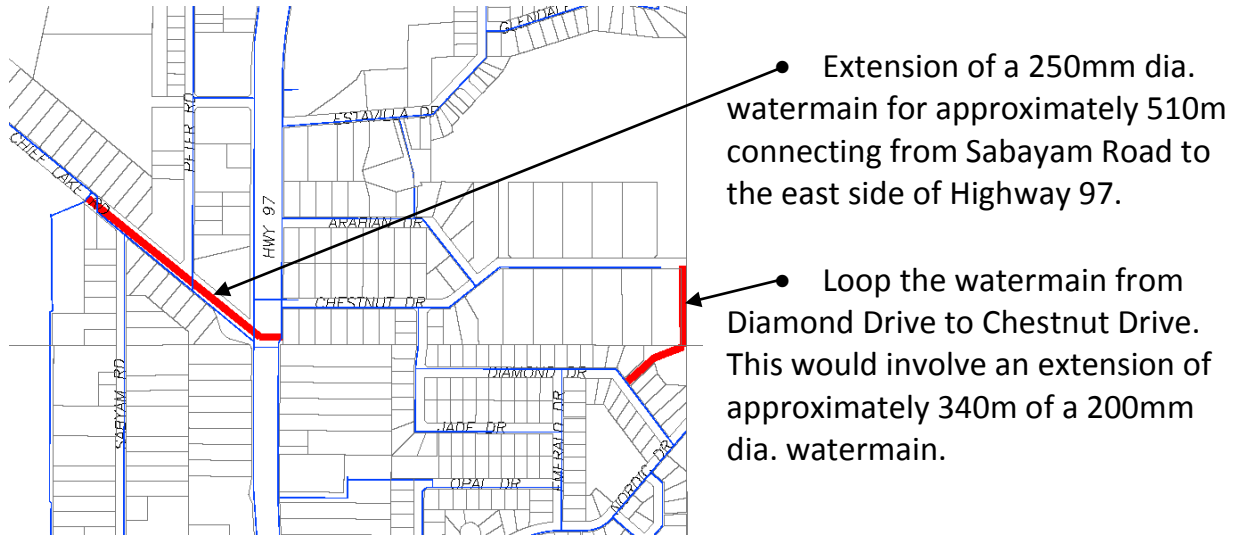
Some limited water modeling by the City of Prince George has been completed (Watermain Network Analysis Project 2009-006) and is referred to for the below information. The modeling was based on the City of Prince George – Water Service Infrastructure Master Plan 2000 Study, Dayton & Knight Ltd., 2001 as well as the following design criteria from the City of Prince George Draft Design Guidelines.

The design criteria included the following:

- Per Capita Water Demands for residential development were based on the City of Prince George criteria of 475 litres/capita/day for Average Day Demand (Section 3.1.3 City of Prince George Draft Design Guidelines).
- The peaking factor used to adjust Average Day Demand to Maximum Day Demand and Peak Hour Demand is based on the City of Prince George Draft Design Guidelines Table 3.1.1. The peaking factors are:
  - Maximum Daily Demand – 2.5
  - Peak Hour Demand – 4.25
- Pressure reducing valves will be required in distribution mains where water pressure exceeds 760KPa (110psi).
- Fire flow demands as follows:
  - Single Family Residential = 60 litres/sec
  - Multiple Family Residential = 125 litres/sec
  - Mobile Home Park = 85 litres/sec
- Minimum service pressures:
  - Maintain a minimum pressure of 345KPa (50psi) throughout the network under peak hour demand.
  - Minimum pressure for maximum day demand plus fire flow at fire node = 140KPa (20psi).
  - Minimum residual water pressure at nodes within 400m surrounding the fire node = 207KPa (30psi).

#### **4.1.2 Results**

In summary, the existing City water system cannot provide adequate fire flows to service the entire neighbourhood area while maintaining the minimum residual pressures within the subdivision. However, the neighbourhood plan area can be phased with the following offsite improvements:



When the watermain loop from Diamond Drive to Chestnut Drive is completed, fire flows of 85 litres/sec can be achieved to service the proposed mobile home park as well as some of the single family residential development. Further water modeling will be required to determine the extent of development which can occur until the Sabayam Road watermain extension is required. With both improvements completed the mobile home park and the single family residential will have adequate fire flows. It should also be noted that the proposed multi-family development has a greater fire flow requirement (125 litres/sec) than can be achieved based on the above two improvements. The multi-family should be located as close as possible to looped mains within the development. Other options to consider are additional offsite improvements or looping outside the development area.

#### 4.1.3. Recommendations

Prior to rezoning and subdivision, complete additional water modeling and study to confirm the extent of offsite improvements required as well as the phasing of development that can occur.

### 4.2. Sanitary Sewer System

#### 4.2.1. Overview

The Glenview Crescents Neighbourhood lands are undeveloped. The site generally falls towards an unnamed stream which runs west to east through the middle of the site and drains the majority of the subject lands. The remainder of the site falls to the south and east.

In general, the sanitary sewage will flow towards the unnamed stream and will be pumped by a future lift station into the City of Prince George sanitary system at the existing sanitary manhole at the corner of Knight Crescent and Wapiti Road.

The Glenview Crescents Neighbourhood area contains no existing sanitary sewer infrastructure within the plan area boundaries. However there are some existing sanitary mains near the perimeter of the plan boundary, more specifically at the end of Knight Crescent and the end of Chestnut drive

There is an existing 250mm diameter sanitary sewer main on Knight Crescent that services homes in the Knight Crescent area. This 250mm diameter main drains to a City of Prince George lift station (PW 126) which is located at the end of Twinberry drive in the Meadow Park Subdivision. Once the sewage reaches PW 126 it is then pumped to a 525mm diameter trunk main at a manhole near the corner of Chief Lake Rd & Highway 97.

There is also an existing 200mm diameter sanitary sewer main on Chestnut Drive that services homes along Chestnut Drive. The Chestnut Drive connection point could be utilized for servicing the Mobile Home Park area via a private lift station.

In 2001 McElhanney Consulting Services in conjunction with Kerr Wood Leidal, prepared a sanitary model which encompassed the existing City of Prince George sanitary sewer infrastructure. The objective of the model and the accompanying report was to assess the adequacy of the existing sanitary sewer collection system and to prepare a 20 year Capital Plan for the necessary improvements.

The modeling and analysis were conducted for three scenarios:

1. Existing system;
2. Development based on current zoning;
3. Development based on the current Official Community Plan designation.

The model allows the City of Prince George to accurately address the performance of the existing system and determine the impacts of future development. The model is currently maintained and updated by the City of Prince George.

The 2001 Sanitary Sewer Study prepared by McElhanney Consulting Ltd. was reviewed to determine general downstream capacities and restrictions. Further investigation and study is required in order to determine the capacity of the main on Chestnut Drive as the McElhanney report does not include the entire Glenview Crescents Neighbourhood plan area in its study.

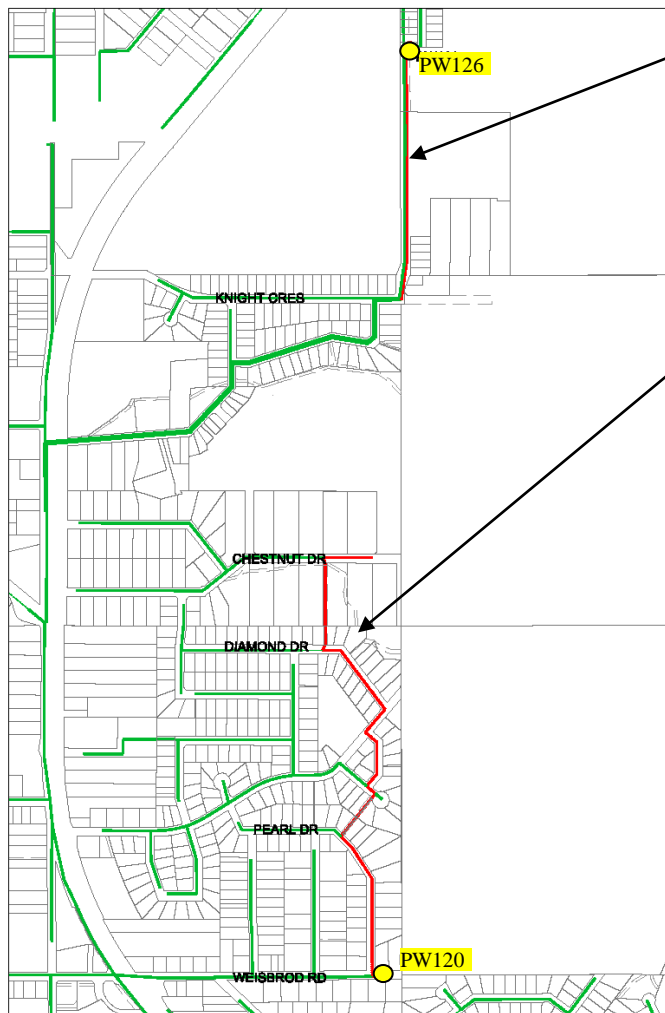
As mentioned, the existing 200 mm diameter sanitary main on Chestnut Drive could be utilized to service the mobile home park via a private lift station. This main eventually connects to City of Prince George lift station PW 120 located at the end of Weisbrod Road. As shown on McElhanney's 2001 Sanitary Sewer Study OCP model loading status Figure 13, there is a section of main on Pearl Drive approximately 340 metres long that is in the 50-85% capacity range. The

flow that would be added by the mobile home park is assumed to be accounted for in the OCP model loading status.

Due to the existing topography and the stream that bisects the property two lift stations will most likely be required for this development. One would be located north of the stream and one at the south side of the stream. The flow would then be pumped by forcemain and directed to either of the two existing sanitary mains noted above depending on downstream capacity restrictions.

#### 4.2.2 Recommendations

- Prior to rezoning and subdivision, complete the sanitary sewer modeling and study to confirm the extent of offsite improvements required (if any) as well as the phasing of development that can occur.



- Determine the amount of remaining capacity in the 250mm diameter main on Knight Crescent in order to establish the amount of development that can occur before upgrading is required.

- Determine the amount of remaining downstream capacity in the sanitary main which runs from Chestnut Drive to the City of Prince George lift station PW 120. Installing a private lift station for the mobile home park(s) would allow the development to be phased in collaboration with the watermain servicing phasing.

- Determine the remaining capacity and upgrades, if required, of each of the two lift stations PW120 and PW126 prior to rezoning.



---

### **4.3. Storm Water Management**

#### **4.3.1. Overview**

Currently there is no watershed drainage plan for the Glenview Crescents Neighbourhood area. The Glenview Crescents Neighbourhood falls in the MacMillan Creek Watershed, area N1, on the City of Prince George Drainage Catchment Boundaries Map D-973. This storm water management section provides an overview of the storm water runoff as a result of development within the Glenview Crescents Neighbourhood area. This section also provides design guidelines and recommendations that can be incorporated into an overall storm water management plan.

The catchment boundary is limited to the natural terrain and current drainage patterns. The Glenview Crescents Neighbourhood plan boundary encompasses approximately 63 hectares of land of which approximately 44 hectares of land is considered developable. A drainage assessment has been completed by Triton Environmental Consultants Ltd. and is included in Appendix E: Glenview Crescents Neighbourhood: Drainage Assessment The plan area has four tributaries which are the headwaters for McMillan Creek.

The development of this catchment area will most likely require the construction of storm water detention ponds as recommended by the City of Prince George Draft design guidelines and the “Land Development Guidelines” published by the Department of Fisheries and Oceans. The purpose of the detention ponds is to regulate the peak flows from within the catchment area.

The Fisheries Act provides the legislative basis for DFO’s Policy for the Management of Fish Habitat (DFO 1986) and the principle of no net loss of the productive capacity (i.e. the maximum natural capacity) of fish habitat. Each land development is therefore subject to the following guideline objectives:

- Provision and protection of leave strips adjacent to watercourses;
- Control of soil erosion and sediment in runoff water;
- Control rates of storm water runoff to minimize impacts on watercourses;
- Control of in-stream work, construction, and diversions on watercourses;
- Maintenance of fish passage in watercourses for all salmonoid life stages;
- Prevention of the discharge of deleterious substances to watercourses.

#### **4.3.2. Recommendations**

- A storm water management plan should be prepared by the developer prior to rezoning and subdivision in order to determine the impact of storm water outfalls on surrounding

vegetation and slopes and to determine the impact of increased storm water runoff on downstream habitat and streams.

- Subsequent approvals should be sought from the federal Department of Fisheries and Oceans (DFO), and provincial Ministry of Environment (MoE) as required at the time of detailed design.

## 5.0 Implementation

The purpose of this Neighbourhood Plan is to establish the guiding land use policies for the Glenview Crescents Neighbourhood and, accordingly, the City of Prince George Official Community Plan principles and policies have been incorporated into the document. This Neighbourhood Plan is intended to provide the vision of the future neighbourhood and provide a common understanding between residents, owners, developers, and the City of Prince George with respect to its future development. As the guiding policy document, this plan will be consulted during the rezoning and subdivision phases of development to ensure conformity with its intentions.

It is recommended that the Glenview Crescent Neighbourhood Plan be adopted by Prince George City Council through resolution, allowing the plan to act as a policy guide, rather than as a regulatory document. Adopting the plan by resolution gives Council the opportunity to consider development proposals that may be inconsistent with the plan but which Council considers to be in the public interest. In addition, building schemes that have been outlined within this Plan are intended to achieve design guidelines and meet performance objectives and are not intended for the City to enforce.

In an effort to transition from the high level neighbourhood planning process to the subsequent development stages of rezoning and subdivision, several investigations will need to be completed as part of the implementation of this Plan. These activities include:

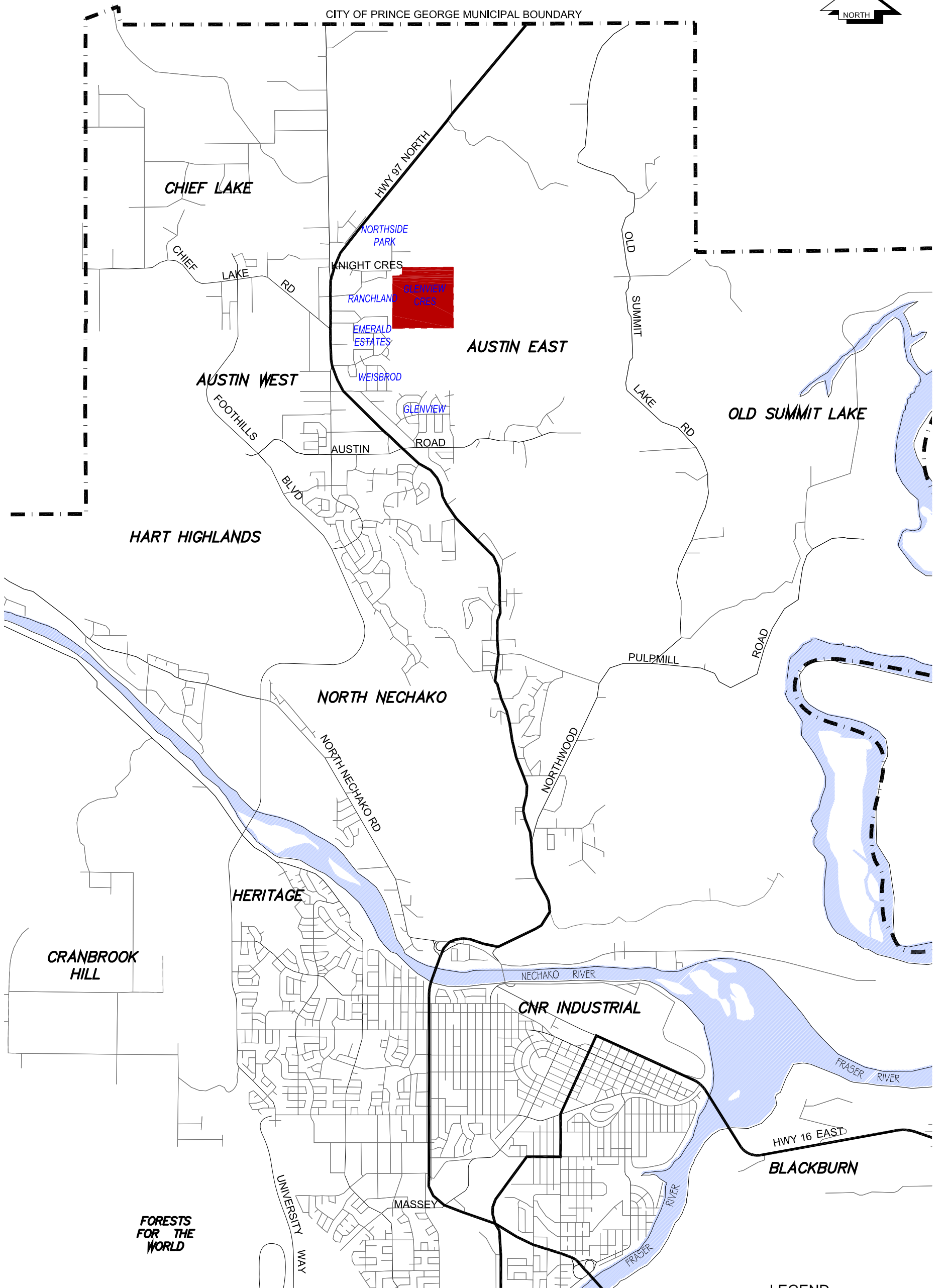
1. Phased rezoning applications.
2. Traffic Impact Analysis to be completed as part of the first rezoning application within the Neighbourhood Plan boundary. The Traffic Impact Analysis will identify the timing of improvements that may be required as part of the phased, long term development of the lands.
3. Phased subdivision applications that may also include, but not be limited to; detailed traffic, geotechnical, water and sanitary modeling, storm water and environmental studies, and wildfire fighting access and water supply.
4. Prior to rezoning and subdivision, complete the water, sanitary and storm servicing studies.
5. An amendment to the Official Community Plan to bring the Sewer and Water Specified Area in conformity with the Urban Boundary.
6. Creation of a Parkland Dedication Agreement between the City of Prince George and the developer.

7. The issuance of Residential Development Permits for all multiple family developments.
8. The issuance of a Commercial Development Permit for development within the Local Commercial area.



**Figures**  
Glenview Crescents Neighbourhood Plan

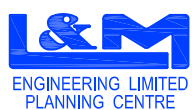


CITY OF PRINCE GEORGE MUNICIPAL BOUNDARY



**LEGEND**

-  NEIGHBOURHOOD PLAN AREA
-  CITY OF PRINCE GEORGE MUNICIPAL BOUNDARY



1210 Fourth Ave.  
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 DRAWN BY: KP  
 SCALE: 1:50,000

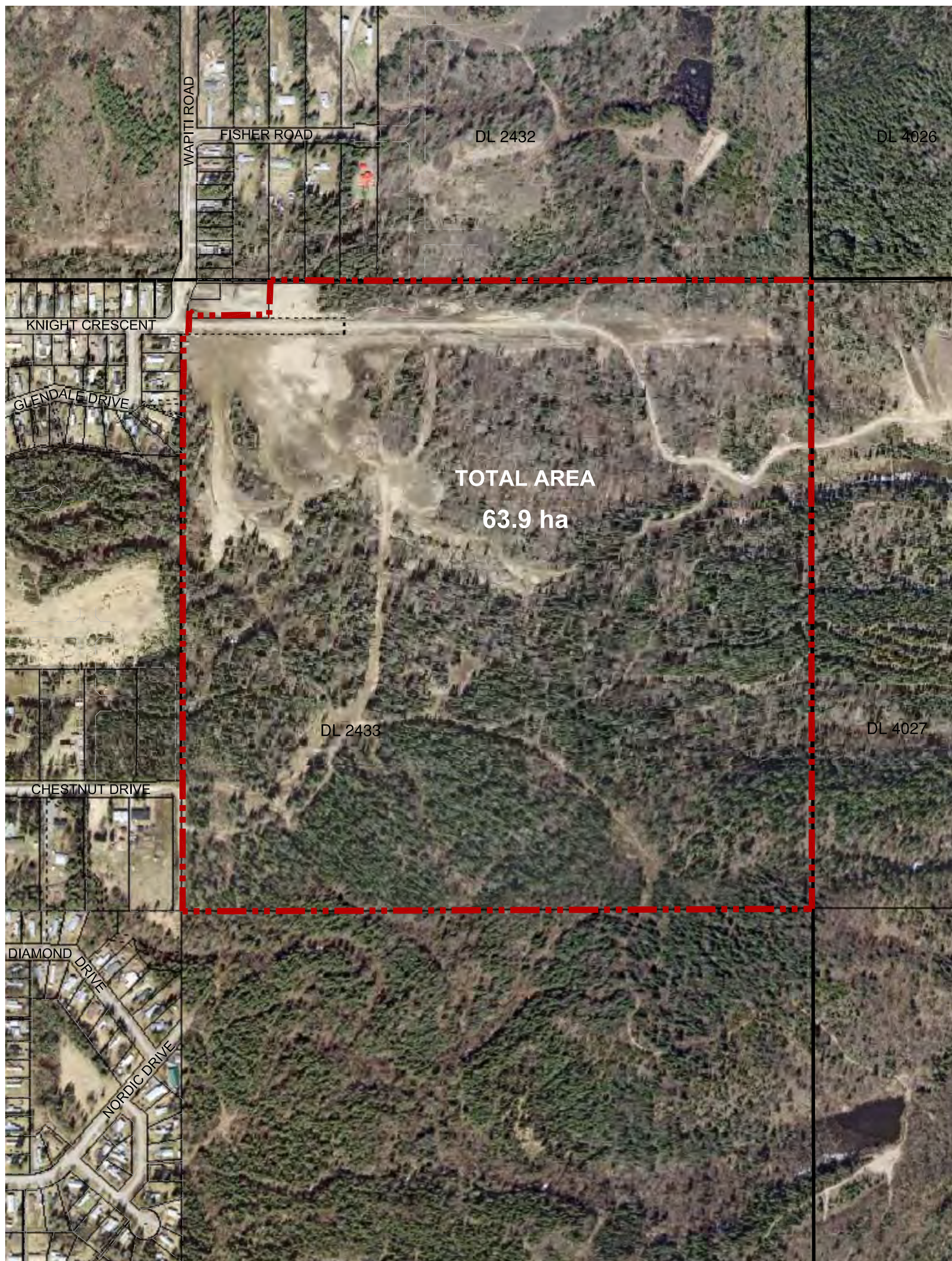
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

CONTEXT PLAN




DWG No

**F1**





**LEGEND**

-  SUBJECT AREA BOUNDARY
-  DISTRICT LOT LINES
-  EXISTING LOT LINES



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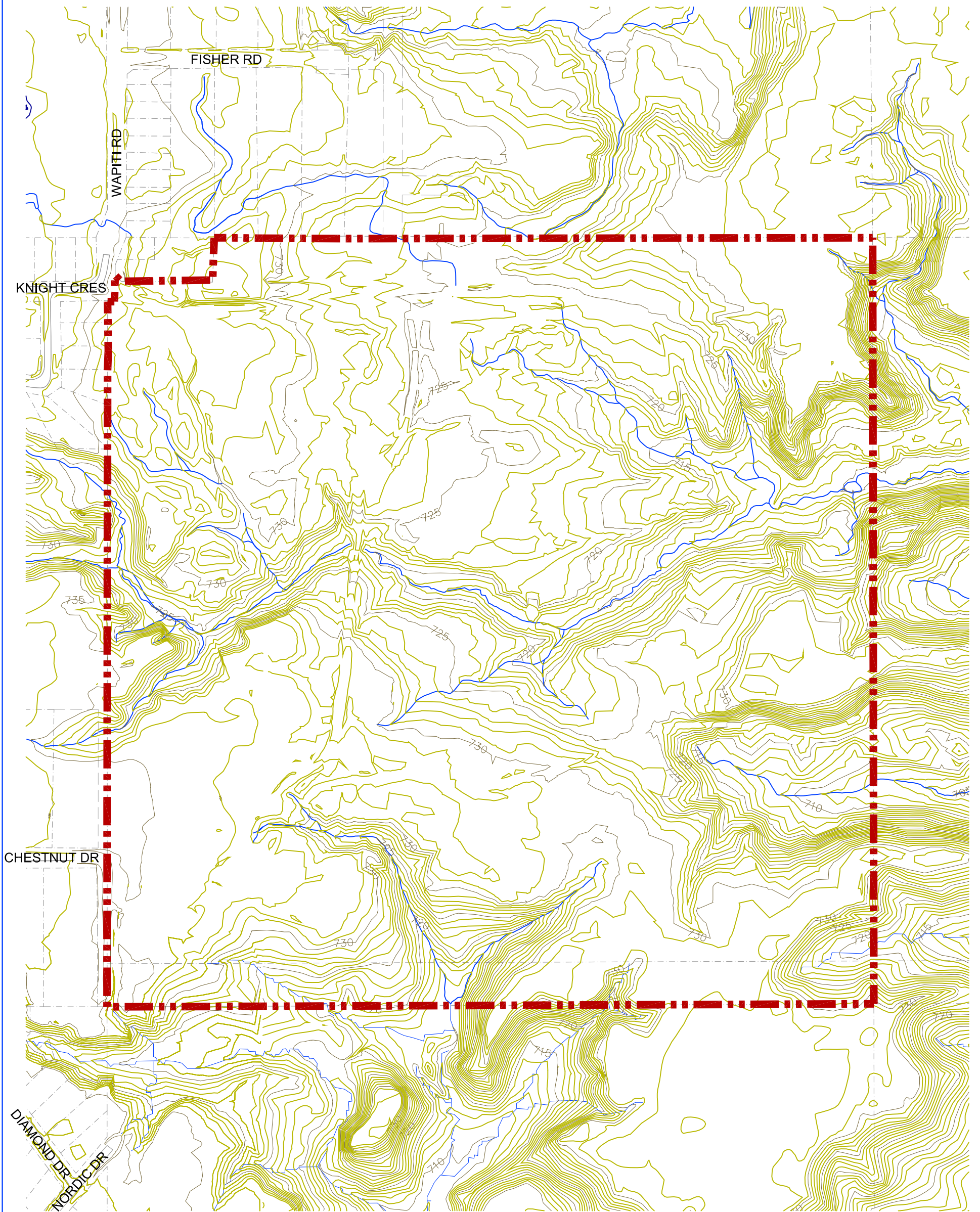
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

**AERIAL PHOTO &  
NEIGHBOURHOOD BOUNDARY**



DWG No

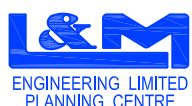
**F2**





**LEGEND**

-  SUBJECT AREA BOUNDARY
-  WATER COURSE



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DRAWN BY: KLH  
SCALE: 1:4,000

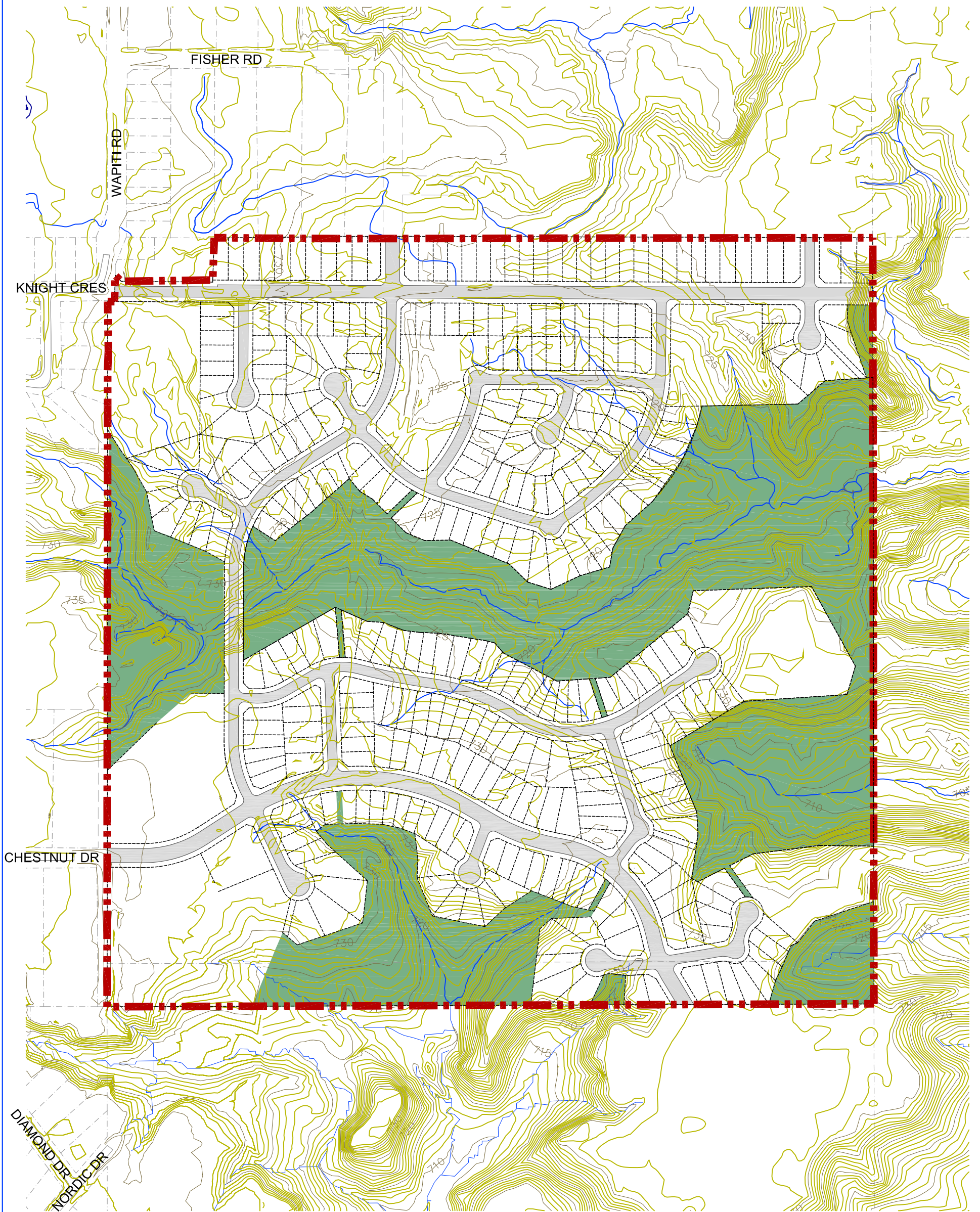
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

**EXISTING CONTOURS  
& HYDROGRAPHY**





DWG No

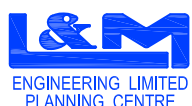
**F3**





**LEGEND**

-  SUBJECT AREA BOUNDARY
-  WATER COURSE
-  PROPOSED ROADS
-  GREENBELT



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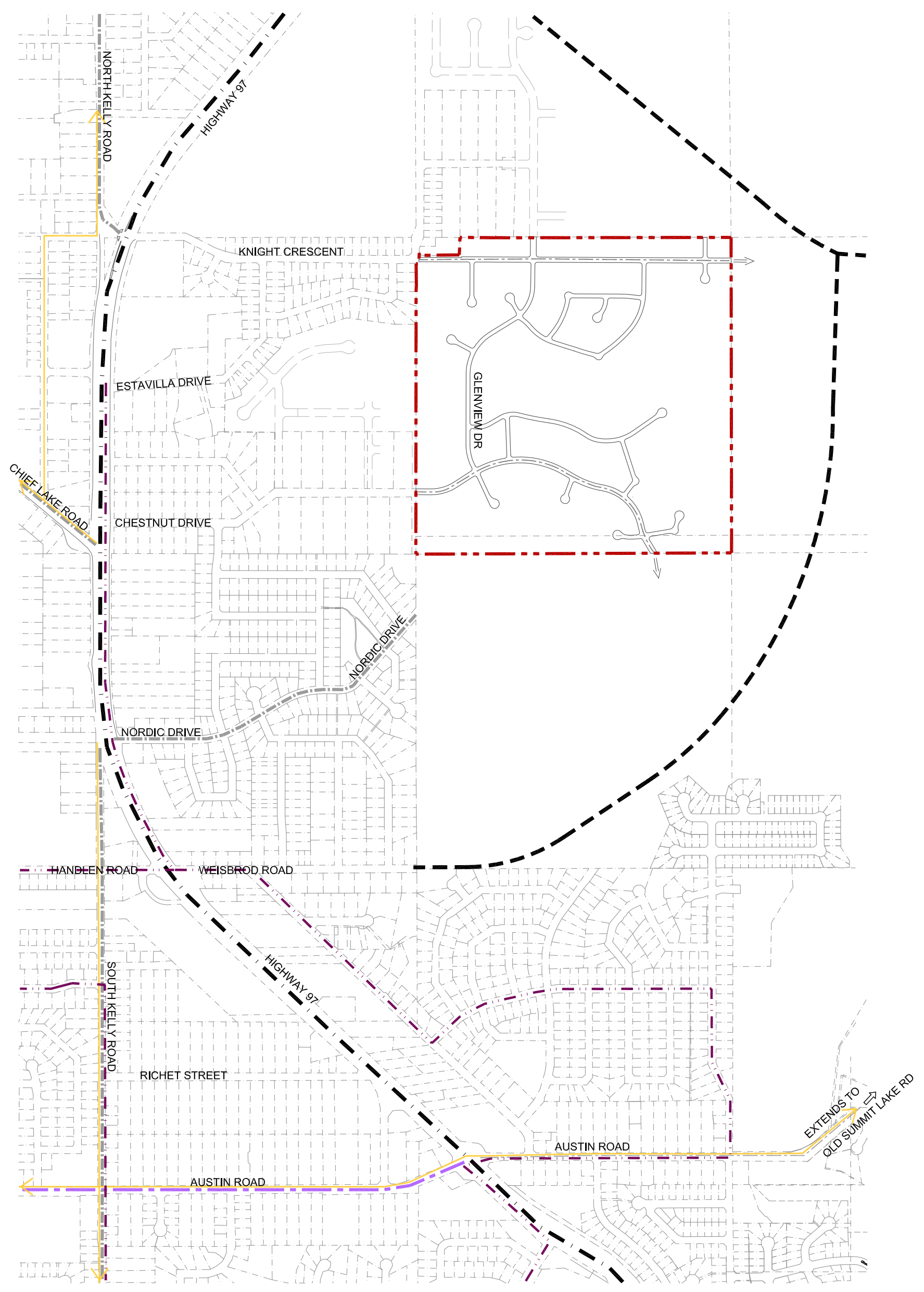
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

**ENVIRONMENTAL  
FEATURES**

DWG No

**F4**





**LEGEND**

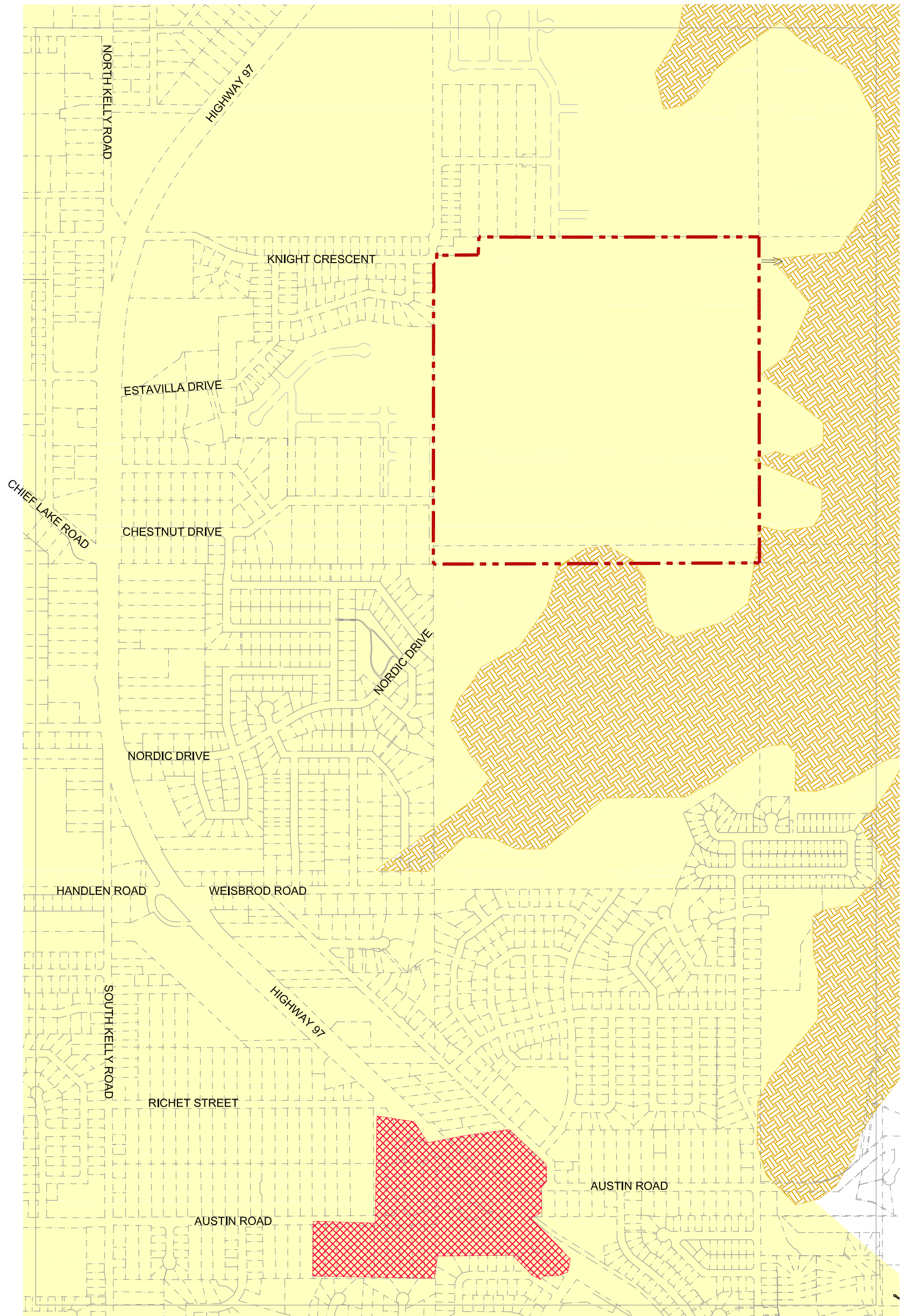
- |  |                       |  |                        |  |   |
|--|-----------------------|--|------------------------|--|---|
|  | SUBJECT AREA BOUNDARY |  | EXISTING ARTERIAL ROAD |  | EXISTING COLLECTOR ROAD                               |
|  | PROPOSED ROAD EDGE    |  | EXISTING BUS ROUTE     |  | FUTURE COLLECTOR ROAD                                 |
|  | PROPOSED ROAD         |  | EXISTING BIKE LANES    |  | CoPG MAJOR STREET NETWORK<br>PLAN PROPOSED MAJOR ROAD |
|  | FUTURE DEVELOPMENT    |  | PROVINCIAL HIGHWAY     |  |   |

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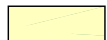
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**  
**TRANSPORTATION PLAN**

DWG No  
**F5**



**LEGEND**

--- SUBJECT AREA BOUNDARY



URBAN DEVELOPMENT

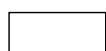


SIGNIFICANT SLOPES

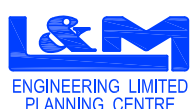
**EXISTING OCP**



NEIGHBOURHOOD COMMERCIAL



RESOURCE/ AGRICULTURAL



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**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

EXISTING  
OCP

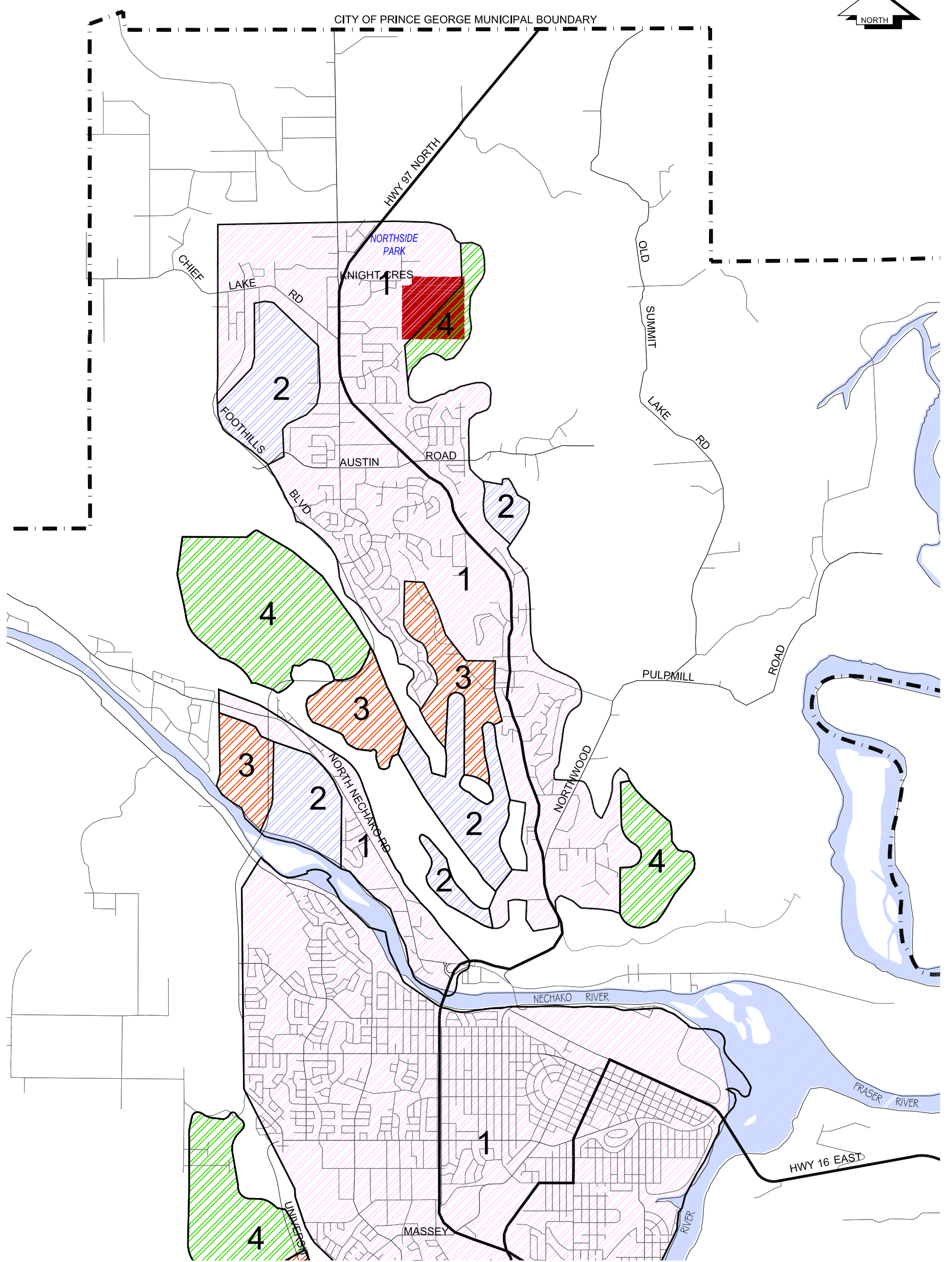
DWG No

**F6**







CITY OF PRINCE GEORGE MUNICIPAL BOUNDARY







**URBAN DEVELOPMENT PHASING AREAS**

**LEGEND**

 SUBJECT AREA

 URBAN PHASE BOUNDARY

-  1 EXISTING SERVICED AREAS OR READILY SERVICED.
-  2 LOGICAL EXTENSION OF EXISTING SERVICE MAINS, GENERALLY HAS CAPACITY ALTHOUGH OFF-SITE SERVICE IMPROVEMENTS MAY BE NECESSARY.
-  3 NEEDS UPGRADING TO UTILITY SYSTEM AND MAY REQUIRE IMPROVED ACCESS.
-  4 GENERALLY REQUIRES SIGNIFICANT EXTENSIONS AND SERVICE UPGRADES.

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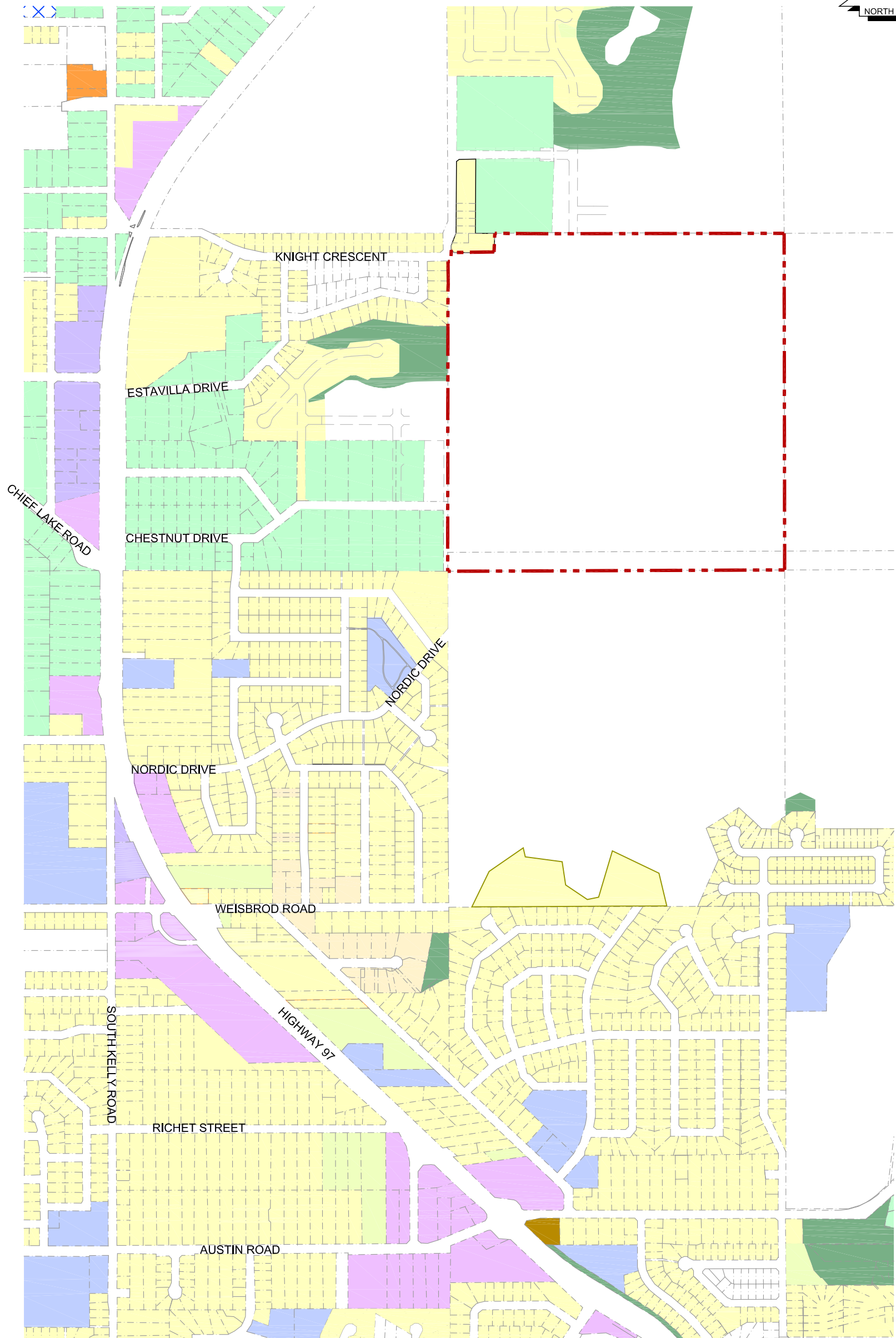
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DATE: APRIL 2011  
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**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

URBAN PHASING

DWG No  
**F7**





**LEGEND**

--- SUBJECT AREA BOUNDARY

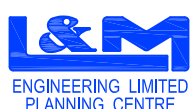
- SINGLE FAMILY RESIDENTIAL
- TWO FAMILY RESIDENTIAL
- MULTIPLE FAMILY RESIDENTIAL

- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL

- AGRICULTURE/ FORESTRY
- GREENBELT
- UTILITY

RURAL RESIDENTIAL

**EXISTING ZONING**



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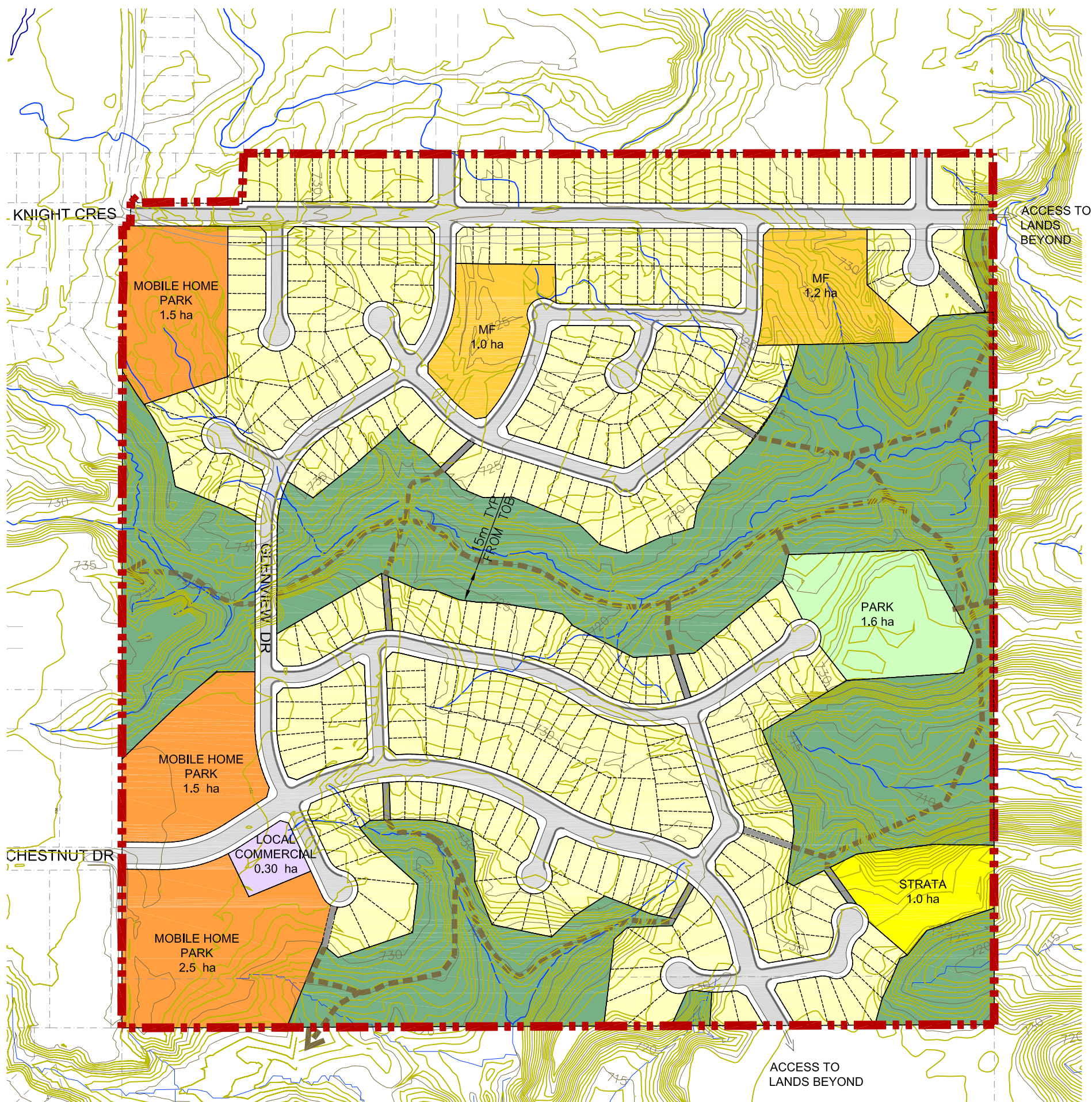
**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**

EXISTING ZONING

DWG No

**F8**





**LEGEND**

- SUBJECT AREA BOUNDARY
- WATER COURSES
- FUTURE DEVELOPMENT
- PROPOSED LOT LINES
- PROPOSED ROAD
- PROPOSED SIDEWALK
- PROPOSED RUSTIC TRAIL
- PROPOSED PAVED TRAIL

**PROPOSED LAND USE**

- SINGLE FAMILY RESIDENTIAL  
MIN SITE AREA: 500m<sup>2</sup>  
MAX SITE AREA: 2000m<sup>2</sup>  
MIN SITE WIDTH: 15m
- MOBILE HOME PARK
- LOCAL COMMERCIAL
- NEIGHBOURHOOD PARK
- STRATA (SINGLE & 2 FAMILY)
- GREEN BELT
- MULTI FAMILY

**NOTES:**

1. THE CONCEPT PLAN HAS BEEN FIELD PROOFED USING SLOPE ANALYSIS AND GPS FIELD SURVEY.
2. 15m SET BACK HAS BEEN ESTABLISHED FROM GPS SURVEYED TOB.

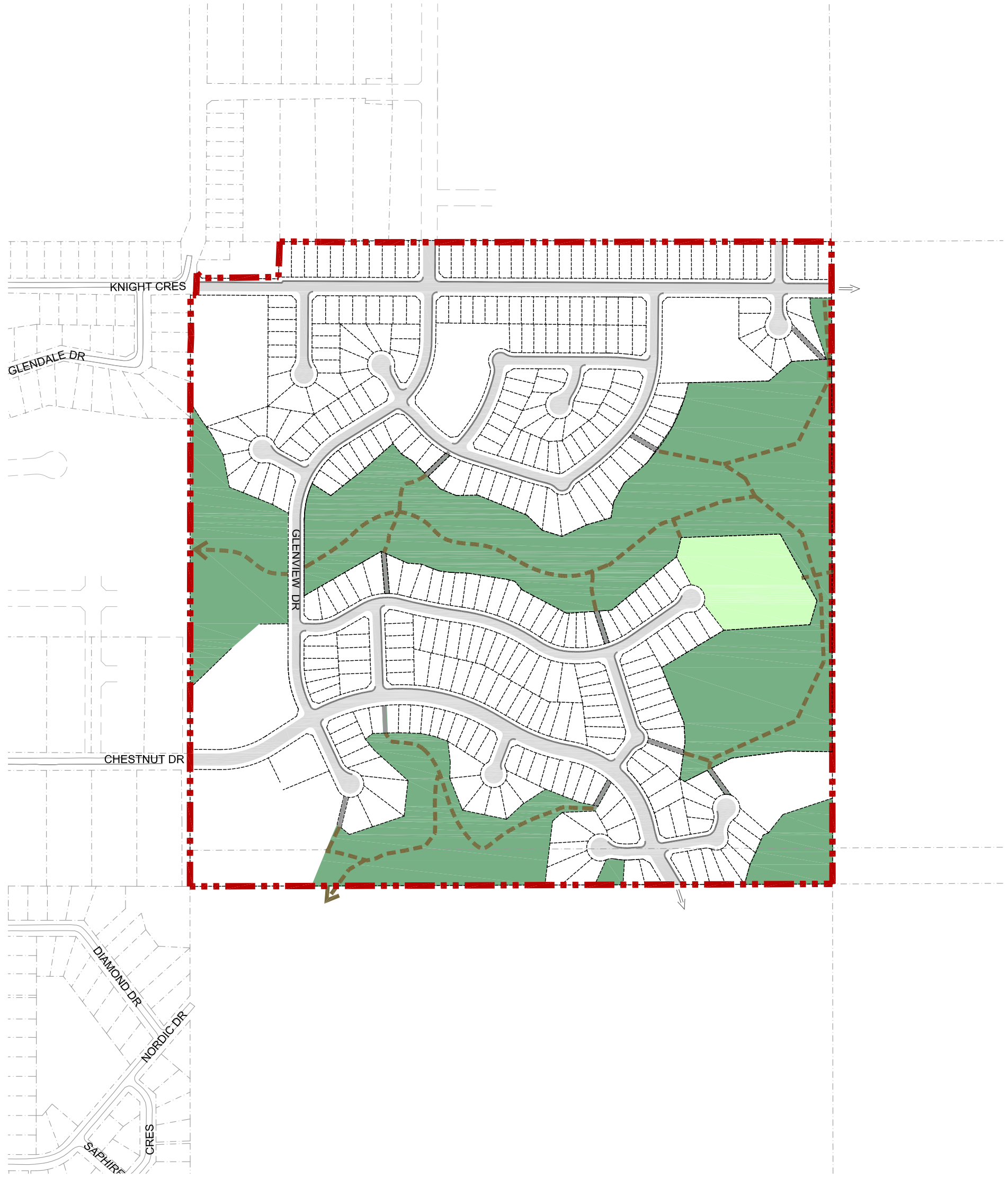
**LAND DESIGNATION AREAS**

NEIGHBOURHOOD PLAN AREA	AREA (ha)	GROSS
TOTAL PARKS	1.6	2.5 %
TOTAL GREEN BELT	19.7	30.5 %
TOTAL ROADS	10.1	16 %
<b>TOTAL</b>	<b>31.4</b>	<b>49.0 %</b>
NET DEVELOPABLE RESIDENTIAL	32.2	50.5 %
NET DEVELOPABLE COMMERCIAL	0.3	0.5 %
<b>TOTAL NET DEVELOPABLE</b>	<b>32.5</b>	<b>51.0 %</b>
<b>TOTAL NEIGHBOURHOOD AREA</b>	<b>63.9</b>	<b>100 %</b>





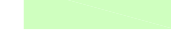

**RATIO OF RESIDENTIAL DEVELOPMENT**

RESIDENTIAL DESIGNATION	TOTAL AREA (ha)	PERCENTAGE OF TOTAL RESIDENTIAL AREA	DWELLINGS UNITS/ha	NUMBER OF DWELLING UNITS	% OF TOTAL DWELLING UNITS
SINGLE FAMILY	23.8	73 %	15.5	368	66 %
STRATA (1 & 2 FAMILY MIX)	1.0	3 %	15	15	2.5 %
MOBILE HOME	5.5	17 %	20	110	19.5 %
MULTIPLE FAMILY	2.2	7 %	30	66	12 %
<b>TOTAL</b>	<b>32.5</b>	<b>100 %</b>		<b>559</b>	<b>100 %</b>





**LEGEND**

-  SUBJECT AREA BOUNDARY
-  FUTURE DEVELOPMENT
-  PROPOSED ROAD EDGE
-  SIDEWALK
-  NEIGHBOURHOOD PARK - 1.6 ha
-  GREEN BELT - 19.7 ha

**PROPOSED TRAIL NETWORK**

-  RUSTIC TRAIL
-  PAVED TRAIL

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**GLENVIEW CRESCENTS NEIGHBOURHOOD PLAN**  
**PROPOSED PARKS & TRAILS**

DWG No  
**F10**

**Appendices**  
Glenview Crescents Neighbourhood Plan

**Appendix A**  
Glenview Crescents Neighbourhood Plan  
Public Mail-Out & Survey



Date: 21 July 2008  
File: 1287-04-00

**Attention: Property Owner or Resident**

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**Reference: The Glenview Crescents Neighbourhood Plan  
An Opportunity to Provide Comment & Input**

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The L&M Engineering Limited Planning Centre is in the process of creating a Neighbourhood Plan for the Glenview Crescents area, located in the north-east sector of the City of Prince George. The planning process for this Neighbourhood Plan began in 2006 through discussions between the property owner, L&M Engineering, and the City of Prince George. A draft of the Glenview Crescents Neighbourhood Plan has now been prepared and we are pleased to invite you, your family, and neighbours to attend a public open house on July 29, 2008 to discuss relevant factors of the plan including, but not limited to:

- Environmentally sensitive areas;
- Transportation networks;
- Phasing of City services;
- Residential housing mixes, forms, and densities;
- Commercial lands;
- Public use sites; and
- Trail linkages.

The purpose of this neighbourhood meeting is to gather comments and input from local residents to help shape a vision for this neighbourhood. The land use vision will guide the development of The Neighbourhood Plan which, once complete, will provide certainty for residents, land owners, and developers regarding how the area will look and feel in the future. An important part of the neighbourhood planning process is public participation and there are a number of ways you can provide input, including:

- Reviewing the Draft Glenview Crescents Neighbourhood Plan which is available in its entirety on the L&M Engineering website ([www.lmengineering.bc.ca](http://www.lmengineering.bc.ca))



- 
- Attending the Public Open House to be held at the Eagles Hall, 6742 Dagg Road, on July 29, 2008 between 7 and 9pm, at which time the draft plan of the Glenview Crescents Neighbourhood Plan will be available for review. In addition, representatives from the City of Prince George, and L&M Engineering Limited will be available to answer questions.
  - Completing the enclosed survey and returning it to the L&M Planning Centre or the City of Prince George. The responses received will assist the L&M Engineering Limited Planning Centre in ensuring that public input is incorporated into the development of the land use plan. Copies of all public responses will be forwarded to the City of Prince George for their review. Alternatively, you are also welcome to send your completed survey directly to the City of Prince George. You will be best able to answer the survey questions after attending the Public Open House or by reviewing the complete set of plans available on the L&M Engineering website.

### **Highlights of Glenview Crescents**

As illustrated on the enclosed Explanatory Plan, the subject area encompasses approximately 63 hectares of land that is situated immediately east of the Knight Crescent and Chestnut Drive terminus. The road connections proposed within the plan will connect Nordic Drive, Chestnut Drive, and Knight Crescent through the “Nordic Drive Extension” while creating connections to land beyond the plan boundary to the north, east, and south.

To protect the unique and sensitive areas within the plan boundary, such as steep slopes, ponded areas, and unconfirmed fish-bearing streams almost thirty percent of the plan area has been designated as greenbelt and openspace. An additional six percent of the subject area has been designated as Neighbourhood Parks with approximately 2.5 kilometres of off-road trails connecting the parks, greenspace, and surrounding neighbourhoods.

### **Next Steps**

Following the receipt of public comments, the draft of the Glenview Crescents Neighbourhood Plan will be submitted to the City of Prince George for review.

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## **Questions?**

If you have any questions you would like addressed prior to the Neighbourhood Open House please feel free to contact:

### **Heather Oland**

Director of Planning

L&M Engineering Limited

- Phone: 250-562-1977
- Fax: 250-562-1967
- Email: [holand@lengineering.bc.ca](mailto:holand@lengineering.bc.ca)

OR

### **Dan Milburn**

Manager of Long Range Planning

City of Prince George:

- Phone: 250-561-7614
- Fax: 250-561-7721
- Email: [dmilburn@city.pg.bc.ca](mailto:dmilburn@city.pg.bc.ca)

Please return the survey at the public open house or by mail, fax, or hand delivery by August 6, 2008 to:

### **L&M Engineering Limited – Planning Centre**

1210 Fourth Avenue

Prince George, BC V2L 3J4

fax: 250-562-1967

OR

### **City of Prince George – Long Range Planning Division**

1100 Patricia Boulevard

Prince George, BC V2L 3V9

250-561-7611

## Glenview Crescents Neighbourhood Plan – Community Survey

For each statement, please check the box that best describes your agreement or disagreement and provide any additional comments, concerns, or suggestions regarding that topic in the space provided below. You will be best able to respond after attending the **Public Open House to be held on July 29th 2008 at the Eagles Hall (6742 Dagg Road) between 7 and 9pm** or by reviewing the complete set of plans available on the L&M Engineering Limited website ([www.lmengineering.bc.ca](http://www.lmengineering.bc.ca)) and return by August 6<sup>th</sup>, 2008.

1. The proposed neighbourhood provides an adequate mix of low, medium, and medium-high density residential.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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2. The proposed Local Commercial location is well situated and provides a benefit to the proposed neighbourhood and surrounding area.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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3. The trails and greenspaces within the Neighbourhood Plan provide good connectivity throughout the Neighbourhood and to surrounding areas.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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4. Outdoor recreational opportunities are adequately provided throughout the proposed neighbourhood with the provisions of parks and openspace.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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5. Environmentally sensitive areas and their protection are adequately incorporated into the proposed Neighbourhood.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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6. The proposed pedestrian and cyclist links (road, sidewalk, greenspace, trail network, and connections to neighbouring areas) are sufficient to promote alternative transportation choices.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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7. Are there any issues or concerns not covered above that you want to make sure are addressed as part of the Glenview Crescents Neighbourhood planning process?

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Thank you for taking the time to respond. Please return your survey by August 6, 2008.

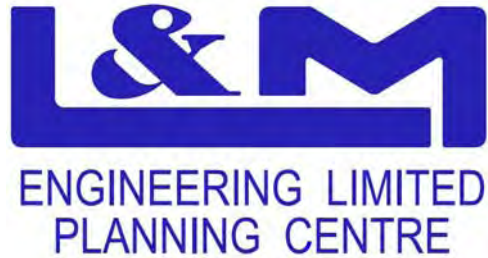
Please mail, hand deliver, or fax (250-562-1967) your completed four-page survey to  
 Heather Oland at L&M Engineering Limited – Planning Centre.  
 1210 Fourth Avenue

OR

Dan Milburn at City of Prince George – Long Range Planning Division  
 1100 Patricia Boulevard  
 fax (250-561-7721)

**Appendix B**  
Glenview Crescents Neighbourhood Plan  
Newspaper Ad





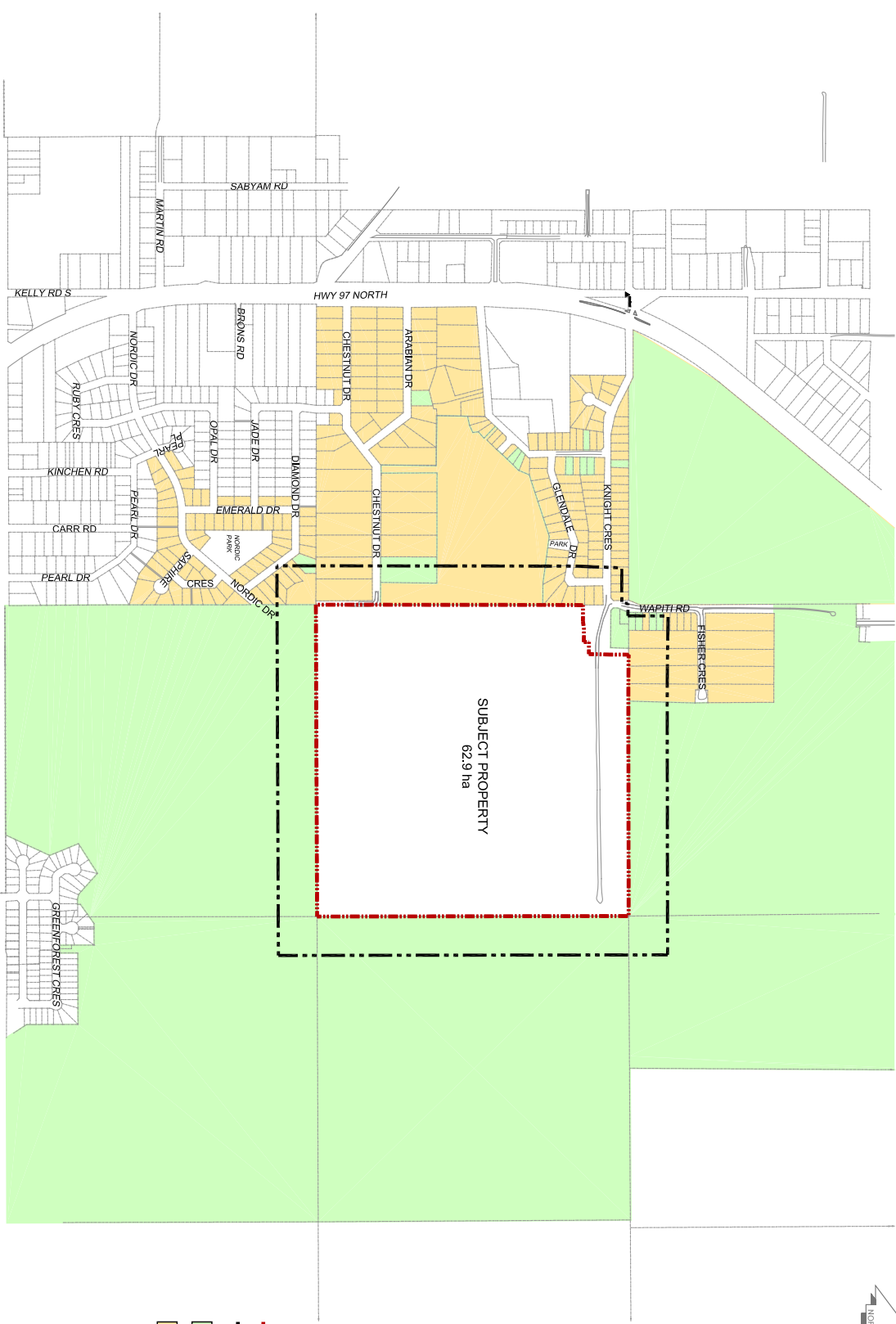
Public Open House for the Glenview Crescents Neighbourhood Plan  
at the Eagles Hall, 6742 Dagg Road,  
July 29, 2008 between 7 & 9pm.

The L&M Engineering Planning Centre is in the process of creating a Neighbourhood Plan for 'Glenview Crescents' which is located in the North Sector of the City of Prince George. The area encompasses approximately 63 hectares of land that is situated immediately east of the termination of Knight Crescent and Chestnut Drive.

The public open house is an opportunity for interested members of the public to review the proposed Glenview Crescents Neighbourhood Plan and provide input into the planning process. The entire draft of the Glenview Crescents Neighbourhood Plan is available online at <http://www.lmengineering.bc.ca/>  
For more information regarding the planning process, please contact Heather Oland, Director of Planning with L&M Engineering Limited at 250-562-1977, or Dan Milburn, Manager of Long Range Planning for the City of Prince George at 250-561-7614.

**Appendix C**  
Glenview Crescents Neighbourhood Plan  
Public Mail-Out Distribution Areas

# GLENVIEW CRESCENTS NEIGHBOURHOOD



- LEGEND**
- SUBJECT PROPERTY
  - 100m BUFFER
  - MAILED NOTIFICATION  
(22 PROPERTIES)
  - HAND DELIVERED  
NOTIFICATION  
(227 PROPERTIES)

**Appendix D**  
Glenview Crescents Neighbourhood Plan  
Public Survey Summary



## **Glenview Crescents Neighbourhood Plan – Community Survey**

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**L&M Engineering Limited and the City of Prince George are committed to public participation. In order to provide the public with complete information and provide the opportunity for public comment regarding the Glenview Crescents Neighbourhood Plan, the following process was undertaken:**

- A public open house was held July 29<sup>th</sup>, 2008 at the Eagles Hall, located at 6472 Dagg Road on the Hart. The open house was advertised as follows:
  - Two advertisements were placed in the Citizen newspaper on July 22<sup>nd</sup>, 2008 and July 25<sup>th</sup>, 2008;
  - The plan was available online at the L&M Engineering Limited website;
  - Hand deliveries/mail-outs were distributed to the surrounding property owners containing: (i) a letter describing the plan, the planning process, information regarding the public open house, and contact information for both L&M Engineering and the City of Prince George; (ii) an explanatory map; and, (iii) a survey.
- On Tuesday July 29<sup>th</sup> 2008, the Public Open House was held at the Eagles Hall from 7:00 - 9:00pm. Available at the open house were Heather Oland, Director of Planning with L&M Engineering, Jason Boyes, Engineering Associate at L&M Engineering, as well as Dan Milburn, Manager of Long Range Planning for the City of Prince George. There were display drawings throughout the room for participant information.
- In attendance at the Public Open House were 35 people. The majority of attendees at the public open house were surrounding neighbours who had received hand deliveries during our public notification process. There were a total of 13 comment forms returned which have formed the comment and response tables in the following pages.

**Question 1 – The proposed neighbourhood provides an adequate mix of low, medium, and medium-high density residential.**

<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>No Response</b>	<b>Total</b>
1	3	6	1	0	2	13

*Questions and Comments in Response to Question 1*

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
Depends on the timescale. Perhaps in the next couple decades it will be reasonable but beyond that who knows	1	The development of the neighbourhood plan does not mean the entire plan area will be developed immediately. Development will occur with demand.
Fair mix	1	There are a variety of housing forms and densities in the Plan as well as a mix of commercial land use.
Three to five acre lots would be ideal for this subdivision to be incorporated into existing area	1	The area is designated urban development in the area. The OCP has set forth a goal of 75% low density residential and 25% medium density residential for the Hart area which is met by the Glenview Crescents Neighbourhood Plan.



**Question 2 – The proposed Local Commercial location is well situated and provides a benefit to the proposed neighbourhood and surrounding area.**

<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>No Response</b>	<b>Total</b>
1	4	2	3	2	1	13

Questions and Comments in Response to Question 1

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
The size of the commercial area promotes a car based lifestyle to find those products and services that cannot fit in the area. Will create more pollution and noise	1	Placing commercial use within the plan area will decrease vehicle dependence for those residents living in the neighbourhood who will also make use of the services provided at that location. This will help decrease pollution
Location is okay – convenience store would be okay, but no pub or liquor store	1	The proposed commercial will be zoned local commercial. Liquor store and Pub are both permitted uses within this zone, and it is the decision of the property owner to propose a use. There will be the opportunity for the public to provide input to the commercial use at subdivision stage. Development permits are required for local commercial developments, at which point disapproval of certain uses can be expressed.
Commercial is unnecessary/more than enough presently	4	Local commercial stores promotes walkability and sustainability within neighbourhoods.

**Question 3 – The trails and greenspaces within the Neighbourhood Plan provide good connectivity throughout the Neighbourhood and to surrounding areas.**

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Response	Total
2	7	3	0	0	1	13

Questions and Comments in Response to Question 1

Comments	Frequency	Response
With adequate lighting	1	Yes, lighting will be included.
What about wildlife, moose & bears	1	The preliminary environmental overview identified ungulate range possibly on the south facing slopes along the watercourse running east-west within the plan boundary, which has been protected by riparian buffers. More detailed environmental investigation will occur by the developer prior to subdivision.
I do not see a plan for trail connectivity to existing trails because there are no city planned trails or significant green spaces with the Austin/Hart area. We really need a 'dog off leash' commuter trail multiuse to downtown and trails through green spaces that are protected from development	1	Trails and greenbelt within the plan area will provide connectivity throughout the plan area, and access points have been created for access to surrounding lands
Retention/reserve along creek – wildlife corridor	1	This has been protected by a riparian buffer.
Looks nice	1	

**Question 4 – Outdoor recreational opportunities are adequately provided throughout the proposed neighbourhood with he provisions of parks and openspace.**

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>No Response</b>	<b>Total</b>
1	5	5	1	0	1	13

Questions and Comments in Response to Question 1

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
They run through there now on dirt bikes, quads, and snowmobiles so it is nothing new.	1	
There are a lot of bush trails defined by atv's/ what about a connector trail to the grocery/dentistry/bank/restaurants at the Hart/Austin. - People will travel further without a machine if its safe and well designed	1	Currently the roadways serve as connectors to the main neighbourhood commercial area on the Hart.
Does city pay landowner for portions of parks over 5%?	1	
A residential subdivision in the area does not allow for the same recreational opportunities that currently exist	1	The City of Prince George Official Community Plan designates this area for Urban Residential.
Yes	1	

**Question 5 – Environmentally sensitive areas and their protection are adequately incorporated into the proposed Neighbourhood.**

<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>No Response</b>	<b>Total</b>
1	4	3	2	1	2	13

Questions and Comments in Response to Question 1

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
Majority of steep slopes are protected	1	
The only way to protect the environmentally sensitive areas is not to develop	1	Areas identified as environmentally sensitive have not been developed, and have been protected as a riparian zone/greenbelt
Yes	1	
They have already cleared off a great deal of the area marked greenbelt	1	None of the areas designated as greenbelt within the plan area have been cleared and, if the neighbourhood plan is approved, those areas will never be cleared

**Question 6 – The proposed pedestrian and cyclist links (road, sidewalk, greenspace, trail network, and connections to neighbouring areas) are sufficient to promote alternative transportation choices.**

<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>No Response</b>	<b>Total</b>
1	3	3	1	4	1	13

*Questions and Comments in Response to Question 1*

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
Where are they? Nothing shows on maps	1	Figure 6 – Transportation Plan and Figure 10 - Proposed Parks and Trails show the existing and proposed pedestrian and cyclist links throughout the plan and surrounding areas.
The entire surrounding area is lacking this	1	
Will new area be included in bus route?	1	The Glenview Crescents Neighbourhood Plan allows for transit use for when the City of Prince George has the means to provide bus service to the area.
Nordic road needs to be upgraded and widened	1	If a traffic analysis is required for this plan, the intersections will be analyzed.
The neighbouring area do not have any sidewalks or enough trail networks or green spaces to allow for alternative transportation to move safely with the amount of increased traffic the proposed neighbourhood is going to bring to the area	1	Trails and greenbelt within the plan area will provide connectivity throughout the plan area, and access points have been created for access to surrounding lands.
This is a good idea as long as other people don't focus more on vehicles	1	

**Question 7 – Are there any issues or concerns not covered above that you want to make sure are addressed as part of the Glenview Crescents Neighbourhood planning process?**

*Questions and Comments in Response to Question 1*

<b>Comments</b>	<b>Frequency</b>	<b>Response</b>
Will there be proper bus routes?	1	An existing bus route services the area of the Hart.
The intersections as Estavilla and Nordic providing access to Highway 97 need to be upgraded/need to be kept up better in winter	10	If a traffic analysis is required for this plan, the intersections will be analyzed.
Widen highway from Chief Lake Road north past North Kelly turnoff – turning lanes in both directions	1	See above.
Alternative access to subdivision than through existing subdivisions (Chestnut and Knight)	1	See above.
Frontage road fixed and properly lit.	1	See above.
Street lights	1	See above.
Traffic lights	1	See above.
Street lights on frontage road totally redone	1	See above.
Schools for the neighbourhood doesn't seem to have been adequately thought out	1	School District #57 has viewed the population projections for the plan area and reviewed the existing school capacities and have decided that no new schools were required in the Plan area.
The concern for the existing wildlife doesn't seem to matter much – you cannot push them out of their habitat and not expect them to return	2	According to the preliminary environmental assessment there is not a prevalent wildlife population within the plan area. Those areas identified to be ungulate ranges have been protected as riparian areas/greenbelt.
Nordic park needs to be monitored for speeders	1	
There needs to be consideration of noise even though there is no current legislation – it degrades quality of life	1	
Higher end multi-family only – no low end that attracts	1	Quality affordable housing will be provided in the

crime		Plan area.
<p>We don't want any new neighbourhoods going up around here</p> <p>Please put the neighbourhood far from here</p> <p>Hart is losing its small-town feel</p> <p>Its getting too noisy around here as it is</p> <p>We don't like all the new buildings popping up around here</p> <p>The Hart is becoming too urban</p>	1	



**Appendix E**  
Glenview Crescents Neighbourhood Plan  
Drainage Assessment

3953.007/WP#P-2069

# Glenview Crescents Neighbourhood: Drainage Assessment

*Prepared for:*

**L&M Engineering Ltd.**  
1210 Fourth Avenue  
Prince George, BC, V2L 3J4

*Prepared by:*



Suite 201 - 1157 5th Avenue  
Prince George, BC, V2L 3L1  
Tel: (250) 562-9155 Fax: (250) 562-9135

August 23, 2010

# DRAINAGE ASSESSMENT FOR PROPOSED GLENVIEW CRESCENTS NEIGHBOURHOOD, PRINCE GEORGE

## Background

Triton Environmental Consultants Ltd. was retained by L&M Engineering Ltd. to document and classify drainages within the proposed Glenview Crescents neighbourhood. This assessment was intended to determine if mapped streams within the project area that are located outside of planned protected areas (e.g. green belts and neighbourhood parks) are actually streams. Assessment results will assist in determining no-disturb buffers required for the development.

The following definitions were applied during this assessment as follows:

BC Water Act;

*A stream includes natural watercourses or sources of water supply, whether usually containing water or not, and a lake, river, creek, spring, ravine, swamp and gulch;*

*Stream channel means the bed of a stream and the banks of a stream, whether above or below the natural boundary and whether usually containing water or not, including all side channels.*

City of Prince George Zoning Bylaw No. 7850 (2007);

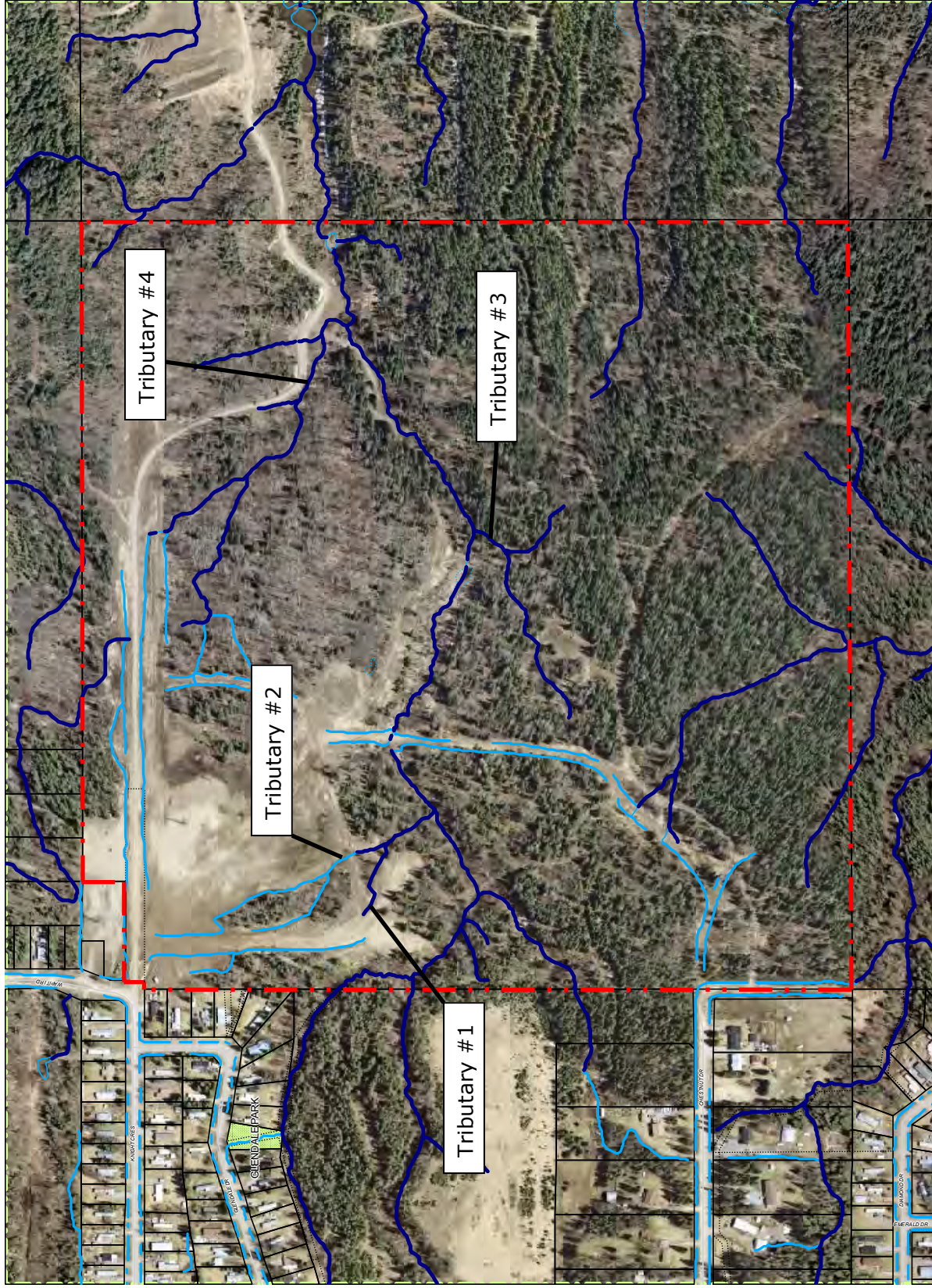
*Watercourse includes any of the following that provides fish habitat:*

- a) a watercourse, whether it usually contains water or not;*
- b) a pond, lake, river, creek or brook;*
- c) a ditch, spring or wetland that is connected by surface flow to something referred to in paragraph a) or b).*

## Methods

### Field Assessment

The field assessment was conducted on July 31, 2009, and included a survey of four drainages within the proposed subdivision lands (Figure 1). Drainage characteristics were documented and relevant features were photographed and georeferenced.



**Figure 1.** Mapped streams within the proposed Glenview Crescents neighbourhood that are outside of planned green belt or park areas.

## **Results**

### **Field Assessment**

#### **Tributary #1**

Tributary #1 is a non-classified drainage (NCD), not a stream (Plates 1 and 2). It was surveyed throughout its length, and found to be a shallow swale with no evidence of alluvial deposits, scour, surface flow, or ponding. There is herbaceous and woody vegetation rooted across the basin floor, but some surface flow may occur during freshet.

#### **Tributary #2**

Upstream of its confluence with Tributary #1, Tributary #2 would be a NCD based on the Forest Practices Code (1998) definition of a stream but qualifies as a stream under the more stringent definition outlined in the British Columbia Water Act, which the City of Prince George adheres to. Although Tributary #2 is typically dry, it appears to convey surface flow during freshet and heavy rain events. There was evidence of ponding immediately upstream of an existing road (dry when surveyed), likely due to the lack of a culvert to allow downstream drainage (Plates 3 and 4). As such, any downstream contribution of food and nutrients does not currently occur.

Downstream of the confluence with Tributary #1, channelization within Tributary #2 became somewhat more defined, and should conservatively be classified as an S6 stream (non-fish bearing stream less than 3 m wide). Similar to the upstream drainages, this stream section was dry at the time of survey. It is currently located within a proposed green belt, which will afford it sufficient riparian protection.

#### **Tributary #3**

The entire length of Tributary #3 was surveyed, including the portion within a proposed green belt. This drainage is an NCD, not a stream. It was located within a shallow swale with thick shrubby vegetation across the basin floor (Plates 5 and 6). There was no evidence of alluvial deposits, scour, surface flow, or ponding. The small tributary from the east was not identified during the survey and would therefore be classified as NCD as well.

#### **Tributary #4**

Tributary #4 is an NCD, not a stream. This drainage was surveyed for 200 m, starting at the road crossing 40 m upstream of the confluence with the mainstem. It was located within a shallow swale with thick shrubby vegetation across the basin floor (Plates 7 and 8). There was no evidence of alluvial deposits, scour, surface flow, or ponding, although some surface flow may occur during freshet or heavy rain events. Any mapped tributaries to Tributary #4 that are located outside of proposed protection areas can also be treated as NCD, not streams.

### **Environmentally Sensitive Features**

In summary, only the mainstem of Tributary #2 requires consideration as a stream based on the City's definition since it does convey seasonal flow. Although no direct fish habitat potential exists upstream of an old, existing road, development within or adjacent

to this drainage would require a Riparian Protection Development Permit from the City of Prince George. The primary concern with regard to fish habitat would relate to the downstream contribution to food, nutrients, and water quality; however, the significance of these effects within the footprint of disturbance illustrated in the proposed development plan is expected to be minimal due to the drainage's ephemeral nature and lack of connectivity (*i.e.* beyond the old road near the confluence with Tributary #1).

No other drainages within the proposed subdivision located outside of the proposed green belt or neighbourhood park areas require management as streams. Tributaries 1, 3, and 4, along with any drainages associated with them (that are also located outside of proposed green belt or neighbourhood park areas) are all classified NCD. As such, no buffer areas are recommended.





**Plate 1.** Upstream view of Tributary #1 from the confluence with Tributary #2 showing thick shrubby growth but no stream channel.



**Plate 2.** Downstream view of Tributary #1 from the upstream end of the drainage showing a shallow swale with rooted vegetation throughout.





**Plate 3.** Upstream view of Tributary #2 just upstream of the confluence with Tributary #1 (and an existing road crossing).



**Plate 4.** Downstream view of Tributary #2 just upstream of the confluence with Tributary #1 (and an existing road crossing).





**Plate 5.** Upstream view of Tributary #3, 20 m upstream of the confluence with the mainstem.



**Plate 6.** Downstream view of Tributary #3, 20 m upstream of the confluence with the mainstem.





**Plate 7.** Upstream view of Tributary #4 showing NCD conditions 70 m upstream of the lower road crossing.



**Plate 8.** Downstream view of Tributary #4 showing NCD conditions 70 m upstream of the lower road crossing.