

# NORTH NECHAKO NEIGHBOURHOOD PLAN



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## **EXECUTIVE SUMMARY**

On behalf of T.R. Projects Ltd and 406286 BC Ltd, L&M Engineering Limited is pleased to present the North Nechako Neighbourhood Plan for consideration by Prince George City Council. This Plan is the culmination of over a year's work and is reflective of the long range planning policies of the City of Prince George. We would like to thank the City of Prince George for their technical support with respect to existing policy and infrastructure considerations for the North Nechako neighbourhood lands.

### **The Process**

Neighbourhood Plans are policy documents that provide a clear and comprehensive land-use vision for larger tracts of land. They are high level Plans that will guide future rezoning and development stages within the proposed Plan area. These Plans seek to bring together the needs of the community with local knowledge of the neighbourhood to create a clear direction for residents, land owners and developers with regards to how an area will look and feel in the future. Neighbourhood Plans also include policies to guide land-use decisions over time as well as policies to balance social, environmental and economic factors. As required by the City of Prince George Official Community Plan, the scope of the North Nechako Neighbourhood Plan includes consideration of: the natural environment; provision of parks and trails; the transportation network; residential housing forms; commercial land use designations; infrastructure and servicing as well as gravel extraction.

Public participation has been a key component of the North Nechako Neighbourhood Plan process and has included two public engagement open houses in order to allow neighbours with the opportunity to provide input early in the planning process and to 'reconfirm' this input prior to finalizing the Plan.

### **The Plan**

The North Nechako Neighbourhood Plan is a comprehensive planning document that is intended to guide development within the North Nechako Road area. The document integrates the City of Prince George Official Community Plan, the City of Prince George Trails Master Plan, The City of Prince George Parks Strategy Plan, The City of Prince George Active Transportation Plan, the City of Prince George Healthy City Framework, and Winter Cities Design Principles.

As a result of the feedback collected from neighbours through the public engagement meetings, one-on-one meetings and correspondence via phone and email trends regarding how the area should look and feel in the future emerged and a set of community values and neighbourhood plan principles were developed. The community values and plan principles

represent what the current residents of the North Nechako Neighbourhood feel is vitally important to act as a starting point. These are the ideals, the principles and the desires identified by the community, which have guided the preparation of the policies and recommendations found within this Neighbourhood Plan.

The Neighbourhood Plan is characterized by the following:

- A mix of land uses including residential and commercial with a range of residential density options for those at all stages in their lives;
- 20.2 ha of the Plan area for parks and greenbelt;
- 8.4 km of new and existing trails;
- The completion of an Environmental Overview Assessment, Geotechnical Assessment, Groundwater Assessment and Archeological Impact Assessment;
- Promotion of excellence in design standards including Winter Cities, Healthy Communities and Crime Prevention Through Environmental Design (CEPTED).

### **The Vision**

The North Nechako Neighbourhood is a vibrant, walkable and connected community that seeks to respect the natural environment and maintain its natural assets and views. It provides a wide range of housing choices along with amenities and services that meet the daily needs of families, individuals and those wanting to age in place. Greenspaces and trails blend the neighbourhood into adjacent land uses and provide safe connectivity to the surrounding neighbourhoods comfortably year round.

### **Conclusion**

On behalf of T.R. Projects Ltd. and 406286 BC Ltd., L&M Engineering Limited is very pleased to present the North Nechako Neighbourhood Plan to Prince George City Council and appreciates Council's thoughtful consideration. Should Council approve the North Nechako Neighbourhood Plan, the first phase of residential and commercial development is scheduled to begin construction in the summer of 2020.

Sincerely,

**L&M Engineering Limited**



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## **PREFACE**

The North Nechako Neighbourhood Plan is located on the traditional homeland of the Lheidli T'enneh First Nations. This preface to the Neighbourhood Plan is an acknowledgement of the ancestral territories of the Lheidli T'enneh Peoples, for it is on their traditional lands that all residents of this future community will live, work and play.

## 1.0 INTRODUCTION

The North Nechako Neighbourhood Plan Area, identified on F1: Context Plan is comprised of approximately 84.5 ha of land that is situated between Foothills Boulevard and North Nechako Road in the north-west sector of the City of Prince George. As the area is currently undeveloped and unplanned, the lands are subject to *Section 10 Neighbourhood and Area Plans* of the *City of Prince George Official Community Plan Bylaw No. 8383, 2011* (OCP). This section states that undeveloped tracts of land that are greater than 40 hectares (ha) 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 (OCP Policy 10.1.2).

The North Nechako Neighbourhood Plan (the Plan) has been prepared by L&M Engineering Limited in collaboration with the City of Prince George, T.R. Projects Ltd, 406286 BC Ltd and the surrounding neighbours. Additional professional contribution was provided by School District No. 57, GeoNorth Engineering Ltd., Pinchin Ltd., and Alces Environmental Ltd. The public engagement process included the property owners of the lands within the Plan boundary and the surrounding North Nechako Road neighbours. Any 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 What is an Official Community Plan?

An Official Community Plan (OCP) is a local government bylaw that provides objectives and policies to guide decisions on planning and land use management within the area covered by the OCP. As one of the City of Prince George's most significant guiding policy documents, all other municipal bylaws and works undertaken by the City must be consistent with the OCP. The OCP is intended to provide a degree of certainty for the future of the Prince George community and as a result, changes to the OCP are warranted from time to time because like the community, the OCP must be flexible in responding to changing conditions and values. While the OCP provides a high level of guidance for where and how residents of Prince George should live, work, shop and play, Neighbourhood Plans translate this high level guidance to the local neighbourhood level.

### 1.2 What is a Neighbourhood Plan?

The purpose of a 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 a guide for future land use planning, rather than be used as a strict regulatory tool. A successful Neighbourhood Plan's vision

is set within a framework that can be responsive to changing circumstances over time. This is important to note as new information can surface or unforeseen challenges and opportunities may arise over the life span of a Neighbourhood Plan.

### **1.3 How Does a Neighbourhood Plan Relate to the Official Community Plan?**

Neighbourhood Plans must build on the foundation laid by the Official Community Plan as such, some sections of this Plan simply refer to the corresponding sections of the OCP. The North Nechako Neighbourhood Plan is the guiding document for all land use decisions within the Plan boundary. Where a conflict exists between the Official Community Plan and the North Nechako Neighbourhood Plan, designations and/or policies of the North Nechako Neighbourhood Plan take precedence.

### **1.4 Planning Context**

The City of Prince George provides a considerable amount of policies, goals and objectives throughout a wide variety of land use bylaws, which are intended to guide future development in a way that promotes and supports a range of lifestyles and wellbeing.

This Neighbourhood Plan is intended to be a guide for future development within the Plan area, alongside the City of Prince George's Official Community Plan and Zoning Bylaw. The Plan contains development design objectives and policies to aid in future land use planning decisions in order to strengthen the overall design and vision for future residential, environmental, geotechnical and recreational planning.

### **1.5 Neighbourhood Plan Area Context**

The North Nechako Neighbourhood Plan area is comprised of three (3) legal parcels that are owned by the T.R. Projects Ltd. and 406286 BC Ltd (see Figure F2: Land Ownership) . The total Plan area is 84.5 ha with 57.3 ha owned by T.R. Projects Ltd and 27.2 ha owned by 406286 BC Ltd. The Plan area is located in the north-west sector of the City of Prince George just south of the North Meadows residential neighbourhood (developed in the 1980's) and west of the Edgewood Terrace (developed in 1966) and Nechako View (developed in 2016) residential neighbourhoods. The lands contained within the Plan area have functioned as gravel extraction operations within the City of Prince George since the 1970's. The area is further characterized by its proximity to the Nechako River and is further distinguished by local recreational opportunities including an extensive walking and biking trail network throughout the steeply sloped Northern banks of the Nechako River which connects to the City of Prince George's new Nechako Riverside Park. A proposed bicycle network is identified along North Nechako Road and will be conveniently accessed by the

future residents of the Plan area. There are two right-of-ways along the western boundary of the Plan area belonging to BC Hydro and the City of Prince George.



*Photo Credit: Nechako View Subdivision*

### **1.5.1 Neighbourhood Plan Area Geological History**

At the end of the last glacial period, over 10,000 years ago, a lake accumulated behind un-melted glacial ice and drift that filled the Fraser Valley and covered most of the Prince George area. When the ice and drift blockage in the Fraser Valley was breached, the lake drained rapidly and the eroding sediments and till deposits found within the lake created the present-day major drainage courses known as the Nechako and Fraser Rivers. Due to the deposits left behind by glacial meltwaters, the Plan area has been afforded with compact to dense sand and gravel which has been quarried and turned into concrete and asphalt for various infrastructure projects within our City and surrounding areas including highways, bridges, roads, local malls, schools and homes.

### **1.6 Planning Process**

The planning process for the North Nechako Neighbourhood Plan began in 2017 with preliminary discussions between the two property owners, L&M Engineering Limited and the City of Prince George regarding potential future land uses for the Plan area. As a result, it was determined that the time was right to initiate the Neighbourhood Plan in order to determine the best possible infill redevelopment that would help complete and revitalize this area of Prince George. Throughout the planning process, technical reports were requested from qualified professionals to assist with the geotechnical, civil and environmental assessments of the Plan area. These reports have been used to consider the provision of the following:

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

The process has also included consultation with School District 57, multiple field investigations, base mapping, concept design in addition to regularly scheduled meetings between the land owners, L&M Engineering and the City of Prince George.

### 1.6.1 Public Participation

The planning process for the North Nechako Neighbourhood Plan included measures to ensure that members of the public were afforded various opportunities to provide comments and express concerns regarding the proposed Neighbourhood Plan. Public input into the Plan process was sought through two Public Engagement Meetings. The intent of holding two meetings was to gather public opinion early in the planning process and then to ‘reconfirm’ this input by holding a second public engagement meeting prior to finalizing this plan. A total of 144 neighbours attended the first meeting and a total of 41 neighbours attended the second meeting.



These meetings were advertised two weeks in advance through a variety of sources including invitations sent by mail to residents of all properties in the North Meadow and Edgewood Terrace neighbourhoods. Owners of undeveloped properties were also sent a copy of the invitations via mail. Invitations were also sent by email to neighbours who had provided their contact information during the first Public Engagement Meeting. The invitations included information about the

Neighbourhood Plan area and the planning process, the time and date and location of the meeting and the contact information for L&M Engineering. The Public Engagement Meeting invitations as well as the Public Engagement Meeting Summary of Comments Reports are included within Appendix H - K of this document. Both Public Engagement Meetings were held at the Edgewood Elementary School Gym. This location was chosen for both its size and central location, enabling residents from the North Meadows and Edgewood Terrace neighbourhoods to attend.

The purpose of the Public Engagement Meetings were to provide the opportunity for neighbours to review the various land use and technical drawings for the North Nechako Neighbourhood Plan, ask questions of the attending professionals, discuss the plan with their neighbours and provide their comments and input into the planning process. The desires of the community were collected through a variety of interactive exercises and public engagement methods which were used to determine the community values and neighbourhood plan principles found in Sections 1.7 and 1.8, respectively. Neighbours were also invited to submit comment forms that were provided during both meetings and to come to the L&M Engineering office after both meetings to discuss the Neighbourhood Plan further in person.

## **1.7 Community Values**

Since the planning process began for the North Nechako Neighbourhood Plan, many ideas were suggested by the community via a wide variety of public engagement opportunities such as two open house meetings, one-on-one meetings and correspondence over the phone and email. As a result of the feedback collected through the aforementioned public engagement opportunities, trends emerged from the information collected. The following statement of community values is consistent with and reflective of what the current residents of the North Nechako Neighbourhood feel is vitally important to act as a starting point. These are the ideals, the principles and the desires identified by the community, which have guided the preparation of the policies and recommendation found within this Plan.

### **The North Nechako Neighbourhood is a community that values...**

#### **1. Representation**

This community respects a transparent and inclusive public engagement process, where citizens of the North Nechako area feel like they have a voice that is listened to and acted upon.

#### **2. Change**

Change is inevitable, but a mindful approach to the pace and type of change is essential. Change must be integrated, gradual and responsive to the needs of the local residents.

#### **3. Community and Wellness**

The quality of life within a community fosters mental, physical and social health in places to live, work and play. This community is family-friendly, safe, clean and supportive for everyone.



#### 4. Safety

Everyone has a right to move lawfully throughout the community without fear. Protection of the community is aided through collaboration with local community policing programs and neighbourhood block watch areas.

#### 5. Transportation

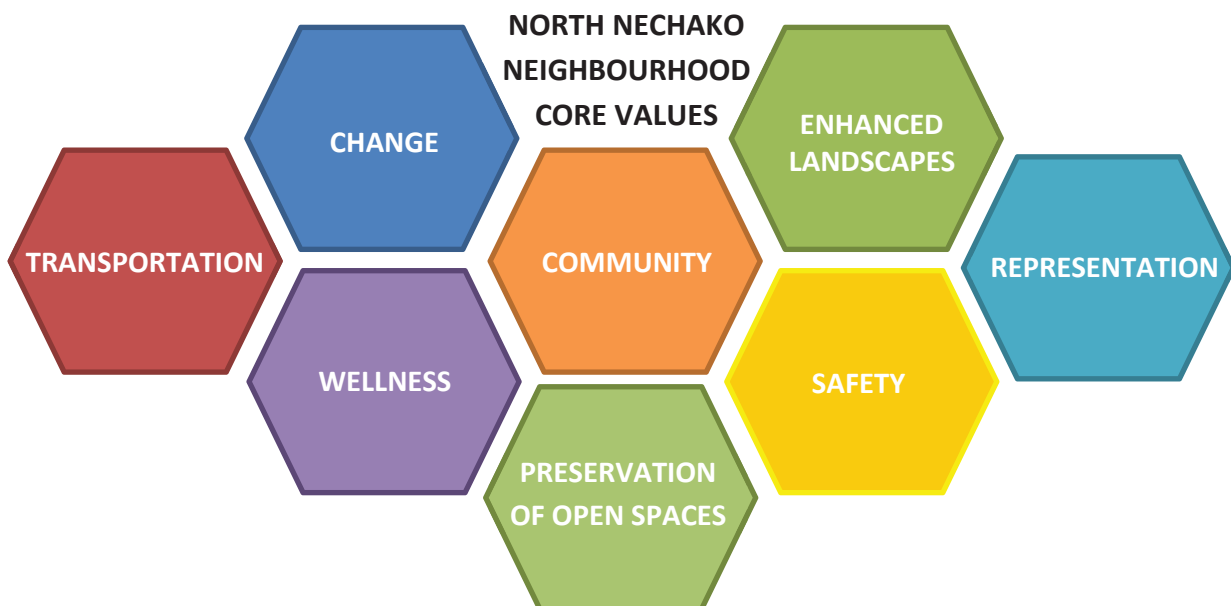
An efficient and sustainable transportation network supports people of all ages and abilities. Transportation networks that ensure efficient emergency response and reduce negative local impacts are encouraged.

#### 6. Preservation of Open Spaces

This community encourages the protection of parks, trails and greenspace to enrich social interactions and encourage healthy lifestyles.

#### 7. Enhanced Landscapes

The community recognizes the importance of landscaping, trees and environmental areas as key elements of the neighbourhood.



## 1.8 Neighbourhood Plan Principles

The following foundational Neighbourhood Plan principles embody the policies, guidelines and actions found within a collection of City wide plans, bylaws and strategies that have been approved by Prince George City Council. In addition, these Plan principles have been derived from the Community Values found within Section 1.7 of this document, which have been created through trends that emerged from the community feedback collected. These principles provide the overall direction for the policies and design guidelines found throughout the North Nechako Neighbourhood Plan.

1. **Create a Diverse and Complete Community** – by providing a range of activities and land uses that enable residents to live, work and play within a convenient walking or cycling distance. Residents can choose to live, work, shop and play in close proximity to each other.
2. **Protect the Distinctive Character** – by conserving and enhancing each surrounding neighbourhood’s existing and unique elements including road patterns, lot size, open space networks and landscaped areas.
3. **Design for Safety and Security** – by ensuring Crime Prevention Through Environmental Design (CPTED) principles are included in the planning framework. This includes examining lighting, traffic calming measures, signage and building orientation and design for all development.
4. **Preserve Housing Choice Availability** – by providing a variety of housing forms and sizes that collectively support a range of age groups, families, lifestyles and income levels.
5. **Encourage Environmental Stewardship** – by providing the necessary Best Management Practices to ensure the protection of environmentally sensitive areas and by promoting continued environmental responsibility and lifestyles. Development should respect natural landscape features and have high aesthetic, environmental and financial value.
6. **Create Value by Design** – by encouraging innovative, high quality urban design that fits the existing form and character of the surrounding neighbourhoods, enhances streetscape and refines the open space network.



## 2.0 GUIDING PRINCIPLES

### 2.1 Official Community Plan Principles

The planning and policy concept of complete communities is at the core of the OCP’s policy framework. This framework requires a mix of land uses that offers and supports a variety of lifestyle choices, providing opportunities for people of all ages and abilities to live, work, shop, learn and play locally. Lastly, this policy framework also seeks investment in and support of a range of alternative transportation such as pedestrian and cycle routes to connect people with their desired destination. This approach to community building will create environments where resources are used more efficiently, provide residents with the opportunity to walk or bike to services as much as possible, and where there is sufficient residential density to support public transit as a practical and feasible alternative.

### 2.2 Winter Cities Design Principles

Winter is a core part of the City of Prince George’s identity and needs to be fully considered as our city grows. Winter Cities Design is a simple way of designing new developments from a perspective that considers the winter context such as maximizing opportunities to enjoy the outdoors by capturing the sun’s warmth; providing protection from the wind; and making new neighbourhoods throughout the city more accessible, safe and enjoyable year-round (Winter City Edmonton, 2016).

Throughout this Plan, Winter Cities Guidelines will be recommended in an effort to improve the level of comfort and accessibility for all new development in order to increase the functionality and usability of both public and private spaces. Winter Cities Design Principles can also be achieved by encouraging subdivision design professionals to include streetscape design of trees and vegetation in subdivision plans and locating sidewalks appropriately. Further, building schemes can be registered at the time of subdivision that require warm, winter colours, cold climate hardy landscaping and appropriate building heights.



Downtown Prince George in the winter

## 2.3 Crime Prevention Through Environmental Design (CPTED) Design Guidelines

The safety and security of residents is an important component of any livable community. Safety and security are considered not only in terms of personal physical safety (i.e. crime and threats to personal property), but also in terms of safety for pedestrians, vehicles and cyclists. Traffic safety is addressed further in Section 5.0 Transportation Network.

Crime Prevention through Environmental Design (CPTED) is an approach to planning and design that is premised on the understanding that the manner in which a community or development is planned can reduce the likelihood of criminal activity from occurring. CPTED advocates in favor of design that increases the visibility of public and private spaces and discourages the creation of barriers and enclaves where crime could potentially occur. CPTED principles include the following:

- Territoriality – fostering residents’ interaction, vigilance and control over their neighbourhood.
- Surveillance – maximizing the ability to spot suspicious people and activities.
- Activity support – encouraging the intended use of public space by residents.
- Hierarchy of space – identifying ownership by delineating private space from public space through real or symbolic boundaries.
- Access control/target hardening – making targets more resistant to attack or more difficult to remove or damage by using physical barriers, security devices and tamper resistant materials to restrict entrance.
- Environment – making a design or location decision that considers the surrounding environment and minimizes the use of space by conflicting user groups.
- Image/Maintenance – ensuring that a building or area is clean, well-maintained and graffiti free.

## 2.4 Healthy City Framework Design Guidelines

A well planned neighbourhood will not only promote physical activity but will also be aesthetically pleasing and socially fulfilling so as to promote healthy living in a physical, mental and social capacity. This holistic approach places importance on the social well-being of a community and encourages a variety of housing options to make a neighbourhood affordable to all. Environmental protection as well as extensive pedestrian and cycling networks underpin the Healthy City Framework design.

Healthy Cities design involves encouraging alternative transportation and recreational activity through the provision of the following design guidelines:

- Providing sidewalks and trails with well-marked crossing signs to ensure safe and frequent use.

- Retention of existing natural features to provide a natural setting conducive to outdoor activity as well as to preserve environmental quality.
- Generous landscaping along walking routes and commercial frontages.
- Emphasizing streetscape aesthetics, including lighting, benches, sidewalk and storefront design.

The above-referenced principles, practices and design guidelines have been incorporated into the design guidelines and policy recommendations included within this Neighbourhood Plan. The intent is that they will guide new development to enrich this area of Prince George and create a variety of opportunities to develop a healthy, diverse, complete and connected neighbourhood.

### 3.0 CURRENT LAND USES

The majority of the Plan area is designated as a Neighbourhood Residential Future Land Use in the *City of Prince George Official Community Plan No. 8383, 2011* (OCP), with some areas designated as a Parks & Open Spaces Land Use, Rural Resource Land Use and Utilities Land Use (see Figure F4: Existing Official Community Plan Future Land Use Designation).

In addition, the majority of the Plan area is zoned AF: Agriculture and Forestry within the *City of Prince George Zoning Bylaw NO. 7850, 2007*, with some areas zoned AG: Greenbelt, P1: Parks and Recreation and RS2: Single Residential (see Figure F3: Existing Zoning).

#### 3.1 Aggregate Removal

Located within the Plan area, are two large properties District Lot 4050 and District Lot 4051 (see Figure F2: Land Ownership) that consist of historic gravel pits that are currently designated as soil removal areas in the *City of Prince George Soil Removal and Deposit Bylaw No. 9030, 2019*. Presently, active aggregate removal is occurring on both respective properties and once the gravel has been extracted to the proposed residential grade level, the area will be fully remediated and prepared for residential subdivision. The estimated completion timeline for the gravel extraction operations on District Lot 4050 is 3 to 5 years and the estimated completion timeline for the gravel extraction operations on District Lot 4051 is 10 to 15 years.

It is imperative that both property owners plan to mitigate the impacts of the aggregate extraction to ensure that noise and dust does not negatively impact the quality of life of the surrounding and future residents. As such, the following policy recommendations outline the time restrictions of aggregate removal operations, buffer areas and points of access for each gravel pit and shall be implemented during active gravel extraction operations:

### **3.1.1 District Lot 4050 Aggregate Removal Policy Recommendations**

1. In order to mitigate dust and noise, a minimum 100 metre (m) buffer shall remain between the aggregate removal operations and any adjacent residences.
2. Gravel extraction operations shall be in accordance with the time limitations outlined within the City of Prince George Soil Removal and Deposit Bylaw No. 9030, 2019 and will be restricted to Monday to Friday between the hours of 8:00 am to 7:00 pm and Saturday, Sunday and statutory holidays between the hours of 9:00 am to 5:00 pm to ensure that noise levels are kept to a minimum during the evenings and weekends.
3. Vehicles used for the purposes of the aggregate removal operations shall utilize the gravel pit access off of the Foothills Boulevard Frontage Road as the sole hauling route.

### **3.1.2 District Lot 4051 Aggregate Removal Policy Recommendations**

1. In order to mitigate dust and noise, a minimum 200 m buffer shall remain between the aggregate operations and any adjacent residences.
2. A minimum 50 m treed buffer shall remain between the aggregate operations and the adjacent Edgewood Elementary School.
3. Aggregate removal operations shall not occur within the Groundwater Protection Area.
4. Gravel extraction operations shall be in accordance with the time limitations outlined within the City of Prince George Soil Removal and Deposit Bylaw No. 9030, 2019 and will be restricted to Monday to Friday between the hours of 8:00 am to 7:00 pm and Saturday, Sunday and statutory holidays between the hours of 9:00 am to 5:00 pm to ensure that noise levels are kept to a minimum during the evenings and weekends.
5. Vehicles and equipment used for the gravel extraction operations shall utilize the existing pit access road which is located directly off North Nechako Road as the sole hauling route.

### **3.1.3 General Aggregate Removal Policy Recommendations**

The following mitigation measure policy recommendations shall be implemented during active gravel extraction operation activities on both gravel pits:

1. Water shall be applied to the gravel extraction areas and access roads to achieve dust control and base stabilization.
2. Crushers located on-site shall be enclosed to minimize dust levels and ensure noise levels are kept at a minimum.
3. Tarps shall be used during the hauling and transporting of aggregates in order to reduce dust pollution.
4. Stockpiled reclamation materials located on site shall be strategically placed to act as sound barriers in order minimize the impact of noise for the surrounding residents.

5. All equipment shall be cleaned of all soil, seeds and plants prior to entering or exiting potential noxious weed infested areas to ensure invasive species are not spread across the Plan area.
6. The unloading, storing or parking of vehicles or equipment within invasive species infested areas shall be prohibited.
7. The restriction or reduction regarding the use of engine retarder brakes and heavy gearing is encouraged during gravel pit hours of operation.

### **3.2 Existing Neighbourhood**

As shown on Figure F1: Context Plan there are two well established neighbourhoods currently surrounding the North Nechako Neighbourhood Plan area. The North Meadows neighbourhood is located to the north and east of the Plan area and it is comprised of a small, low-density residential neighbourhood that is completely built-out. Currently, commercial services do not exist within this neighbourhood. The Edgewood Terrace Neighbourhood lies to the east of the Neighbourhood Plan area. This neighbourhood is also generally a low-density residential area. The neighbourhood contains the Nechako Park ball diamonds, Edgewood Park and Edgewood Elementary. There are various recreational opportunities surrounding the Plan area that include the Pidherny Recreation Site Trails that are located approximately 3.2 km away. The Pidherny Trail Network is quite extensive, with the trail head located off of Foothills Boulevard ending on Pidherny Road with cross-country trails extending west to the cut banks along North Nechako Road. This extensive trail network also connects recreational users to Eskers Provincial Park. In addition the Plan area is located approximately 5.0 km away from the Otway Recreational Ski Trails that links to the Cranbrook Hill Greenway, Forests for the World and to the University of Northern British Columbia (UNBC).

Currently, commercial services do not exist within this neighbourhood; however Spruceland Mall is located approximately 4.0 km away, which features amenities such as a pharmacy, a walk-in clinic as well as a grocery store and is located directly on a public transit route that is easily accessible from the Plan area.

Existing schools within close proximity to the Plan area include Cedars Christian School which is a private k-12 school and Edgewood Elementary School which is a School District No. 57 k-7 school. The Plan area is included within the Duchess Park Secondary School catchment area which is an inner city school located on Winnipeg Street in downtown Prince George. The secondary school is unique in that it is a triple track school serving regular program and French Immersion students through School District No. 57 as well as it serves Francophone students through Conseil Scolaire Francophone, School District No. 93.

### 3.3 Surrounding Road Network

The transportation network surrounding the North Nechako Neighbourhood Plan area is illustrated on Figure F6: Transportation Network. Transportation networks should not be limited to roads for vehicular use and should also consider the alternate means by which people move throughout a community. Therefore, no transportation network discussion is complete without addressing other transportation routes such as trails, greenways, and public transit. Please see Section 4.2 and Section 5.0 for a complete discussion of these topics. For discussion purposes, the existing road network is outlined below.

As illustrated on Figure F6: Transportation Network, Foothills Boulevard and North Nechako Road serve as the major arterial roads connecting the North Nechako Neighbourhood to the greater Prince George area. The Foothills Boulevard and North Nechako Road intersection is a signalized four-way intersection. At this location, Foothills Boulevard is a four-lane arterial standard highway comprised of left-turn lanes with protected/permissive control and dedicated right turn lanes and has a speed limit of 70km/hr.

North Nechako Road is a two-lane arterial standard road at this location with a speed limit of 60 km/hr. The westbound and eastbound vehicular movements of North Nechako Road are comprised of a single traffic lane, a left-turn lane with permissive control and a dedicated right turn lane. Existing local roads surrounding the Plan area include:

- North Meadows Road and Fairburn Road connects the North Meadows Neighbourhood directly to North Nechako Road via an unsignalized intersection.
- Dever Road, Winston Road and Craig Drive connect the Edgewood Terrace Neighbourhood to the North Nechako Frontage Road with no direct access onto North Nechako Road.
- Churchill Road connects the Edgewood Terrace Neighbourhood directly to North Nechako Road via an unsignalized intersection.

The City of Prince George OCP does not propose any future major road networks in proximity to the Plan area. Section 5.0 of this document discusses how development within the proposed North Nechako Neighbourhood Plan area will impact the existing transportation network as well as the timing of future improvements to the existing traffic network.

### 3.4 Existing Public Open Space, Parks, Trails and Recreation

There are many natural features surrounding the North Nechako Neighbourhood Plan area including parks, trails and watercourses. The Plan area is bounded to the south by the Nechako River with an established informal trail along the river bank. This informal trail connects the Edgewood Subdivision to the Nechako Riverside Park and Riverview Subdivision by running west along the river bank and under the Foothills Bridge. The Nechako Riverside Park is located at the southwest corner of the Neighbourhood Plan boundary. These informal trails are currently

situated entirely on private property that is designated a Riparian Protection Development Permit Area and Significant Slopes by the Official Community Plan due to the consistently steep topography.

The City owned Nechako Ball Diamonds, which includes two national standard lighted diamonds, a 300 foot fence line, dugouts, shale infield, a clubhouse with concession and washrooms, seating for 200 people and parking accommodations for up to 200 vehicles, lies to the east of the Plan boundary. Additionally, Edgewood Park lies to the immediate east adjacent to the Nechako Ball Diamonds. Edgewood Park is situated on private land and the park itself has historically been leased by the City for park use. The park contains one ball diamond, however it should be noted that as a result of the public consultation conducted for the City of Prince George 2017 Parks Strategy, it was determined that the Edgewood Park ball diamond receives limited to no use.

Along the Nechako River, the established informal trail is shown on Figure F9: Proposed Parks, Open Spaces and Major Trails as the Nechako Greenway. This area is shown as greenbelt within the Plan in order to facilitate the continued use by pedestrians and cyclists. Together with the adjacent Nechako Riverside Park, this greenway will represent a valued amenity for both existing and future residents in years to come.

## **4.0 NORTH NECHAKO NEIGHBOURHOOD LAND USE PLAN**

The following section presents the land use plan and policy recommendations of the North Nechako Neighbourhood Plan. The proposed land uses being considered in this Neighbourhood Plan (see Table 1: Land Use Summary Table) are discussed independently and have separate policy recommendations for each proposed land use. The land use vision and corresponding policy has been informed by the City of Prince George plans and policies including the 2011 Official Community Plan, the 2007 Zoning Bylaw, 2014 Subdivision and Development Services Bylaw, the 2017 Parks Strategy Plan and the 2010 Active Transportation Plan. In addition, the Winter Cities, Crime Prevention through Environmental Design and Healthy Cities Framework design guidelines have also contributed to the proposed North Nechako Neighbourhood Plan.

As further outlined within Section 8.0 Implementation the design guidelines and policy recommendations found within the following sections will be considered by Prince George City Council, the City of Prince George and developers throughout all future rezoning and subdivision phases of development to ensure conformity with the established vision of the neighbourhood and the greater community of Prince George.



**Table 1 North Nechako Neighbourhood Plan Land Use Summary**

Land Use	Total Area (ha)
Low Density Residential	42.2
Medium Density Residential	12.2
Commercial	2.2
Neighbourhood Park	2.8
Greenbelt	9.2
Riparian	8

\*Land use areas derived from Figure F5: Proposed Land Use Plan

## Vision

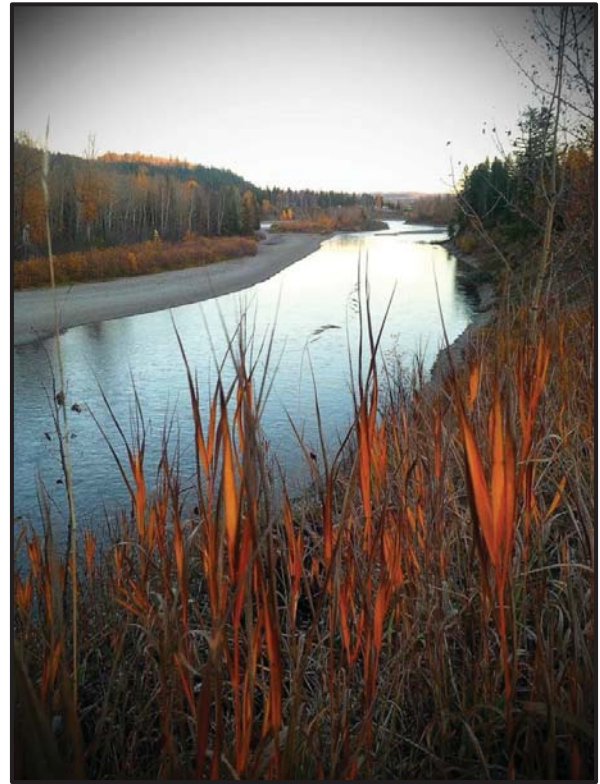
*The North Nechako Neighbourhood is a vibrant, walkable and connected community that seeks to respect the natural environment and maintain its natural assets and views. It provides a range of housing choices along with amenities and services that meet the daily needs of families, individuals and those wanting to age in place. Greenspaces and trails blend the neighbourhood into adjacent land uses and provide safe connectivity to the surrounding neighbourhoods comfortably year round.*

### 4.1 Natural Environment & Sensitive Areas

Within the North Nechako Neighbourhood Plan the City of Prince George Official Community Plan designates Development Permit Areas that require protection as the neighbourhood grows. These include: a Groundwater Protection Development Permit Area located in the south western corner of the Plan area; a Wildfire Protection Development Permit area located along the eastern-most boundary of the Plan area within Edgewood Park and a Riparian Protection Development Permit area located along southern edge of the Plan boundary (see Figure F7: Natural Environment & Sensitive Areas). It is important that the policies contained within the Plan seek to protect the City's groundwater quality, fish and wildlife habitat and storm water management functions through new development and infrastructure projects. Due to the Plan area's close proximity to the Nechako River and the number of Development Permit areas within the Plan boundary a Geotechnical Overview Assessment, Environmental Overview Assessment and Groundwater Assessment have been conducted by GeoNorth Engineering Ltd., Alces Environmental Ltd. and Pinchin Ltd., respectively (see Appendix C, Appendix A and Appendix B).



The majority of the North Nechako Neighbourhood Plan area is undeveloped land including two gravel extraction areas and previously cleared land which is now covered in an immature forest dominated by second growth lodgepole pine. One of the defining features of the Plan area is a large mature forest along the bank of the Nechako River which is protected by the City of Prince George's Riparian Protection Development Permit Area. This area is defined within this document as the Nechako River Greenway (see Figure F5: Proposed Land Use Plan). The Nechako River Greenway is comprised of steeply sloped fluvial benches that skirt along the southern edge of the Plan boundary. The mature forested portions of the Plan area are dominated by hybrid white spruce and Douglas fir. The sub-dominant species consists of trembling aspen, paper birch, lodgepole pine and black cottonwood. The dominant shrub species consist of birch-leaved spirea, Soopolallie and prickly rose. The sub-dominant shrub species are saskatoon berry, highbush cranberry, common juniper and black twinberry.



#### **4.1.1 Official Community Plan (OCP) Policies**

The OCP advocates preservation of natural landscapes, which are defined in Schedule B- 1 Natural Environment of the OCP to include Agricultural Land Reserve (ALR) lands, Groundwater Protection Development Permit Areas, Significant Slopes over 20% grade, rivers, streams, Riparian Protection Development Permit Areas and wildlife habitat. Section 6.1 Clean Air of the OCP also recognizes a need for air quality improvement measures. In the future, Section 6.1 may be addressed at the municipal level through efforts to reduce the particulates created by road dust emissions, vehicle exhaust and industrial developments.

#### **4.1.2 Neighbourhood Plan Principles**

As the visionary land use planning document for the North Nechako Road neighbourhood, this Neighbourhood Plan recognizes the importance of setbacks and retention of vegetation adjacent to the Nechako River as well as on undeveloped slopes with grades over 20%. This recognition is clearly demonstrated by the proposed retention of approximately 17.2 ha of the land base as natural greenbelt, including provisions for riparian areas and wildlife corridors. The Environmental Overview Assessment outlines the importance of ensuring that riparian areas are kept free of

development beyond that of their rustic trails and natural or engineered storm water drainage utilities in order to accommodate watercourses (North Nechako River), open spaces and wildlife habitat corridors. Detailed design will need to consider the Environmental Overview Assessment, the Groundwater Assessment as well as the Geotechnical Overview Assessment with an emphasis on the importance of groundwater quality, riparian area management zones and the retention of significantly sloped areas. The retention of mature trees within the Nechako Greenway should also be a priority where possible, as mature trees provide protection from the sun and other elements, increase aesthetic values, buffer noise and contribute to a pleasing urban environment.

The Geotechnical Overview Assessment conducted by GeoNorth Engineering, the Environmental Overview Assessment conducted by Alces Environmental and the Groundwater Assessment conducted by Pinchin Ltd are important components of this Neighbourhood Planning process as the reports identify potential areas of sensitivity and mitigative best practices as well as environmental regulatory requirements related to the proposed development. The reports have also been used to facilitate the conceptual design of roads, trails, greenways and residential areas. Further, the reports also note that the implementation of the North Nechako Neighbourhood Plan may require additional environmental review to inform detailed design and subdivision. Subsequent stages of the development process will need to include the development of an Erosion and Sediment Control Plan (ESCP). The ESCP shall identify the specific measures to be undertaken during the phased development of the land in order to mitigate possible erosion or sedimentation of soils into the Nechako River during construction.

Generally, the North Nechako Neighbourhood Plan is intended to thoroughly address the Plan area's surroundings by incorporating the natural environment throughout the Plan's policies. In order to create a vibrant and inclusive neighbourhood that promotes environmental sustainability, the following topics shall be regarded as significant components of the North Nechako Neighbourhood Plan.

#### **4.1.3 Geotechnical Context**

In 2018, GeoNorth Engineering conducted a comprehensive Geotechnical Overview Assessment (see Appendix C) for the entire North Nechako Neighbourhood Plan area which included an overview of geotechnical conditions of the Plan area as they relate to the proposed development plans as well as general recommendations for construction of a residential subdivision. The report included a preliminary assessment of erosion and setback requirements for development along the Nechako River.

Geotechnical conditions within the Plan area were concluded by GeoNorth to be favorable as the granular deposits that were found during test pit evacuation are typically compact to dense with moderate to high allowable bearing pressure to low susceptibility to settlement under typical building loads. In addition, GeoNorth concluded that other than the Plan area having a moderate

potential for erosion along the Nechako riverbank, the proposed development is in an area with a low risk of geological hazards.

#### 4.1.4 Archeological Context

Archeological sites (recorded and unrecorded, disturbed and intact) are protected under the *Heritage Conversation Act* and cannot be altered or damaged without a permit from the Archaeology Branch of B.C. In 2018, Norcan Consulting Ltd. (Norcan) conducted an Archeological Overview (the Overview) for the lands owned by T.R. Projects (see Appendix D). The Overview investigation identified areas of high archeological potential that required subsurface testing due to the proximity of the Nechako River, the prevalence of elevated, flat, dry terraces. The remainder of the T.R. Projects lands has been identified as having low archeological potential due to the prevalence of high levels of disturbance such as previous quarrying activities, ATV/pedestrian walking trails and timber harvesting, steeply sloped terrain and poorly draining soils.

As a result of the aforementioned findings, Norcan conducted an Archeological Impact Assessment (AIA) in 2019 (see Appendix D) on the portion of the property that was identified as having high archeological potential. Forty-two shovel tests and 43 excavator tests were conducted and as a result, two archeological sites were found. As outlined within Section 5.0 of the AIA (see Appendix D), a 30 m buffer from the terrace edge overlooking the Nechako River is recommended in order to protect the area within T.R. Project lands that has been identified as having high archeological potential. Additionally, in order to protect the two known sites, avoidance of these sites is recommended. If avoidance is not feasible then a Site Alteration Permit pursuant to Section 12 of the *Heritage Conservation Act* must be obtained from the Archaeology Branch prior to the commencement of proposed development activities.



#### 4.1.5 Riparian Areas and Wildlife Corridors

Riparian areas are generally defined as the areas surrounding watercourses or bodies of water where soil and vegetation are directly influenced by the presence of this free or unbound water. Riparian areas provide a wide range of important functions including fish and wildlife habitat, erosion and sediment control, flood protection, and overall stream bank stability (City of Prince George, 2011). These areas are important to protect not only for their contribution to local water systems and for their contribution to maintaining the health and productivity of plant, animal and human communities but also for erosion and sediment control mitigation and bank stability.

The following sections outline the primary riparian and wildlife habitats within the North Nechako Neighbourhood Plan and provide a synopsis for their protection, as outlined in more detailed in Appendix A and as illustrated on F7: Natural Environment & Sensitive Areas.

#### 4.1.6 Nechako River

The Nechako River is the only aquatic and fisheries sensitive zone located within the Plan area (Alces Environmental, 2018). The majority of the riparian habitat along the edge of the Nechako River (the Nechako Greenway) is a steep and poorly vegetated cutbank. The 2018 Alces Environmental Overview Assessment concluded that as the riparian habitat along the southern boundary of the Plan area is south facing, the vegetation within the riparian area will not provide a significant shade source; however, it will likely still provide a source of terrestrial invertebrates for fish species. Accordingly, Alces recommends that a 30 m riparian leave strip buffer from the Top-of-Bank be adopted as per the provisions outlined in Section 8.9 Riparian Protection in the *City of Prince George's Zoning Bylaw No 7850, 2007*. This 30 m riparian leave strip will ensure that the riparian functions of the Nechako River Greenway outlined within Section 4.1.5 will be preserved and protected. Recommendations to further protect the leave strip area are identified in Section 4.1.9 Environmentally Sensitive Area Policy Recommendations.

#### 4.1.7 Wildlife Habitat

Wildlife activity was observed frequently by Alces Environmental in areas characterized by mature forests as well as throughout the existing gravel extraction area. The Environmental Overview Assessment addresses the impacts to wildlife habitat as a result of development activities and provided appropriate mitigation measures of wildlife/human conflict during future construction phases.

There are a number of development activities that have already occurred within and adjacent to the Plan boundary that have bisected the habitat of the area and act as limiting factors to wildlife movement. These developments include the active gravel extractions areas, the construction of the Nechako View subdivision (located approximately 1.0 km to the east of the Plan area) in combination with the area being surrounding by North Nechako Road and Foothills Boulevard will preclude safe and uninterrupted passage for species such as bear, moose and deer along the Nechako River.



It is neither possible nor desirable to limit the movements of these species while development of the neighbourhood proceeds from south to north; however, it is possible to mitigate undesirable



human-wildlife conflicts during development and before full build-out of the North Nechako neighbourhood is complete. When the Neighbourhood is fully developed, the number of large wildlife will be vastly reduced as the animals move to more suitable habitat. Mitigation measures will of course need to remain in place because, as in other areas of the City, large wildlife will still find ways into the area. As per OCP Policy 6.4.42, where areas of significant utilization for wildlife have been identified by the results of an environmental assessment mitigation measures such as landscaping guidelines and fencing opportunities should be considered (see Section 4.1.9). In addition, Alces Environmental has recommended further mitigation measures which include vegetation management and wildlife-human conflict measures such as banning fruit trees and garbage management requirements.

It is possible to provide movement corridors and preservation areas for wildlife that will continue to inhabit the Plan area into the future. This can be accomplished by recognizing the balance between the natural environment and residential areas by way of providing mitigation measures through policy recommendations found within this Plan that work to reduce urban/wildlife interface interactions.

#### **4.1.8 Groundwater Protection**

The City of Prince George relies on groundwater for all of its water supply and over 80% of the City's water taps into aquifers that are recharged by the Nechako River. The Official Community Plan advocates for the protection of the City's groundwater by protecting well heads and aquifers from incompatible development that may lead to the contamination of the City's potable water supply. In order to avoid groundwater pollution problems, the City of Prince George has designated various areas within the aquifer capture zones as Groundwater Protection Development Permit Areas. By regulating development within these capture zones, the City may reduce the potential risk of contamination. The Groundwater Assessment conducted by Pinchin Ltd evaluates the potential impact of the future development of the Neighbourhood Plan area with respect to the Nechako River, the potable water intake well locations and informs future development on best management practices moving forward.

#### **4.1.9 Natural Environment and Sensitive Areas Policy Recommendations**

1. Detailed subdivision design shall take into consideration the outcome of the Environmental Overview Assessment (Appendix A), the Groundwater Assessment (Appendix B), Geotechnical Overview Assessment (Appendix C) and the Archeological Impact Assessment (Appendix D).
2. Additional environmental analysis including an Erosion and Sediment Control Plan may be required during the detailed design stage to inform subdivision development.
3. As per the Groundwater Assessment, consideration should be given to the storm water design on the southwest portion of the Plan area that is within the Groundwater

Protection Development Permit Area to ensure that storm water drains away from the development.

4. Grease, oil and sand interceptors shall be located within the proposed commercial land use area and included within the detailed design of this area. All interceptors shall be located in areas that can be easily accessible for cleaning and inspection.
5. As per the Environmental Overview Assessment (Appendix A) and the Archeological Impact Assessment (Appendix D), a 30 m leave strip is to be retained from the Top of Bank of the Nechako River (see Figure F8: Detailed Setbacks).
6. If the developer and the City are willing, the 30 m leave strip could be increased to 50 m (see Figure F8: Detailed Setbacks) should both parties agree that the additional 20 m of land shall be subject to negotiations between the developer and the City regarding the possible purchase of land, land exchange or acquisition of this land through application of Development Cost Charges (DCC's). If both parties do not come to an agreement on the acquisition of land, the 30 m leave strip from the Top-of-Bank shall stand.
7. As per the Geotechnical Report, a setback for permanent structures is required of at least a 60 m horizontal distance from the seasonal high water mark of the Nechako River and at least 45 m from the toe of the steep gradient slope adjacent to the river, whichever results in a greater setback (see Figure F8: Detailed Setbacks).
8. A permanent fence should be installed along the setback area to ensure that the leave strip area remains preserved and protected in its natural state. The installation of this fence will be required by the developers prior to land alteration or during the detailed design stage, whichever comes first.
9. Avoidance of the two known archeological sites within the Plan area is recommended. If avoidance is not feasible then a Site Alteration Permit pursuant to Section 12 of the *Heritage Conservation Act* must be obtained from the Archaeology Branch prior to the commencement of proposed development activities.
10. Should additional archaeological sites be found during construction, all works must cease and the Archeology Branch must be contacted immediately to ensure that the required permitting can be put into place prior to construction commencing.
11. Recommendations and Best Management Practices outlined within the Environmental Overview Assessment shall be considered during detailed design and subdivision development and shall be consistent with Provincial standards and recommendations.
12. Prior to development activities occurring, a den and nesting survey shall be completed by a Qualified Environmental Professional.
13. Riparian areas shall be kept free from development beyond that of existing rustic trails or natural or engineered storm water drainage.
14. Aggregate removal shall not occur within the Groundwater Protection area or within the recommended leave strip area.

15. The majority of the lands exceeding 20% slopes within the Plan area will not be subject to development. Areas deemed too steep to be developed by a qualified professional shall be left as natural greenbelt. Prior to subdivision approval, the City shall determine which significantly slopes lands will become the property of the City.
16. Detailed subdivision design shall include retention of trees, where possible.
17. Developer created building schemes that work to reduce human-wildlife conflict should be implemented, including banning fruit trees in the Neighbourhood Plan area.
18. Developer created building schemes that work to revegetate areas that have been disturbed as a result of development should be implemented.

## 4.2 Parks & Trails

This Plan establishes a network of open spaces and one neighbourhood park that contribute to a complete and livable neighbourhood in the North Nechako Road area. The park and open spaces provide the neighbourhood with both active and passive outdoor recreational opportunities to meet the needs of residents and visitors. The Official Community Plan (OCP) considers the provision of parks and trails an essential component of a community when it states (City of Prince George 2011, p. 136):

*“A key attribute to the quality of life is the significant extent of parks and open space in the community and the linkages offered by trails to connect various parts of the City.”*

The OCP and the City of Prince George 2017 Parks Strategy Plan outlines a hierarchy of park and trail standards that are to be included in new neighbourhoods including Nature Parks, Neighbourhood Parks as well as Multi-Use, Local and Rustic trails, defined as follows:

- **Nature Parks** – Natural areas such as riverfronts, significant habitat areas or greenways with some facility development to accommodate access.
- **Neighbourhood Parks** – Serves an immediate neighbourhood area with recreation amenities. Includes smaller pocket parks within neighbourhoods.
- **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 granular or asphalt with a prescribed width of 3.0 m.
- **Local Trail** – is located in natural areas, neighbourhood open spaces or greenbelts and aim to provide secondary loops in destination regional parks and other open space areas. The trail surface is granular with a width of 2.0 m.
- **Rustic Trail** – is located in natural settings to maximize aesthetics and trail experience. This trail is generally packed earth or crushed gravel with a width of 1.0 m.

#### 4.2.1 Neighbourhood Plan Principles

In recognition of the importance of linear parks and public access to the Nechako River, as well as the importance of retaining the significant slopes of the Nechako River bank and the riparian area, the 20 ha of land provided for parks and open space by this Plan will create recreational and pedestrian opportunities for not only residents of the North Nechako Neighbourhood, but also for all residents of Prince George. Table 2: Parkland and Open Space Areas illustrates the amount of land provided for parks and open space.

**Table 2 Proposed Parkland and Open Spaces**

Land Use	Total Area (ha)
Neighbourhood Park	2.8 ha
Greenbelt	9.2 ha
Riparian Area/Wildlife Corridor	8.0 ha
<b>Total</b>	<b>20 ha</b>

#### 4.2.2 Neighbourhood Park

During the subdivision stage of development, the City of Prince George can require property owners to dedicate 5% of their land as park, as legislated by the Local Government Act, or to accept cash-in-lieu of land. In addition, Policy 8.6.7 of the Official Community Plan has established the desired quantities of land for parkland acquisition within the City of Prince George. The acquisition standard for Neighbourhood Parks is 1.2 ha per 1, 000 residents, with each Neighbourhood Park having an optimum size of 2.0 ha. The 2017 Parks Strategy provides provisional standards and guidelines for the development of Neighbourhood Parks to assist with acquisition, design, development and operations of Neighbourhood Park spaces. As per the provisions outlined within the 2017 Parks Strategy, Neighbourhood Parks should be central to a neighbourhood, located adjacent to residential or institutional uses, have a minimum of two sides of the park fronting a local or collector route and should have a multi-use or local trail standard.

As recommended, the North Nechako Neighbourhood Plan proposes to create one Neighbourhood Park as shown in conceptual form on Figure F9: Proposed Parks, Open Spaces and Major Trails. The proposed Neighbourhood Park provides the required 5% parkland dedication as per the *Local Government Act*. The proposed park is located adjacent to the Edgewood Elementary School and has a minimum of two sides of the park fronting a local and collector road. The proposed trail system through the park will be designed to a granular multi-use trail standard which will allow the Neighbourhood Park to provide residents with a connection to the riverfront areas and the existing Edgewood Elementary school and park amenities. The park has also been centrally located to serve both the proposed North Nechako Neighbourhood Plan area and the exiting Edgewood subdivision area. Please refer to Table 3: Parkland Dedication for an outline of



how the Neighbourhood Plan’s parkland provisions meet the City’s acquisition standards. These parkland areas have been further defined within Figure F9: Proposed Parks, Open Spaces and Major Trails.

**Table 3 Parkland Dedication**

	<b>Total Property Area (ha)</b>	<b>Total Area of Proposed Parkland (ha)</b>	<b>Percentage of Parkland</b>
T.R Projects Parkland Dedication	57 ha	2.8 ha	<b>5%</b>
406286 BC Ltd. Parkland Dedication	27 ha	2.1 ha	<b>7%</b>

### **4.2.3 Trails**

The North Nechako Neighbourhood Plan has incorporated the City of Prince George Trails Master Plan into the proposed trail network, as illustrated on Figure F9: Proposed Parks, Open Spaces and Major Trails. Figure F9 demonstrates the extensive proposed trail system around the boundary of the Neighbourhood Plan area, augmented in some cases by sidewalk connections providing connectivity between natural green spaces and built areas within the North Nechako Neighbourhood Plan. These trails also connect users to adjacent areas including the Nechako Riverfront Park, the Nechako Ball Diamonds, Edgewood Elementary School, as well as the Edgewood Terrace and North Meadows neighbourhoods. Trail standards within the Plan area have been further defined within Figure F9.

Located at the southernmost boundary of the Plan area, the steeply sloped Nechako River Greenway (the Greenway) is an integral part of the North Nechako Neighbourhoods recreational trail system and connections to the Greenway from the surrounding land uses are essential. The Greenway is contained within the City’s Riparian Protection Area and is proposed to be utilized as a Recreation Area in its natural state. As such, the area would permit the non-motorized use of the area for hiking and biking activities. The proposed land use acknowledges the existing use of the area by North Nechako residents; its ideal location for providing connectivity from the City’s Nechako Riverside Park to the North Meadows and Edgewood Terrace Neighbourhoods; in addition to the fact that the majority of this area is steeply sloped and likely undevelopable.



#### **4.2.4 Pedestrian Walkways**

Pedestrian walkways are encouraged to be provided within the Plan area to provide connections through developments and subdivisions to and from greenways and trails, schools and bike routes within and outside the Plan area. The proposed Pedestrian Walkways locations are identified on F9 and may be subject to further refinement based on the outcomes of the detailed subdivision stages and should be designed to a paved multi-use standard. The intent of these walkways is to provide additional connections throughout the development of the Plan area to increase the walkability and permeability of the neighbourhood and to provide new linkages with adjacent neighbourhoods and destinations for a thoughtfully designed pedestrian network.

The network of trails and pedestrian walkways are an important component of the mobility network for both pedestrian and cyclists and stand as a key recreational amenity. Along with the sidewalk network described in Section 5.0, pedestrian walkways and trails provide continuous pedestrian connections between destinations within and beyond the Plan area with a range of easily accessible recreational experiences.

#### **4.2.5 Trail and Pedestrian Walkway Design Guidelines**

The following design guidelines are recommended to be considered during the detailed design and subdivision stages of development:

1. All proposed trails and pedestrian walkways are to be designed to the City's standard and guidelines, as outlined in the Prince George Active Transportation Plan as well as the City of Prince George Subdivision and Development Servicing Bylaw.
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. Trail lighting is a standard provision within the Neighbourhood Park and should consider the use of solar power in place of LED fixtures where possible.
4. The size and width of landscaping and fencing along trails and pedestrian walkways should be designed as to avoid the creation of blind spots, hiding places or targets for graffiti.
5. Connections should be designed to connect trail standards to other pedestrian and cycle routes such as sidewalks and bike lanes to create a complete network.
6. Trails should consider safe crossings and wherever possible, cross roads at intersections where there is an appropriate line of sight for both pedestrian and driver.

#### 4.2.6 Parkland, Trails and Pedestrian Walkway Policy Recommendations

1. A Neighbourhood Park with a minimum size of 2.8 ha shall be provided in the North Nechako Neighbourhood Plan area adjacent to the Edgewood Elementary School site as illustrated on Figure F9: Proposed Parks, Open Spaces and Major Trails. This minimum 2.8 ha park is anticipated to meet the 5% parkland dedication requirement as required by the City of Prince George.
2. The future Neighbourhood Park shall become property of the City of Prince George. Any additional land within the Plan boundary identified as park by the City that exceeds the 5% requirement shall be subject to land purchasing or land exchange negotiations between the land owner and the City of Prince George. This includes lands provided for parkland support (i.e. parking lots) and the Nechako River Greenway.
3. Trails located within the Nechako River Greenway (see Figure F9) shall remain a rustic trail standard to minimize the impact to the leave strip area.
4. The portion of the boundary trail located adjacent to North Nechako Road shall be designed as a granular local trail standard.
5. The portion of the boundary trail located adjacent to Foothills Boulevard and within the Neighbourhood Park shall be designed as a granular multi-use trail standard.
6. Pedestrian walkways shall be designed as a paved multi-use standard.
7. The Nechako River Greenway (see Figure F9) that is contained within the City's Riparian Protection Area shall be utilized as a Recreation Area in its natural state.
8. Proposed trails and pedestrian walkways shall be planned, developed and constructed by the developer as part of each subdivision stage with the objective of facilitating the safe movement of people throughout the Neighbourhood and to adjacent areas.
9. All berms developed within the Plan area will require substantial organics added and any plant material must be drought tolerant.
10. Adequate lighting shall be provided along all trails and at trail entrances to enhance the sense of safety and personal security.
11. The proposed Neighbourhood Park, trails, greenbelt and Nechako River Greenway areas shall carefully consider both the short and long-term use and connectivity of the existing parkland and school areas adjacent to the Plan area.

#### 4.3 Residential

The OCP emphasizes the importance of striving to build strong neighbourhoods when undertaking new residential development in Prince George and emphasizes the City's preference for compact development that provides a range of housing types and densities. A guiding principal of the North Nechako Neighbourhood Plan is to 'provide housing choices' and Plan policies shall aim to provide a range of housing options and densities that meet the needs of current and future residents of

the North Nechako Neighbourhood. The proposed residential mix for the Plan area consists of low density residential and medium density residential developments.

The land use concept F5: Land Use Plan locates multiple residential areas near commercial areas, community amenities, community facilities and transit routes. Multiple residential development within the Plan area should be intended to be flexible enough to include housing that may be visitable, adaptable and attractive to people at all stages in life. OCP Policy 8.3.46 further supports this by stating that,

*“The City should develop housing typology that meets the needs of the community’s aging population and their general desire to age-in-place, and is compatible with the scale and character of the existing neighbourhoods.”*

In addition, under the Neighbourhood Residential Future Land Use Designation, any multiple residential development on the subject area will adhere to Policy 8.3.62 whereby,

*“The City should maintain character typical of existing neighbourhoods by encouraging any multi-unit development to be asymmetrical, with varied and interested facades, rooflines, entry points, balconies and porches.”*

#### 4.3.1 Range of Densities

The North Nechako Neighbourhood Plan proposes an overall housing density mix of 54% low density residential and 46% medium density residential. As demonstrated in **Table 4: Housing Density Mix for the North Nechako Neighbourhood Plan Area**, these ratios have been calculated based on projected housing density objectives. Thus, using an estimate of 10 dwelling units per hectare for low density residential development and 30 dwelling units per hectare for medium density residential development, the total number of proposed dwelling units within the Plan area is 788, of which 422 will be low density residential and 366 will be medium density residential. The following data is intended to provide context for the potential needs of future residents and expansion in this area of Prince George.

**Table 4 Housing Density Mix for the North Nechako Neighbourhood Plan Area**

HOUSING FORM	TOTAL AREA (ha)	DWELLING (UNITS/HA)	NUMBER OF DWELLING UNITS	HOUSING MIX BY % OF TOTAL DWELLING UNITS
LOW DENSITY RESIDENTIAL	42.2	10	422	54%
MEDIUM DENSITY RESIDENTIAL	12.2	30	366	46%
<b>TOTAL</b>			<b>788</b>	<b>100%</b>

Based on housing data for residential areas of Prince George found within the City of Prince George Design Guidelines, it is estimated that the average number of persons per household will be 3.0. Using these figures, **Table 5: Estimated Population for the North Nechako Neighbourhood Plan Area**, demonstrates that the population for the North Nechako Neighbourhood Plan will be approximately 2334 people, while **Chart 1** below provides the age/sex breakdown of the projected population. Housing density and population calculations have been further defined in Appendix L.

**Table 5 Estimated Population for the North Nechako Neighbourhood Plan Area**

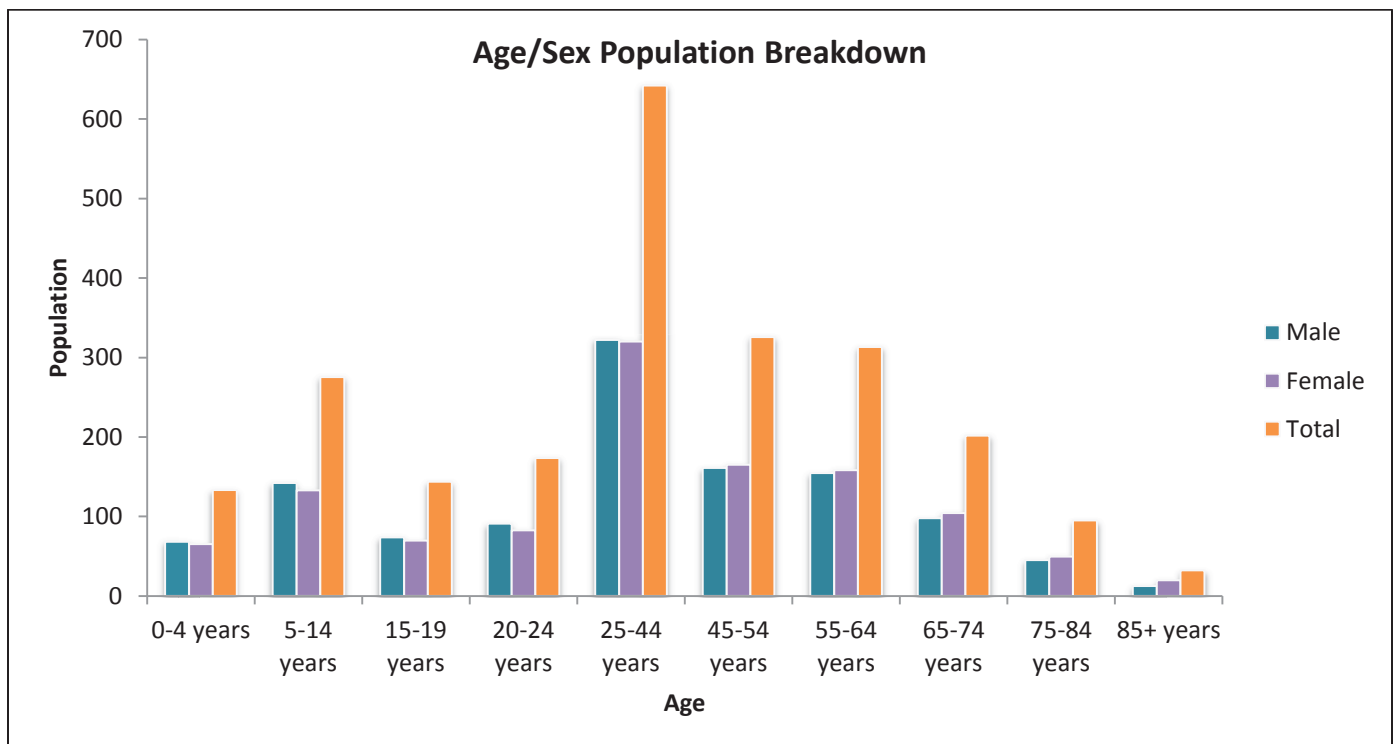
	TOTAL DWELLING UNITS	AVERAGE PERSON PER HOUSEHOLD	TOTAL POPULATION (PERSONS)
<b>TOTAL</b>	778	3.0	<b>2334</b>

\*Average person per household data from City of Prince George Design Guidelines.

**Chart 1 Projected Age/Sex Population Breakdown**

North Nechako	0-4 years	5-14 years	15-19 years	20-24 years	25-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85+ years	Total
<b>Male</b>	68	142	74	91	322	161	155	98	45	13	1168
<b>Female</b>	65	133	70	82	320	165	158	104	50	20	1166
<b>Total</b>	<b>133</b>	<b>275</b>	<b>144</b>	<b>173</b>	<b>642</b>	<b>326</b>	<b>313</b>	<b>202</b>	<b>95</b>	<b>32</b>	<b>2334</b>

Statistics Canada, 2016 Census of Population



Statistics Canada, 2016 Census of Population

### 4.3.2 Housing Forms

In order to achieve a complete neighbourhood that includes housing forms to accommodate people from all age brackets and socio-economic groups, the North Nechako Neighbourhood Plan proposes that a variety of housing forms be permitted within the Plan boundary. The types of proposed housing forms are listed below.

**Low density residential (density maximum 10 dwelling units per hectare):** Low density residential development is proposed throughout the Plan area as the most prevalent land use category, which may take the form of fee simple, strata or bare land strata development. It is expected that single detached housing will continue to be the preferred housing form, with larger lot sizes that are similar to the surrounding Edgewood and North Meadows neighbourhoods to become the urban norm. Secondary suites, carriage and cottage house are to be permitted on lots containing single detached housing. In addition, two-unit housing shall be permitted within low density residential areas and shall be placed in such a way to avoid large clusters of two-unit housing wherever possible. These housing forms shall be developed in accordance with the design guidelines found within Section 4.3.4 of this Plan.

**Medium density residential (density range of 20 – 60 dwelling units per hectare):** Row-housing, stacked-row housing, four-plex housing, single detached housing and two-unit housing can be developed at this permitted density and shall only be located on sites designated for medium density residential developments as indicated on Figure F5: Land Use Plan. These housing forms are to be developed in accordance with the design guidelines found within Section 4.3.4 of this Plan.

**Mixed Use Neighbourhood Commercial:** This housing form will incorporate mixed-use development options wherein multiple residential housing is located above neighbourhood commercial uses. The mixed-use neighbourhood commercial housing form may only occur in the area designated for Commercial development, as illustrated on Figure F5: Land Use Plan and has a maximum permitted density of 30 dwelling/ha. The siting and development of this housing form shall be guided by Section 8.0 Development Permit Area Guidelines of the City of Prince George Zoning Bylaw as amended from time to time.

### 4.3.3 Residential Energy Efficiency

Sustainable design and energy efficiency can play an important role in the impact that new development has on the overall environment. The Province of British Columbia has recently set a goal that all new buildings must reach a net-zero energy ready level of efficiency by 2032. As such, the Province has developed an optional policy compliance path within the BC Building Code that requires a level of energy efficiency in new construction that goes above and beyond the requirements of the base BC Building Code. It consists of a series of steps, representing increasing levels of energy-efficiency performance standards. These new standards empower builders to

pursue innovative, creative, cost-effective solutions which in turn allow them to incorporate leading-edge technologies as they come available. As this policy compliance path is currently optional, the onus is on local governments to ensure that incentive programs and policy tools are provided to local builders to encourage them to build to these higher standards. At time of development of this Neighbourhood Plan, the City of Prince George does not require or incentivize these energy performance standards in new construction. However, the City is in the process to undertake stakeholder engagement to inform the performance standards in new construction to exceed those currently prescribed by BC Building Code. As a result, this Neighbourhood Plan recommends that the energy efficiency performance standards for new construction be met or exceeded, and are subject to the above noted engagement outcomes.

#### **4.3.4 Residential Design Guidelines**

Residential development within the Plan area is intended to create a neighbourhood that provides a range of density options and housing forms within an overall framework that focuses on single family development. Residential development should promote a strong identity for the Plan area, allow for climate sensitive design and create high quality development featuring a healthy mix of housing typologies as well as ecologically responsible land use patterns. Individual subdivisions shall incorporate the following objectives through the development permit and subdivision stages of development:

1. Residential housing forms and subdivision design should emphasize streetscape forms through reduced front yards while providing a clear demarcation between public and private space.
2. Fruit bearing trees (including ornamental) shall not be permitted within the Plan boundary.
3. The design of new development should increase “eyes on the street” with the placement of windows, balconies and street-level uses which allows for casual surveillance of parks, open spaces and children’s play areas.
4. Two-unit housing is to be designed asymmetrically (i.e. non-mirror images).
5. The massing, scale, and height of two-unit housing should reinforce, not disrupt, the form and character of the surrounding neighbourhood.
6. Two-unit housing should be placed on corner lots wherever possible and should be designed to “face” both streets, with entrance to the second unit from the flanking street.
7. Residential housing forms should be designed in such a way to reduce the visual dominance of the garage, either through architectural doors or other architectural features.
8. The design of new development should avoid blank, windowless walls that do not permit residents or workers to observe public streets and open spaces.



9. The design of residential buildings are encouraged to be adaptive and accessible for persons of different stages of life and degrees of mobility, to help satisfy the diverse and changing housing needs of residents.
10. Medium density development adjacent to single residential development shall provide an effective transition and respect privacy in terms of building massing and height mitigated through setbacks, landscaping and terracing.
11. Landscaping within new development should consider seasonal coloured interest, salt-tolerant and native species. Residents should be encouraged to plant tree species from the City's recommended tree list (see Appendix M).
12. Residential sites should be generously landscaped in a manner which is appropriate to a northern, winter climate.
13. Multiple residential dwellings are encouraged to develop underground or semi-underground parking.

#### **4.3.5 Residential Land Use Policy Recommendations**

The following policy recommendations are recommended to be considered during the rezoning, development permit and subdivision stages of development:

1. Larger single residential lot sizes are encouraged in order to maintain the form and character of the North Nechako area.
2. Low density residential areas shall permit single detached and two-unit housing at a maximum density of 10 dwelling units per hectare.
3. Medium density residential areas shall permit row-housing, stacked-row housing, four-plex housing, single detached housing and two unit housing at a density range of 20 – 60 dwelling units per hectare.
4. Apartments are prohibited within the Plan area.
5. Developer created building schemes that promote Winter Cities Design principals shall be considered for all residential development within the Plan boundary.
6. A natural berm shall be placed during the time of construction between the existing residences on Craig Drive and the medium density land use area that is located across from Edgewood Elementary School.
7. Housing forms located within the medium density land use area across from the school shall have a height restriction of 10.0 m (2.5 storeys).
8. New residential buildings within the Plan area should meet or exceed the current energy efficiency standards as prescribed by the B.C. Building Code and City of Prince George Bylaws as amended from time to time.
9. The City of Prince George should consider incentives to encourage builders to exceed the current energy efficiency standards prescribed by the B.C. Building Code.

10. The City of Prince George should consider incorporating the design guidelines found within Section 4.3.4 of this Plan into the City of Prince George Zoning Bylaw.

#### **4.4 Commercial**

The North Nechako Neighbourhood Plan recognizes the need to provide commercial uses in conjunction with residential development. This approach permits a mix of land uses, which allows for neighbourhood commercial needs to be met within a reasonably walkable distance. As such, the Plan incorporates a commercial area located at the northwest corner of the Plan area at the intersection of North Nechako Road and Foothills Boulevard (see F5: Land Use Plan). The location of the commercial area affords all residents of the North Nechako area as well as those coming to and from the Hart the convenience of having commercial establishments close by. There is significant vehicle traffic in the proximity of the Plan area to and from the Hart Highlands and Austin West neighbourhoods north of the Plan area. Currently, these neighbourhoods do not have en route commercial establishments via Foothills Boulevard or via North Nechako Road. The proposed size and location of the commercial area has the potential to provide some much needed commercial development that will service not only the Plan area but the surrounding neighbourhoods as well.

The commercial land use is allocated for commercial establishments that are local-serving, pedestrian-orientated, and have street fronting buildings that offer a high standard for building design, landscaping and user experiences. Permitted commercial uses within this land use include but are not limited to: service stations, retail liquor uses, convenience stores, bakeries, barber shops, beauty salons, restaurants (including liquor primary establishments), cafes and other goods and services serving the residents of the North Nechako Road neighbourhood. The commercial land use is encouraged to accommodate outdoor display spaces (e.g. Christmas Trees, fruit stands, etc.), public gathering/seating areas and to serve as a destination for the neighbourhood. The following design guidelines and policy recommendations are recommended to be considered during the rezoning and development permit stages of development.

##### **4.4.1 Commercial Design Guidelines**

1. Landscaped surface parking lots shall be located to the side or rear of buildings adjacent to Foothills Blvd in order to create and/or give the appearance of a continuous, active street frontage along internal collector roads.
2. Consideration shall be given to incorporate internal pedestrian linkages within and across surface parking areas that also conveniently connect to public pedestrian areas such as pedestrian walkways and trails located along Foothills Blvd.

3. Design shall emphasize pedestrian and bicycle access and provide appropriate sidewalks, bike racks and crosswalks.
4. Buildings should be designed and oriented to maximize solar exposure and limit shadowing on adjacent roads, sidewalks, other public spaces and properties.
5. The scale of commercial buildings and overall commercial site design shall suit the character of the surrounding neighbourhood.
6. Sites shall be generously landscaped in a manner appropriate to a northern winter climate and should consider seasonal coloured interest, salt-tolerant and native species.
7. Building design should be compatible with the surrounding character of the residential neighbourhood and should ensure that lighting is oriented in a way that avoids light pollution.
8. Mixed-use buildings should feature commercial on the ground floor, with residential above. The residential units integrated within the commercial buildings should be situated in such a way that they enhance safety and security.
9. Commercial buildings shall include varied cladding materials of complementary colours and textures, visual elements, appropriate ornamental and energy efficient lighting, landscaping and other features beyond the building face.
10. The use of wood, brick masonry, stone and painted and stamped concrete should be used in façade design and the architectural expression of buildings to emphasize the importance the forestry and aggregate industry has played in the evolution of Prince George and to recognize this sites historic use.
11. Signage for commercial uses is to be attractive, remain sensitive to residential character and be scaled to the pedestrian rather than the motorist.
12. Digital signage is prohibited within the Plan area.
13. Signage shall be limited in number, location and size to reduce visual clutter and to make individual signs easier to read.
14. Signage shall be externally lit on the residential side of commercial or mixed-use development.

#### **4.4.2 Commercial Land Use Policy Recommendations**

1. Commercial development shall occur at the intersection of North Nechako Road and Foothills Boulevard utilizing approximately 2.2 ha (22,000 m<sup>2</sup>) of land.
2. Permitted neighbourhood and local commercial uses include but are not limited to: service stations, retail liquor uses, convenience stores, bakeries, barber shops, beauty salons, restaurants (including liquor primary establishments), cafes and other goods and services serving the residents of the North Nechako neighbourhood.
3. The commercial area shall have a comprehensive approach to commercial development that focuses on supporting local businesses.

4. Site design and buildings shall be street-fronting along internal collector roads and pedestrian-focused, orientated towards a public road within the Plan area which will result in active street frontages.
5. Design elements shall be included on building facades as well as landscaping elements and design features between buildings which will further support pedestrian orientation along the public street.
6. New commercial buildings within the Plan area should meet or exceed the current energy efficiency standards as prescribed by the B.C. Building Code as amended from time to time.
7. Natural features such as trees shall be preserved along Foothills Blvd and North Nechako Road, where possible in order to create a natural landscaped buffer.
8. Mixed-use residential and commercial buildings may only occur in areas designated on Figure F5 for commercial development.
9. A neighbourhood public gathering space is encouraged within the neighbourhood commercial area that provides open space for a variety of activities such as socializing, resting and eating and serves as a focal point for the neighbourhood. Consideration should be given to integrate the public space with adjacent buildings and include a combination of hard and soft landscaping design features, accessibility, noise and light attenuation measures, a variety of seating and other furnishings, lighting and weather protection.

## **5.0 TRANSPORTATION NETWORK**

The transportation network, which is comprised of sidewalks, bike lanes and transit routes including collector and local streets, is an essential component in shaping the North Nechako neighbourhood. The way that road spaces are designed and allocated strongly influence how people in a neighbourhood choose to get around. Ultimately, the transportation network will fundamentally affect the character of a neighbourhood. The look and feel of a place, the quality of experience and the interactions that take place within a community, will help to support a range of transportation options within the Plan area which will promote walking and cycling to make efficient use of the road network. This will help foster a design that makes all modes of transportation safer and more comfortable to get around for people of all ages and abilities.

This section of the Plan addresses the North Nechako Neighbourhood Plan transportation network through recommendations outlined within the L&M Engineering Traffic Impact Study which can be found in Appendix E.

### **5.1 Road Network**

The North Nechako Neighbourhood Plan road network consists of logically spaced local roads and collector roads. The Traffic Impact Study conducted by L&M Engineering studied seven existing

and proposed intersections along North Nechako Road and Foothills Boulevard to determine potential impacts to the existing road network and any required improvements to the road network as a result of the development of the Plan area. The study intersections analyzed by L&M Engineering include:

1. Foothills Boulevard and North Nechako Road
2. North Nechako Road and Dever Road
3. Churchill Road and North Nechako Road
4. Churchill Road and Craig Drive
5. North Meadow Road and North Nechako Road
6. Fairburn Road and North Nechako Road
7. Foothills Boulevard and Road A.

Recommendations regarding turn lane warrants and cross walk warrants for the above mentioned intersections can be found in Section 5.4 Transportation Network Policy Recommendations.

#### **5.1.1 Dever Road**

In an effort to enhance sight distances for vehicles leaving the Plan area, it is proposed to relocate the current Dever Road access to a new location that is approximately 50 m west of the existing access. A new replacement berm will then be installed between the new Dever Road access and the existing homes along Churchill Road and Winston Road. The relocation of the existing Dever Road access will allow these homes the ability to retain their current lane-way access and noise attenuation berm (see Appendix E).

### **5.2 Pedestrian Network**

Walkability will be an important component of the North Nechako Neighbourhood Plan, allowing residents the option to safely and comfortably travel within and outside of the Plan boundary. In addition, the combination of commercial and residential uses connected by sidewalks, trails and pedestrian walkways will create a pedestrian friendly environment within the Neighbourhood Plan area, as well as link the Plan area to the surrounding neighbourhoods. Alternative design standards, such as Winter Cities Design Principles are suited to pedestrian accommodation and should be considered when designing sidewalks.

#### **5.2.1 Sidewalks**

The roads within the proposed development will be built to the City of Prince George's urban road standards which include concrete sidewalks on every road. This will provide a safe and efficient pedestrian network throughout the entirety of the Plan area. Sidewalks within the Plan area have been designed primarily on the north and east sides of the road to maximize sun exposure. In an effort to enhance sidewalk continuity and reduce the number of pedestrian road crossings, some

sidewalk locations have been located on the south and west sides of the road. In addition to having an internal pedestrian network consisting of sidewalks, the Plan area will be surrounded by a perimeter trail network which will connect the North Meadows and Edgewood Terrace subdivisions to Edgewood Elementary School and the Nechako Riverfront Park.

### **5.2.2 Pedestrian Crosswalks**

The L&M Traffic Impact Study (TIS) found within Appendix E utilizes the British Columbia Pedestrian Crossing Control Manual to determine if crosswalks will be warranted across North Nechako at any of the study intersections. The findings within the TIS have determined that marked and signed crosswalks will be required at the Churchill Road and North Nechako Road intersection as well as the Dever Road and North Nechako Road intersection. The crosswalk warrant at Churchill Road will not be triggered until the sum of the eastbound and westbound traffic along North Nechako Road reaches 850 vehicles/hr during the peak hour. The crosswalk warrant at Dever Road will not be triggered until the sum of the eastbound and westbound traffic reaches 850 vehicles/hr during the peak hour and approximately 150 dwelling units are constructed on T.R. Projects property. The Dever Road crosswalk warrant has been triggered under the assumption that a future bus stop would be installed at the Dever Road and North Nechako Road intersection. If the intersection does not receive a bus stop, the pedestrian volumes will be too low to warrant a crosswalk. Crosswalk warrants were compared against the TAC's Pedestrian Crossing Control Guide's (Third-Edition – June 2018) Decision Support Tool. It was determined that no additional crosswalks would be required at any of the intersections along North Nechako Road.

### **5.3 Transit Network**

The 2014 City of Prince George Transit Future Plan indicates that bus stops should be located within 400 m of 90 percent of residents. There are currently four bus stops and two separate bus routes along North Nechako Road that border the Plan area (see Exhibit 1 in Appendix E). A large majority of the future development will be located further than 400 m away from the nearest existing bus stop however five of the six proposed medium density residential land uses are within 400 m of existing bus stops. In order to remain consistent with the intent of the City of Prince George's transit policies, this Plan provides recommendations in Section 5.4 Transportation Policy Recommendations to allow for additional bus routes to be considered within the Plan boundary should development and volumes warrant.

## 5.4 Transportation Network Policy Recommendations

The following policy recommendations are recommended to be considered during the detailed design and subdivision stages of development:

1. The southbound (on Foothills Boulevard) left turn lane located at the intersection of Foothills Boulevard and North Nechako Road shall continue to use the existing 60m storage length.
2. A westbound (on North Nechako Road) left turn lane shall be required at the intersection of North Nechako Road and Dever Road once approximately 80 dwelling units have been developed on T.R. Projects property. The left turn lane shall have a minimum storage length of 50m (see F10: Infrastructure Development Plan).
3. A signed and marked crosswalk across North Nechako Road shall be required at the intersection of North Nechako Road and Dever Road once a transit stop has been identified at this location and once the sum of the westbound and eastbound traffic on North Nechako Road reaches 850 veh/hr in the peak hour and 150 dwelling units have been constructed on T.R. Projects property.
4. A northbound (on Churchill Road) right turn lane shall be required at the intersection of Churchill Road and North Nechako Road once the combined number of dwelling units within the Plan area reaches 250 (see F10: Infrastructure Development Plan).
5. A signed and marked crosswalk across North Nechako Road shall be required at the intersection of Churchill Road and North Nechako Road once the sum of the westbound and eastbound traffic on North Nechako Road reaches 850 veh/hr in the peak hour.
6. A westbound (on North Nechako Road) left turn lane shall be required at the intersection of North Meadow Road and North Nechako Road once approximately 80 dwelling units have been developed on the 406286 BC Ltd. property. The left turn lane shall have a minimum storage length of 30m (see F10: Infrastructure Development Plan).
7. A westbound (on North Nechako Road) left turn lane shall be required during the first phase of commercial construction in the northwest corner of the Plan area. The left turn lane shall have a minimum storage length of 30m (see F10: Infrastructure Development Plan).
8. An eastbound (on North Nechako Road) right turn lane shall be required during the first phase of commercial construction in the northwest corner of the Plan area (see F10: Infrastructure Development Plan).
9. A southbound (on Foothills Boulevard) left turn lane shall be required at the intersection of Foothills Boulevard and Road A at the same time that the Road A site access is install. The left turn lane shall have a minimum storage length of 30m (see F10: Infrastructure Development Plan).



10. At the time of detailed design, one or more of the intersections along the proposed collector road should be considered as candidates for traffic circles (see Section 13.0 Traffic Calming Measures in Appendix E and F10: Infrastructure Development Plan).
11. Traffic circle design should consider landscaping, bike lanes, pedestrian crossings, on-street parking and snow removal.
12. A new Dever Road access shall be constructed approximately 50 metres west of the existing Dever Road access in order to enhance the available site distance for vehicles leaving the Plan area.
13. City owned Nechako Ball Diamond lands required for the new Dever Road access shall be subject to land exchange or land purchase negotiations between the City of Prince George and the developer.
14. A new replacement berm shall be installed between the new Dever Road access and the homes on Churchill Road and Winston Road.
15. A future bus stop pullout shall be located at the intersection of the new Dever Road access and North Nechako Road. The exact location of this bus stop pulled shall be determined and required during the subdivision stage of development.
16. In accordance with the City's Transit Policies, public transit may be provided within the Plan area as warranted by demand.
17. The City of Prince George should consider boulevard trees along the proposed collector road as a future design standard requirement.
18. Alternative Design Standards for collector and local roads that meet the values and principles of this Plan should be considered by the City of Prince George during the subdivision phase of development such as reduced road widths as traffic calming measures and relocating city street lights closer from road curbs to improve visibility.
19. On street parking restrictions shall be included within higher traffic generating areas such as commercial areas, medium density housing areas and institutional areas.

## **6.0 NEIGHBOURHOOD SERVICING**

Although utilities and services are often hidden from the public eye, they are vitally important for a city to function. Water, sanitary and storm water systems are key to sustainability as well as to the public health and well-being. The focus of this section is to provide preliminary servicing direction to the City of Prince George, as well as to the developers of the North Nechako Neighbourhood Plan area. L&M Engineering has conducted a detailed Servicing Brief for the Plan area which can be found in Appendix F of this document.



## 6.1 Water System

The North Nechako Neighbourhood Plan area is contained within Pressure Zone 8 (PZ8) which obtains its static pressure from the Edgewood Reservoir (PW832) at a Top Water Elevation (TWL) = 649.9m. L&M Engineering has utilized the City of Prince George's water modelling data to determine how much of the Plan area could be serviced via the Edgewood Reservoir. The results of the water modelling data indicated that the entirety of the Plan area could be serviced via PW832 and that with a 200mm water main the available fire flow during the Maximum Day Demand (MDD) scenario is sufficient for the proposed land uses. With exception to a Node 10C where a 250mm main will be required to provide sufficient fire flow. Based on the water modelling results, the provision of adequate and reliable municipal water (Fire flow + MDD) can be achieved at the site without any additional offsite improvements.

## 6.2 Sanitary Sewer System

There are two existing sanitary catchment areas in the vicinity of the Plan area. Catchment 1 consists of the northern lands located within the Plan area and Catchment 2 consists of the southern lands located within the Plan area. Based on the design flows outlined in Appendix F, it appears that a 250mm diameter main running at minimum grade will be required to service Catchment 1 and Catchment 2. Using a 200mm diameter main the minimum permitted grade would not provide sufficient capacity for the entire proposed onsite sanitary network.

For Catchment 1, the proposed sanitary main tie-in location is a sanitary manhole (Asset ID 1465) at the proposed site access located at the intersection of North Nechako Road and North Meadow Road. The invert of the existing sanitary stub at the manhole has an elevation of 600.28m. This tie-in location provides a sufficient amount of cover for the 250mm diameter on-site sanitary main for Catchment 1. A 250mm diameter main at a minimum slope of 0.3% will have sufficient capacity to service the peak flow of Catchment 1.

The land area of Catchment 2 is proposed to be mined of gravel before any future development takes place. Due to the lower elevation and future gravel extraction, the use of the existing sanitary lift station (PW 127) will be required to pump the sewage to the trunk main on North Nechako Road. Catchment 2 flows will be directed to the 200mm diameter gravity main on Stevens Drive, which flows southeast into a City lift station (Asset ID PW127). A 250mm diameter main at a minimum slope of 0.3% will have sufficient capacity of service the peak flow of Catchment 2.

Four sanitary sewer pipe segments are currently undersized from the Stevens Road tie-in-point to PW127, which are pipe asset ID's 7927, 7926 and 10287. Pipe asset ID 10287 has the lowest available capacity and is there the trigger for future upgrades (see F10: Infrastructure Development Plan). The additional sanitary flows produced by the proposed development within the Plan area (34.36 L/s) are greater than the available zoning flow of 11.2 L/s. Pipe asset ID 10287 will be able to service approximately 180 new dwelling units before any upgrades are required.

The OCP outlines that pump station PW127 has a Peak Wet Weather Flow (PWWF) of 7.4 L/s and has a capacity of 13 L/s. Therefore, the pump station is undersized for the total additional sanitary flows produced by the proposed development (34.36 L/s). The pump station will be able to service approximately 90 new dwelling units before any upgrades are required. See Servicing Brief Table 7.4 (Appendix F).

### **6.3 Storm Water System**

The existing storm system in the vicinity of the Plan area consists of two 600mm storm mains that extend onto the lands located within the Plan boundary. The proposed storm servicing plan will include disposal of storm water runoff into the native gravel soils via on-site storm water disposal systems, consisting of multiple exfiltration pipe trenches. All of the storm water runoff from the proposed development will remain onsite and infiltrate into the gravel soils. The exact size and location of the storm infrastructure has not yet been confirmed, but will be determined during the detailed design stages of the development. The lowest elevation within the Plan area is 600m at the southwest corner. City of Prince George floodplain mapping indicates the 200 year flood plain in the area is 576m, therefore the infiltration capacity will not be affected by future flood events.

In addition, the Groundwater Assessment completed by Pinchin Ltd. (see Appendix B) has identified that infiltration cannot occur within the Groundwater Protection Development Permit Area (see F7: Natural Environment & Sensitive Areas). Pinchin Ltd., has recommended that grease, oil and sand interceptors shall be provided for the area designated for commercial development within the Plan area.

## 6.4 Neighbourhood Servicing Policy Recommendations

The following policy recommendations are recommended to be considered during the detailed design and subdivision stages of development:

1. An Environmental Management Plan (EMP) shall be developed for the Plan area which includes monitoring site activities, document reporting and remediation of potential spills.
2. Buried utilities shall be installed using the standard depth of cover specified within the City of Prince George bylaws.
3. As outlined within F10: Infrastructure Development Plan lift station PW127 shall be upgraded when 90 dwelling units have become developed within the catchment 2 area.
4. The City of Prince George shall complete a lift station analysis for PW127 to determine the existing flows and timeline for pond replacement.
5. As outlined within F10: Infrastructure Development Plan sanitary pipe 10287 shall be upgraded once 180 dwelling units have been development the catchment 2 area.
6. As outlined within F10: Infrastructure Development Plan sanitary pipe 7926 shall be upgraded once 470 dwelling units have been developed within the catchment 2 area.
7. As outlined within F10: Infrastructure Development Plan sanitary pipe 7927 shall be upgraded once 545 dwelling units have been developed within the catchment 2 area.
8. Grease, oil and sand interceptors shall be provided for the area designated for commercial development.
9. Storm water shall not be released into the Nechako River. Storm water runoff shall be managed through ground water infiltration into the native soils.
10. Storm water sewer design draining from roadways and vehicle parking areas within the Groundwater Protection Development Permit Area shall not include perforated pipe.
11. Groundwater infiltration shall not occur in the Groundwater Protection Area.
12. Alternative design standards that meet the intent of this Plan such as dual service standards should be considered during the detailed design and subdivision stages of development.

## 7.0 INSTITUTIONAL

The City of Prince George Official Community Plan recognizes a variety of public and private institutional-type land uses such as public education facilities, religious assemblies, municipal facilities and buildings, libraries, exhibits, etc.

### 7.1 Existing Schools

The North Nechako Neighbourhood Plan area is within the Edgewood Elementary and Duchess Park Secondary catchment areas. Currently, Edgewood Elementary School has an operating

capacity of 205 students; however 2018/2019 student enrolment numbers indicate that the school is running over capacity with an estimated 211 students enrolled (see Table 7, Capacity and Enrolment Statistics of Edgewood Elementary School). The enrollment of this school is currently restricted to catchment area students only. According to the School District No. 57 2015 Long Range Facilities Plan, which is the most recent enrollment date provided by School District No. 57 (SD57), enrollment numbers for the school are projected to remain steady over the next 5 years based on policy data for the schools operating capacity of 205 students. Consultation with School District No. 57 has indicated that there are no plans to build a new school in the North Nechako neighbourhood in the foreseeable future as Edgewood Elementary will be sufficient to service the educational needs of the North Nechako Neighbourhood Plan area. Should the Edgewood Elementary catchment enrollment continue to exceed its capacity, School District No. 57 has noted that portable classrooms and a capital project to add up to four classrooms to the school may be considered before a new school facility would be considered. A School District No. 57 capital project will require the approval of the Ministry of Education.

As outlined within Table 6, Duchess Park Secondary has an operating capacity of 900 students, however 2018/2019 student enrollment numbers indicate that the capacity at the school is currently full utilized. The enrollment of this school is currently restricted to catchment area students only. As per the 2015 Long Range Facilities Plan, enrollment is expected to increase gradually over the next 5 years.

**Table 6 Capacity and Projected Enrolment Statistics of Existing Schools**

School	Operating Capacity	Current Enrolment (2018-2019)	Projected Enrolment				
			2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
Edgewood Elementary School	205	211	201	203	202	201	201
Duchess Park Secondary School	900	1030	1016	1071	1109	1133	1158

\*Operating Capacity and Projected Enrolment Data is based off of SD57 2015 Long Range Facilities Plan

The following table summarizes the projected school-aged population that would be added by the proposed residential development within the Plan area at full build out.

**Table 7 Projected School Aged Population**

School	Total Dwelling Units	Average Students per Dwelling	Number of Students
Elementary School	778	0.4	311
Secondary School	778	0.28	218
<b>Total</b>			<b>529</b>

As outlined within Table 7, the estimated elementary school-aged population is calculated to be approximately 311 based on the standard of 0.4 elementary students per household. The secondary school-aged population is calculated to be 218 secondary students based on 0.28 students per household. The total school aged children is projected to be 529. Taking into consideration the 20 – 25 year development timeline, 529 students represents a moderate increase to the overall catchment population. An assumption should be made that the ages of school-aged children living within the Plan area will be disbursed among the various grades and will grow slightly with each development phase. Based on this assumption, it is unlikely that the population increase resulting from development within the Plan area would create additional pressure on the projected enrollment numbers for Edgewood Elementary and Duchess Park Secondary.

## **7.2 Civic Buildings and Places of Worship**

The Plan does not designate future locations for civic buildings such as libraries and community centers but recognizes that these land uses are important to achieving a sustainable livable neighbourhood. Provision of space for institutional needs of this nature has not been identified in the Plan as the development of these uses is contingent upon expressed public interest and is most often developed by the demands and volunteer efforts of local residents. In addition, the Plan recognizes that the provision for religious assemblies will be required on an as-needed basis. For this reason, specific locations for places of worship have not been included in the North Nechako Neighbourhood Plan.

## **8.0 IMPLEMENTATION**

This section is intended to provide clarity as to how the design guidelines and policy recommendations within this Plan should be interpreted and implemented by City Council, the City of Prince George and Developers.

The purpose of this Neighbourhood Plan is to establish land use policies for the Plan area to guide its future development. The plan has been prepared in accordance with the City of Prince George Official Community Plan principles and policies and is intended to provide a clear direction to decision makers, residents, and developers with regards to how the North Nechako Road neighbourhood will look and feel in the future. As the guiding policy document, the design guidelines and policy recommendations found within this Plan will be consulted throughout all future rezoning and subdivision phases of development to ensure conformity with the established vision of the neighbourhood and the greater community of Prince George.

It is recommended that the North Nechako 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 recommended within the Plan are intended to achieve design guidelines and meet performance objectives and are not intended for the City of Prince George to enforce. Building schemes will apply to the developer, each purchaser, lessee and sub-lessee of all or part of the land; and each successor in title, future purchaser, lessee and sub-lessee of the land as per the *Land Title Act*.

Should Prince George City Council adopt the North Nechako Neighbourhood Plan, the next steps will include development applications that will identify how the Neighbourhood Plans intent and recommendations have been achieved such as:

1. Rezoning and Official Community Plan amendment applications.
2. Phased subdivision applications.
3. Multiple Form and Character Development Permits for all multiple family developments.
4. Commercial Form and Character Development Permits for all development within the Neighbourhood Commercial area.
5. Groundwater Protection Development Permit for all development within the Groundwater Protection area.
6. Riparian Protection Development Permit for all development within the Riparian Protection area.

It is recommended that the City of Prince George consider the following for implementation throughout the aforementioned development application stages:

1. Alternative Development Design Standards (including but not limited to):
  - a. Traffic circles
  - b. Reduced collector road widths
  - c. Boulevard trees along collector roads
  - d. Dual service standards



2. Inclusion of Neighbourhood Plan Residential and Commercial Design Guidelines into the City of Prince George Zoning Bylaw.
3. Inclusion of the upgrade of Sanitary Lift Station PW127 as a Development Cost Charge project into the City of Prince George Development Cost Charge Bylaw.
4. Updates to Schedule C Pedestrian Network of the City of Prince George Subdivision and Development Servicing Bylaw.
5. Official Community Plan Schedule amendments.