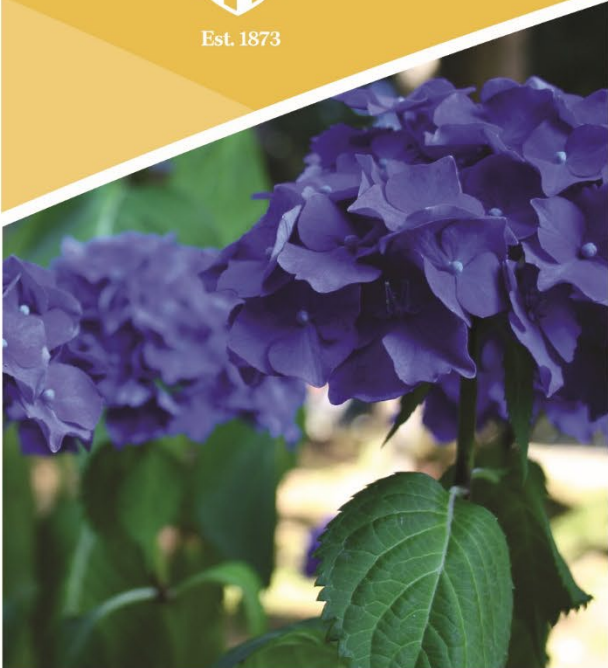


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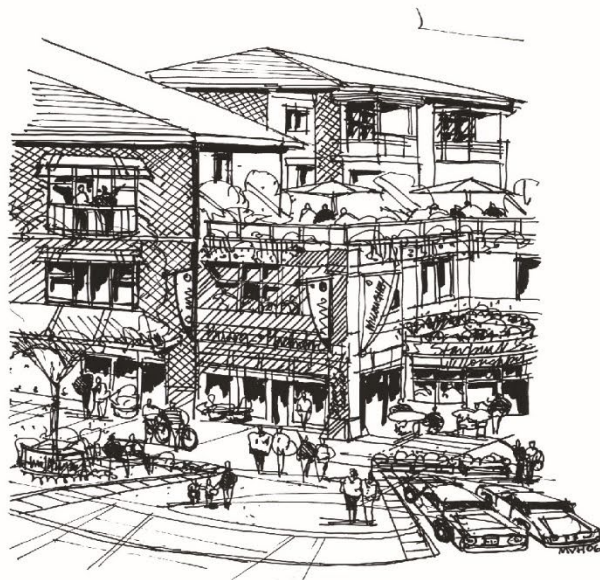
Est. 1873



# Willoughby

## Neighbourhood Plan

### Routley



Adopted June 11, 2001



\$20

Township  
of Langley



Est. 1873

THE CORPORATION OF THE  
TOWNSHIP OF LANGLEY

**Schedule W-3**  
**Willoughby Community Plan**

**Routley**  
**Neighbourhood Plan**

Bylaw No. 4013

**THE CORPORATION OF THE TOWNSHIP OF LANGLEY**

**LANGLEY OFFICIAL COMMUNITY PLAN BYLAW 1979 NO. 1842  
AMENDMENT (WILLOUGHBY COMMUNITY PLAN) BYLAW 1998 NO. 3800  
AMENDMENT (ROUTLEY NEIGHBOURHOOD PLAN) BYLAW 2001 NO. 4013**

**adopted by Council June 11, 2001**

**CONSOLIDATED FOR CONVENIENCE ONLY**

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**AMENDMENTS**

<b><u>BYLAW NO. / NAME</u></b>	<b><u>MAP/TEXT CHANGE</u></b>	<b><u>DATE OF ADOPTION</u></b>
4278 (Greenway Designations Along Arterial Roads)	Map	April 4, 2005
4438 (Alpha Omega Developments Inc)	Map	February 6, 2006
5887 (Omnibus)	Map/Text	June 26, 2023

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## **1.0 PURPOSE OF THE NEIGHBOURHOOD PLAN (NP)**

As stated in the Willoughby Plan, Willoughby is one of the few remaining areas of Langley Township designated for, and capable of, accommodating urban forms of development. While the Willoughby Plan provides general direction for future development, more detailed Neighbourhood Plans are required for the sub-areas of Willoughby.

The Routley Neighbourhood Plan (NP) addresses land use, community facilities, infrastructure services and financing of services – for the sub-area bounded by 68th Avenue (south), 196 Street (west), 200 Street (east), and approximately 73A Avenue (north).

The NP also provides a framework for building a new neighbourhood, based on a set of community values and development principles.

## **2.0 EXISTING CONDITIONS AND CONTEXT**

In planning the Routley neighbourhood, consideration has been given to its interface with Langley Meadows (the established urban neighbourhood south of 68 Avenue), as well as future urban areas to the north and west (Clayton), the 200 Street corridor and the Southwest Gordon Estate neighbourhood east of 200 Street.

The boundaries for this neighbourhood are also clearly delineated by 68 Avenue, 200 Street and the future 196 Street arterial. The northern boundary has been established at approximately 73A Avenue, based on the boundaries of the servicing catchment area.

Routley is also in close proximity to all the amenities and services of Langley Regional Town Centre. As such, the proposed land uses within Routley are primarily residential, with provision for neighbourhood commercial, church, school and park uses.

### **2.1. EXISTING CONDITIONS**

#### **2.1.1. LAND USE**

Routley is characterized by a mix of large and small acreages – with varying levels of improvements. Much of the land may be characterized as “holding properties.” There are also some substantial newer homes in the area, including three distinct enclaves of one-acre “estate” lots.

There is an existing church use at 72 Avenue and 198B Street, and limited commercial use, in the form of two professional offices.

# ROUTLEY NEIGHBOURHOOD PLAN

Figure # 1

## EXISTING CONDITIONS

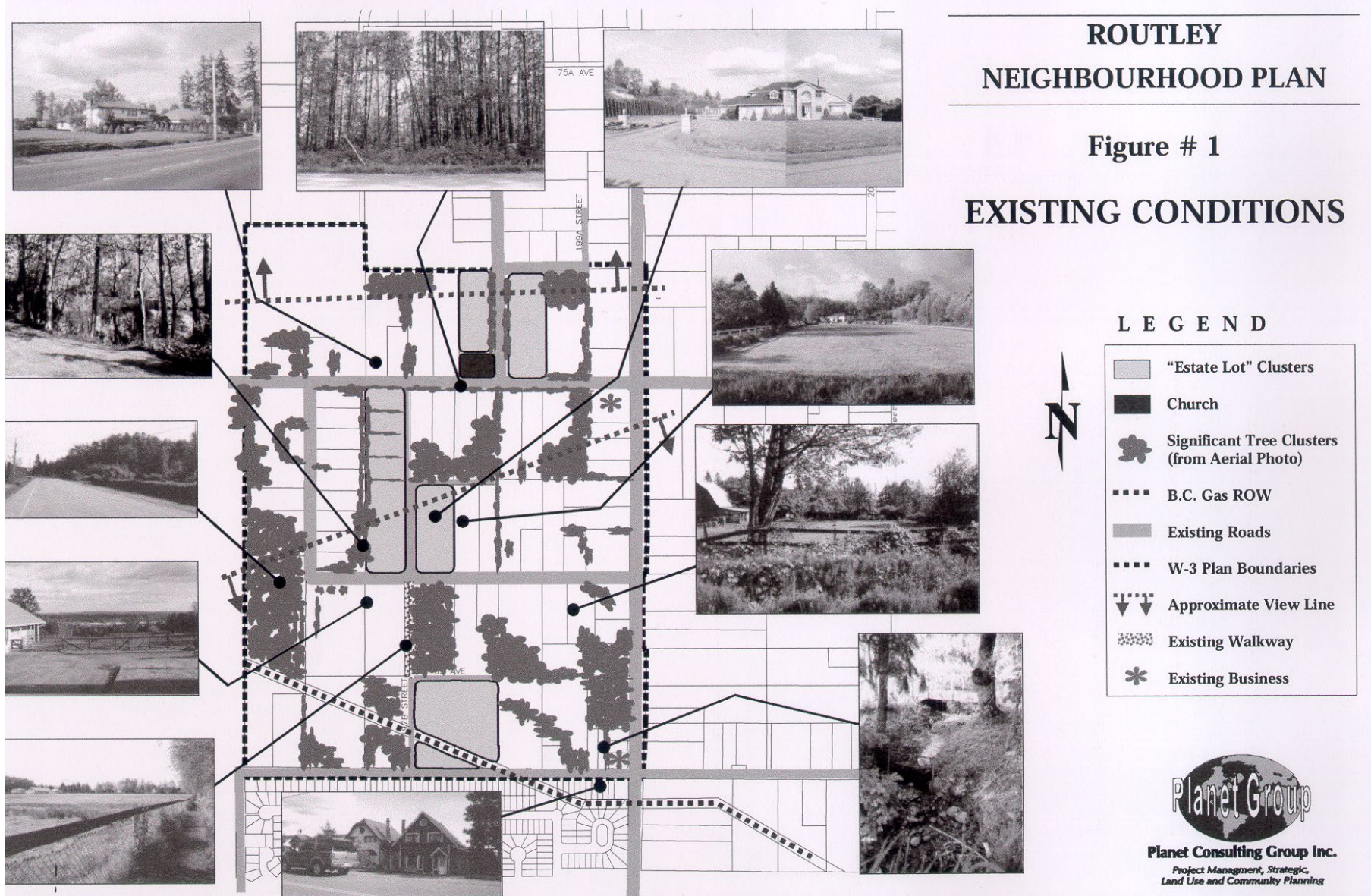


Figure 1 - Existing Conditions

### **2.1.2. NATURAL FEATURES**

While there are few mature, second growth tree species in Routley, there are numerous clusters of trees and vegetation, which add to the aesthetic and environmental value of the area, and should be retained, where appropriate through new development.

There are also a couple of natural ponds in the area and a small watercourse located in the southeast portion of the neighbourhood. However, there are no watercourses of significance for fish habitat.

### **2.1.3. VIEWS**

The northern portion of Routley is relatively flat. Some properties north of 72 Avenue offer views of the Coast Mountains. The southern portion is more sloping, and offers some excellent views towards Langley Town Centre, Murrayville and Mount Baker.

### **2.1.4. HERITAGE**

This area is referred to as “Routley” in the Willoughby Community Plan. 200 Street, between 68 and 72 Avenues was called Routley Street – after John and William Routley, who owned land in this area in the late 1890’s and early 1900’s.

There are no recorded heritage buildings in Routley. However, the cultural heritage of Willoughby and the Township of Langley could provide the design inspiration for the new neighbourhood – in terms of architectural design elements, building materials and indigenous plant and tree species.

## **2.2. COMMUNITY CONTEXT**

The new neighbourhood of Routley is one of several neighbourhoods planned for the Willoughby area. As such, it will be developed within the broader policy framework for Willoughby. Development will also be influenced by development in adjacent neighbourhoods (both established and planned communities).

### **2.2.1 WILLOUGHBY COMMUNITY PLAN**

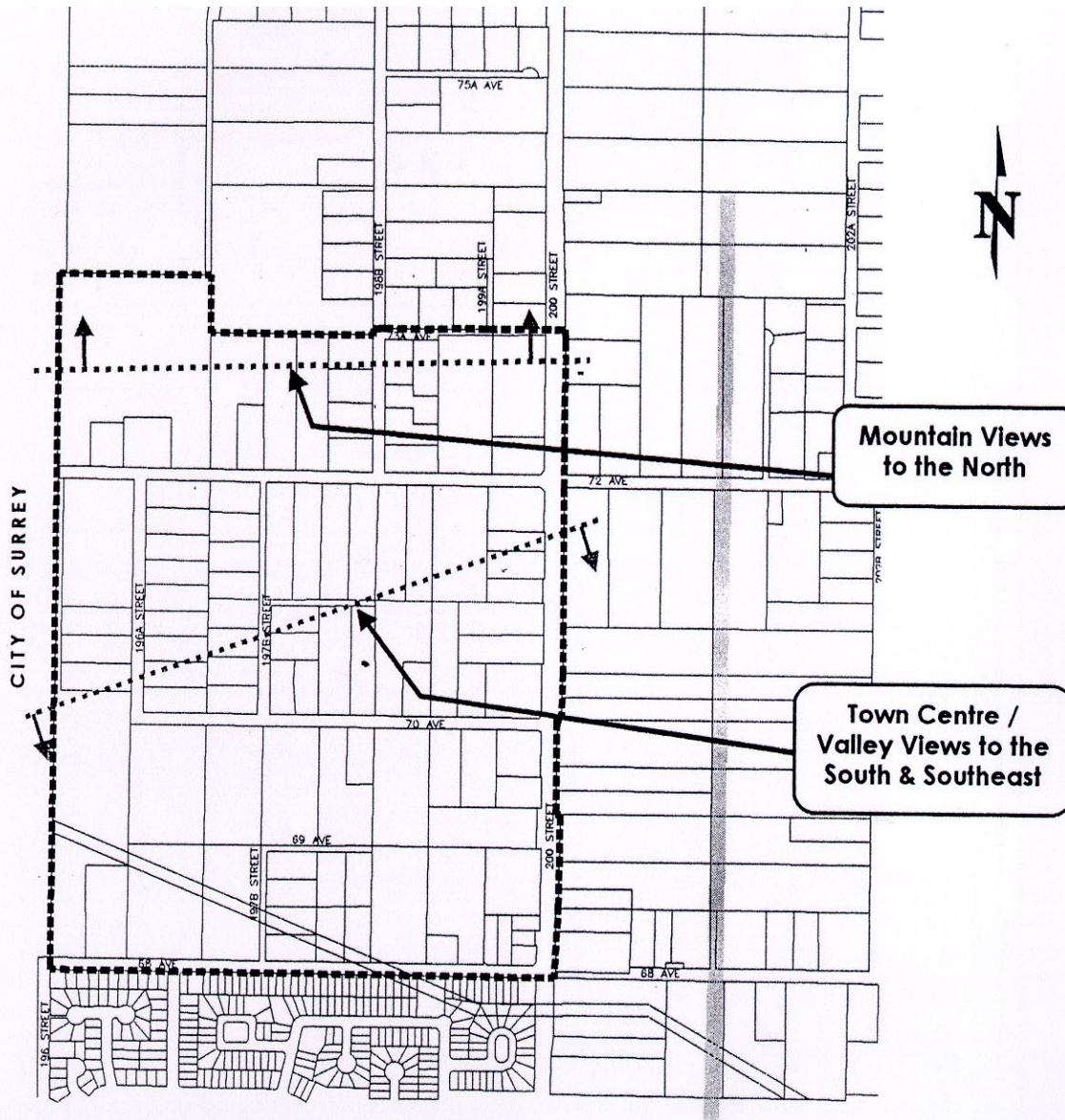
Routley is located within the Willoughby Community Plan area, which is bounded by Highway 1 to the north, the City of Surrey boundary to the west, the Agricultural land Reserve boundary to the east, and an irregular southern boundary, which extends into the Willowbrook area.

Willoughby has been designated for some time in the Township of Langley Official Community Plan, as a major development area in Langley, and forms a continuation of an urban area of land, which includes Langley City, Clayton (Surrey) and Walnut Grove, north of Highway 1.

**ROUTLEY  
NEIGHBOURHOOD PLAN**

FIGURE #2

**VIEWS FROM ROUTLEY**



**L E G E N D**

- ..... W-3 Plan Boundaries
- ..... Approximate View Line



**Planet Consulting Group Inc.**  
Project Management, Strategic,  
Land Use and Community Planning

Figure 2 - Views From Routley

The Willoughby Plan designates Routley for residential use, with provision for some neighbourhood commercial uses at 72 Avenue and 200 Street. A key objective of the Willoughby Plan is the creation of a greenway system along both sides of 200 Street, to create an attractive entryway into Langley Town Centre, and to provide a recreational corridor and improved livability for Willoughby residents.

### **2.2.2 ADJACENT NEIGHBOURHOODS AND LINKAGES**

Routley will eventually interface with four adjacent neighbourhoods: the established Langley Meadows neighbourhood, south of 68 Avenue; Southwest Gordon Estate, east of 200 Street; Surrey's Clayton area, west of 196 Street; and a future neighbourhood to the north.

While Routley is separated from these areas by existing and proposed roads, it will be linked by a greenway system: a north-south greenway on both sides of 200 Street; and an east-west greenway utilizing the B.C. Gas right-of-way.

Proposed land uses within Routley will provide an appropriate interface and transition with land uses in adjacent neighbourhoods.

## **3.0 NEIGHBOURHOOD PLAN OBJECTIVES**

The Routley Neighbourhood Plan will guide the orderly development of this ±200 acre neighbourhood through land use and urban design policies. Key plan objectives are as follows:

- to provide for an appropriate mix of housing to accommodate a range of household needs;
- to establish a local road pattern that provides good access to, and connectivity within the neighbourhood; while redirecting flow-through traffic to arterial routes on the periphery of the neighbourhood;
- to locate a combined site for an elementary school and neighbourhood park close to a majority of neighbourhood residents – to provide a community focal point;
- to preserve and enhance existing views from the neighbourhood;
- to preserve, where possible, existing vegetation and natural features, and to create new opportunities for pedestrian and wildlife movement;
- to provide a landscaped visual and noise buffer along 200 Street;
- to provide a north-south greenway within the neighbourhood, to provide a recreational amenity for residents;
- to utilize bonus density provisions as an incentive for greenway and open space dedication and construction;
- to create a “gateway” at 72 Avenue and 200 Street, through urban design elements, to signify entry into the neighbourhood;
- to provide for limited convenience retail uses at the neighbourhood gateway;
- to address both future livability and longer-term development opportunities for all properties;
- to enhance pedestrian/cyclist safety within the neighbourhood and at 68 and 72 Avenue crossings of 200 Street.



- Compact single-family lots, duplexes and townhouses 20-25 units/hectare ( 8 – 10 units/acre)

For all designations utilizing UPA as a density measure, density is to be calculated on the basis of gross developable land area, in accordance with Section 3.1.7 of the Willoughby Community Plan. Gross developable land area includes land dedicated for new roads, biofiltration ponds, riparian area dedication above the top-of-bank, and rights-of-way for transmission lines and other utilities, provided they are upgraded as a linear park system. Undevelopable land includes land below the top-of-bank of watercourses. The actual housing types that are developed and the resulting unit yields will depend on prevailing market demand, and whether or not the bonus density provisions are utilized, at time of development. Accessory dwellings may be considered on a development by development basis in compliance with the overall density and consideration of amenities.

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#### **4.2.2 RESIDENTIAL INFILL**

Many properties in the Plan area have a relatively low ratio of improvements to land value – which is indicative of a high number of holding properties and larger parcels with smaller houses.

There are also three distinct enclaves of one-acre lots (and some individual parcels) with significantly higher ratios of improvements to land value. While lots in these enclaves have further development potential, subdivision may not be feasible in the foreseeable future due to the good condition and/or location of existing dwellings, and the higher value of these properties.

The Residential Infill designation allows for densification of these properties through the construction of additional strata title dwellings on the same lot (e.g., infill dwellings, coach houses, etc.) – as an alternative to fee simple subdivision.

Under this scenario, the existing dwelling and each new dwelling would be strata titled, with a shared private road (driveway) access and open area held as common property.

Infill development would be permitted at the same base density of 15 units/hectare (6 units/acre). The infill option would not, however, preclude bonus density opportunities available under the Residential Density Bonus Area 1 and 2 as described in the Willoughby Community Plan – if a parcel contained land suitable for greenway or open space dedication. Examples of infill development are provided in Figures 3 through 5.

Density Bonus Area 1 applies to areas east of 198B and north of 72 Avenue. Density Bonus Area 2 applies to areas west of 198B for areas north of 72 Avenue, and west of 198A for areas south of 72 Avenue.

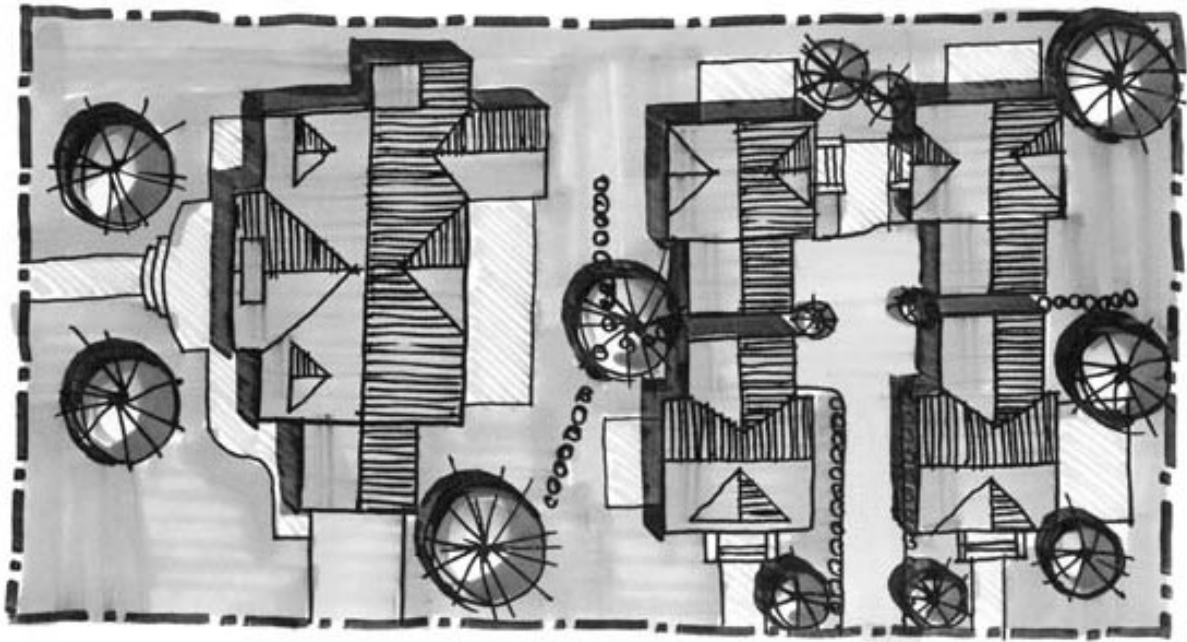


Figure 3: Corner Lot Infill Housing (plan view)

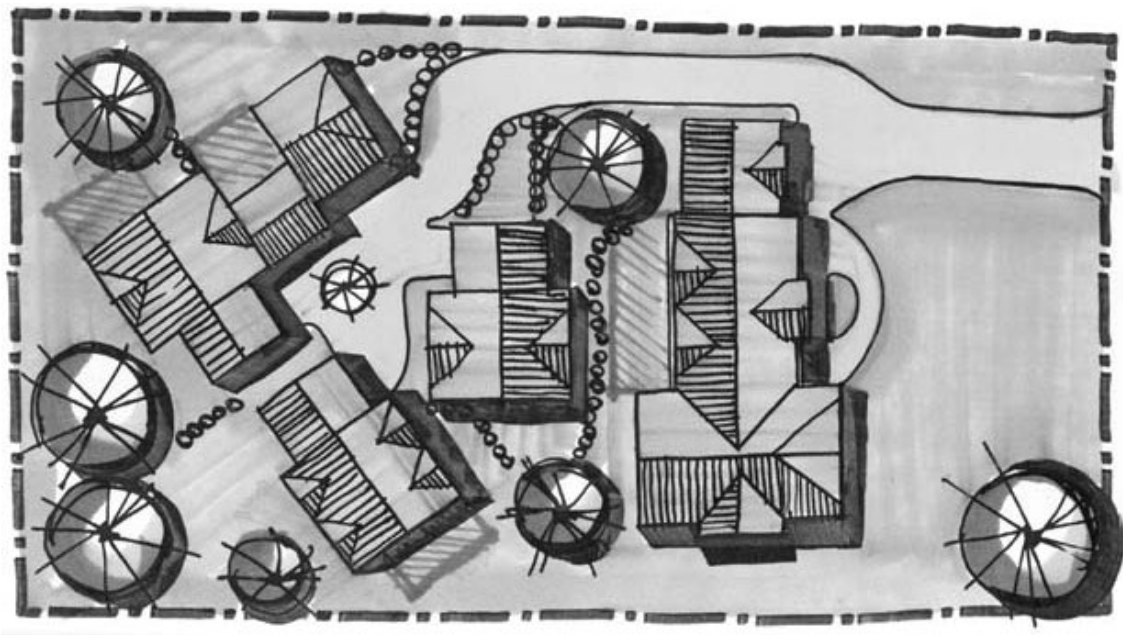


Figure 4: Mid-Block Infill Housing (plan view)



**Figure 5: "Coach House" Example**

#### **4.2.3 COMMERCIAL**

Given the proximity of Routley to the major retail facilities of Willowbrook and Langley Regional Town Centre, provision is made in the Plan for a modest amount of neighbourhood-oriented convenience retail. The appropriate location for retail uses is the neighbourhood "gateway" at 72 Avenue and 200 Street.

#### **4.2.4 INSTITUTIONAL**

Institutional uses, such as churches and private schools will be considered based on their ability to complement adjacent residential uses.

### **4.3. HOUSING AND POPULATION ESTIMATES**

Table 1 below provides an estimate of developable land area in Routley. Gross land area is estimated at 78.9 hectares (194.9 acres). Assuming 15 percent of land area is required for new roads, and a further 5 percent for parks - net developable area is estimated at 63.1 hectares (155.9 acres).

Based on these area calculations, Table 2 provides an estimated yield of potential housing units upon build-out, assuming that development occurs at the base density of 14.8 units per hectare (6 units per acre). Under this scenario, the neighbourhood could accommodate a total of approximately 935 single-family detached units. This would generate a population of approximately 3,085 - based on a typical household size of 3.3 persons.

A more realistic scenario would be development at an average density of 19.8 to 22.2 units per hectare (8 to 9 units per acre), which assumes that some of the bonus density provisions would be utilized. Assuming a typical household size of 3.3 persons (typical for single-family unit), this would yield between 1,250 and 1,400 residential units, and would generate a population between 4,000 and 4,600. Table 3 illustrates potential population and unit yields, assuming an average density of 22.2 units per hectare (9 units per acre).

**TABLE 1: ESTIMATE DEVELOPABLE LAND AREA**

ROUTLEY NEIGHBOURHOOD	GROSS DEVELOPABLE LAND AREA		NET DEVELOPABLE LAND AREA (Less 15% for new roads and 5% for park)		% OF TOTAL AREA
	hectares	acres	hectares	acres	
Total Neighbourhood	78.9	194.9	63.1	155.9	100%
<b>BREAKDOWN BY SUB-AREA</b>					
North of 72 Avenue	19.4	47.9	15.5	38.3	24.6%
70 Avenue to 72 Avenue	29.2	72.3	23.4	57.8	37.0%
68 Avenue to 70 Avenue	30.2	74.7	24.2	59.8	38.4%
<b>BREAKDOWN BY BONUS DENSITY AREA</b>					
Bonus Area 1 (198B Street to 200 Street)	26.4	65.2	21.1	52.2	33.5%
Bonus Area 2 (196 Street to 198B Street)	52.5	129.7	42.0	103.7	66.5%

**TABLE 2: POTENTIAL UNIT YIELD AT BASE DENSITY**

ROUTLEY NEIGHBOURHOOD	GROSS DEVELOPABLE LAND AREA		NET DEVELOPABLE LAND AREA (Less 15% for new roads and 5% for park)		POTENTIAL HOUSING UNITS AT 6 U.P.A.
	hectares	acres	hectares	Acres	
Total Neighbourhood	78.9	194.9	63.1	155.9	935
<b>BREAKDOWN BY SUB-AREA</b>					
North of 72 Avenue	19.4	47.9	15.5	38.3	230
70 Avenue to 72 Avenue	29.2	72.3	23.4	57.8	346
68 Avenue to 70 Avenue	30.2	74.7	24.2	59.8	359

**TABLE 3: POTENTIAL UNIT YIELD ASSUMING DEVELOPMENT OCCURS AT AN AVERAGE DENSITY OF 9 UNITS PER ACRE**

ROUTLEY NEIGHBOURHOOD	GROSS DEVELOPABLE LAND AREA		NET DEVELOPABLE LAND AREA <sup>1</sup> (Less 15% for new roads only)		POTENTIAL HOUSING UNITS
	Hectares	Acres	hectares	acres	
Total Neighbourhood	78.9	194.9	67.1	165.7	1,491
BREAKDOWN BY SUB-AREA					
North of 72 Avenue	19.4	47.9	16.5	40.8	367
70 Avenue to 72 Avenue	29.2	72.3	24.8	61.5	553
68 Avenue to 70 Avenue	30.2	74.7	25.7	63.4	571

#### 4.4. NEIGHBOURHOOD CHARACTER

The physical design of the Routley neighbourhood should enhance the sense of place and allow residents to easily identify with their community. Key elements in designing this neighbourhood include:

- creating a “sense of community”
- developing visually-appealing streetscapes and public spaces
- providing a system of “greenways” to both buffer the neighbourhood and provide a recreational amenity for residents
- creation of a community “focal point” near the centre of the neighbourhood
- establishing a prominent neighbourhood “gateway” at 72 Avenue
- ensuring a safe and secure neighbourhood

These and other elements are discussed below:

##### 4.4.1 GATEWAY

The intersection of 200 Street and 72 Avenue will be a principal crossroads and gateway into both Routley (to the west) and Southwest Gordon Estate (to the east). This location is also identified as a neighbourhood commercial node, and will be the focus of both pedestrian and vehicular activity.

Entry into Routley should be formally announced with appropriate architectural and landscape design treatment – including signage announcing the name of the community. The design of this feature shall be presented to the Township for approval at the time of the development permit review, and shall be coordinated with a gateway feature on the west side of 200 Street.

<sup>1</sup> In Table 3, the calculation of “Net Developable Area” does not take into account any land area which may be below top-of-bank; and assumes that the required 5% park dedication is included in the bonus density calculations, as per the Bonus Area 2 provisions of the Willoughby Community Plan.

#### **4.4.2 BUILT FORM**

The built form should enhance the distinctiveness of the Routley neighbourhood and contribute to visually appealing streetscapes. The built form should also enhance the safety and comfort of neighbourhood residents.

Physical elements that support these objectives include “human scale development” in the form of:

- ground-oriented buildings with individual “front doors” (unit entries) at street level.
- buildings that are oriented towards the street to provide opportunities for neighbourhood surveillance, and a feeling of safety.
- street furniture for pedestrian comfort – including benches, garbage receptacles and bicycle racks in the greenways, at the neighbourhood commercial node and other public areas.
- street trees and illuminated sidewalks.
- distinctive commercial buildings and landscape elements which form a neighbourhood gateway at 72 Avenue and 200 Street.
- siting and massing of buildings - following the topography of the land, to ensure maximum sun exposure and preserve existing views.

#### **4.4.3 FOCAL POINT**

Routley is a relatively compact neighbourhood defined by the roads that surround it. Given its proximity to Willowbrook and all of the amenities of Langley Regional Town Centre, Routley will not have a broad range of land use designations. Being primarily residential in nature, the elementary school and neighbourhood park will form an important focal point for both active and passive recreation, and community interaction.

#### **4.4.4 GREENWAYS**

The proposed greenway system will provide both a neighbourhood buffer along 200 Street, and an important recreational amenity within the neighbourhood. Greenways will include pedestrian and bicycle paths, and will link the neighbourhood park, elementary school and retail amenities. (The greenway concept is described in Section 5.2).

Greenways will provide a safe and attractive connection to adjacent neighbourhoods, and will form part of a larger trail system through Langley and Surrey. Continuous corridors will also help maintain fish and wildlife habitat.

#### **4.4.5 VIEW CORRIDORS**

There are many properties in Routley with existing or potential views of the valley to the south, or the mountains to the north (see Figure 2). To ensure that view opportunities are preserved or enhanced, new development should respect the natural topography of the land.

On sloping sites, buildings should have a consistent massing to create a terraced form of development and provide view opportunities for a majority of housing units.

Consideration should also be given to creating view corridors within road rights-of-way, greenways and park areas for the enjoyment of all residents.

#### **4.4.6 SAFETY AND SECURITY**

A good neighbourhood is also a safe and secure neighbourhood. Opportunities for ensuring the safety and security of residents include land use policy, and urban and landscape design considerations:

- By accommodating a range of residential densities, the Routley Plan encourages a diversity of population and housing types. This in turn brings activity to neighbourhood streets at various times of the day, and encourages surveillance by residents.
- Opportunities for criminal activity should be reduced or eliminated through the implementation of accepted principles of “crime prevention through environmental design” (CPTED).
- Buildings should be designed with an outlook towards streets and greenways, rather than inward-looking or gated enclaves. This enables greater neighbourhood surveillance by providing more “eyes on the street.”
- Neighbourhood greenways should be well illuminated and designed to allow views through landscaped areas, and surveillance from adjacent housing units. Greenways with a habitat component should have minimal lighting to avoid alteration of habitat suitability. If a greenway is not located adjacent to a roadway, various opportunities for access to/egress from the greenway should be provided.
- To encourage active use at various times of the day, the neighbourhood park (community focal point) should include amenities for various age groups and activities (i.e., opportunities for passive and active recreation).
- The greenway system is intended to provide a safer, alternative route for bicycles – for both commuter cyclists who currently use 200 Street, and recreational cyclists who would use neighbourhood streets.
- The introduction of sidewalks and walkways will create a separation for pedestrians and automobiles throughout the neighbourhood.
- Enhanced pedestrian safety will be required at the neighbourhood gateway (72 Avenue and 200 Street intersection), adjacent to the neighbourhood park/elementary school, and other locations to be determined by the Township.

### **5.0 COMMUNITY FACILITIES**

A neighbourhood park and elementary school will form the community focal point and recreational facility for Routley residents.

Pedestrian and bicycle movements within Routley will be facilitated by a system of greenways, which will also provide a connection to the neighbourhood park and elementary school, as well as adjacent neighbourhoods.

#### **5.1 PARKS**

Development of the Routley neighbourhood will require a neighbourhood park and elementary school. These facilities will likely be developed on a combined site, with a minimum area of 4 hectares (10 acres).

The combined park/school site should be centrally located within Routley (between 68 and 72 Avenues), and should be easily accessible by pedestrians, private vehicles and school buses.

An appropriate park/school site must be secured prior to development proceeding in the neighbourhood. The ideal site will have the following characteristics:

- Well-drained, evenly sloped site
- Preferably 3% slope to minimize cut and fill
- Should not front on an arterial street or cul-de-sac
- Ideally, should be located along a neighbourhood collector street, at least 100 metres from an intersection
- Preferably, rectangular in shape
- Opportunities for landscape buffer adjacent to residential uses
- A minimum street frontage of approximately 100 metres for the elementary school

Typical park/school (outdoor) amenities should include:

- 2 full-sized overlapping soccer fields/ball diamonds
- Parking for ± 60 cars
- Adventure playground
- Paved basketball/shinny hockey court
- Passive area, landscaped areas and trails

## **5.2 GREENWAYS**

One of the objectives of the Willoughby Plan is to create a “greenway” along both sides of 200 Street. The purpose of the greenway is to provide a green buffer along the 200 Street corridor, and to accommodate pedestrian and bicycle paths. Where greenways and municipal trails can not be provided through the density bonus mechanism, the Township will consider using provisions of Section 941(1) of the Municipal Act to provide land for these purposes.

Driveways crossing greenways will be discouraged. Where there is no choice, driveways shall be consolidated and minimized and intersections with greenways shall be designed for the safety of users of the greenway.

### **5.2.1 NORTH-SOUTH GREENWAYS**

The greenway concept for Routley (i.e., west side of 200 Street) proposes splitting the 200 Street “greenway” into two components:

- provide a 15 m landscape buffer adjacent to residential uses along 200 Street, to provide visual screening and noise attenuation;
- provide a 2 metre wide landscaping area adjacent to commercial uses along 200 Street as a boulevard between the curb and the sidewalk and a 3.5 metre corridor, including a 2.5 metre shared use (pedestrian and bicycle) concrete sidewalk;
- provide a 15 m “active” portion of the greenway (i.e., pedestrian and cycling path) “into” the neighbourhood – at approximately 199 Street.

The intent is to locate the pedestrian and cycling paths away from arterial traffic, and to provide a more usable amenity for residents.

The greenway could also be used to link neighbourhood focal points such as the school, park and retail node at 72 Avenue.

The ultimate greenway along 200 Street should be similar in depth and treatment on both sides of 200 Street.

### 5.2.2 OTHER GREENWAY OPPORTUNITIES

The original notion of a 200 Street greenway can be expanded into a series of smaller greenways and pedestrian pathways through the neighbourhood:

- The existing BC Gas right-of-way (north of 68 Avenue) should be developed as a greenway connection to Clayton on the West, and to Southwest Gordon Estate on the east (via a pedestrian overpass across 200 Street at 68 Avenue).
- Existing clusters of vegetation in Routley could be retained and linked to create additional greenway connections in the neighbourhood.
- Mid-block pedestrian connections to the 200 Street greenway should be developed north and south of 70 Avenue to provide access to public transit.

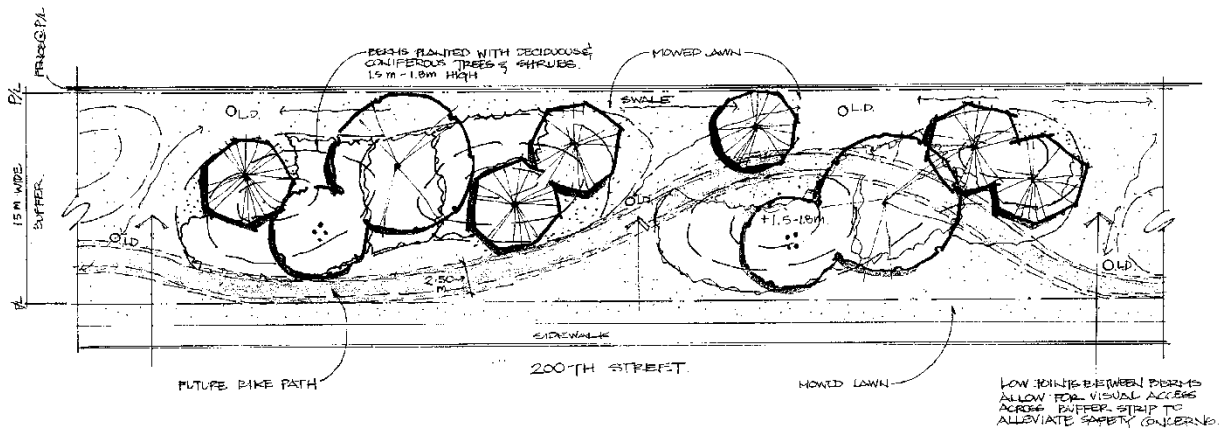
### 5.2.3 GREENWAY WIDTHS

Widths of greenways are set out in the following table:

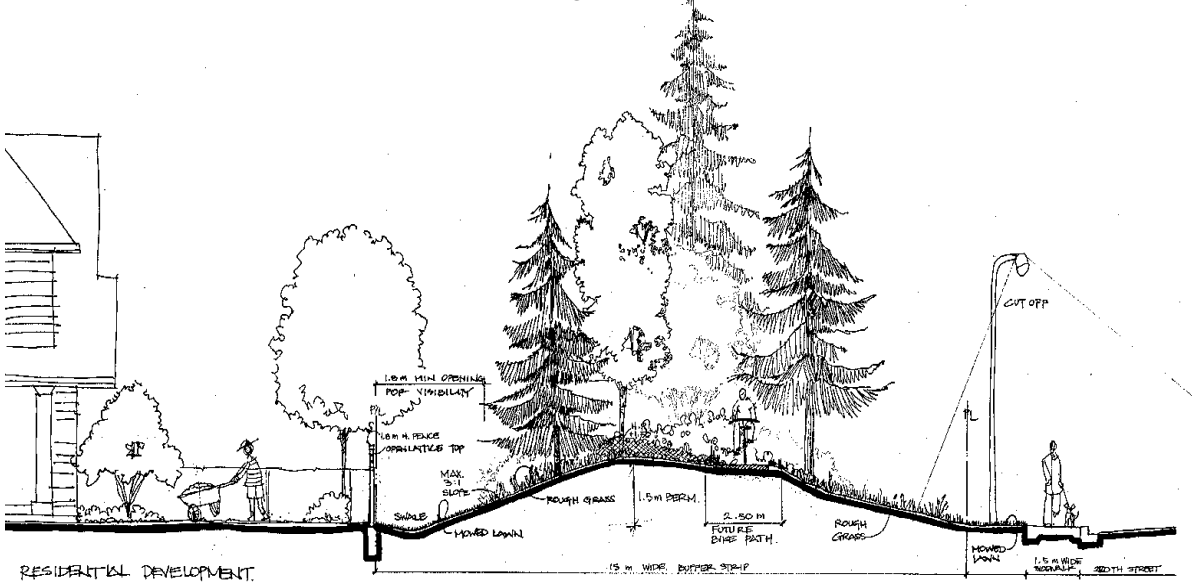
**TABLE 4: GREENWAY WIDTHS**

LOCATION	STANDARD
200 Street	15 m where density bonus is used - Figures 6 and 7
199 Street	15 m (6 m minimum) - Figures 8, 9 and 10
Mid Block Connections	15 m (6 m minimum) - Figures 11, 12 and 13
BC Gas right-of-way	width of right-of-way with 4.5 m trail - Figure 14

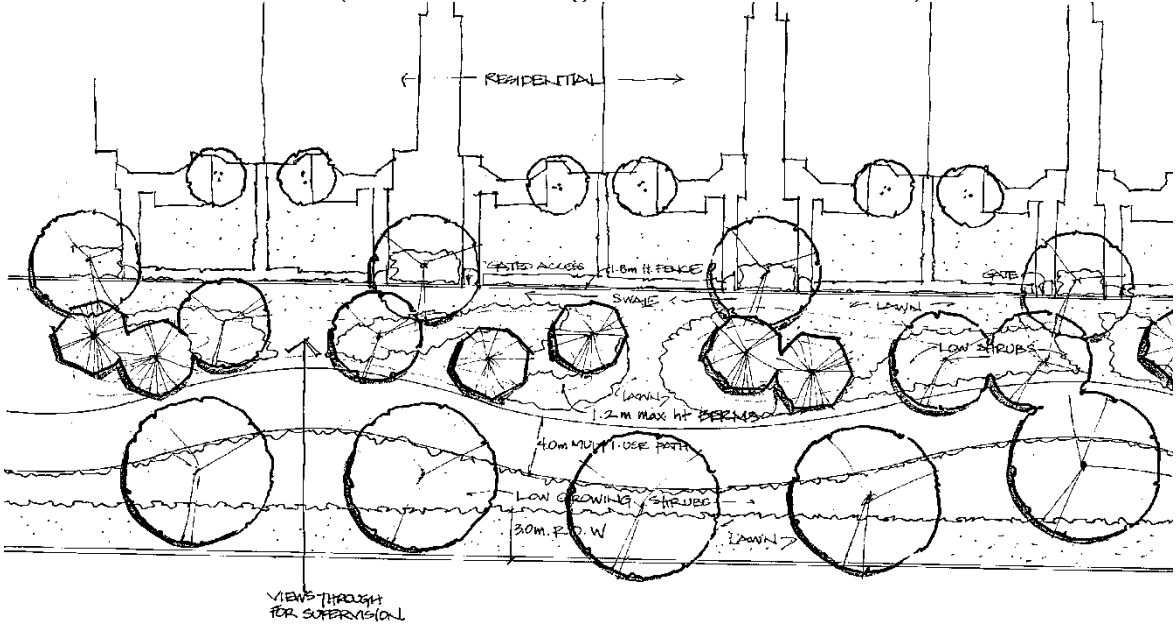
**Figure 6: 200 Street Greenway - 15m ROW**  
(Plan view showing planted berms)



**Figure 7: 200 Street Greenway - 15m ROW**  
 (Section showing landscaped berm)

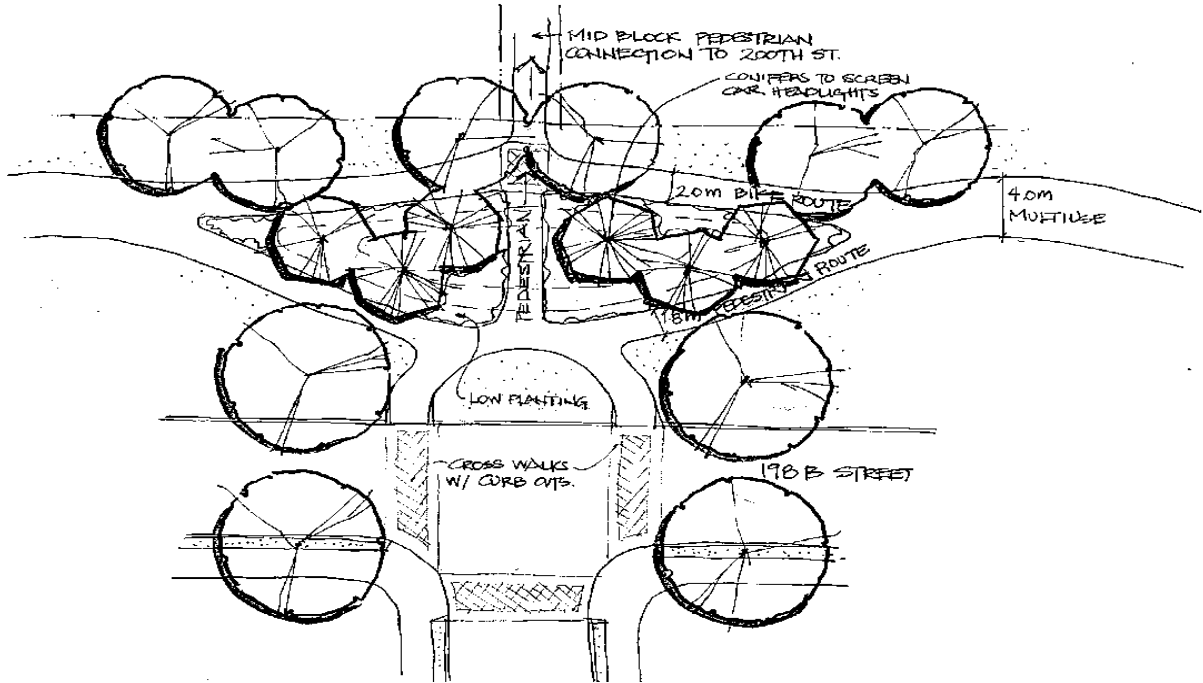


**Figure 8: 199 Street Greenway**  
 (Plan view showing C.P.T.E.D. considerations)

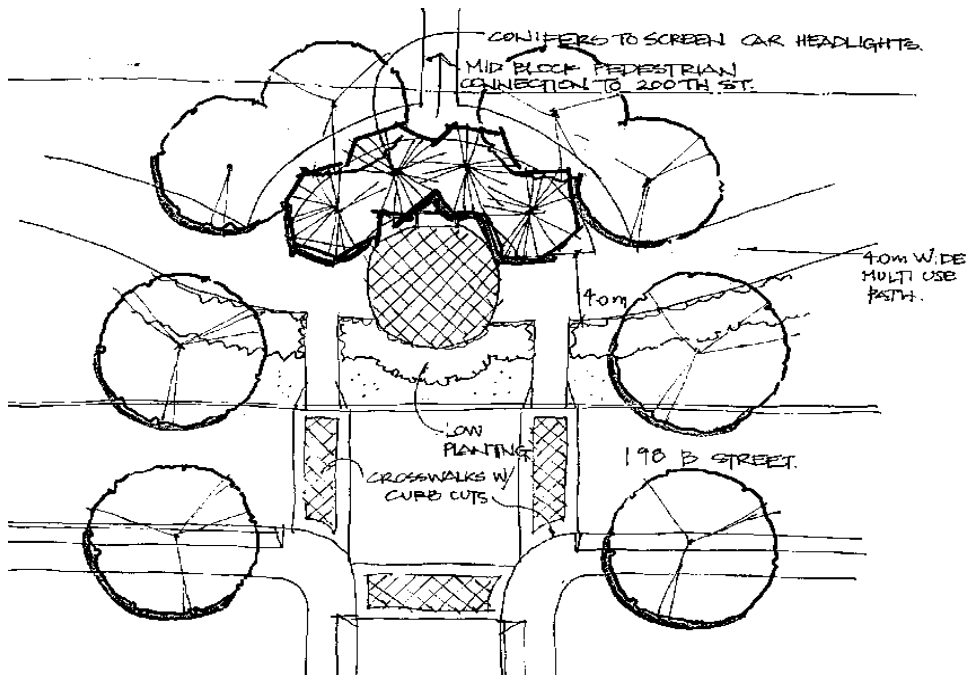




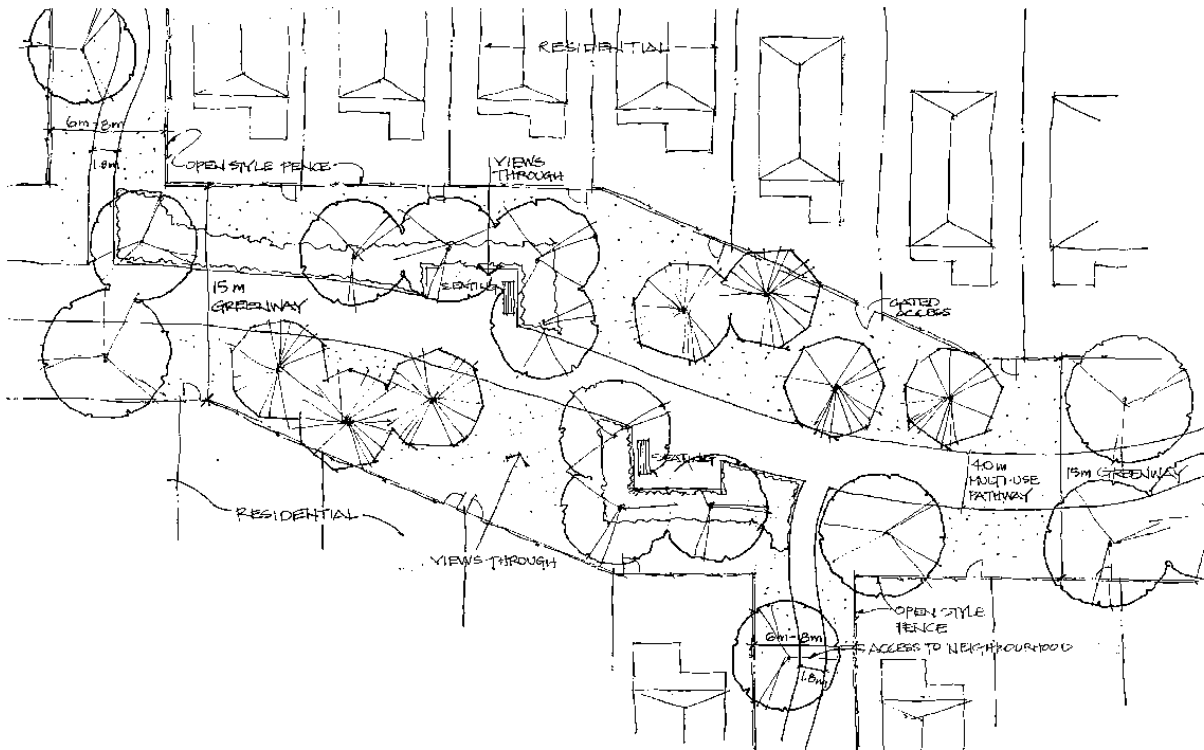
**Figure 11: 199 Street Greenway at 71 Avenue**  
(showing mid-block connection to east-west walkway)  
**Option 1: divided path at intersection**



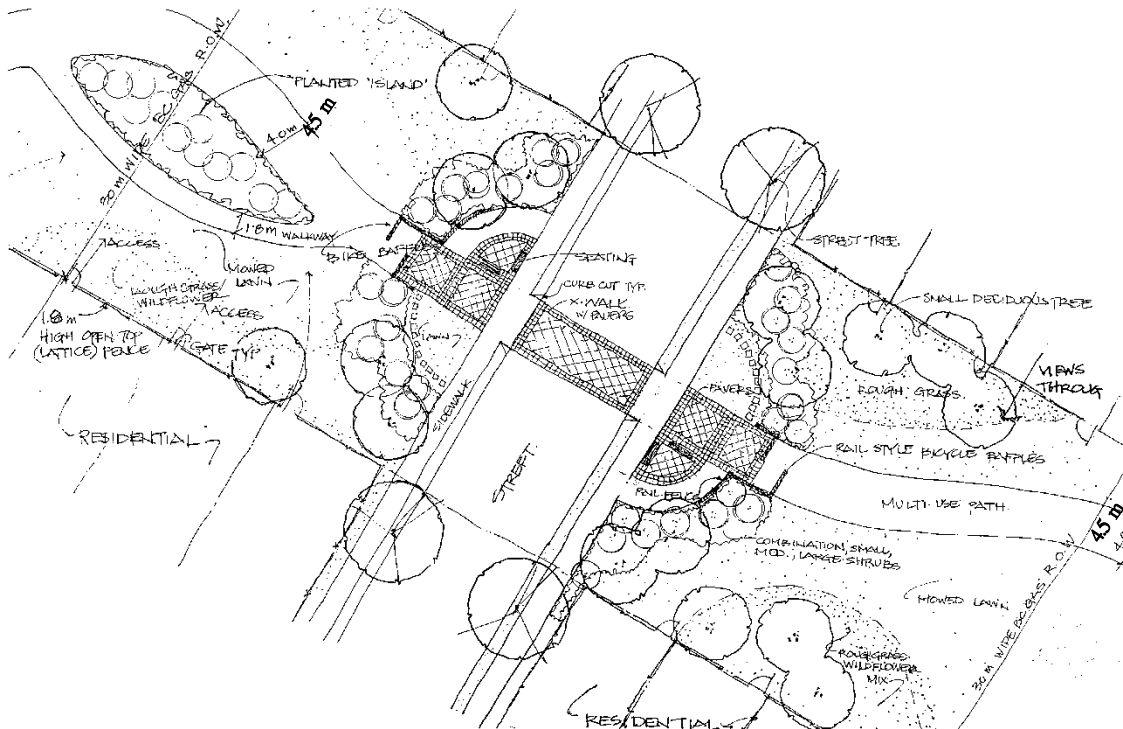
**Figure 12: 199 Street Greenway at 71 Avenue**  
(showing mid-block connection to east-west walkway)  
**Option 2: combined path at intersection**



**Figure 13: Mid-block Pedestrian Connection  
Between 69 Avenue and 70 Avenue**



**Figure 14: BC Gas Right-of-Way with Multi-use Pathway**



### 5.3 SCHOOLS

A typical elementary school should accommodate approximately 400 students - from Kindergarten to Grade 7. Based on estimated population figures for Routley (refer to Section 4.3), it is anticipated that the area south of 72 Avenue will support a new elementary school.

Table 5 below illustrates that, if the neighbourhood develops at a base density of 14.8 units per hectare (6 units per acre), an elementary school enrollment of approximately 387 students would be generated south of 72 Avenue - with approximately 514 students overall. If development occurred at an average density of 22.2 units per hectare (9 units per acre), which is considered a realistic scenario,<sup>2</sup> an elementary school enrollment of approximately 455 students could be generated south of 72 Avenue.

One elementary school could serve all of Routley over the short term. However, based on population estimates, a new school will be required north of 72 Avenue in the future.

Based on estimated enrollment (Table 6), a secondary school population of approximately 323 students would be generated in Routley, assuming development at an average density of 22.2 units per hectare (9 units per acre).

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<sup>2</sup> Development at an average density of 9 units per acre is considered realistic, given actual opportunities for bonus densities in Bonus Areas 1 and 2

**TABLE 5: ESTIMATED ELEMENTARY SCHOOL ENROLLMENT**

ROUTLEY NEIGHBOURHOOD	POTENTIAL SCHOOL ENROLLMENT					
	DEVELOPMENT AT BASE DENSITY 6 U.P.A.			DEVELOPMENT AT DENSITY OF 9 U.P.A. (AVERAGE)		
	Units	Population 3	Students 4	Units	Population 5	Students 6
North of 72 Avenue	230	759	127	344	1,032	148
70 Avenue to 72 Avenue	346	1,141	190	520	1,560	224
68 Avenue to 70 Avenue	359	1,185	197	538	1,614	231
All of Routley	935	3,085	514	1,402	4,206	603

**TABLE 6: ESTIMATED SECONDARY SCHOOL ENROLLMENT**

ROUTLEY NEIGHBOURHOOD	POTENTIAL SCHOOL ENROLLMENT					
	DEVELOPMENT AT BASE DENSITY 6 U.P.A.			DEVELOPMENT AT DENSITY OF 9 U.P.A. (AVERAGE)		
	Units	Population	Students 7	Units	Population	Students 8
North of 72 Avenue	230	759	64	344	1,032	79
70 Avenue to 72 Avenue	346	1,141	97	520	1,560	120
68 Avenue to 70 Avenue	359	1,185	101	538	1,614	124
All of Routley	935	3,085	262	1,402	4,206	323

#### 5.4 OTHER FACILITIES

Other community facilities have not been identified in the planning process. However, should other facilities (e.g., daycare, community meeting room, recreational facilities, etc.) become required in the future – it would be appropriate to develop these uses adjacent to the school/park site. Alternatively, other community facilities could be developed in conjunction with neighbourhood retail uses (i.e., as part of a mixed-use development) at 72 Avenue and 200 Street.

<sup>3</sup> Based on an average 3.3 persons per single-family unit

<sup>4</sup> Based on 0.55 elementary school students per single-family unit

<sup>5</sup> Based on 3.0 persons per unit (average of single-family and townhouse types)

<sup>6</sup> Based on 0.43 elementary school students per unit (average of single-family and townhouse types)

<sup>7</sup> Based on 0.28 elementary school students per single-family unit

<sup>8</sup> Based on 0.23 elementary school students per unit (average of single-family and townhouse types)

## 6.0 INFRASTRUCTURE SERVICES

This section addresses the provision of major services for the Routley Neighbourhood Plan (NP) area. Concepts for the road network including internal and external roads, pedestrian movement and bike routing; and water supply, sanitary sewer and storm drainage systems are provided. More detailed information is provided in “Routley Engineering Services Plan”.

Basic infrastructure services in the Routley NP area include roads and water. Storm sewers and detention facilities are for all practical purposes non-existent and there are no sanitary sewers in the area. All services will require some form of upgrading as well as system extensions to service the NP area development.

The following sections discuss the proposed servicing infrastructure in more detail.

### 6.1 TRANSPORTATION

#### 6.1.1 ROADS

**200 Street:** 200 Street, classified as Township’s highway, will require an additional lane in each direction. Intersection movements at 68 Avenue and 70 Avenue will be “right-in, right-out”. The intersection with 72 Avenue will remain traffic signalled and will require additional approach lanes.

**196 Street:** It is proposed that 196 Street be constructed as an arterial or possibly a collector road, depending on conclusions of discussion between the Township and the City of Surrey. Two through lanes will be constructed initially, while ultimately four through lanes will be required.

**72 Avenue:** 72 Avenue will be constructed as an arterial road eventually with two through lanes in each direction and traffic signals at 196 Street.

**68 Avenue:** The north side of 68 Avenue will be completed to a collector road standard. To enhance pedestrian safety at 200 Street, construction of a pedestrian overpass is under consideration.

#### 6.1.2 EXTERNAL ROADS UPGRADING

**200 Street / 66 Avenue:** Development of Routley NP will trigger the need for installation of a northbound left-turn signal phase, preferably no later than 2005.

**200 Street / 64 Avenue:** A third southbound through lane on 200 Street will be required to improve intersection operations to an acceptable level.

In general, road network improvements required within the Routley NP and adjacent areas will be staged as a function of development patterns.

### **6.1.3 PEDESTRIAN AND CYCLE PATHS**

The Township's Community Connections document illustrates an overview of a Conceptual Trail System and a Future Bicycle Route network. In this document 200 Street is designated as a major trail and commuter bicycle route. Recreational bicycle routes are designated along 197 Street and part of 68 Avenue.

Pedestrian paths are proposed along greenway connections from the internal road system to 196 Street, 200 Street and 68 Avenue. A bicycle path is proposed along a greenway in the southwest corner of the Routley NP area. A combined bicycle / pedestrian path is proposed within the internal greenway corridor (from 68 Avenue along 198B Street alignment to 72 Avenue, on the north side of 72 Avenue to 199A Street, on 199A Street to 73A Avenue, and on 73A Avenue to 200 Street.

A pedestrian overpass is proposed at 200th Street and 68th Avenue to connect the pedestrian walkway along the B.C. Gas right-of-way. The overpass will be funded through a levy on adjacent neighbourhoods or a public private partnership.

## **6.2 WATER SUPPLY AND DISTRIBUTION SYSTEM**

The Routley NP area is presently serviced from an existing reservoir located to the northeast, approximately at 205 Street and 73 Avenue. Due to increase in the proposed overall densities within the Routley NP and Gordon Estate NP areas, as well as due to introduction of high fire demand developments (commercial and school), upgrading will be required both within and outside of the Routley NP area. Ultimate development will require a new feeder main, approximately 350 mm diameter, through the Gordon Estate NP area. Some of the existing watermains within the Routley NP area will required to be augmented and/or replaced with new watermains. The ultimate distribution system will consist of the existing watermains supplemented with distribution main extensions into road allowances proposed by the Routley NP to adequately service the area. Most of the Routley NP area will be serviced from a pressure zone presently boosted to 131 metres. The remaining area, approximately between 68 and 69 Avenues, will be serviced from another pressure zone set at 80.80 metres. An additional pressure reducing station, and several closed valves, will separate the two pressure zones.

## **6.3 SANITARY SEWER SYSTEM**

The Routley NP area is not presently serviced by sanitary sewers. The closest sanitary sewer system, designed to service the area, is located at 66 Avenue and 201 Street. Proposed sanitary sewers will service existing and proposed road allowances within the Routley NP area and discharge into sanitary sewers proposed by the adjacent Gordon Estate NP area at 200 Street and 68 Avenue. Therefrom, the proposed sanitary sewer will be routed to tie into the existing system at 66 Avenue and 201 Street.

The existing downstream sanitary sewer, however, was designed for smaller overall densities than those proposed by the above noted neighbourhood areas. Consequently, certain sections of the existing sewer system, including the 204 Street Pump Station, will ultimately require upgrading. Development can proceed only until the capacity of the existing system is reached.

## 6.4 STORM DRAINAGE

The drainage systems within the Routley NP area consist primarily of open ditches with storm sewers essentially only on 200 Street and 68 Avenue. At the present time, almost the entire Routley NP area drains towards its southeast corner, at approximately 199 Street and 68 Avenue. Therefrom, the storm sewer system extends south across 68 Avenue into the Langley Meadows subdivision, through the detention facility at Willoughby Way and Woodland Drive, and discharges into the Logan Creek.

The stormwater management strategy for the development of Routley NP area proposes local and trunk storm sewers throughout the neighbourhood leading to an existing detention pond in the in the Langley Meadows subdivision. The strategy prevents all major flooding throughout the drainage system and limits post-development peak flows to pre-development levels up to the 1 in 100 year design event. The proposed strategy involves replacement of the existing trunk sewer through the Langley Meadows subdivision as well as enlargement of and modifications to the existing detention pond and flow control structure.

The possibility of providing detention north of 68 Avenue at 199 Street has been investigated and found to be impractical due to grade constraints. The opportunity of providing detention further upstream in the drainage catchment and diverting resulting run-off along 70 Avenue toward 200 Street was also investigated. By integrating the various land use objectives with the overall drainage objectives it became apparent that minimizing the storage requirement within Routley and providing it in a previously dedicated area of the Langley Meadows subdivision resulted in both a more efficient land use plan and a more effective drainage system.

The proposed drainage collection system includes storm sewers for all existing and proposed road allowances. This will provide conveyance of road drainage and service connections for each property.

## 7.0 FINANCIAL PLAN

The essence of financing for the Routley Neighbourhood is:

- Services are paid for by the Development Cost Charge program.
- A significant increment of facilities and amenities are covered by the capital component from new taxes collected as the neighbourhood grows.
- “Front-end” financing, risk and funding to make up any shortfall in DCC’s or facility and amenity funding are derived through the proponents of development through an agreement which is a prior condition to initiation of development in the area.

New neighbourhoods cost money. In the Township of Langley, the development process pays for new infrastructure and taxpayers pay for maintenance and replacement of existing infrastructure. New tax revenues from new areas also contribute to infrastructure and amenities. As costs paid by developers are reflected in the price of housing, the cost of new development is ultimately borne by new homeowners. New infrastructure is financed from two sources:

- The Township can “front-end” new infrastructure and recover the cost through Development Cost Charges or other mechanisms, or
- Developers can pay for new infrastructure directly and have all or part of the cost rebated through a reduction in Development Cost Charges or other relevant cost recovery mechanisms.

Usually, a combination of both sources is involved in building the infrastructure for a new neighbourhood. The investment is balanced so that the taxpayer is not subsidizing the developer and the developer is not subsidizing the existing taxpayer.

Needs and impacts of this new neighbourhood have been assessed. Sanitary sewer, drainage, road and path network, school and park requirements have been determined for the population likely to be in place when the neighbourhood is built.

Integration of these components with the Township’s master plans is an on-going process. Broader Township master plans for infrastructure and amenity are under constant review, and provide a “self correcting mechanism” to accommodate changing conditions. Similarly, memoranda of understanding between the Township and external agencies such as the Department of Fisheries and Oceans, and TransLink are in process.

Master plans and interagency agreements adopted by Council will be integrated into the Official Community Plan. Appending these master plans to the Official Community Plan will simplify the referral process and reduce the analysis required to ensure that new development pays its fair share.

Until the appropriate master plans are adopted, each new development will demonstrate that it provides appropriate infrastructure, does not impose an undue burden on facilities and meets the requirements of outside agencies prior to approval.

Development Cost Charges (DCC’s) are collected as development proceeds to fund capital works for road, water, sanitary sewer and storm drainage works required to open new neighbourhoods. Surpluses or shortfalls in Routley by 2017 are projected as follows:

**TABLE 7      DCC PROGRAM - ROUTLEY - TO 2017**

Utility	Revenues Collected (\$Mill)	DCC Costs Attributable (\$Mill)	Surplus (Shortfall) (\$Mill)
Roads	\$12.0	\$5.2	\$6.8
Storm Drainage	\$0.9	\$1.4	-\$0.5
Sanitary Sewers	\$1.3	\$1.7	-\$0.3
Water	\$2.1	\$1.6	\$0.5

Higher shortfalls are anticipated in the first few years to initiate servicing projects that are required for development. This requires “front-ending” by the proponents of development in the neighbourhood.

A low level of development in the Township could pose a risk in that there may be insufficient revenue to meet financial commitments, such as the water contract with the Greater Vancouver Regional District. However, as current DCC reserves are low, it is difficult for the Township make the initial payments for installing services in Willoughby to allow new development. This interim shortfall is accommodated by the agreement with the proponents.

Park land acquisition is funded by DCC's. Park DCC's collected from development within Routley will fund the purchase of a Neighbourhood Park, a portion of a Community Park, part of which will be in Routley, and Municipal Park. acreage. The development costs of Routley's portion of these sites is anticipated to be \$2.8 million. This neighbourhood's share of community facilities (fire hall, recreation facilities) is estimated to cost \$2.6 million. Both of these costs have been funded in the past through General Revenue or reserve funds (for example Walnut Grove), and could continue to be funded in the same manner.

The principles that will be followed in funding projects in Routley are as follows:

- The Township will not contribute funds over and above what can be provided through DCC funds available for the area or incremental increases to the capital portion of general revenue which may be reasonably foreseen to be applicable to facilities and amenities required prior to build-out.
- The Township will not finance provision of services in the neighbourhood.
- The Township will not assume financial risk for providing services to the neighbourhood.

Any shortfall in cash flow to cover infrastructure expenses or provide works or facilities for the neighbourhood will be required to be provided by the proponents of development as documented in an agreement as a precondition of zoning.

The instruments relating to cost recovery, such as development cost recovery and taxation, will be refined from time to time. Any changes to these instruments should continue to reflect the principles set out here.

## **8.0 IMPLEMENTATION**

### **8.1 DEVELOPMENT PREREQUISITES**

Development in the Routley Neighbourhood will require full urban services, including roads built to urban standards and water, sanitary sewer and storm drainage facilities. Provision of 196 Street north of 68 Avenue is necessary before development in Routley occurs. It is also anticipated that development will require one elementary school and one neighbourhood park within the plan area. Other facilities outside the plan area will also be required, including secondary school, community park, recreation centre and indoor facilities, a library, fire stations and a community police office.

The Township will consider the provision of facilities outside the neighbourhood plan area when reviewing development applications.

#### **8.1.1 GENERAL PREREQUISITES**

The following general prerequisites must be satisfied prior to Council's consideration of any rezoning bylaw adoption in Routley:

- an elementary school site must be secured in a location acceptable to the School District, that is capable of accommodating the elementary school population that would be generated by that development and other development in the area approved by Council;
- a neighbourhood park site acceptable to the Township adjacent to the elementary school site must be secured by the Township;
- major roads and utility services must be available to accommodate proposed development; and

- 196 Street must be developed north of 68 Avenue.

### 8.1.2. SPECIFIC PREREQUISITES

Each new development in Routley will enter into and secure a servicing agreement with the Township as a condition of final approval consideration. The servicing agreement will comply with servicing provisions of this neighbourhood plan together with existing servicing standards as set out in the Township’s Subdivision and Servicing Bylaw all in accordance with good engineering practice.

Services required as a condition of final consideration will extend beyond the neighbourhood if adequate supply or capacity is not available within the neighbourhood or when necessary to mitigate impact on the Township’s infrastructure.

Except as agreed with the Director of Planning and Development, extensions and over-sizing to accommodate connections to adequate supplies or capacities or other development on lands outside those subject to the development application will be provided by the developer. Rebates or mechanisms to recover over-sizing costs must comply with policies approved by Council (such as Development Cost Charges) or (as in the case of Latecomer agreements) be approved individually by Council.

A number of specific issues must be resolved prior to development, including dedication of road widenings for parcels abutting arterial or collector roads, transferring designated municipal trails to the Township, providing security for trail construction to municipal standards, paying the school charge provided in the Municipal Act and outlined in the Agreement between the Township and the Langley School, paying administration levies and registering covenants acceptable to the Ministry of Environment where necessary.

## 8.2 STAGING

Under the current Livable Region Strategic Plan and Regional Context Statement, the Township has agreed to not exceed a population of 165,000 by 2021. Growth rate is measured every five years by Federal Census. The township’s population at the last census (1996) was 80,180 which represented 26,645 households. Subsequently, growth has occurred as follows:

**TABLE 8 TOWNSHIP POPULATION GROWTH**

Year	Pop. (est.)	Hslds. (est.)	Growth Rate (est.)	Pop. (3% growth)	Hslds. (3% growth)	Difference
1996	80180	26645		80180	26645	0
1997	82692	27453	3%	82596	27421	+32
1998	84938	28199	2.6%	85086	28248	-49
1999	85852	28502	1%	87651	29100	-598
2000	88440	29362	1.9%	90293	29977	-615

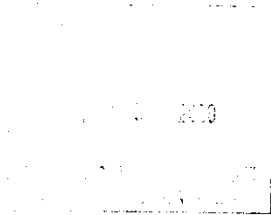
If Langley reaches a population of 165,000 by 2021, growth can occur at a steady annual rate of 2.9%. From 1997 to 2000, growth occurred at lower rates. Based on the assumption that some of the growth that did not occur during this period will be made up by 2006, it is estimated that about 4,655 new dwelling units will be constructed in the Township by 2006. The proportion of the total growth expected to occur in Willoughby is assumed to decrease from 75% to 60% from 2001 to 2005, and then 55% from 2006 on, to allow for development in other areas of the Township, including Brookwood/Fernridge. This would result in about 3,175 new units in Willoughby by 2006.

Growth in Routley is estimated to be about one-third of the growth in Willoughby, or 1,020 new units, by 2006. This figure is not meant as a target or a limit, but serves as an estimation of growth for planning purposes. The exact number will be dependent on market conditions, growth in other neighbourhoods and communities within the Township and housing types. Relatively higher growth in the senior housing category could be absorbed without a negative effect on schools. If the bulk of growth is in full size (6000 sq ft.) residential lots, then lower numbers may tax the schools. Growth in the Township will be reviewed every five years based on census information.



February 25, 2000

Your File: 3450 W04 (W-3)  
Our File: Routely NP



Corporation of the Township of Langley  
4914 221 Street  
LANGLEY BC V3A 3Z8

Attention: Mr. Paul Crawford  
Manager, Long Range Planning

Dear Sir:

**Re: Comments on Routely Neighborhood Plan and Bylaw No. 3912**

With reference to the Routely Neighborhood plans (Sept. and Rev. Oct. 1999), and to the OCP Bylaw 3912, dated October 26, 1999, Fish, Wildlife and Habitat Protection and the Department of Fisheries and Oceans have the following comments:

The following comments are structured as follows:

- 1) General Overview Comments
- 2) Specific Comments regarding September 26, 1999 draft of the NP
- 3) Specific Comments regarding the Bylaw, dated October 26, 1999
- 4) Specific Comments regarding the October, 1999 version of the NP

**1) General Overview Comments:**

According to the plans and information provided, the entirety of Routely drains to Logan Creek, a valuable salmon-bearing watercourse. Due in part to the previous Willowbrook area development, Logan has become extremely 'flashy' during storm events. The creek level is known to increase by over one meter in a short duration of time during a frequent storm event. This is indicative of high percentages of impermeable area in the watershed. For this reason, it is imperative that Routely focus on maintaining and enhancing the stormwater regime.

During a recent site inspection, DFO and MELP personnel have identified a significant tributary to Logan Creek extending from 70<sup>th</sup> Avenue to 68<sup>th</sup> Avenue, flowing from north to south. This tributary enters the storm sewer at 68th approximately 50-75m west of 200<sup>th</sup> Street, emerges at 66<sup>th</sup> Avenue and remains open downstream. As you are aware, under most circumstances, DFO

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\* THE GOVERNMENT OF BRITISH COLUMBIA IS AN "EMPLOYMENT EQUITY EMPLOYER" \*

Ministry of Environment,  
Lands and Parks

BC Environment  
Lower Mainland Region

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SURREY BC V3R 0Y3

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and MELP no longer permit the enclosure of yellow-coded (non-fish bearing, food and nutrient) streams. Therefore, the agencies are not agreeable to enclosure of this tributary upstream of 68<sup>th</sup>. Salmon are present in Logan Creek as far north as 66<sup>th</sup> Avenue (Willoughby Way). In this system, the only remaining upstream source of food, nutrients and clean water is from the subject watercourse and associated ditches throughout Routely. Protection of this watercourse, as well as the remainder of the drainage area within Routely, is essential to ensure 'no net loss' of fish habitat, pursuant to the federal *Fisheries Act*.

We feel that protection of this tributary is consistent with the Routely and Southwest Gordon Estate plans for greenways paralleling 200<sup>th</sup> Street. It would, however, necessitate a wider corridor than is currently proposed. Our setback requirements from said creek are as follows:

- 15m from Top of Ravine Bank (TOB) for low density (<6 units per acre) single family residential housing. A chainlink or cedar fence 1.2m in height is required.
- 30m from TOB for all other applications including but not limited to residential greater than 6 units per acre, institutional, commercial, and park. A chainlink or cedar fence 1.8 meters in height is required.

Where sites are currently disturbed within the prescribed setback area, the disturbed area must be restored and planted in compliance with MELP Re-vegetation Criteria.

With regard to fencing and setback requirements, it is preferred that all protected areas be dedicated to the Township as passive park, rather than protected with a standard non-disturbance restrictive covenant. In our experience, municipal ownership of protected areas results in lower incidences of non-compliance.

At the headwater of this tributary, just north of 70<sup>th</sup> Avenue (approximately 100m west of 200<sup>th</sup> St.), several ditches and small tributaries emanating from both roadside runoff and groundwater sources are present. From an environmental perspective, it is the opinion of the agencies that this would be an ideal location for a wet stormwater detention pond with a controlled outlet to the existing creek. This would also be consistent with the greenway concept, could be an amenity of a neighborhood park, and would provide valuable fish and wildlife habitat. The agencies recognize, however, that there may be other factors which dictate the location of stormwater facilities.

In this regard, the agencies are extremely concerned with the stormwater concept as presented. Currently, the proposal does not provide for detention within Routely, but rather, depends upon the existing Langley Meadows detention facility, with minor modifications. It is known that onsite retention is the most effective method of controlling stormwater to minimize impacts to downstream fish habitats. Failure to provide adequate groundwater recharge and failure to detain water onsite can eliminate base flows to downstream fish habitat and are likely to exacerbate the problematic flow regime of the Logan Creek system.

Therefore, it is recommended that stringent BMP's be applied throughout Routely which encourage groundwater recharge, retention, and maintenance of current base flow levels, as well as improvements to water quality. Accordingly, impervious areas should be minimized throughout Routely, all roof leaders should return to ground, and wherever possible, ditch, driveway, sidewalk and pathway runoff should be directed to infiltration swales or constructed/biofiltration wetlands. Where grade prohibits onsite detention, we suggest in-pipe detention be utilized. By doing so, impacts to base flows and water quality may be minimized, and the required downstream infrastructure may be reduced. In order to achieve this goals it is recommended that drainage issues be addressed on a development area and/or lot by lot basis. It has been demonstrated that maximizing perviousness in headwater developments can dramatically reduce costs for downstream infrastructure.

Prior to any land clearing, each woodlot should have a Raptor Heron Survey conducted in accordance with MELP standard methodology. Section 34 of the Wildlife Act provides for protection of birds and their eggs and their nests during annual nesting activities. ***Land clearing must not be undertaken during the period of April 1 through July 31 to avoid possible contravention of the Act.***

Where woodlots or clumps of trees currently exist, any modification thereof may increase the chance of windthrow, blowdown, and consequently, potential damage to adjacent properties. Therefore we suggest a certified Arborist inspect all tree areas prior to any tree removal. The potential for windthrow should be assessed, and a suitable prescription should be reached. This will help eliminate the chance of future landowner complaints, and therefore help to preserve the longevity of the forested areas. Where a riparian leavestrip is protected, this Arborist survey is a *requirement* of DFO and MELP.

## **2) Comments specific to the September 26, 1999 draft of the NP**

### **2.1.2**

During our brief site overview, we were unable to confirm the location of the ponds (or wetlands) mentioned in this section, and were therefore unable to assign a habitat value to each. A bioinventory of each pond should be undertaken prior to completion of this plan, such that any necessary habitat prescriptions may be issued in a timely manner from the agencies. Protection of some of these ponds may be necessary should they provide a habitat function for fish or wildlife, or a groundwater recharge function.

We support the greenway concept as this will help mitigate wildlife habitat lost during development of Routely. By linking these greenways to Clayton, SW Gordon Estates, Langley Meadows and other neighborhoods, the potential for some species of wildlife to sustain their current or traditional migration corridors is increased. The plan shows that there are at least 3 woodlots along the BC Gas ROW. Incorporating sections of these woodlots into the alignment

of the proposed greenway would go a long way to reducing the impacts to wildlife associated with the development of Routely.

#### 4.1

We strongly support the concept as presented in this section, particularly with regard to clustered development of higher densities, maximization of open space, preservation of mature vegetation, permeable pathways, and minimization of impervious footprints. However, according to the scale of Figure #4, it would appear that these greenways are too thin to function properly as wildlife corridors, especially with the presence of a trail. We recommend the minimum width of greenways that have a habitat component be increased to 30-50m in width. As with past developments, if a trail is proposed, protective leavestrip widths should be increased by 2.5 meters, with the trail located at the outer edge.

#### 4.2.3, 2d)

We are concerned with the wording of this sentence. As eluded to in 4.2.4,5 when a habitat component is incorporated into a greenway, especially in association with a watercourse, it may be necessary to restrict human movement within or across greenways. Consistent with MELP/DFO policies, and the *Access Near Aquatic Areas Guidelines* document, any trails proposed within or adjacent to a protected watercourse must be more than 15m from top of ravine bank, and should be isolated from each other via a barrier which discourages human movement thus allowing for protection of the adjacent fish and wildlife resources.

#### 4.2.3

Please add "and in accordance with MELP/DFO guidelines and policy" to this statement.

#### 4.4 Neighborhood Character:

A priority should also be to ensure maintenance of the fish and wildlife resources through adequate protection of riparian areas, watercourses, ponds (etc.), and through hydrological design.

#### 4.4.4

It should be noted that greenways also help to maintain fish and wildlife habitat, in addition to providing a wildlife corridor through Routely to adjacent habitats or community greenways.

We agree that the proposed greenway concept parallel to 200<sup>th</sup> Street, may be beneficial, provided the *existing* creek, woodlots and other vegetative features are incorporated into the greenway. If supplemental planting within greenways is proposed, we recommend that only native species be utilized. This will help to mitigate lost wildlife habitat, and help prevent the growth of pest species. For increased survivorship and decreased landscaping costs, we suggest salvage of native species from adjacent areas that are about to be developed.

As described in section 5.2.2, where woodlots exist now, all efforts should be made to incorporate these stands into greenways or passive park. Obviously, this is more effective than

planting greenways and waiting decades before the greenway is fully established. (School parks and fields should be planned in areas previously disturbed.)

As is outlined within the plan, we encourage utilization of pervious surfaces for any adventure playgrounds, or school parking.

#### 4.4.6 Safety and Security

Greenways with a habitat component, or protected habitat areas should have minimal illumination, as this drastically alters the habitat suitability, particularly to nocturnal wildlife. While we recognize that there are concerns over public safety, we suggest that this impact to wildlife be considered during the design phase, and that only high foot traffic areas be illuminated.

To further promote maximization of pervious areas, we encourage implementation of sidewalks on only one side of roads, and that the roads themselves be constructed to the minimum possible road width standard. Where sidewalks are constructed, they should be cambered towards a pervious drainage swale to promote infiltration.

#### 5.2

As mentioned, it may be beneficial to locate the pathway/greenway between 200<sup>th</sup> Street and the north-south creek. This would also match the Southwest Gordon Estate greenway associated with Jeffries Brook, on the east side of 200<sup>th</sup> Street.

To maximize pervious area and available greenway land, we suggest that height restrictions be lenient to allow for taller buildings, in exchange for more open space. One suggestion we have is the creation of a bonus system that promotes 'cluster' building, and higher buildings in exchange for smaller footprints, larger open space, pervious landscaping or extra green space creation.

### 2) Additional Comments Specific to the Bylaw, dated October 26, 1999

#### 4.1.1

With regard to driveway limitations, we further suggest that driveway size be limited, to encourage maximization of pervious area. To this end, pervious materials may be used for driveway construction, and all driveways should drain to parallel infiltration swales, rather than draining towards the roads and/or storm sewer.

**Biofiltration ponds in the amount of 3.5% of the treatable area will be required to treat stormwater runoff for all parking areas with the exception of single family residential. Said ponds must be designed by a qualified environmental consultant with experience in this field.**

#### 4.1.2

Further to our previous comments on detention and stormwater management, we strongly support the concepts presented within the sixth bullet with regard to maintenance of groundwater recharge.

Further to the seventh bullet, driveway access over the creek will not be permitted, nor over critical habitat areas within greenways.

### 3) Specific Comments regarding the October, 1999 version of the NP

#### 6.4 Storm Drainage

As has been indicated in past correspondence, DFO and MELP promote the retention of existing open ditches, rather than enclosure thereof. On arterial roads and where safety is a concern, we may not object to enclosure of the ditches subject to adherence to MELP/DFO policy. Where a ditch is approved for enclosure, we promote over-excavation of the trench, filling of the trench with gravel, then installation of a pervious pipe. This promotes groundwater recharge, and increases the detention/retention capacity of the system. Further, this acts to provide and maintain cool base flows to downstream fish habitat. Protection of base flows is a vital component of fish habitat and is therefore protected by provisions within the *Fisheries Act*.

The Stormwater Management Plan must address attenuation and detention of frequent storm events. These events have been shown to cause the most damage to fish habitat when not properly managed. In this regard, *at minimum*, the 1:2 post-development storm event should be detained to pre-development event levels. Currently, MELP and DFO are working with municipalities to establish more comprehensive stormwater management standards for the protection of aquatic habitats.

Finally, following the format applied within the Redwoods development, it is suggested that we finalize a standard letter which addresses all environmental issues prior to acceptance of this neighborhood plan, by Council. The objective of said letter is to address the joint concerns of the Township, MELP and the DFO, thus eliminating the need for individual referrals and maximizing the efficiency of delivery of our respective mandates.

As per recent discussions between the Township and the environmental agencies, said letter should have a review period of five years, to not only provide certainty and consistency among developments, but also to ensure that current environmental guidelines, legislation and policy are implemented within Routely.

We thank you for the opportunity to provide comments at this early planning stage. We feel this is the most effective method of protecting Langley's valuable fish and wildlife resources.

The above recommendations are valid for a period of two (2) years from the date of this letter. After that date, if Plan has not been accepted or if the Plan is altered so that the comments are no longer valid, a new review by the Agencies is suggested, to ensure validity of the above

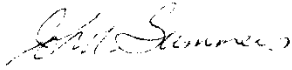
Mr. Paul Crawford  
Routely NP

February 25, 2000  
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comments. This will also ensure that the proposed Plan will conform to current habitat management policy, guidelines and legislation.

Yours truly,

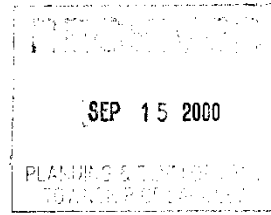


J.D. Summers, B.Sc., Bio.I.T.  
Habitat Protection Officer  
Fish, Wildlife and Habitat Protection



Suzanne Thorpe  
Habitat Biologist, Land Use  
Department of Fisheries and Oceans

Cc: B. Reid, Land Use, DFO  
B. Clark, Fish, Wildlife and Habitat Protection, MELP



August 21, 2000

Your File: Bylaw 3980 Routely N.P.  
Our File: Routely NP

Corporation of the Township of Langley  
4914 221 Street  
LANGLEY BC V3A 3Z8

Attention: Mr. Terry Lyster  
Director of Planning and Development

Dear Sir:

**Re: Routely Neighborhood Plan**

With reference to your recent correspondence , Fish, Wildlife and Habitat Protection has the following comments:

We would like to take this opportunity to remind you that, as outlined in our letter of February 25, 2000, (Summers to Crawford) the watercourse between 68<sup>th</sup> and 70<sup>th</sup> Avenue in Routely is classified as yellow-coded, and is protected habitat under the federal *Fisheries Act*. Accordingly, the stream should be afforded the minimum protection standards as outlined in the *Land Development Guidelines*, and as specified in the aforementioned letter. As you know, these standards include both riparian setbacks, and stormwater management initiatives.

Our staff has begun monitoring initiatives to help record changes to watersheds as a result of development. Logan Creek is one watercourse being considered for an intensive monitoring, compliance, and enforcement program. This will help us to quantify any changes that occur as a result of the redevelopment of Routely.

We understand that the Routely plan is being re-examined due to the recent public meetings. We hope that you incorporate our comments of February 25<sup>th</sup> into the final plan to ensure our aquatic resources are protected.

\* THE GOVERNMENT OF BRITISH COLUMBIA IS AN "EMPLOYMENT EQUITY EMPLOYER" \*

Ministry of Environment,  
Lands and Parks

BC Environment  
Lower Mainland Region

Mailing/Location Address:  
10470 152 Street  
SURREY BC V3R 0Y3

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Facsimile: (604) 930-7119

Mr. Terry Lyster  
Routely NP

August 21, 2000  
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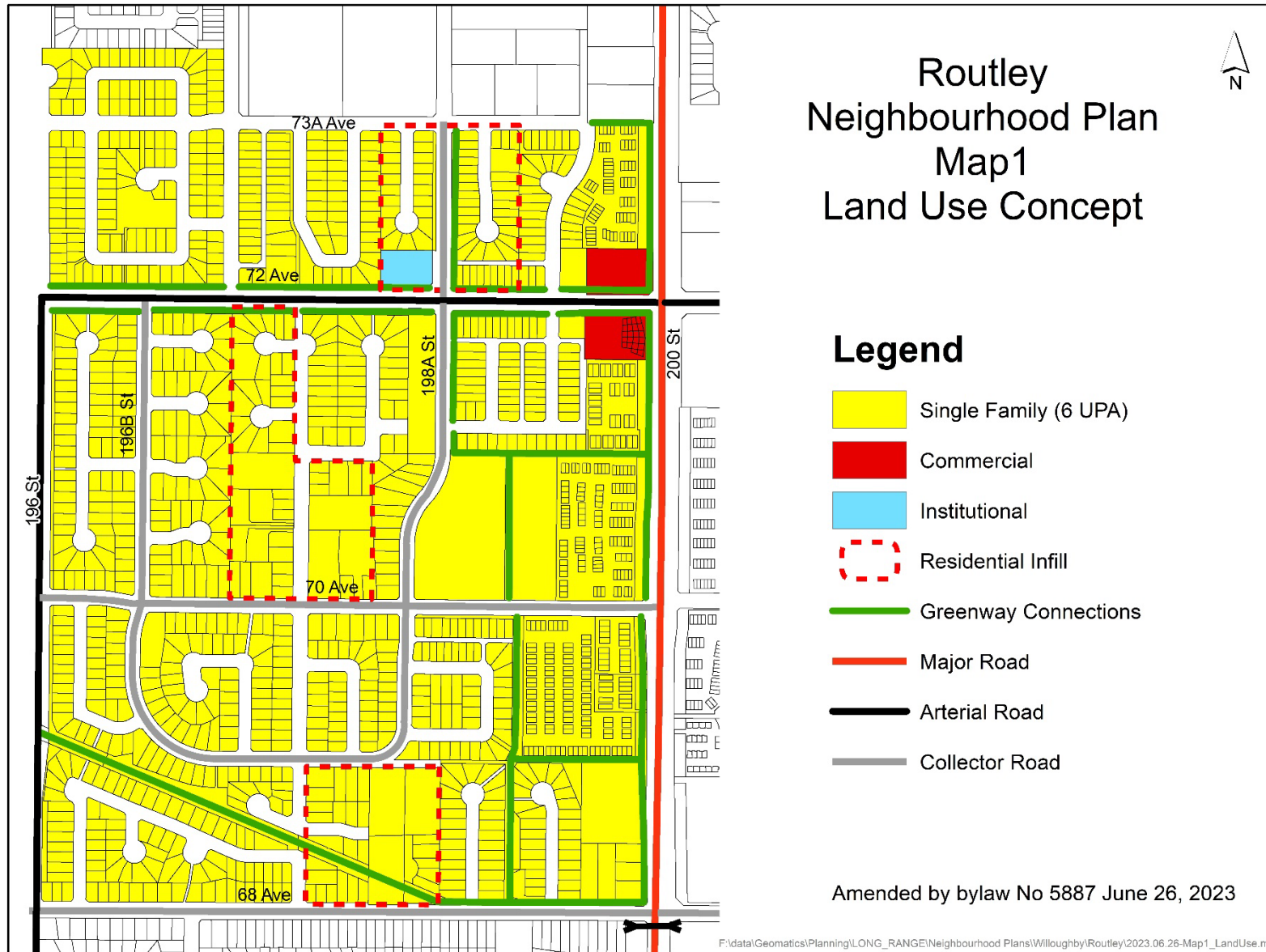
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Yours truly,

A handwritten signature in black ink, appearing to be 'BC', written over a horizontal line.

Brian Clark, R.P.Bio.  
Regional Manager  
Fish, Wildlife and Habitat Protection

cc: Suzanne Thorpe, DFO



Township of  
Langley



Est. 1873

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20338 - 65 Avenue  
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Community Development Division  
604.533.6034

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