

| Cloverdale Town Centre

Plan

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Cloverdale Town Centre Plan

Planning and Development, Engineering, and Parks, Recreation and Culture

City of Surrey
13450 104 Avenue
Surrey, British Columbia V3T 1V8

APPROVED BY COUNCIL November 2019



WHAT KIND OF COMMUNITY DO WE WANT TO BE?

Today, community building is about ensuring the success of our residents and our planet now and into the long-term future. One of the main challenges for cities is to become smarter and be able to respond cohesively to the inevitable effects of climate change.

At the same time, we need to accommodate many new residents while maintaining the level of amenities and services needed by all. We are facing increased demand for housing, energy, infrastructure and recreational, health and social programs. More people generate more greenhouse gas emissions, traffic congestion and waste. Growth and development have significant impacts on local natural systems.

The planning of our neighbourhoods must take these factors into account. We must respond to the unavoidable impacts of climate change. We must plan and grow sustainably to create healthy and resilient communities. We will do this by greening our neighbourhoods, encouraging transit and active transportation use and planning our communities and buildings to be more efficient.



Cloverdale Town Centre

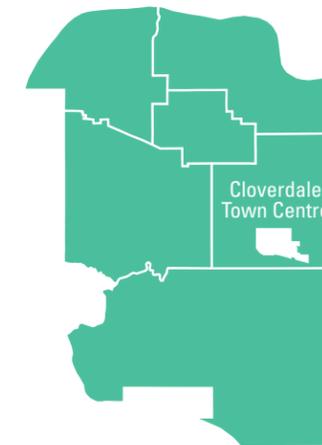
I Plan Summary

Cloverdale Town Centre Plan

Downtown Cloverdale is the historical centre of Surrey. It includes several heritage assets which reflect its unique western and railroad culture and character.

The Cloverdale Town Centre Plan was originally approved in 2000 to coordinate growth in downtown Cloverdale. A lot has changed since then. We've updated the plan to ensure it remains useful. The new plan includes land uses to support another 30 years of growth by ensuring there's enough space for future jobs, amenities and housing.

The plan area is centred on the crossroads of Highway 10 and Highway 15, and includes a mix of commercial, industrial and residential neighbourhood areas surrounding a pedestrian-oriented downtown core.



How Will the Plan Improve My Neighbourhood?

Many public facilities and services are used daily by residents. These include community centres, cultural spaces, childcare facilities and libraries. When new development occurs in an area with a land use plan, the developer must make contributions to help fund these amenities. They are also required to upgrade sidewalks and other infrastructure.

What's a Land Use Plan?

Land use plans designate what can be built and where. They guide the height, use, and look of new buildings, as well as locations and funding for new streets, parks and other public services.

Public Engagement

Engagement with Cloverdale residents and stakeholders began in 2014. Over five years staff worked with the community to develop priorities and draft the plan.

Early public engagement identified a strong desire to attract more local businesses, including retail shops and restaurants. Other priorities included parks, recreation opportunities, streetscape beautification, heritage preservation, public art and cultural amenities.

Residents and stakeholders provided additional feedback on the plan in 2018 and 2019. The plan was updated based on this input and staff analysis. Here is a summary of our outreach.

5 Years of Engagement



4 Ways to Notify Residents

MAILER
>16,000 Residents, Property Owners, & Businesses invited to 3 open houses

WEBSITE
www.surrey.ca

NEWSPAPER
Surrey NowLeader
Cloverdale Reporter

SOCIAL MEDIA
Instagram, Facebook,
Twitter

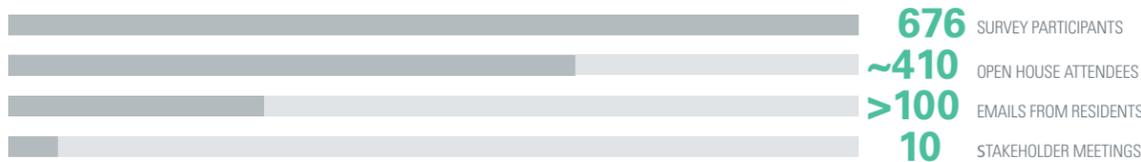
4 Ways to Participate

PUBLIC OPEN HOUSES
#1 May 22, 2014
#2 June 14, 2018
#3 April 11, 2019

EMAIL & PHONE CONVERSATIONS
604-592-2640
CloverdaleTC@Surrey.ca

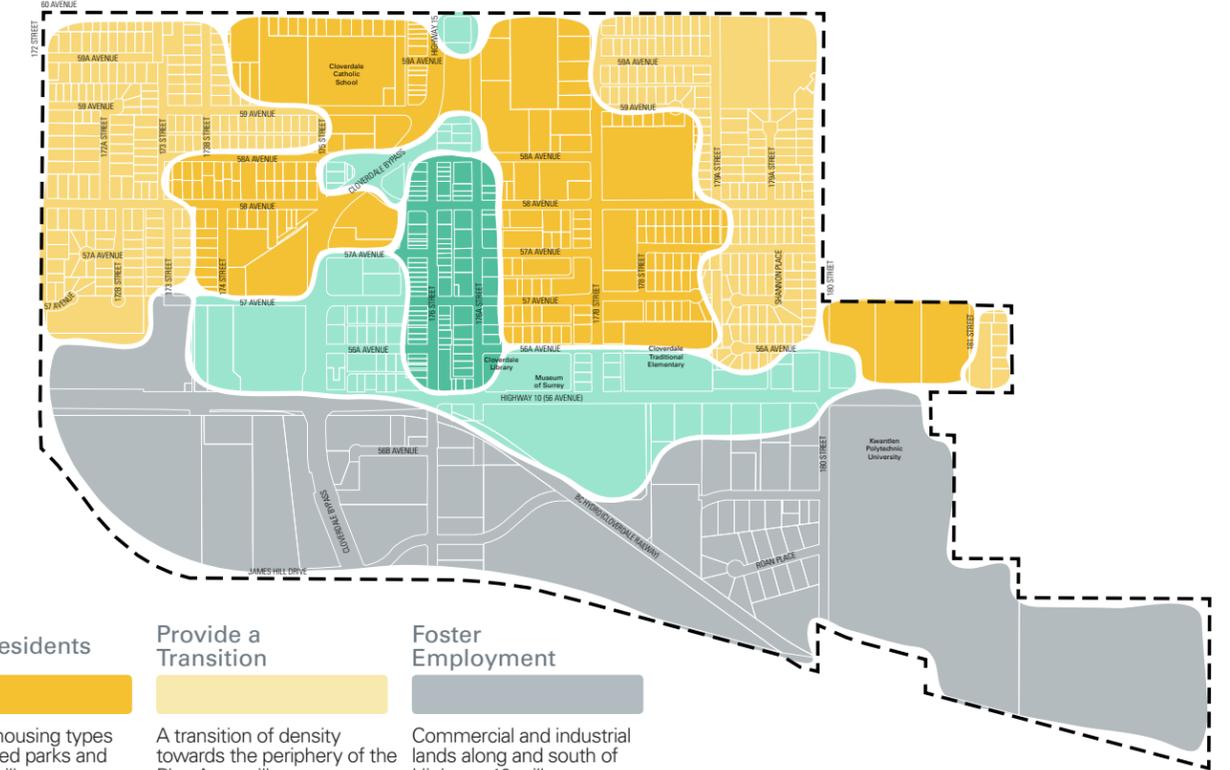
SURVEY
3 surveys

1 ON 1 MEETINGS with the Planner



Growth Objectives

The community's vision for a growing, distinct, and thriving town centre is implemented through five land use strategies.



Enhance Character

The Town Centre core is reinforced by creating a coordinated public realm:

- Maintain 2-storey building heights on 176 Street;
- Encourage contemporary interpretations of historical architecture; and
- Extend the "Heritage Main Street" design features from 176 to 176A Street.

Support Business

Mixed-use and commercial buildings adjacent to the heritage character area will:

- Provide additional space for new locally serving businesses;
- Encourage commercial at ground level; and
- Support active streetscapes with pedestrian amenities.

Attract Residents

A range of housing types and enhanced parks and amenities will:

- Improve the balance of housing types and affordability;
- Focus new housing within walking distance of downtown; and
- Provide new parks and amenities within walking distance of all households.

Provide a Transition

A transition of density towards the periphery of the Plan Area will:

- Preserve valued single family housing;
- Provide infill opportunities for alternate forms of single family (fee simple) housing;
- Retain the look and feel of existing neighbourhoods; and
- Provide opportunities for alternative forms of fee simple single family homes.

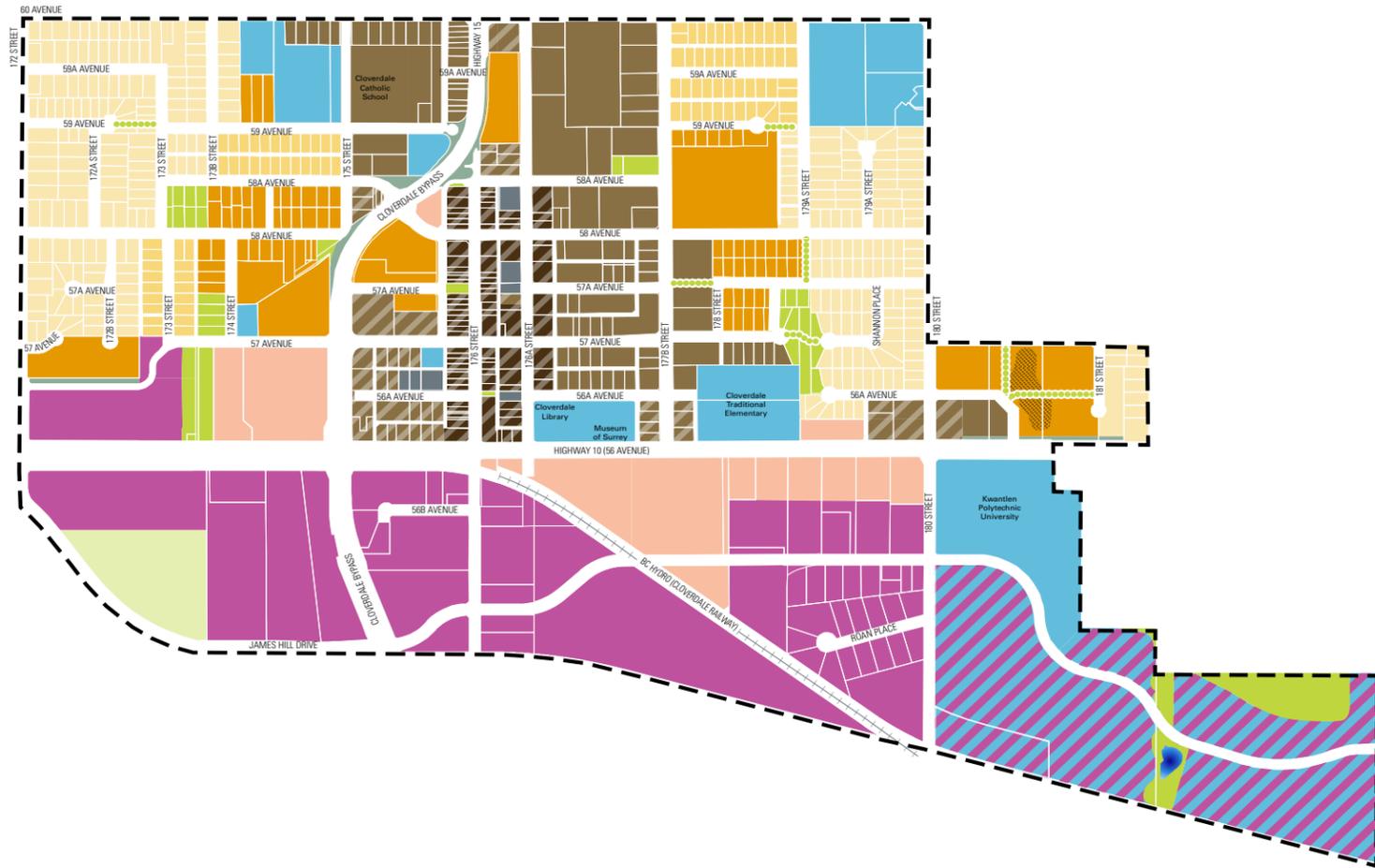
Foster Employment

Commercial and industrial lands along and south of Highway 10 will:

- Provide opportunities for light industry and business park development;
- Leverage a key location at the intersection of two provincial highways; and
- Expand opportunities for institutional and civic development.

Land Use Strategy

This map shows where and how land uses fit together to create a coordinated plan. It includes example images and summary descriptions for the different types of land uses that could occur on each lot in the plan area.



- LEGEND**
- Land Uses**
- Detached Residential
 - Semi-detached Residential
 - Townhouse
 - Low Rise Residential
 - Low Rise Mixed Use
 - Heritage Downtown
 - Commercial
 - Institutional
 - Industrial/Business Park
 - Institutional or Industrial/Business Park
 - Parks & Natural Areas
 - Agricultural Land Reserve (ALR)
 - Parking
 - Landscaped Buffer
- Natural Features**
- Heritage Tree Preservation
 - Wetlands
- Transportation**
- Roads (Future & Existing)
 - Pedestrian Pathway

WHAT IS FAR?

Floor Area Ratio (FAR) is a measure of density. It is a ratio of the building's floor area divided by the site's area. FAR alone does not determine a building's height.

For example, a building with 1 FAR could have...



Detached Residential

Single family detached dwelling with the potential for a secondary suite allowing a maximum of two dwelling units per lot.

TYPICAL HEIGHT
9.5m

DENSITY
Up to 37 UPH (15 UPA)

Semi-Detached Residential

One dwelling unit on each lot contained within a semi-detached residential building.

TYPICAL HEIGHT
9.5m

DENSITY
Up to 57 UPH (23 UPA)

Townhouse Residential

Ground-oriented townhouse buildings and related amenity spaces with a comprehensive design.

TYPICAL HEIGHT
13m*

DENSITY
Up to 1.0 FAR or 75 UPH (30 UPA)

Low-Rise Residential

Multi-family housing with ground-oriented units at base of buildings.

TYPICAL HEIGHT
4 storeys*

DENSITY
Up to 1.5 FAR

Low Rise Mixed-Use

Multi-family housing with ground-oriented commercial space encouraged.

TYPICAL HEIGHT
4 storeys*

DENSITY
Up to 1.5 FAR

Heritage Downtown

Historical main street characterized by small shops and heritage buildings.

TYPICAL HEIGHT
2 storeys on 176 St. between 56 Ave and 58A Ave. 4-5 Storeys on 176A St*.

DENSITY
Up to 1.5 FAR

Commercial

Shopping and service centres serving the broader community.

TYPICAL HEIGHT
Up to 4 storeys, to a maximum of 20m.

DENSITY
Up to 1.5 FAR

Industrial/Business Park

Comprehensively designed business park consisting of light impact industrial, offices and service uses.

TYPICAL HEIGHT
4 storeys, to a maximum of 18m.

DENSITY
Up to 1.5 FAR

Institutional

Public and private community spaces such as churches, universities, schools, museums, libraries and community centres.

TYPICAL HEIGHT

DENSITY

Building height and density may be increased in certain designations where additional community benefit is being provided in accordance with City policies. See Section 3 for details.

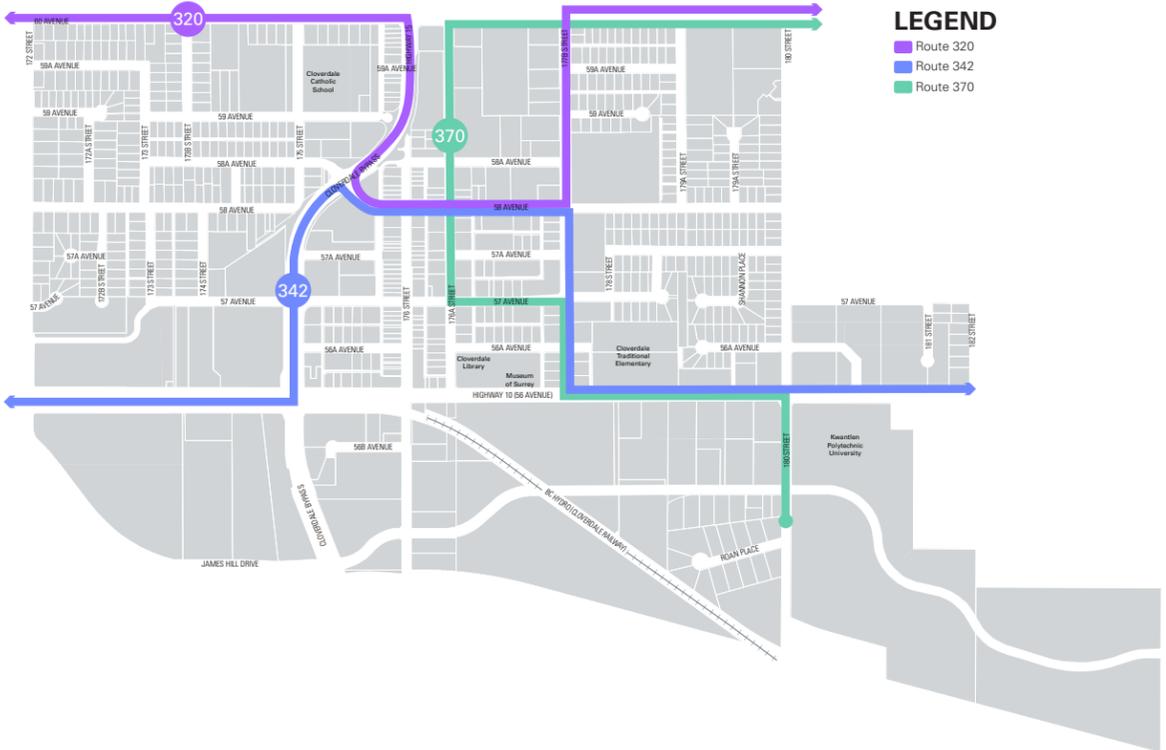
Transportation Strategy

Most of Cloverdale Town Centre's transportation network is already in place. This includes key Provincial highways and all arterial and collector roads. Additional local connections will be built in conjunction with new development to improve accessibility by providing a finer-grained street network, while existing local roads would be improved through fronting developments.



Transit Network

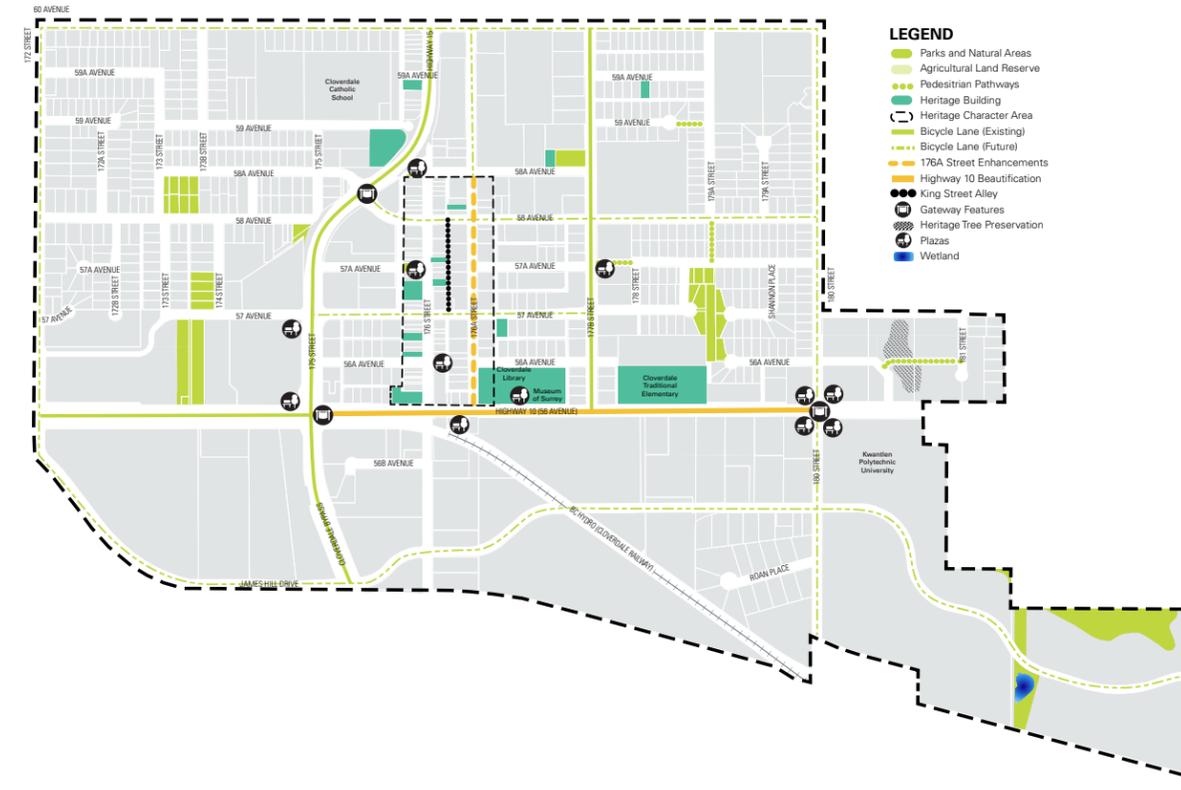
As of the adoption of this plan in 2019, Cloverdale Town Centre is served by three bus routes, the 320, 342, and 370. With the extension of SkyTrain service down Fraser Highway bus routing may change to provide frequent and fast connecting service. The plan encourages transit-supportive land uses and densities adjacent to current transit routes. Growth in the plan area will support increased transit ridership, which will in turn support improved service. The existing road network can accommodate bus stops and shelters to support future transit service improvements.



Cycling & Pedestrian Network

Walking and cycling infrastructure outside of the historic downtown area is limited. Most existing local roads do not have sidewalks and can only support minimal pedestrian volumes. Collector roads do not currently meet basic cycling standards. The Hook Greenway along Highway 15 is partially completed between 58 and 60 Avenues. Where older existing infrastructure does exist, it may not meet current standards.

Most new walking and cycling infrastructure within the plan will be delivered through new development. This includes new sidewalks, multi-use pathways and cycling lanes (on collectors). All new walking and cycling infrastructure will meet contemporary construction standards and will reflect the road cross sections outlined in this plan.



Parks & Community Amenities

Civic facilities and services are essential components of the overall health and wellness of all residents. They provide year-round amenities and programming that encourage active lifestyles, learning, opportunities for social interaction, and the capacity to provide dynamic programming that supports all ages and abilities. Civic facilities and services welcome the entire community, and strive to serve vulnerable individuals, families and children through fostering a sense of belonging and connection.

Cloverdale Town Centre's Existing Growth Trends

Based on the 2016 Census data, the Cloverdale Town Centre had a slower growth rate, higher percentage of people over 50 and higher percentage of 1-2 person households than citywide.

Population Growth Between 2011-2016	Population Over 50	1-2 Person Households
3%*	40%	62%
11%	34%	48%

* Cloverdale, as a whole, had a growth rate of 21% between 2011-2016.

Cloverdale Town Centre's Projected Growth Trends

The plan supports future growth, including new housing, commercial and amenity spaces. New housing will need to respond to the area's growth trends, including an aging population and smaller household sizes.

Here is a comparison of the existing conditions and the future growth projections for the Cloverdale Town Centre. These projections reflect full build-out of the planned land uses over several decades.

	Population	Housing Units	Jobs	Parkland
Existing (2019)	5,126	2,250	3,573	4.47 hectares
Projected*	12,989	5,871	6,045	6.47 hectares
% Increase	153%	161%	69%	45%

* Assumes complete build out of the proposed land uses over several decades.

** This is an increase from 9.9 acres in the 2000 plan.

How Does the Plan Address Housing Affordability?

The plan allows for some of the existing single-family neighbourhoods around the downtown to be redeveloped into apartments, townhouses and semi-detached homes. These tend to be less expensive than traditional detached single-family homes. They can also suit a full range of household sizes and needs.

Other housing strategies include:

- Requiring one-to-one replacement of purpose-built rental housing units lost to redevelopment;
- Encouraging development of new affordable purpose-built rental housing; and
- Requiring new residential development to contribute \$1,000/unit towards development of new affordable rental housing.

For more about how the City supports low-income residents and seniors, refer to the City's Affordable Housing Strategy and the Age Friendly Strategy for Seniors at surrey.ca/community/3201.aspx.



Introduction

I Why a plan for Cloverdale?

The Cloverdale Town Centre plan has been developed through extensive community consultation, with support from local stakeholders, residents and City staff. The intent of the plan is to continue the development of a compact, vibrant, and sustainable town centre over the next 30 years.

The original Cloverdale Town Centre plan was approved in 2000 to coordinate growth and reinforce the area's unique character. The 2019 plan reflects changes in the area and includes land uses to support another 30 years of growth by ensuring there is enough space for future jobs, amenities and housing.

20 The Plan Document
Policy Context



THE PLAN DOCUMENT

The plan is organized into the following sections:

- 1. Background** provides an overview of the planning context and process.
- 2. Plan Framework** outlines the vision and objectives.
- 3. Land Use** outlines each land use and associated design guidelines.
- 4. Transportation** outlines new road connections and active transportation initiatives.
- 5. Parks & Open Space** identifies parks, natural areas and outlines development considerations.
- 6. Community** identifies recreation and cultural amenities, schools and libraries.
- 7. Utilities** details infrastructure improvements to support development.
- 8. Implementation** outlines policies and financing required to build out the plan.

POLICY CONTEXT

Planning in Surrey is guided by the Official Community Plan (OCP) and the Sustainability Charter. These documents provide the policy framework for growth and implement the broader direction from Metro Vancouver’s Regional Growth Strategy (RGS). Land use plans, such as the Cloverdale Town Centre plan, provide more specific details and development considerations for growing areas of the City.

A significant portion of Cloverdale’s Town Centre is identified as an Urban Centre in the RGS. Portions of the plan area are also identified as ‘Town Centre’ within the OCP. These designations mean the area is a regional focal point for concentrated growth and transit service. They also indicate that Cloverdale Town Centre is a priority location for employment and services, higher density housing, commercial, cultural, entertainment, institutional and mixed uses.



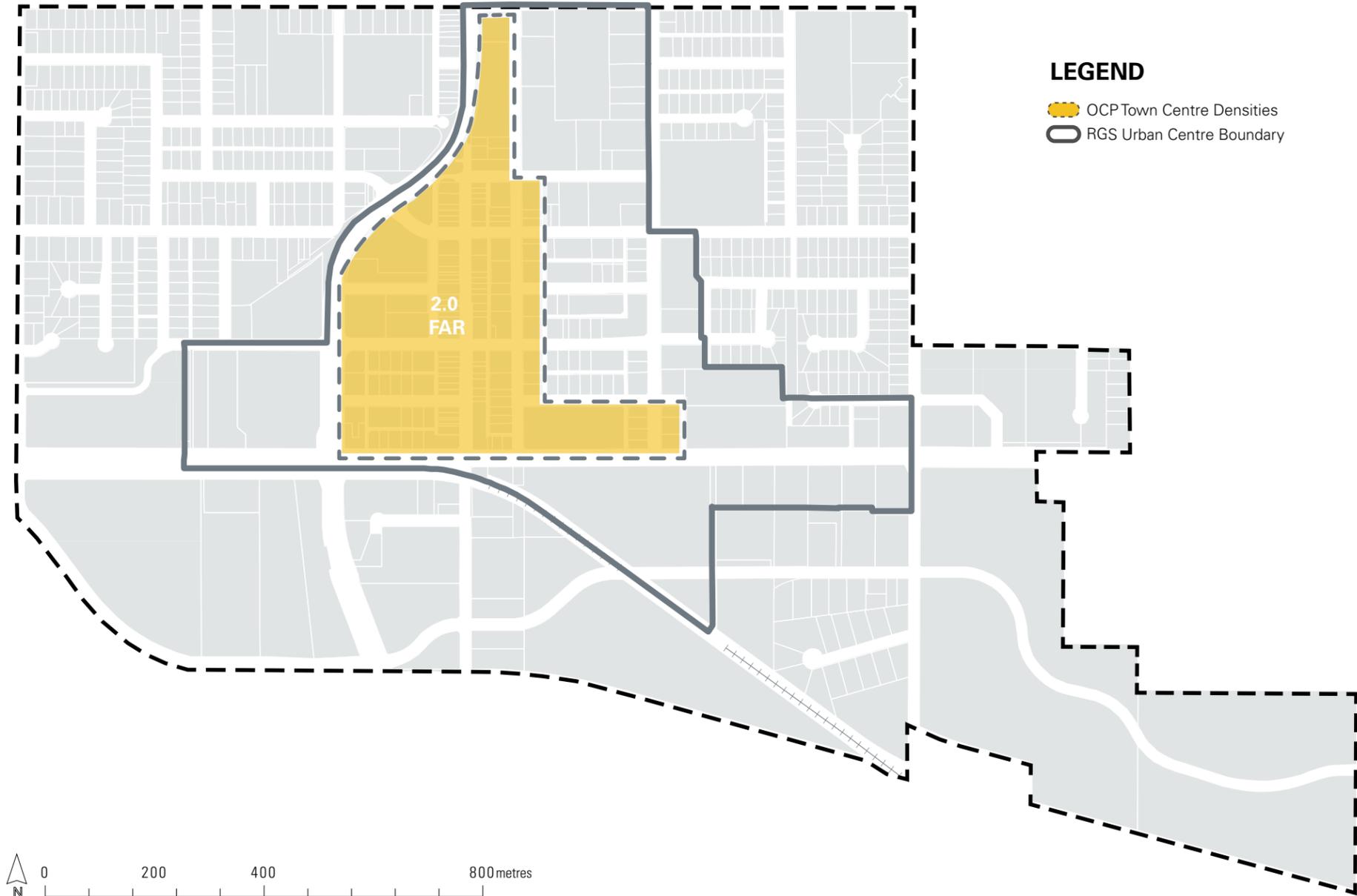
What's a land use plan?

Land use plans designate what can be built and where. They guide the height, use, and look of new buildings, as well as locations and funding for new streets, parks and other public services.

How will the plan improve the neighbourhood?

Many public facilities and services are used daily by residents. These include community centres, cultural spaces, childcare facilities and libraries. When new development and rezoning occurs in an area with a land use plan, developers must make contributions to help fund these amenities. They are also required to upgrade sidewalks and other infrastructure.

RGS & OCP Plan Boundary



Built Form Transitions

The Cloverdale Town Centre plan boundary expands beyond the RGS 'Urban Centre' and OCP 'Town Centre' boundaries to provide planning direction and context to the surrounding neighbourhood. This encourages a more purposeful blending and transition of land uses and densities into surrounding neighbourhoods.



Planning Transect



Town Centres are social, cultural and commercial centres for local communities within the City. Town Centre Plans provide land use and development guidance to supplement the sustainability goals found in Surrey's Official Community Plan (OCP). They must be regularly updated to maintain relevance.

Urban Centres are priority development areas where a mixture of uses are encouraged in an enriched public realm to promote transit, cycling and walking.

The Official Community Plan

"The City of Surrey will continually become a greener, more complete, more compact and connected community that is resilient, safer, inclusive, healthier and more beautiful."

The OCP identifies five long-term sustainability goals to help address the challenges of urban growth, climate change and demographic shifts:



Accommodate population growth by maximizing the efficient use of urban land while minimizing the impacts of change in existing neighbourhoods.

Improve the balance of local jobs to population in order to reduce commuting time, traffic congestion, and greenhouse gas emissions while reducing the burden of property taxes on residential properties by diversifying the local tax base.

Reduce automobile reliance by re-orienting land use patterns to include higher density, mixed use developments with access to transit, cycling and walking.

Promote a compact urban form that supports transit and renewable district energy infrastructure while reducing costly infrastructure extensions and avoiding development in environmentally sensitive areas.

Serve needs of the City's population by providing housing diversity and community programs to support all ages and socio-cultural groups.

Section 1: Background & Context

| How We Got Here

The foundation of any land use plan is the context. Geography, history and people frame and define the area. They also set the stage for the future and support the direction of the plan.

26	1.1 Plan Area
	1.2 Geography & Environment
28	1.3 History
30	1.4 Community Profile
31	1.5 Planning Process





1.1 PLAN AREA

The Cloverdale Town Centre plan includes an area of 297 hectares (733 acres) centred on the crossroads of Highway 10 (56 Avenue) and Highway 15 (Pacific Highway).



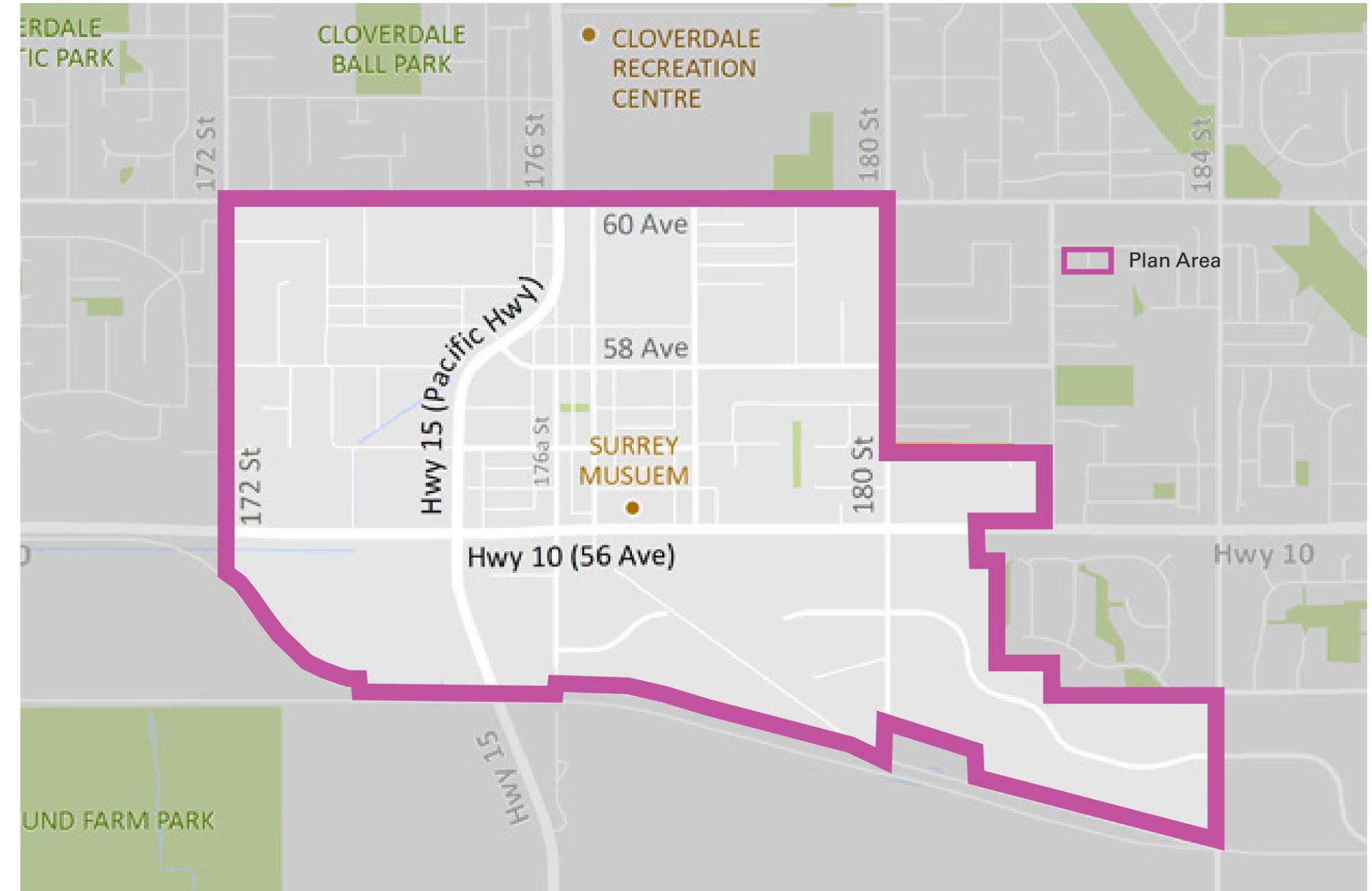
Figure 1.1: Cloverdale TC Location in Surrey

1.2 GEOGRAPHY & ENVIRONMENT

Cloverdale Town Centre is in the Nicomekl River watershed, with a portion of the plan area within the river's floodplain. The plan area is generally flat, with a gentle southward slope. Low-lying areas are susceptible to flooding from heavy rainfall and will be at risk due to anticipated sea level rise. The area is also predominantly built on soft clay soils which has implications on water infiltration, drainage and development. Due to the nature of the soils in this plan area, undeveloped lands (such as greenfield sites and agricultural land) in low-lying areas may have seasonal wetland habitat present.

Natural flora and fauna in the area is limited due to the area's built out urban environment. However, the adjacent Agricultural Land Reserve (ALR) and Mound Farm Park provide habitat for common birds, mammals and amphibians of the region, including coyotes, skunk, red tailed deer, vole species, barred owls, red-legged frogs and snakes. Most of the area's agricultural ditches provide aquatic habitat and support commercial fish species, including the Cloverdale Canal. Existing background information indicates that there are no known threatened or endangered species or interior forest habitats within the Town Centre area.

Figure 1.2 Cloverdale TC Plan Area





1.3 HISTORY

The City of Surrey respectfully recognizes that Cloverdale, like all of Surrey and the Lower Mainland, is located on the unceded traditional territory of the Coast Salish people, who have lived here for thousands of years. Today, three land based First Nations, Katzie, Kwantlen and Semiahmoo, have ancient and ongoing ties to this place. Within this context, this section of the plan provides a brief summary of the municipal history of Cloverdale.

Cloverdale is Surrey's first urban settlement, and home to Surrey's first town hall, built in 1881. It was built in what was known as Surrey Centre, referred to today as part of Cloverdale. Downtown Cloverdale's unique character reflects the area's historical roots as a village centre within a rich agricultural region (previously known as the Clover Valley). It was also the intersection of three railway lines, which made Cloverdale an early regional hub for commercial and cultural activities.

Cloverdale is historically centered on 176 Street. The surrounding heritage character area includes numerous heritage facilities and attractions, including the Museum of Surrey, Surrey Archives, Cloverdale Library and Heritage Railway.

Cloverdale has grown and changed in recent years, with new commercial and multi-family residential buildings along Highway 10 and Highway 15 (Pacific Highway). These developments have attracted new residents and resulted in more shops and services. The Town

Centre retains a unique historic charm based on the railway and western themed architecture along 176 and 176A Streets. Cloverdale Town Centre remains the historical heart of the City of Surrey due to its historical context, concentration of heritage buildings and central geographic location within Surrey.

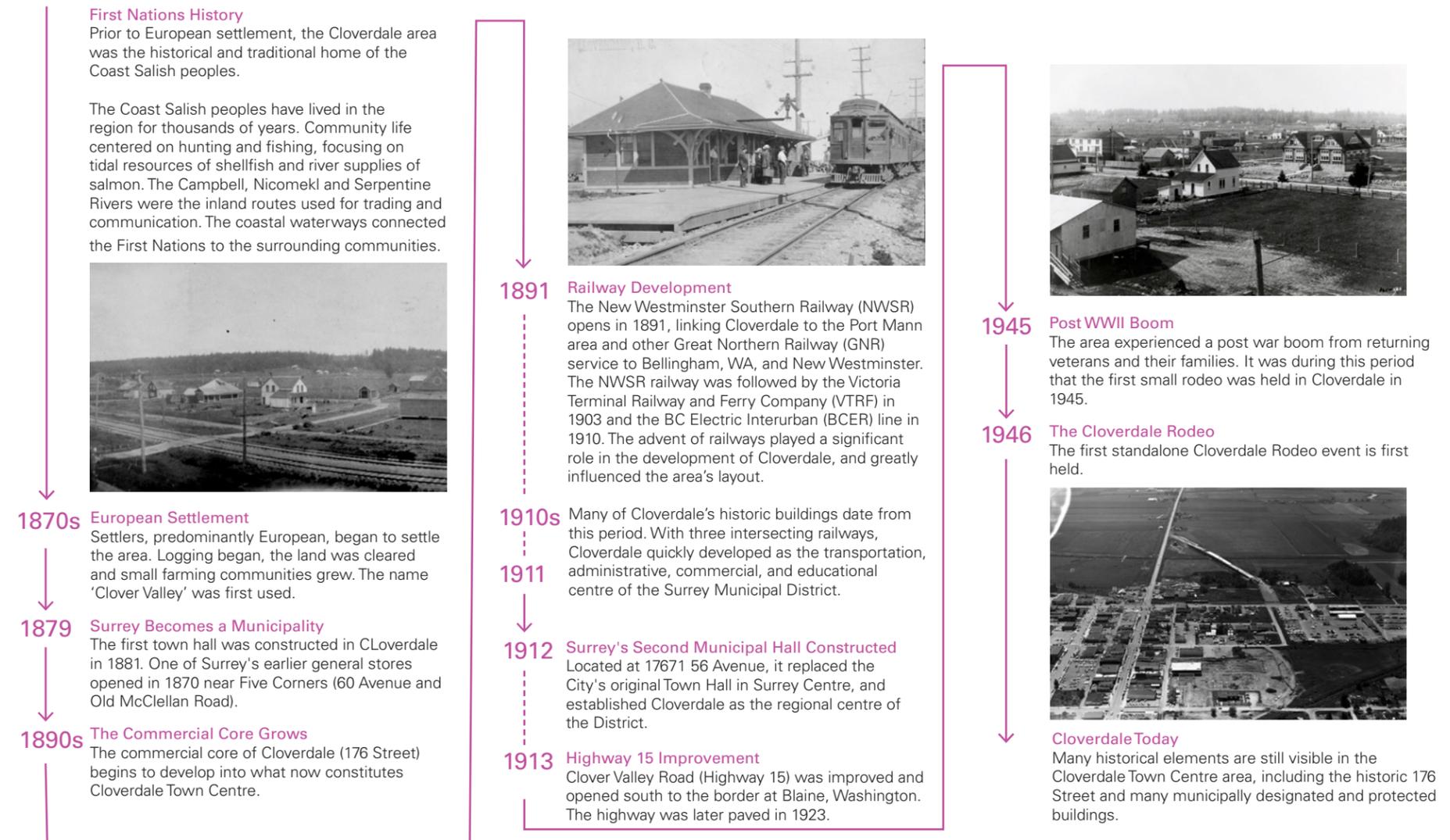


Figure 1.3 Cloverdale Historical Timeline

1.4 COMMUNITY PROFILE

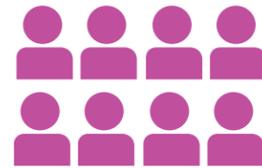
In 2018 the Cloverdale Town Centre area had a population of approximately 7,200 residents, with a population density of 2,424 residents/km². Surrey's average population density was 1,587 residents/km² in the same year. Cloverdale Town Centre's population is also older than the City average, with a higher percentage of residents 50 and older, living in smaller household sizes (1-2 person) than citywide.

The Town Centre is becoming more urban through redevelopment. Vacant and underutilized sites near the historical downtown have been redeveloped with mixed-use apartments and townhouses. Suburban single-family housing lots are increasingly being redeveloped with larger homes or subdivided to allow for smaller single-family homes. The result has been an increase of approximately 300 housing units within the plan area between 2014 and 2019.

The **average single family home** in Cloverdale costs close to \$1.0 million (2019). In contrast, most Surrey families have a household income of between \$63,000 and \$120,000/year (2019). More affordable housing types, such as apartments and townhouses, will help support the housing needs of everyone.

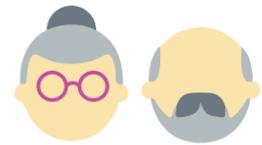
Increasingly, **seniors are choosing to downsize** over moving into designated senior housing or care facilities. Smaller unit sizes with limited yard maintenance give seniors the opportunity to age in place.

COMMUNITY TRENDS



Slow Growth

Population growth in the plan area grew by only 3% between 2011 and 2016. By comparison, the broader Cloverdale community grew by 21% and Surrey grew by 11%.



Aging Population

40% of population are over the age of 50 (up from 36% in 2011) compared to 34% citywide.



Smaller Households

62% of households are 1-2 people compared to 48% city-wide.



Figure 1.4: Community Trends (top), Figure 1.5 Existing Residential Units (bottom)

1.5 PLANNING PROCESS

1.5.1 Overview

The process of updating Cloverdale's Town Centre plan was initiated by Council in 2014 at the request of the Business Improvement Association and Chamber of Commerce. The intent was to update the land use plan to encourage additional residents and businesses to move into the area.

The planning process included a public consultation component aimed at gauging stakeholder values and priorities to guide the future development of Cloverdale Town Centre. Background studies were conducted to evaluate and advise on heritage assets, economic conditions, and parking needs. These studies informed the draft land use plan, which features specific strategies to address both public preferences and background study recommendations. Finally, infrastructure servicing needs were identified based on proposed land use designations, and a financing strategy is proposed to support future development.

TIMELINE AND KEY MILESTONES

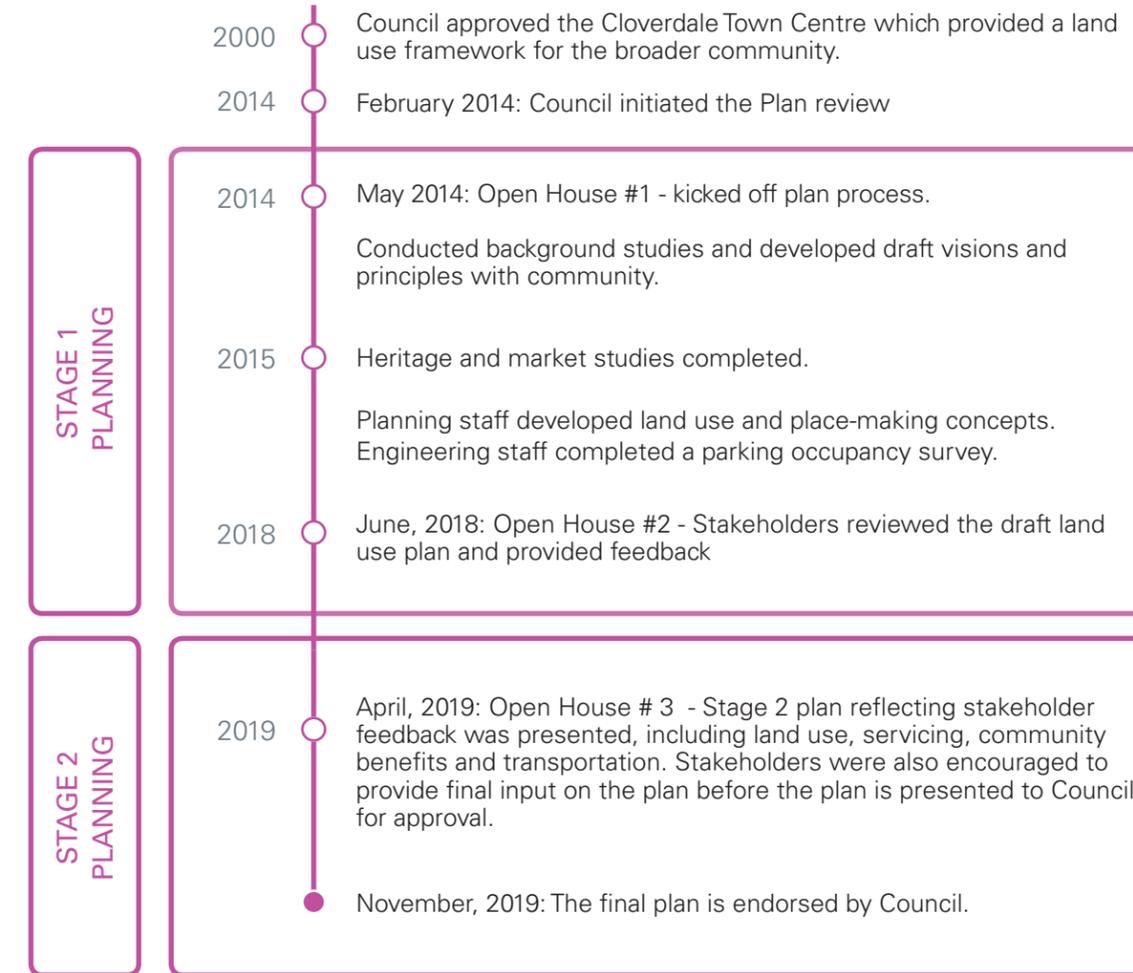


Figure 1.5: Timeline and Key Milestones

1.5.2 Public Consultation

Following Council initiation of the plan update in 2014, Cloverdale residents and stakeholders were invited to a plan kick-off open house to identify strengths and opportunities for the Town Centre. Early input identified a strong desire to attract more local business, including retail and restaurants within walking distance of residences. Parks and recreation opportunities also ranked high among community priorities. Other desires included beautification and streetscape improvements, such as heritage, arts, and cultural amenities.

An initial draft land use concept was presented at a second open house in June 2018. The concept featured an expanded mixed-use area downtown (along 176 Street) with street-level commercial. It also introduced new neighbourhood parks. Public response to the initial draft concept included concerns about increased traffic congestion, safety, loss of neighbourhood character, and a desire to maintain single-family neighbourhoods. Retention of surface parking lots in the historical downtown was raised as a major concern among the business community.

The final draft was presented at a third open house in April 2019 and received general support from stakeholders. This draft added downtown parking, adjusted residential designations and moved a proposed neighbourhood park in response to citizen feedback on the initial draft land use concept.

CONSULTATION SUMMARY



4 Ways Residents were Notified | 4 Ways Residents Participated

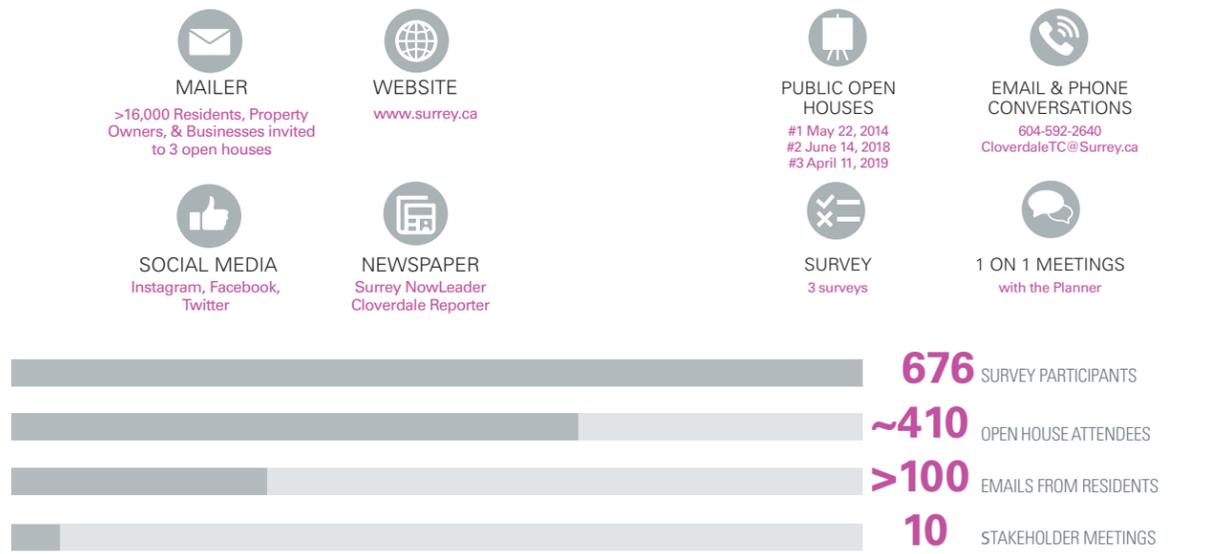


Figure 1.6: Community Consultation Summary

1.5.3 Background Studies

HERITAGE STUDY

In January 2015, the Cloverdale Town Centre Heritage Study was completed by Donald Luxton and Associates Inc. The report includes the historical context of Cloverdale, and identifies opportunities and recommendations for the conservation, commemoration and interpretation of the area's heritage. Study findings and recommendations have been incorporated into the new plan.

MARKET ANALYSIS

In March 2015, a Commercial Market Study was completed by Urbanics Consultants Ltd. The report indicated a need for additional housing to support local restaurants, bars, and retail shops, which currently draw residents to competing commercial districts outside the Town Centre. It also noted that additional commercial and retail opportunities within the historic downtown as well as additional highway-oriented retail on Highway 10 could support the overall commercial viability of the Town Centre. Land use designations have been updated to reflect the findings of the market analysis.

PARKING STUDY

In 2018, the City of Surrey surveyed all public street and off-street parking in Cloverdale Town Centre to measure occupancy rates. The study suggested that the existing parking supply adequately meets current demands. Parking will need to be managed to prevent a shortage of available spaces as the downtown continues to grow.



Section 2: Plan Framework

| The Big Picture

At the beginning of the planning process the community helped develop a vision and objectives for the Town Centre Plan. These guiding elements were revisited throughout the process to ensure the plan, as it progressed, continued to reflect these objectives.

- 36 2.1 Vision
- 2.2 Growth Concept & Objectives
- 38 2.3 Growth Projections



2.1 VISION

PLANNING VISION

The vision statement represents the enduring values and character of the neighbourhood and embodies the priorities of local stakeholders as well as the City’s growth and sustainability goals.

“Cloverdale Town Centre is the historic heart of the City. It is a distinctive, thriving centre for commercial, social, cultural, and recreational activities. It is a pedestrian-friendly neighbourhood with a variety of housing types and local businesses that celebrates its heritage and embraces its role as a regional destination.”

GROWING
A range of housing options attracts new residents to the area. Local population growth supports new businesses and amenities that enhance the Town Centre.

DISTINCT
Place-making enhancements reflect Cloverdale’s unique historical identity. New and improved parks, plazas and streetscapes support a growing population.

THRIVING
More locally-oriented mixed-use buildings and businesses revitalize the downtown. A built-in population base and commercial space attracts small retail shops and restaurants that sustain a vibrant and distinct urban core.

2.2 GROWTH CONCEPT & OBJECTIVES

Cloverdale is a distinct and eclectic community with historic significance in Surrey. Residents and visitors engage with its history and character. The plan recognizes this and strives to promote, preserve and enhance distinctive local character and sense of place.

The plan is framed around five key growth objectives. These provide direction to advance the vision and support the long-term growth of Cloverdale. These objectives are supported by clear direction, land use designations and policies to guide growth, development and design.

- OBJECTIVE 1. ENHANCE CHARACTER**
The Town Centre core is reinforced by creating a coordinated public realm:

 - Maintain 2-storey building heights on 176 Street;
 - Encourage contemporary design, compatible with historical architecture; and
 - Extend the “Heritage Main Street” design features from 176 to 176A Street.
- OBJECTIVE 2. SUPPORT BUSINESS**
Mixed-use and commercial buildings adjacent to the heritage character area will:

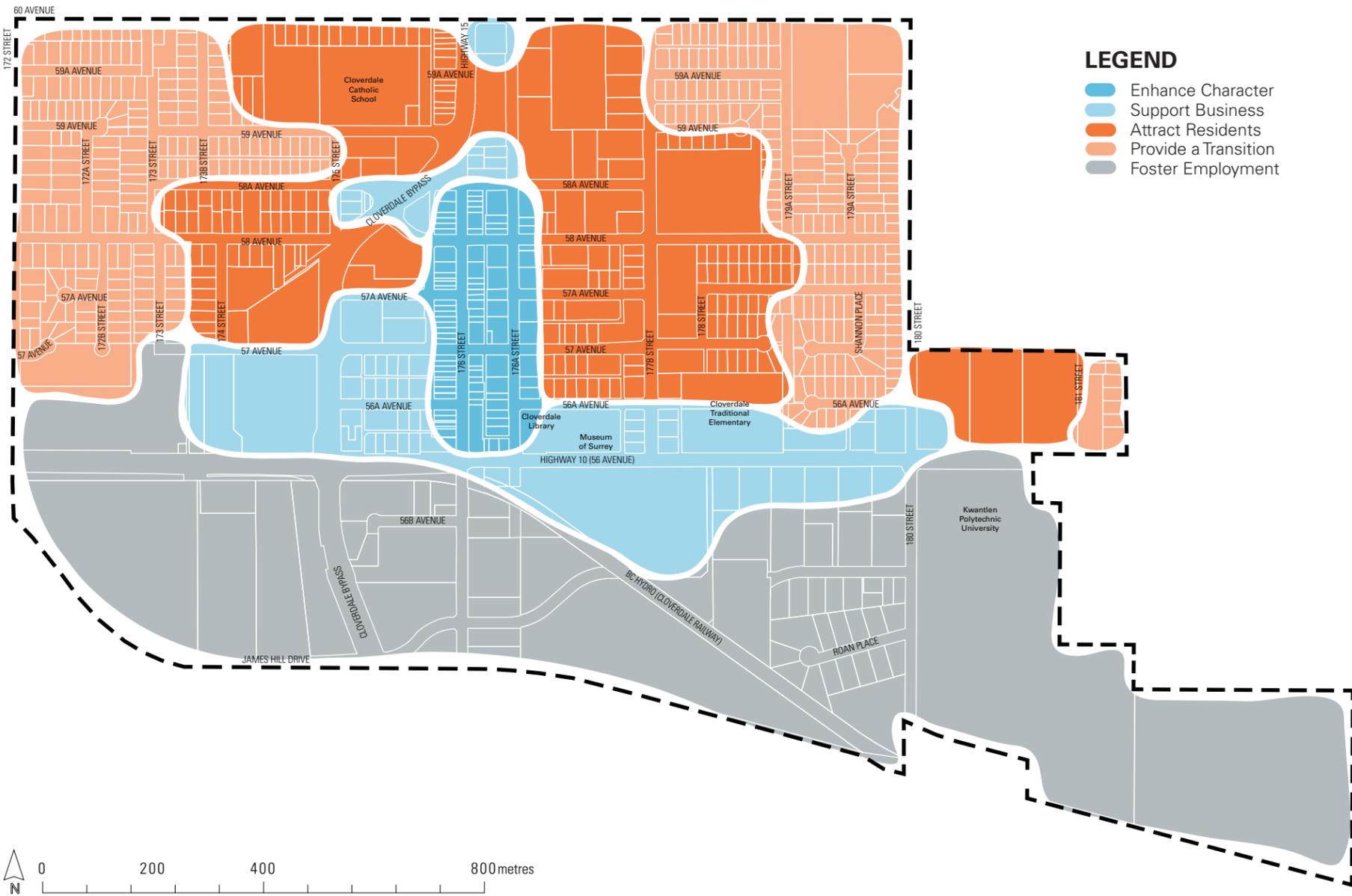
 - Provide additional space for new locally serving businesses;
 - Encourage commercial at ground level; and
 - Support active streetscapes with pedestrian amenities
- OBJECTIVE 3. ATTRACT RESIDENTS**
A range of housing types and enhanced parks and amenities will:

 - Improve the balance of housing types and affordability;
 - Focus new housing within walking distance of downtown; and
 - Provide new parks and amenities within walking distance of all households.
- OBJECTIVE 4. PROVIDE A TRANSITION**
A transition of density towards the periphery of the plan area will:

 - Preserve valued single-family housing;
 - Provide infill opportunities for alternative forms of single family (fee simple) housing;
 - Retain the look and feel of existing neighbourhoods; and,
 - Focus meaningful density around the downtown commercial area.
- OBJECTIVE 5. FOSTER EMPLOYMENT**
Commercial and industrial lands along and south of Highway 10 will:

 - Provide opportunities for commercial, light industry and business park development;
 - Leverage a key location at the intersection of two provincial highways; and
 - Expand opportunities for institutional and civic development.

Figure 2.1: Growth Concept



2.3 GROWTH PROJECTIONS

2.3.1 Population Projections

The Cloverdale Land Use Plan will accommodate modest population growth over several decades. New development within the plan area is anticipated to continue at the same pace resulting in an annual population growth rate between 2-3%. This represents a rate below the City of Surrey's average. Assuming eventual build-out over many decades, the plan will yield more than double the existing housing units, resulting in a total population of approximately 13,000 residents. To accommodate this increase in population the plan designates additional parkland as well as additional employment lands.

2.3.2 Housing Projections

The plan supports more diverse housing options by providing apartment and townhouse opportunities between the historic downtown and existing single-family neighbourhoods. A residential transitional area around the downtown core will support the objective of the plan by attracting new residents, supporting new and existing local businesses and providing a buffer between commercial areas and lower density residential neighbourhoods. A greater variety of housing will support a full range of housing needs within walking distance of the downtown.

In total, the number of dwelling units will increase from the existing 2,204 (2019) to approximately 6000. New housing units will be predominantly apartments and townhouses.

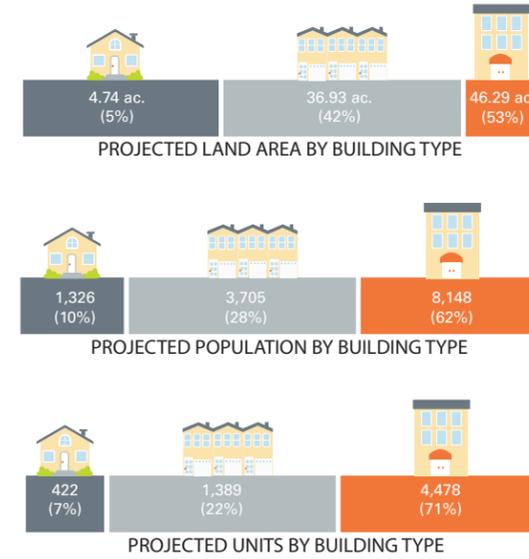


Figure x: Population Projections

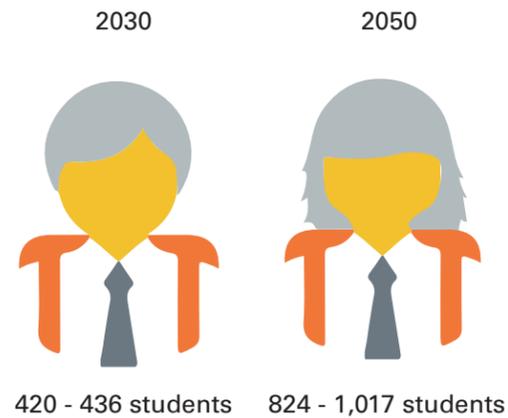


Figure 2.2 Projected Elementary and Secondary Students

2.3.3 Employment Projections

The plan supports local businesses by providing a built-in customer base. Mixed-use commercial/residential buildings adjacent to the heritage downtown will support the provision of desired locally oriented businesses and services.

Commercial and industrial lands south of Highway 10 will continue to provide a diverse range of regionally oriented industries and services that leverage the Town Centre's location at the crossroads of two provincial highways. This area may evolve to support new institutional and locally oriented uses which complement the heritage downtown core. Total jobs within the Plan Area will roughly double from 2019 level to approximately 6,000.

How long will it take for the plan to be fully implemented? Development in Cloverdale Town Centre will largely take place through infill development. This typically requires the consolidation of lots, which takes time. The plan will likely take several decades to be fully realized since most of the area is already developed with existing buildings and uses.



Section 3: Land Use

| How We Grow

The land use map and designations reflect the goals and objectives of the plan. They show how future development will fit together and where the City expects growth. The land use map shows the land uses designations in the Town Centre. Council, staff and residents expect future development proposals to correspond with this concept plan.

- 42 3.1 Land Use Strategy
- 44 3.2 Mixed Use Designations
- 48 3.3 Mixed Use Interface
- 50 3.4 Residential Designations
- 56 3.5 Employment Designations
- 61 3.6 Other Land Use Designations



3.1 LAND USE STRATEGY

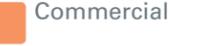
Cloverdale Town Centre is a distinctive centre for commercial, social and cultural activities. It is the heart of the broader Cloverdale community. Centered on 176 Street and 176A Street, this area features a finer-grained and pedestrian friendly street network. These streets support many local businesses, services and public gathering spaces.

A variety of housing types accommodate residents with different needs and means. Most new residential development will occur within walking distance of the downtown. This will provide convenient access to shops and services and provide a larger customer base for local businesses.

Land use designations define future land uses that the City will encourage over time. Each land use designation outlines what may be possible on sites with that designation.

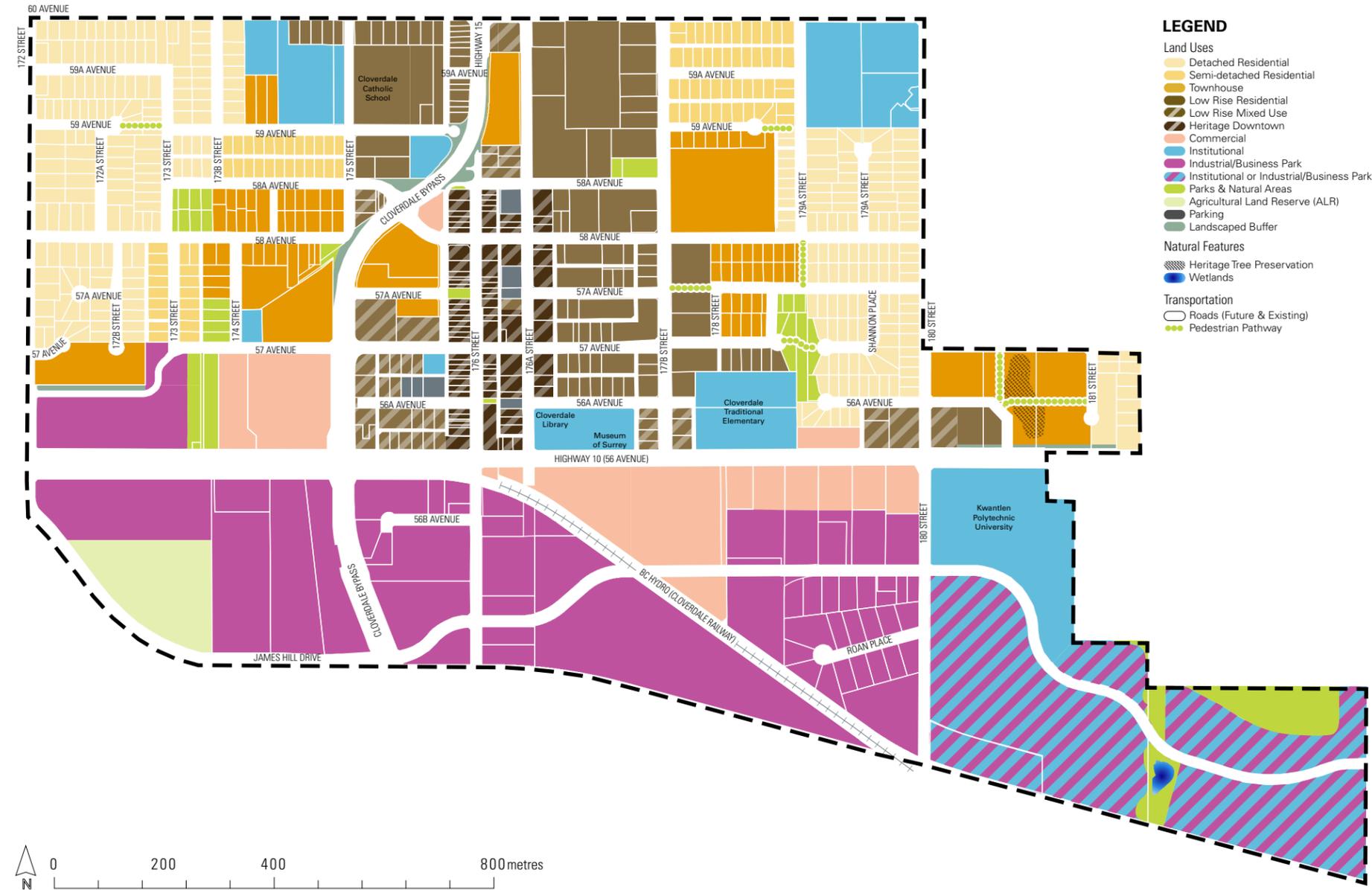
Implementation of the plan is intended to take place over time through applications for rezoning and development permits. Zoning regulations specify permitted land uses and densities on a property-by-property basis and are intended to be generally consistent with the provisions outlined in this section. Not all sites will be able to meet the maximum densities outlined in the designation due to limitations created by context (e.g. road dedications, heritage retention etc.) and site constraints (e.g. lot size and shape, existing trees, riparian areas). New proposed zoning will be reviewed at the time of development application submissions on a case-by-case basis.

TABLE 3.1: LAND USE DESIGNATION SUMMARY

 <p>Detached Residential</p>  <p>Single family detached dwelling with the potential for a secondary suite allowing a maximum of two dwelling units per lot.</p> <p>BUILDING HEIGHT 9.5m</p> <p>DENSITY Up to 37 UPH (15 UPA)</p>	 <p>Semi-Detached Residential</p>  <p>One dwelling unit on each lot contained within a semi-detached residential building.</p> <p>BUILDING HEIGHT 9.5m</p> <p>DENSITY Up to 57 UPH (23 UPA)</p>	 <p>Townhouse Residential</p>  <p>Ground-oriented townhouse buildings and related amenity spaces with a comprehensive design.</p> <p>BUILDING HEIGHT 13m*</p> <p>DENSITY Up to 1.0 FAR or 75 UPH (30 UPA)</p>	 <p>Low-Rise Residential</p>  <p>Multi-family housing with ground-oriented units at base of buildings.</p> <p>BUILDING HEIGHT 4 storeys*</p> <p>DENSITY Up to 1.5 FAR</p>	 <p>Low Rise Mixed-Use</p>  <p>Multi-family housing with ground-oriented commercial space encouraged.</p> <p>BUILDING HEIGHT 4 storeys*</p> <p>DENSITY Up to 1.5 FAR</p>
 <p>Heritage Downtown</p>  <p>Historical main street characterized by small shops and heritage buildings.</p> <p>BUILDING HEIGHT 2 storeys on 176 St, between 56 Ave and 58A Ave*.</p> <p>DENSITY Up to 1.5 FAR</p>	 <p>Commercial</p>  <p>Shopping and service centres serving the broader community.</p> <p>BUILDING HEIGHT Up to 4 storeys to a maximum of 20m.</p> <p>DENSITY Up to 1.5 FAR</p>	 <p>Industrial/Business Park</p>  <p>Comprehensively designed business park consisting of light impact industrial, offices and service uses.</p> <p>BUILDING HEIGHT 4 storeys, to a maximum of 18m.</p> <p>DENSITY Up to 1.5 FAR</p>	 <p>Institutional</p>  <p>Public and private community spaces such as churches, universities, schools, museums, libraries and community centres.</p>	

Building height and density may be increased in certain designations where additional community benefit is being provided in accordance with City policies. See Section 3 for details.

Figure 3.1: Land Use Map



3.2 MIXED USE DESIGNATIONS

3.2.1 Heritage Downtown

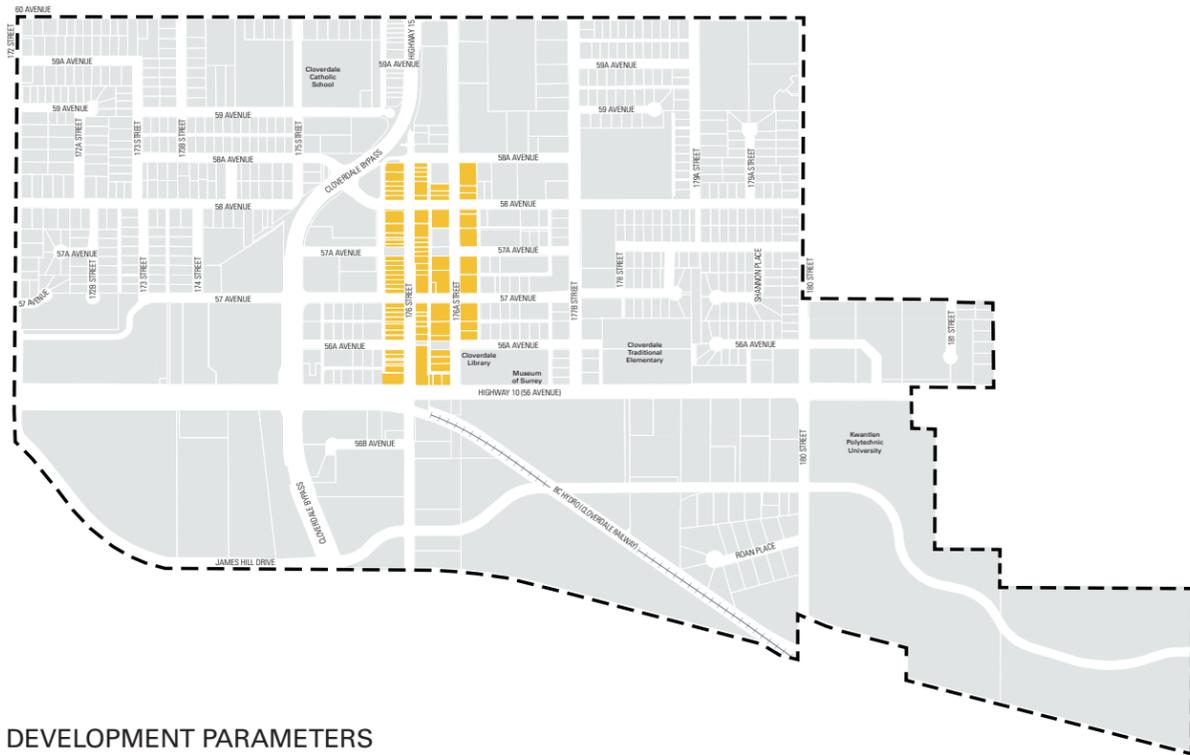
This designation is reflective of Cloverdale’s historical main street characterized by its small shops and heritage buildings. Its streetscape is inviting and highly walkable with a range of commercial uses that offer a wide selection of goods and services. It is a vibrant and eclectic area that residents and visitors want to spend time in.

New development will authentically complement scale, massing and architecture of the historic streetscape. “Heritage Main Street” design features will be expanded from 176 to 176A Street. Heritage character is achieved through contemporary interpretation of existing architectural forms and details. Development within this designation will meet the intent of the plan through the following objectives:

- Growth Objective 1: Enhance Character*
- Growth Objective 2: Support Business*
- Growth Objective 3: Attract Residents*

INTENT

Development within this designation will focus on providing ground floor retail, including space for shops, restaurants, businesses and services. Office or residential is permitted above. Street-level commercial or retail uses are required in all development in this area.



DEVELOPMENT PARAMETERS

Typical Height	2 storeys on 176 Street, between 56 Ave and 58A Ave. 4-5 Storeys on 176A Street.*
Parking:	Locate at the rear of the building, at grade wrapped within building envelope or underground and accessed by lane.**
Density:	Up to 1.5 FAR*

Commercial at grade required, office or residential above. Refer to the ground floor interface policy in Section 7.1 for more details.

** Building height and density may be increased to 5 storeys and up to 2.0 FAR on sites where heritage preservation is being proposed, a plan designated plaza is being delivered or where additional community benefit is being provided in accordance with City policies. In such cases, development must meet parking requirements and be subject to urban design approval to ensure appropriate interface treatments and consistency with design guidelines.*

*** Where development is unable to provide required parking, allowance for a cash in-lieu contribution may be permitted. See Section 4.5 for details.*

DESIGN GUIDELINES

Form & Massing:	<ul style="list-style-type: none"> • New buildings should blend with the existing built context; the height and scale of adjacent structures should be respected, and a gradual transition should be achieved at the interface line. • Ground floors should have a minimum ceiling height of 4 metres or 13 ft. to provide functional commercial space. • Use simple building forms with strong eave lines and overhangs. • Articulate building frontages approximately every 10 metres (33 ft.). • If applicable, step back above the fourth storey or design the upper storeys to reduce the impact of visual bulk where interfacing with lower density area.
Building Interface:	<ul style="list-style-type: none"> • Primary commercial/retail frontages are to face the most active streets. • Minimize front setbacks to maintain the existing urban character and continuity of street frontages (approx. 0-1.5 metres (0-5 ft.)). • Maximum CRU frontage of 6-8 metres (20-26 ft.). At-grade large format CRUs should be set behind smaller CRUs with narrow frontages. • New buildings should respect the horizontal lines of neighbouring buildings. For example, eaves, roof lines, windows, cornices and parapets should be consistent to achieve a harmonious transition between old and new. • Locate the building’s entrance doors recessed in a covered alcove. • Corner buildings should have active windows and/or entrances on all street frontages to activate street fronts. • Off-street parking areas should be located at the rear of the building at grade and wrapped within the building envelope or underground, accessed from the rear lane. CRUs should be accessed directly by the street. • Pedestrian linkages from the lane should be considered at mid-block to provide pedestrian access from parking to the street.
Materiality & Detailing:	<ul style="list-style-type: none"> • Use of natural materials such as wood, or brick is encouraged at street level. The predominant use of glazed curtain wall systems is not considered appropriate. Large areas of exposed natural or painted concrete are discouraged. Materials vary from building to building to provide variation and diversity in the streetscape. Limit the number of materials used within a single building. • Windows with heavy lintel and sill and wide window casements are encouraged. • Provide continuous weather protection. Canopies’ height should match existing adjacent building’s canopies to create continuity along the streetscape. Canopies should be opaque, simple, fabric, and demountable. Recommended inclination of canopies is 45 degrees (minimum 30 is acceptable).
Signs	<ul style="list-style-type: none"> • Identification signs limited to one major sign on the principle façade and one minor sign on the secondary façade. Signage should be used for business identification purposes only. Signs used for advertising are not permitted. • Signs that support pedestrian-friendly wayfinding and identity are encouraged: projecting signs, fascia signs, neon or painted window signs, wall painted signs, canopy/awning signs (excluding backlit awnings), and under canopy signs. • The form, size, style and location of signs should complement and reinforce the architecture of the building facade. Signage should not obscure or affect important features of the building or its overall architectural integrity. • Freestanding signs are supported. • Backlit box signs with translucent acrylic faces are not supported.

Note: Where there is a conflict with the OCP Guidelines for Form and Character Development Permits, the Town Centre Plan’s Guidelines take precedence.



3.2.2 Low Rise Mixed Use

This is an extension of the walkable downtown core, which combines a mixture of active commercial storefronts with office or residential above to create a more vibrant and self-sustaining urban centre.

Development in these areas will provide contemporary interpretations of historical Cloverdale. New buildings will draw inspiration from the traditional railway era as well as contemporary architectural styles. Development within this designation will meet the intent and of the plan through the following objectives:

- Growth Objective 2: Support Business*
- Growth Objective 3: Attract Residents*
- Growth Objective 4: Provide a Transition*

INTENT

Development within this designation is intended as multi-family apartment housing with ground-oriented commercial. Ground floor commercial is required at key intersection and along primary pedestrian oriented streets.

DEVELOPMENT PARAMETERS:

Typical Height:	4 storeys*
Parking:	Underground or within building envelope.
Typical Lot Coverage:	50%+
Density	Up to 1.5 FAR*

Commercial at grade required on corners and commercial streets. Refer to the ground floor interface policy in Section 7.1 for more details.

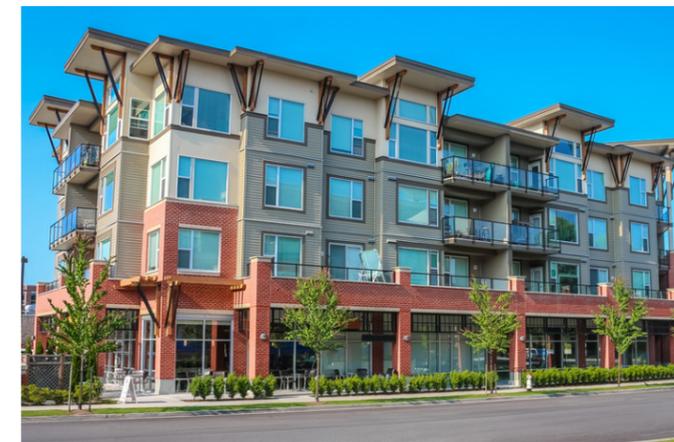


** Building height and density may be increased to 5 storeys and up to 2.0 FAR on sites where heritage preservation is being proposed, a plan designated plaza is being delivered or where additional community benefit is being provided in accordance with City policies. In such cases, development must meet parking requirements and be subject to urban design approval to ensure appropriate interface treatments and consistency with design guidelines.*

DESIGN GUIDELINES

Form & Massing:	<ul style="list-style-type: none"> Visually scale down buildings to a length of 50 metres. Add scale and visual interest at street level by articulating the building facade or changing building cladding material. A simple roof form should address the street to complement the roof styles in the area. Articulate building frontages approximately every 10 metres (33 ft.). If applicable, step back above the fourth storey or design the upper storeys to reduce the impact of visual bulk where interfacing with lower density area.
Building Interface:	<ul style="list-style-type: none"> Frame development sites with built edges against all streets. Provide the following building setback guidelines: <ul style="list-style-type: none"> - 3 metres on commercial interfaces fronting arterial roads - 2 metres on commercial interfaces fronting collector and local road - 4.5 metres on all residential interfaces, fronting all roads. On residential interfaces, provide a second inside row of trees on private property where setbacks are 4 m or more to reinforce a formal tree lined promenade. Orient retail uses towards the most active street frontages (see Figure 3.2: Ground Floor Interface in Mixed Use Designations). On active interfaces, provide small scale CRUs with a maximum frontage of 10 metres (33 ft.) to establish a pedestrian scale and rhythm and to add texture and visual stimuli. At-grade large format CRUs should either be set behind smaller CRU frontages with a smaller entrance at ground level or located on the 2nd floor with smaller retail at grade. Maximize active frontages by locating non active uses such as exit stairs, service spaces and service doors away from primary frontages. Locate parking underground or at the rear of the building and accessed by lane when underground is not feasible. Surface parking areas and driveways will not be permitted along active frontages. Back-of-house services, loading and parking ramps should be located off lanes to minimize interruptions along pedestrian-oriented streets. Avoid storefronts set back behind columned arcades that reduce retail visibility. Ensure main floor elevation is flush with adjacent sidewalk grade. Step main floor grade with sidewalk grade on sloped sites to maintain full accessibility. Avoid exterior ramps and stair access to retail spaces and main entries into buildings. Provide amenities such as in-ground landscaping, seating, garbage cans, bike racks, drinking fountains, and public art along the streetscape where appropriate.
Materiality & Detailing:	<ul style="list-style-type: none"> Use of natural materials such as wood, or brick is encouraged at street level. The predominant use of glazed curtain wall systems is not considered appropriate. Large areas of exposed natural or painted concrete are discouraged. Materials vary from building to building to provide variation and diversity in the streetscape. Limit the number of materials used within a single building. Maximize CRU window size to encourage easy viewing of goods and provide passive surveillance to streets and plazas.
Signs	<ul style="list-style-type: none"> Identification signs limited to one major sign on the principle façade and one minor sign on the secondary façade. Signage should be used for business identification purposes only. Signs used for advertising are not permitted. Signs that support pedestrian-friendly wayfinding and identity are encouraged: projecting signs, fascia signs, neon or painted window signs, wall painted signs, canopy/awning signs (excluding backlit awnings), and under canopy signs. Freestanding signs are not permitted.

Note: Where there is a conflict with the OCP Guidelines for Form and Character Development Permits, the Town Centre Plan's Guidelines take precedence.



3.3 MIXED USE INTERFACE

3.3.1 Ground Floor Interface in Mixed Use Areas

To facilitate pedestrian engagement and street-level vibrancy within mixed-use areas, four ground-floor use classifications specify appropriate interfaces.

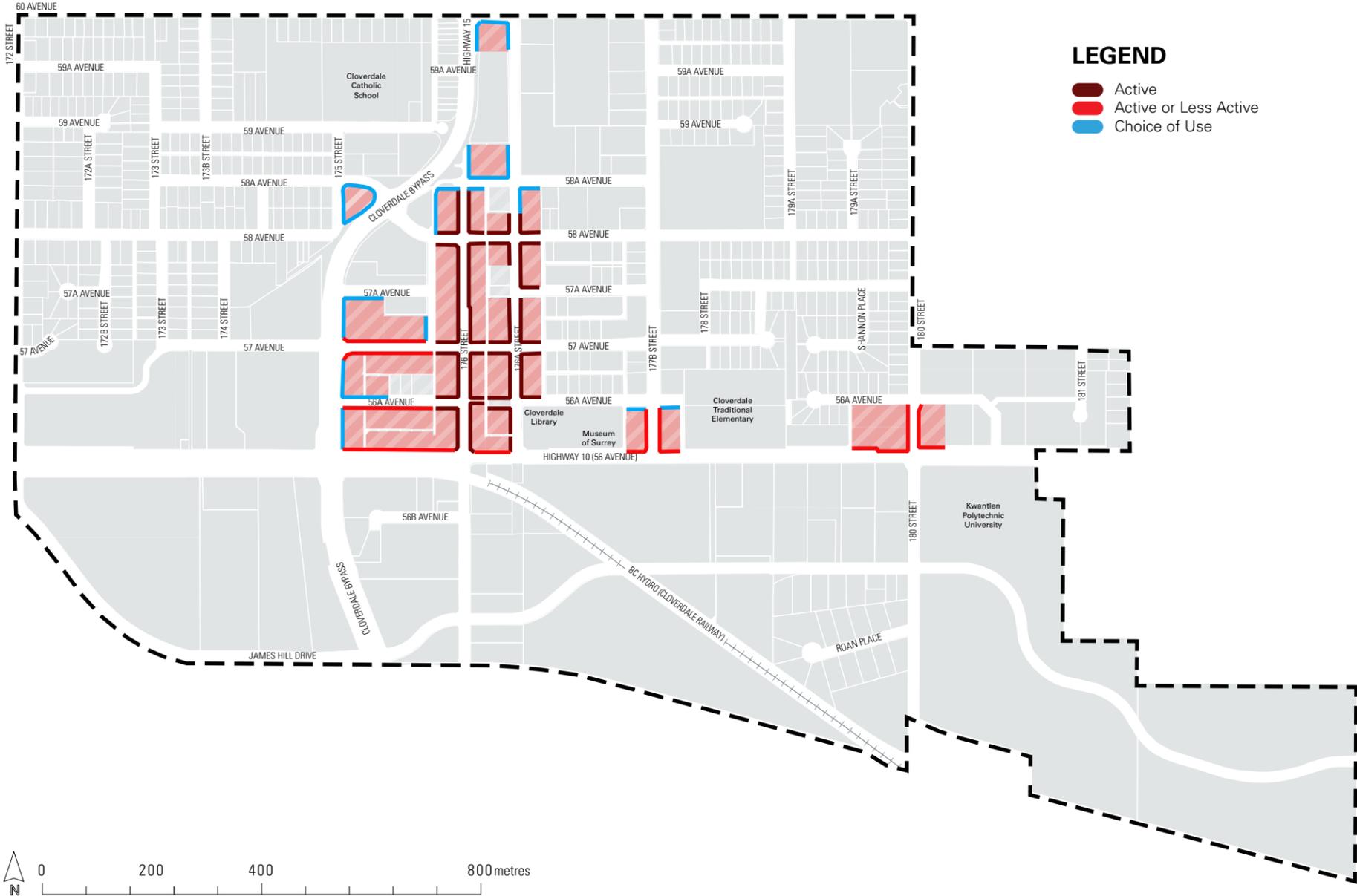
All ground floor use classifications must adhere to all additional building design guidelines as outlined within each land use designation.

- ACTIVE**
 176 Street and 176A Street are successful commercial streets which generate a high degree of pedestrian street activity. In these areas, as shown on [Map X: Ground Floor Interface in Mixed-Use Designations](#), “active” ground floor uses are required, including:
 - Retail and commercial uses such as restaurants, coffee shops, specialty grocery and general retail.
 - Interactive uses such as outdoor café spaces and merchandise displays (e.g. flowers or produce).
 - Personal service uses such as barbershops, beauty parlours, shoe repair shops, dry cleaners and neighbourhood pubs, may be considered if design criteria is met.
 - Entertainment and attractions that generate demand during mid-day, evenings, and weekends.

- ACTIVE OR LESS ACTIVE**
 Areas with lower pedestrian volumes are better suited for less active ground floor uses. In these areas, as shown on [Map X: Ground Floor Interface in Mixed-Use Designations](#), “active or less active” uses are permitted. In addition to those listed in the “active Interface” the following uses are also permitted:
 - Ground floor high intensity office with large floor plates (head office, large medical building, institutional and civic uses) will be permitted. Large office frontages should include a component of active retail such as coffee shops, convenience retail etc.
 - Smaller ground floor small office and service uses including child care, small fitness/yoga studios, medical clinic, business services, banks, lawyers office, dry cleaners will also be permitted.
 - Institutional uses such as a performing arts centre, churches, schools, care facilities, and supportive housing will be permitted.

- CHOICE OF USE**
 These areas as shown on [Map X: Ground Floor Interface in Mixed-Use Designations](#), permit a combination of active, less active and residential uses as appropriate to the development proposal and existing interface conditions.

Figure 3.2: Ground Floor Interface in Mixed-Use Designations



3.4 RESIDENTIAL DESIGNATIONS

3.4.1 Low Rise Residential

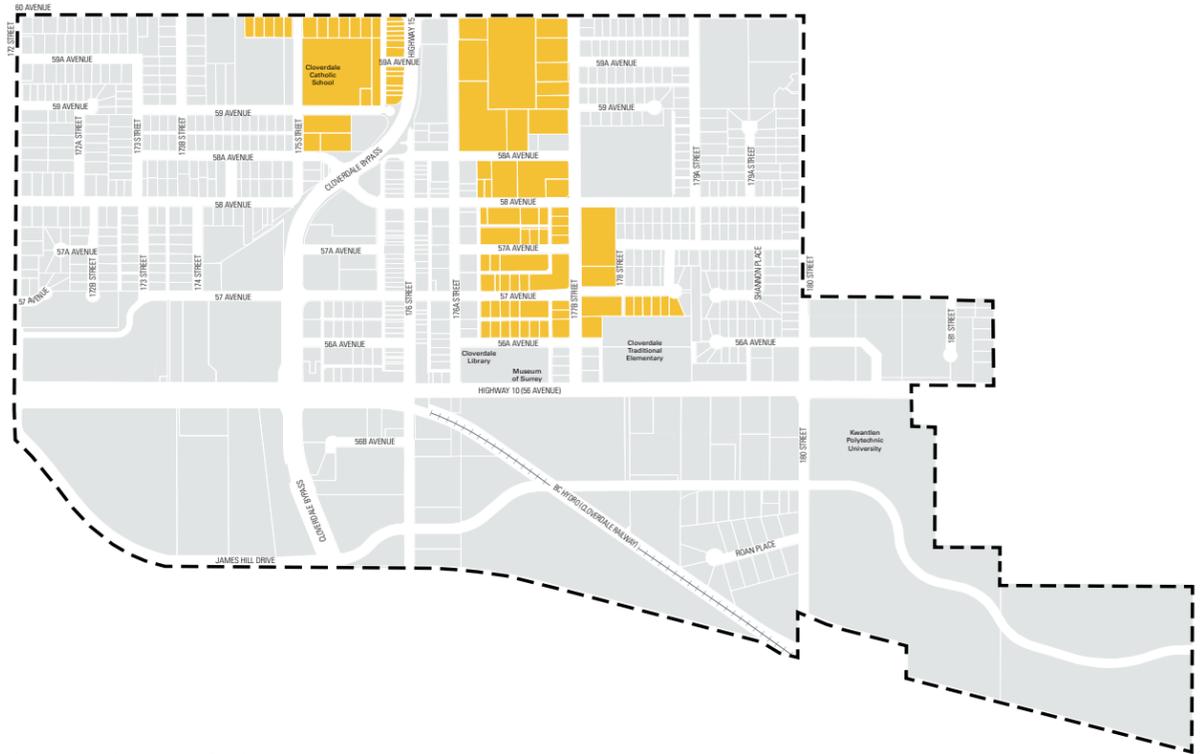
New residential development will be focused within walking distance of the downtown. This will attract new residents to support local business and provide a buffer between commercial areas and lower density residential neighbourhoods. A greater variety of housing types will support a full range of housing needs for young families, working professionals and seniors.

New development will draw inspiration from the eclectic mix of architectural styles and detailing within the Town Centre and will emphasize smooth transitions and interfaces between distinct building forms. Development within this designation will meet the intent of the plan, through the following objectives:

- Growth Objective 3: Attract Residents
- Growth Objective 4: Provide a Transition

INTENT

Development within this designation is intended as multi-family housing. New development will feature ground-oriented townhouse units at base of buildings and apartments above.



DEVELOPMENT PARAMETERS:

Typical Height:	4 storeys*
Density:	Up to 1.5 FAR*
Parking:	Underground or within the building envelope. No parking in front of the main building entrance.
<i>Walkability and pedestrian access are key considerations. Provide a range of unit sizes from 1-3 bedrooms.</i>	

* Building height and density may be increased to 5 storeys and up to 2.0 FAR on sites where heritage preservation is being proposed, a plan designated plaza is being delivered or where additional community benefit is being provided in accordance with City policies. In such cases, development must meet parking requirements and be subject to urban design approval to ensure appropriate interface treatments and consistency with design guidelines.

DESIGN GUIDELINES

Form & Massing:	<ul style="list-style-type: none"> Visually scale down buildings to a length of 50 metres. Add scale and visual interest at street level by articulating the building facade or changing building cladding material. A strong primary roof form should address the street with secondary roofs (dormers, gables etc.) to visually support the primary roof. Add windows where stairs and lobbies have exterior walls for daylighting. If applicable, step back above the fourth storey or design the upper storeys to reduce the impact of visual bulk where interfacing with lower density area.
Building Interface:	<ul style="list-style-type: none"> Frame development sites with built edges against all streets. Provide 4.5 metre setbacks on all interfaces. Extended porches and recessed entries should be used to articulate facades and reinforce residential character. Non-active uses such as indoor amenity rooms and service spaces should be located away from street interfaces and should not be located on any prominent frontage. Indoor and outdoor amenity areas should be located together to ensure they can be used at the same time.
Materiality & Detailing:	<ul style="list-style-type: none"> Use of natural materials such as wood, or brick is encouraged at street level. The predominant use of glazed curtain wall systems is not considered appropriate. Large areas of exposed natural or painted concrete are discouraged. Materials vary from building to building to provide variation and diversity in the streetscape. Limit the number of materials used within a single building. Use simple window configurations. Building and roofing materials should express a texture and quality of craftsmanship that reflects the local heritage without imitation.
Signs	<ul style="list-style-type: none"> Freestanding signs are supported. Live-work units may have small fascia projecting signs.

Note: Where there is a conflict with the OCP Guidelines for Form and Character Development Permits, the Town Centre Plan's Guidelines take precedence.



3.4.2 Townhouse Residential

Townhouses provide an affordable alternative to detached single-family housing. New townhouses will attract young families and working professionals to the Town Centre. This will meet the objectives of the plan by attracting new residents and providing a density transition from downtown.

New townhouses will draw inspiration from the historical and contemporary mix of architectural styles and detailing within the Town Centre. Development within this designation will meet the intent of the plan through the following objectives:

- Growth Objective 3: Attract Residents*
- Growth Objective 4: Provide a Transition*

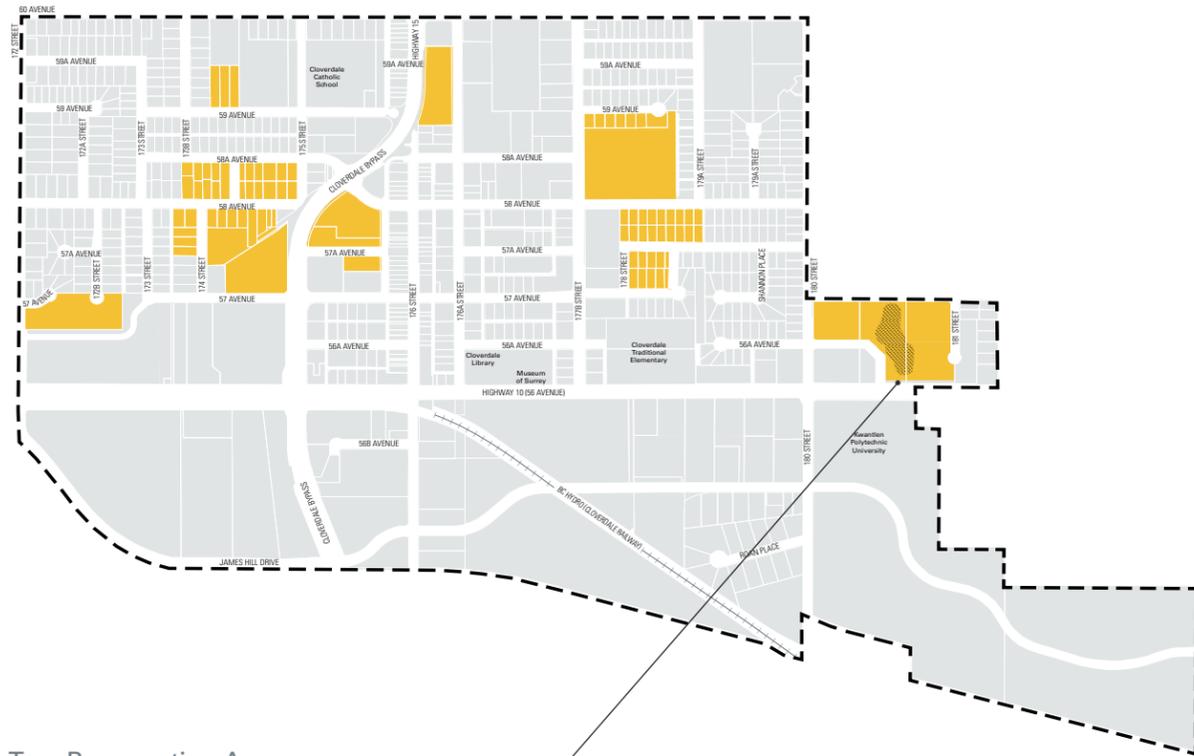
INTENT

Development within this designation is intended as ground-oriented townhouses.

DEVELOPMENT PARAMETERS:

Maximum Height:	13 m*
Density:	Up to 1.0 FAR or 75 UPH (30 UPA)*
Clustering:	Minimum 3 attached units; maximum of 6-units per building
<i>Land assembly to provide a minimum of 1-hectare sites may be required to ensure provision of adequate public street access.</i>	

** Building height and density may be increased to X m and up to 1.3 FAR on sites where stacked townhouses are proposed. In such cases, development must meet parking requirements and be subject to urban design approval.*



Tree Preservation Area

HERITAGE TREE PRESERVATION

A small grove of six heritage trees (common apple, horse chestnut, black & English walnut) is located on the Bourassa farm site at the northeast corner of Highway 10 and 180 Street.

The underlying Townhouse designation will support preservation of heritage trees by clustering buildings outside of and avoiding disturbance of the tree preservation area. The tree preservation area shall be placed in a protected natural amenity area to ensure perpetual preservation. Heritage tree preservation, including all area within root protection and no-construction zones, should not contribute towards the provision of outdoor amenity area requirements.

DESIGN GUIDELINES

Form & Massing:	<ul style="list-style-type: none"> A strong primary roof form should address the street with secondary roofs (dormers, gables etc.) to visually support the primary roof. Minimum 3 attached units; maximum of 6 units per building, to ensure a good fit with the neighbourhood scale. Extended porches and recessed entries should be used to articulate facades and reinforce residential character.
Building Interface:	<ul style="list-style-type: none"> Provide townhouses with front door patios at grade, to create an active and engaging street frontage. Frontages can be either traditional two or three-storey row units or stacked townhouse units, as long as the exterior retains the character of a traditional row townhouse expression. A separate entry porch to each unit should be expressed at the street level with weather protection over each entrance. Front doors and porches should face the street with steps leading straight to the street (not turned). Individual entrances should be complemented with landscaping including a tree. Consider shrubs and low hedges in lieu of front yard fencing. If fencing is proposed, set fencing back 1 metre beyond the sidewalk and provide landscaping in front. Low fences (0.9m height) between units will be permitted. Avoid raised front yards. If necessary, they will only be permitted if associated retaining walls are faced with high quality materials in character with the architecture of the building and landscaping is provided. Required landscaping includes a minimum of 1 metre of irrigated landscaping directly in front of the base (sidewalk adjacent) and 0.5 m of irrigated landscaping at the top of the retaining wall, in front of any fencing or guard rails. Retaining walls are limited to 0.6 metres in height. Tiered landscaping will be required for any retaining wall interfaces over 0.6 metres in height. Avoid placing balconies directly above the porch to retain the sense of entry at ground level. Active living spaces, such as living, dining rooms and kitchens, should face the street with overlooking windows at grade. Private bedrooms should be located on upper floors or away from unit frontages. Main floor elevations should be set between 0.6 to 1.2 metres above the adjacent sidewalk grade. Step main floor elevation between units to follow the sidewalk grade. Use soft edges (landscaping etc.) to create opportunity for more pedestrian activity and interaction.
Setbacks	<ul style="list-style-type: none"> Provide 1.5 - 2.0m driveway aprons. Include and locate trees along drive aisles between garages. Set buildings frontages 4.5 metres on all residential interfaces. Provide a second inside row of trees on private property where setbacks are 4 m or more to reinforce a formal tree lined promenade. On-site pedestrian pathways, where applicable, should be at least 1.5 metres wide universal accessibility.
Materiality & Detailing:	<ul style="list-style-type: none"> Use of natural materials such as wood, or brick is encouraged at street level. The predominant use of glazed curtain wall systems is not considered appropriate. Large areas of exposed natural or painted concrete are discouraged. Materials vary from building to building to provide variation and diversity in the streetscape. Limit the number of materials used within a single building. Use simple window configurations. Building materials should be detailed with the quality of craftsmanship (wood, brick, metal) that reflects the local heritage without imitation.

Note: Refer to the OCP Guidelines for Form and Character Development Permits. Where there is a conflict between TCP and OCP guidelines, the Town Centre plan's Guidelines take precedence.



3.4.3 Semi-Detached Residential

Like townhouses, semi-detached housing (e.g. row housing, duplexes) provide an affordable alternative to single family. These dwelling types will also attract young families and working professionals.

Semi-detached or urban detached development will draw inspiration from local history and traditional craftsman design. Development within this designation will meet the intent of the plan through the following objectives:

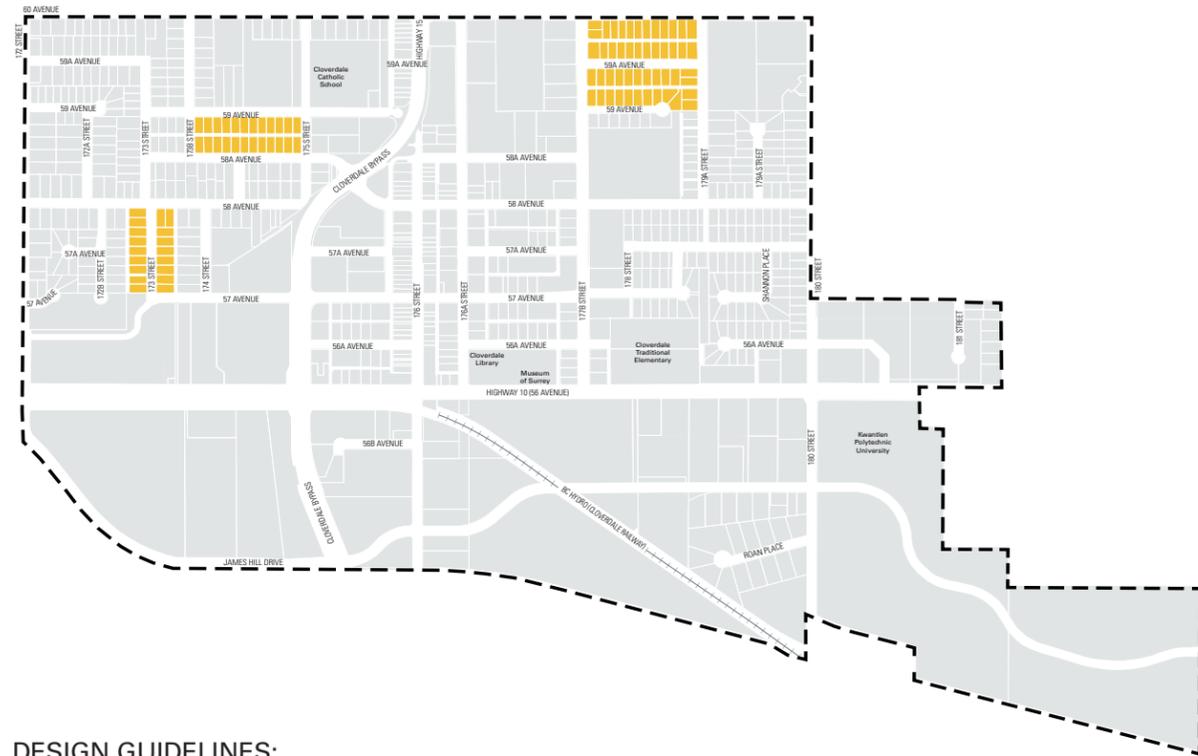
- Growth Objective 3: Attract Residents*
- Growth Objective 4: Provide a Transition*

INTENT

Development within this designation is intended as attached dwelling units. Examples of appropriate development forms include row housing and duplex. Small, lane served, detached housing is also permitted in this designation.

DEVELOPMENT PARAMETERS:

Maximum Height:	9.5m
Density:	Up to 57 UPH (23 UPA)
Maximum number of attached units:	6
Parking:	Rear lot garages accessed from public lane preferred
Clustering:	Minimum 2 attached units; maximum of 6 units per building



DESIGN GUIDELINES:

Developments proposing RM-23 zoning should refer to Townhouse Design Guidelines.

3.4.4 Detached Residential

The Detached Residential designation maintains existing neighbourhood character in periphery areas of the plan. This will meet the objectives of the plan by providing a transition to existing neighbourhoods. Urban infill will enable the gradual attraction of new residents into the area.

Urban detached development will draw inspiration from local history and traditional craftsman design. Development within this designation will meet the intent of the plan through the following objectives:

- Growth Objective 3: Attract Residents*
- Growth Objective 4: Provide a Transition*

INTENT

Development within this designation is intended as detached single-family homes on urban sized lots. Secondary suites or laneway housing is allowed for a maximum of two dwelling units per lot. Subdivision and rezoning into smaller lots is permitted, such as RF-10. Duplex development is also permitted within this designation.

DEVELOPMENT PARAMETERS:

Maximum Height:	9.5 m
Density:	Up to 37 UPH (15 UPA)

DESIGN GUIDELINES

Approved building schemes will be required to control housing designs.



3.5 EMPLOYMENT DESIGNATIONS

3.5.1 Commercial

Commercial provides an important role in supporting business growth and fostering new employment. In combination with the downtown mixed-use areas, this designation will enable a wider variety of commercial and retail uses.

Commercial designations along Highway 10 are generally auto oriented. Newer service commercial developments blend automobile convenience with pedestrian-friendly features. Commercial along Highway 10 also provides a transitional interface between industrial lands to the south and residential areas to the north.

Development within this designation will meet the intent of the plan through the following objectives:

- Growth Objective 2: Support Business*
- Growth Objective 5: Foster Employment.*

INTENT

Development within this designation is primarily intended as commercial. This may include retail and commercial development that requires a large floor plate and more prominent street presence. For example, general service, large-format commercial, retail, office and financial, in addition to food and beverage establishments.



DEVELOPMENT PARAMETERS:

Maximum Height:	Up to 4 storeys, to a maximum of 20 metres
Density:	Up to 1.5 FAR
Parking:	As per applied zoning
Typical Lot Coverage:	50%+

DESIGN GUIDELINES

Form & Massing:	<ul style="list-style-type: none"> Frame development sites with built edges against streets. Buildings must be oriented towards the abutting roads. Parking areas should be located at the rear of retail buildings or underground. Establish an engaging street frontage or embed smaller retail units into the anchor store façade if the store is in areas with strong pedestrian focus. Ensure that each retail unit has a separate entry. Provide large, transparent glazing to allow views to the interior and increase window displays to showcase merchandise wherever possible. Avoid exterior ramps and stair access to retail spaces and main entries into buildings.
Building Interface:	<ul style="list-style-type: none"> Provide large, transparent glazing to allow views to the interior and increase window displays to showcase merchandise wherever possible. At-grade large format retail CRUs should either be set behind smaller CRU frontages with a smaller entrance at ground level or located on the 2nd floor with smaller retail at grade. Avoid storefronts set back behind columned arcades that reduce retail visibility. Maximize active frontages by locating non-active uses such as exit stairs, service spaces and service doors away from primary frontages (e.g. street). Avoid overt security at storefronts, such as bars on windows and bollards at storefronts. Consider less intrusive security measures, such as roll away security gates or use of landscaping planter pots to deter access. Conceal drive aisle or drive-through queuing lanes from the retail street frontage by means such as landscaping, building placement or trellises.
Block Size:	<ul style="list-style-type: none"> Provide a grid-type block of primary and secondary retail streets to break down large sites to a scale that is human-scaled and encourages walking. Private streets in commercial areas should be attractive, active, and green, and prioritize pedestrian needs.
Materiality & Detailing:	<ul style="list-style-type: none"> Provide amenities such as in-ground landscaping, seating, garbage cans, bike racks, drinking fountains, and public art along the streetscape where appropriate. On-site pedestrian pathways should be at least 1.5 metres wide with universal accessibility. Raised crosswalks at retail street crossings are preferred.
Signs	<ul style="list-style-type: none"> Pylon-type freestanding signs are appropriate. Signage should be integrated (using similar materials and style) with the architectural character of the overall development.



3.5.2 Industrial/Business Park

Business growth from industrial business park development in the surrounding areas will benefit the Town Centre's economy. An increase in employment through industry will support additional growth. Employment areas in the southern portion of the plan support the intent of the plan, through the following objectives:

- Growth Objective 2: Support Business*
- Growth Objective 5: Foster Employment*

INTENT

Development within this designation is primarily intended for business park and light industrial uses. Offices and other compatible employment uses are also permitted within this designation.

DEVELOPMENT PARAMETERS:

Maximum Height	4 storeys, to a maximum of 18m
Density	Up to 1.5 FAR



DESIGN GUIDELINES

Form & Massing:	OCP Form and Character Development Permit Guidelines apply to all Industrial/Business Park designated lands within Cloverdale Town Centre as this area is considered highly visible due to the elevated arterial road, Highway 15 (Cloverdale Bypass). Locate buildings towards the street with parking at the rear or sides. Minimal customer parking may be provided at the front of the building if adequately landscaped. Roof designs that provide integral screening for rooftop equipment are considered appropriate as they will be highly visible from Highway 15. Green roofs are encouraged.
Materiality & Detailing:	Properties immediately fronting Highway 10 or Highway 15, should incorporate materials that reflect the traditional character of Cloverdale, such as brick and metal facades with wood detailing into building designs to provide continuity from the Town Centre core.
Signs	Signage should be integrated (using similar materials and style) with the architectural character of the overall development.

Note: Where there is a conflict with the OCP Guidelines for Form and Character Development Permits, the Town Centre Plan's Guidelines take precedence.



3.5.3 Institutional

Institutional and civic uses are foundational to the development of complete communities. They form the social, educational, recreational and cultural foundation of community. Development within this designation will meet the intent of the plan through the following objectives:

- Growth Objective 2: Support Business*
- Growth Objective 3: Attract Residents*
- Growth Objective 5: Foster Employment*

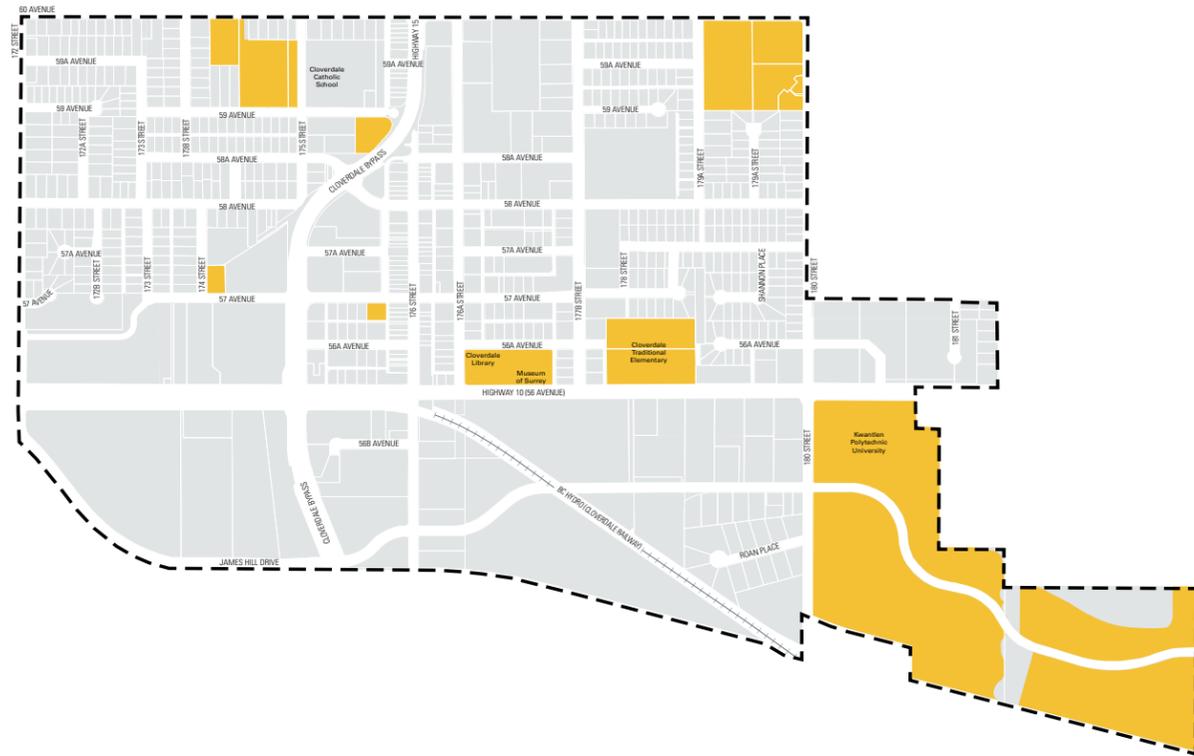
INTENT

Development within this designation is intended for institutional or civic use. This may include primary uses such as education, recreation, culture, religion, medical and first response. Secondary and supportive uses are permitted within this designation.

Medical and health service land uses are a priority for the City. As such, subject to Council consideration, they are permitted in any land use designation within the plan.

DESIGN GUIDELINES:

Frame site with buildings; locate parking at rear and side. Locate services away from the public realm and provide clear entry points and strong pedestrian circulation on site.



3.6 OTHER LAND USE DESIGNATIONS

3.6.1 Parks and Natural Areas

The Parks & Natural Area designation outlines the location of new and existing parkland. This includes neighbourhood parks as well as natural and riparian areas. Rezoning and subdivision for the purpose of development is not permitted within the Parks and Natural Area Designation. See Section 5 for details on parks and open spaces.



3.6.2 Agricultural Land Reserve

Land within the ALR is intended to support agriculture and complementary land uses. ALR uses are permitted in accordance with the Agricultural Land Commission Act, the regulations and orders of the Agricultural Land Commission (ALC) and the Farm Practices Protection Act. Non-farm uses require the approval of the ALC.



3.6.3 Landscape Buffer

Areas of the plan designated as Landscape Buffer are intended as private on-site landscaping as well as boulevard within road right-of-way. The intent is to provide a visual landscape buffering between high traffic road or industrial uses and residential development.



3.6.4 Parking

The Parking designation outlines the location of new and existing municipal surface parking lots. These parking facilities are made available to businesses that are unable to provide the required off-street parking on their own properties. The City may grant permits to specific downtown merchants to use the City-owned parking spaces as a substitute for off-street parking required by the Zoning By-law. These parking spaces are available for public use. See Section 5 for details on parking.

DESIGN GUIDELINES

- Limit access points to parking lots. Combined or shared entrances with other properties should be considered.
- The edge of parking lots along lanes should be well defined with fencing and landscaping.



Section 4: Transportation

| How We Get Around

The transportation component of this plan has been developed based on the guiding principles of the City's Transportation Strategic Plan, and supplementary plans, including the Walking Plan and Cycling Plan. In addition, it is consistent with the Highway and Traffic By-law and other City policies and practices regarding traffic operation.

- 68 4.1 Transportation Strategy
- 70 4.2 Street Typologies
- 78 4.3 Pedestrian and Cycling Network
- 80 4.4 Transit
- 82 4.5 Parking
- 83 4.6 Electric Vehicles





OVERVIEW

Based on these documents, the proposed transportation network focuses on providing a finer grained, interconnected, and continuous street grid that integrates efficiently into the surrounding area. In doing so, the network promotes cycling and pedestrian connectivity, transit service, and compact neighbourhood development.

New roads and pedestrian connections support growth by:

- improving connectivity and walkability;
- creating a comfortable and attractive environment for pedestrians; and,
- increasing road capacity and providing more on-street parking.

4.1 TRANSPORTATION STRATEGY

Most of Cloverdale Town Centre's transportation network is already in place. This includes key Provincial highways and all arterial and collector roads. Additional local connections will be built in conjunction with new development to improve accessibility by providing a finer-grained street network, while existing local roads would be improved through fronting developments.

The City requires all new streets to meet anticipated future transportation demands. Street design standards include space for sidewalks, treed boulevards, automobile lanes, and bicycle lanes where applicable.

Unless otherwise stated in this plan, developers are obliged to construct the full length of road frontages (roads bounding property lines) to City standards.

Figure 4.1: Transportation Strategy



4.2 STREET TYPOLOGIES

4.2.1 Provincial Highways



The plan area is intersected by two existing provincial highways, Highway 10 (56 Avenue) running east-west and Highway 15 (175 Street) running north-south. These two highways, along with the supporting arterials and collectors, provide the foundation for the road network in the Town Centre.

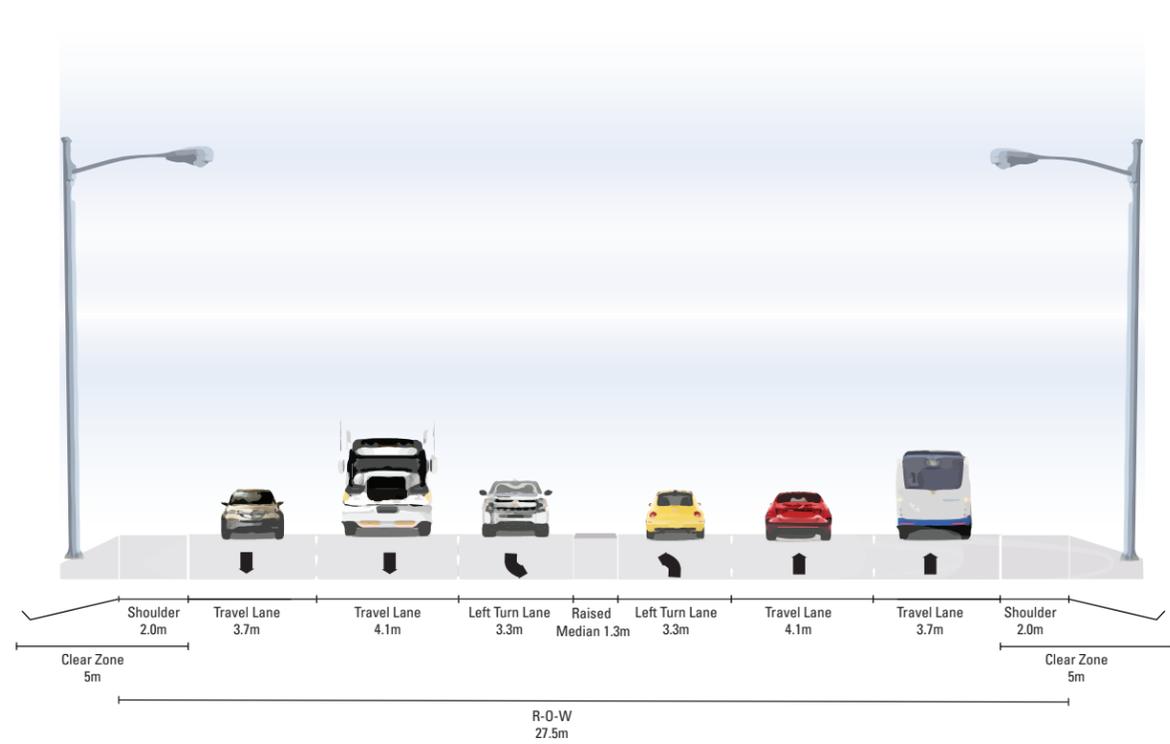


Figure 4.2: Highway 10 Typical Section, Open Shoulder

HIGHWAY 10

Formal planting of trees and double luminaries street lighting placed in the central median on Highway No. 10 to change the character and reduce speeds.

Use of contrasting colour and texture pavement for pedestrian crossings at the intersection with 176 Street.

Additional crosswalk to connect the lands on the south side of Highway 10 with Cloverdale Town Centre heritage area.

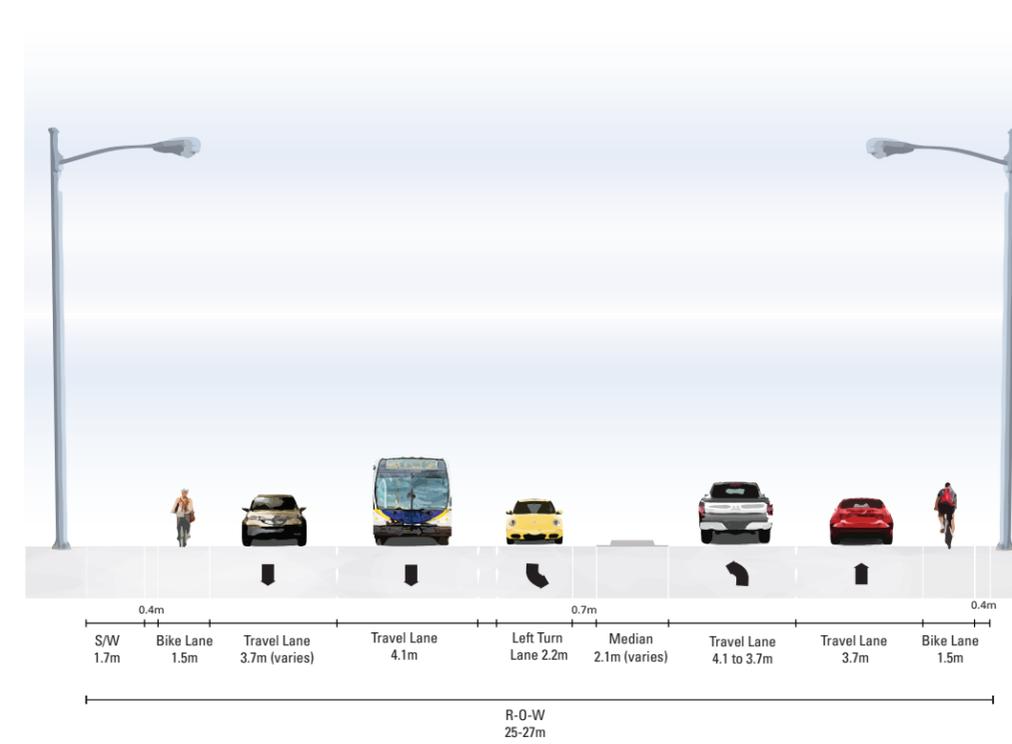
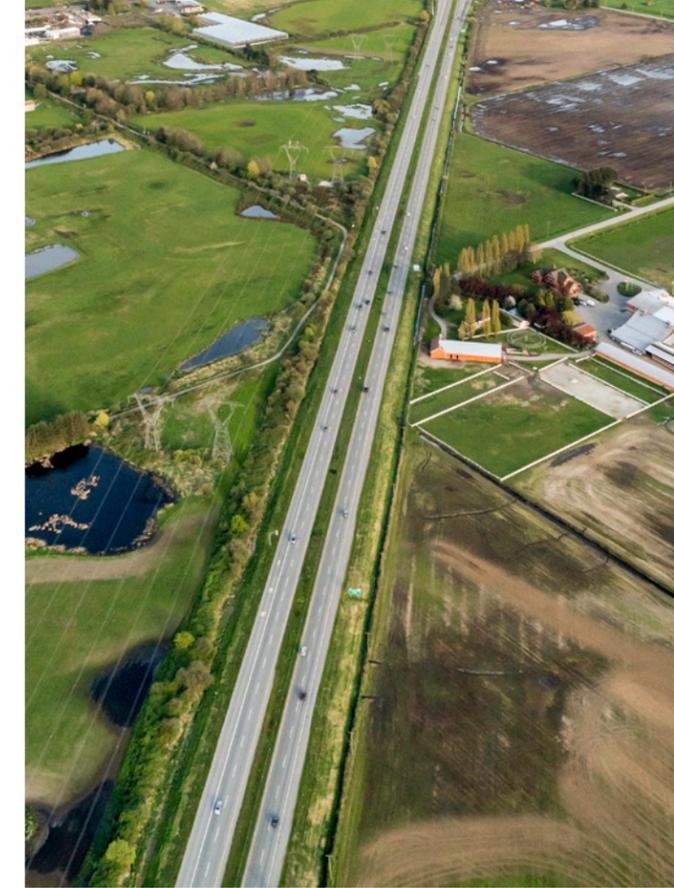


Figure 4.3: Highway 15 Typical Section, Curb and Gutter Raised Median

HIGHWAY 15

Landscaped medians including trees and double row of trees on both sides.



4.2.2 Arterial Roads



A portion of 60 Avenue, east of Highway 15 is designated as an arterial road. It is the only arterial road in the plan area. Arterials are the main transportation corridors for moving all vehicle classes throughout the city. They include pedestrian and cycling infrastructure to support non-vehicular trips.

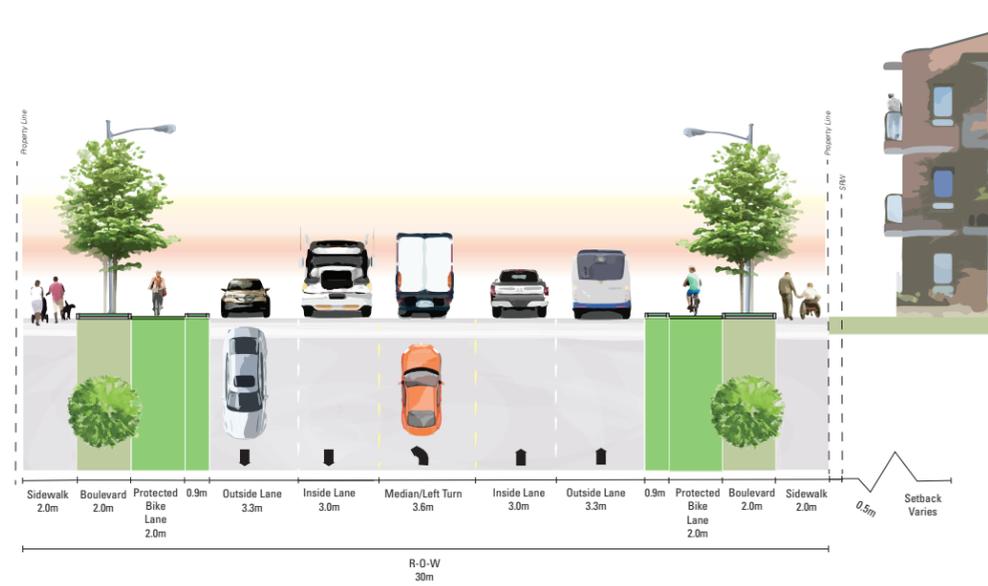


Figure 4.4: Typical Arterial Road 30m Cross Section

4.2.3 Heritage Main Streets



Two existing collector roads (176 Street and 176A Street) are designated as heritage main streets, between Highway 10 (56 Avenue) and 58A Avenue. These main streets should include heritage features/interpretation and public art opportunities.

These heritage main streets feature wide sidewalks, branded street furniture, enhanced landscaping, and curb bump-outs to provide a safer and more pleasant pedestrian experience. Sidewalks in this streetscape should be utilized as a canvas to share the history and stories of of Cloverdale such as Indigenous recognition, social history, railway, etc.

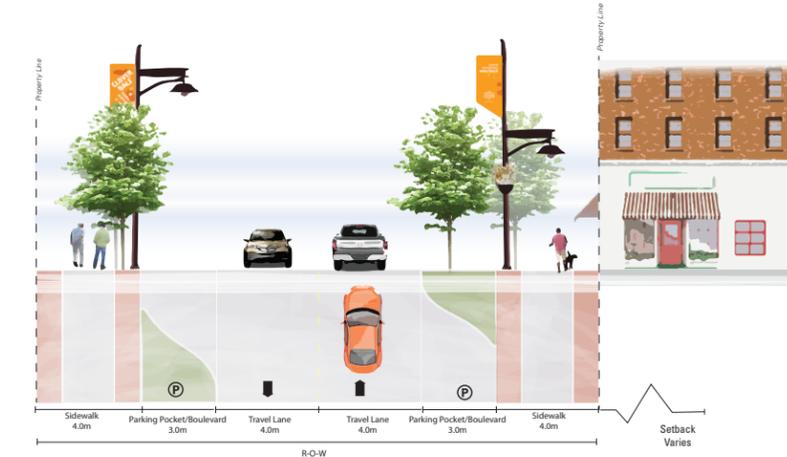


Figure 4.5: 176 and 176A 30m Cross Section

176 STREET

- Embed steel rails in the eastern sidewalk to reflect the historic significance of the downtown's main street along the former alignment of the New Westminster Southern Railway later the Great Northern Railway.
- Utilize sidewalk as a canvas to tell the story of the railway and its significance in Cloverdale's development as a settlement.
- Embed continuous bands of contrasting color and texture alongside the curb for tree planting and streetlamps into the concrete. This buffer should be paved, not grass.
- Space trees at 10 metre intervals.
- Provide on-street parking in clusters separated by landscaped curb extensions.
- Implement curb extensions at all intersections and bollards at lane crossings.

176A STREET

- Embed continuous bands of contrasting color and texture alongside the curb for tree planting and streetlamps into the concrete. This buffer should be paved, not grass.
- Space trees at 10 metre intervals.
- Integrate street names signage, lamp post, and street furniture design as is implemented on 176 Street.
- Provide on-street parking in clusters separated by landscaped curb extensions.
- Implement curb extensions at all intersections and bollards at lane crossings.

4.2.4 Collector Roads



There are several collector roads in the Town Centre, including portions of 57 and 58 Avenue (east of Highway 15) and 176A Street, 172 Street, 177B Street, and 180 Street. A portion of 54A Avenue is unconstructed and will be built with new development.

Collector roads collect and distribute traffic between local and arterial roads. Like arterial roads, collectors include pedestrian and cycling infrastructure to support non-vehicular trips.

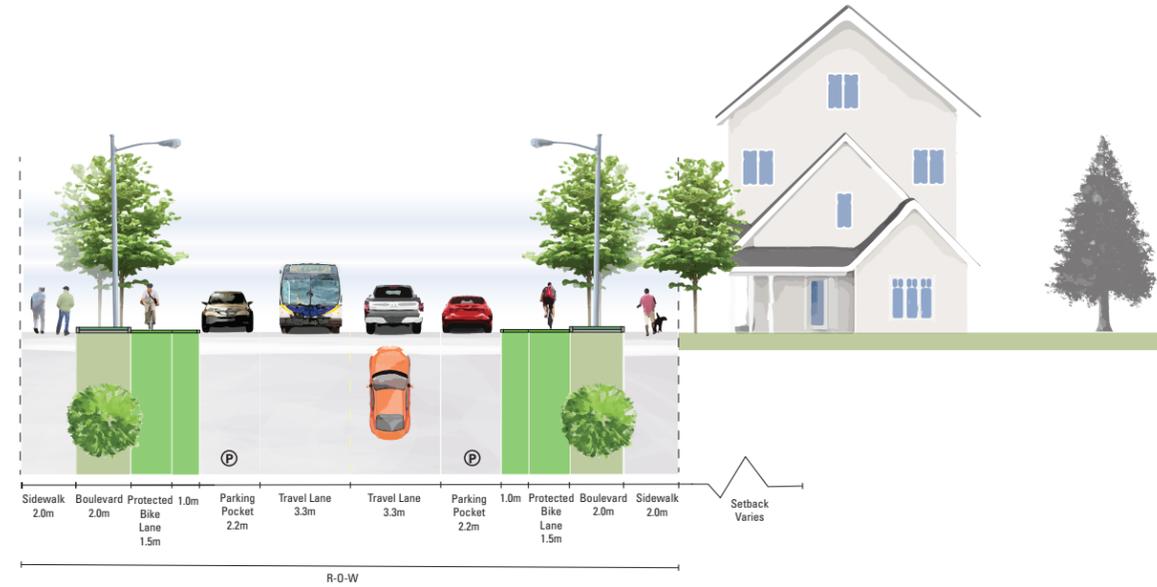
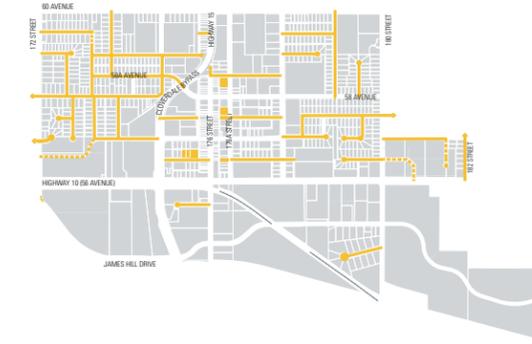


Figure 4.6: Typical Collector Road 24m Cross Section

58A AVENUE

- Plant double row of trees on both sides of the street.
- Line decorative pavers along all on-street parking areas.
- Human scale lighting with flower basket hangers.
- Use of three board or split-rail fence on parking areas exposed to the street.
- Match street furniture with commercial streets.

4.2.5 Local Roads



The local road network within the plan area is largely existing. A few local connections will be constructed with new development to reinforce a finer grained network and enhance connectivity. These include, the extension of 57 Avenue to 172 Street, the construction of 174A Street between 58 and 58A Avenue, 179 Street between 57 and 57A Avenue and the extension of 56A Avenue and 181 Street.

Local roads provide direct access to individual properties. Depending on the fronting developments and their densities, on-street parking will be available on both sides of all local roads. Cyclists are expected to share the road with vehicular traffic, while sidewalks are expected on both sides of local roads for pedestrians.

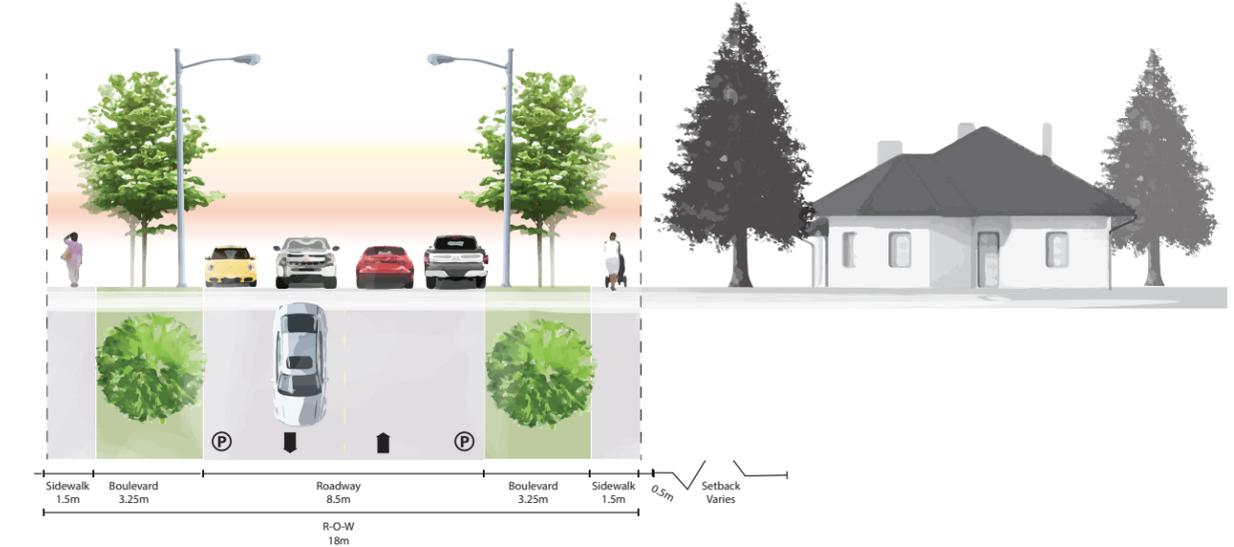


Figure 4.7: Local Roads 18m Cross Section

4.2.6 Green Lanes



The plan includes one green lane between 59 and 60 Avenue on the west side of Highway 15. A green lane is an enhanced laneway with a sidewalk on one side to facilitate pedestrian travel. They provide vehicle circulation and access as well as basic pedestrian connectivity.

A second sidewalk and street trees may be incorporated on the opposite side on private property.



Figure 4.8: Green Lanes 12m Cross Section

4.2.7 Pedestrian Pathways



There are three new pedestrian pathways identified in the plan. These shared cyclist-pedestrian paths are intended to provide increased permeability and pedestrian connectivity within the plan area. They provide direct connections between neighbourhoods where road connections currently do not exist.

These pedestrian pathways must be a minimum of 10m to allow enough space for pedestrians, cyclists and room for trees to grow over time. This width may be wider if servicing is also required underground.



Figure 4.9: 10m Walkway

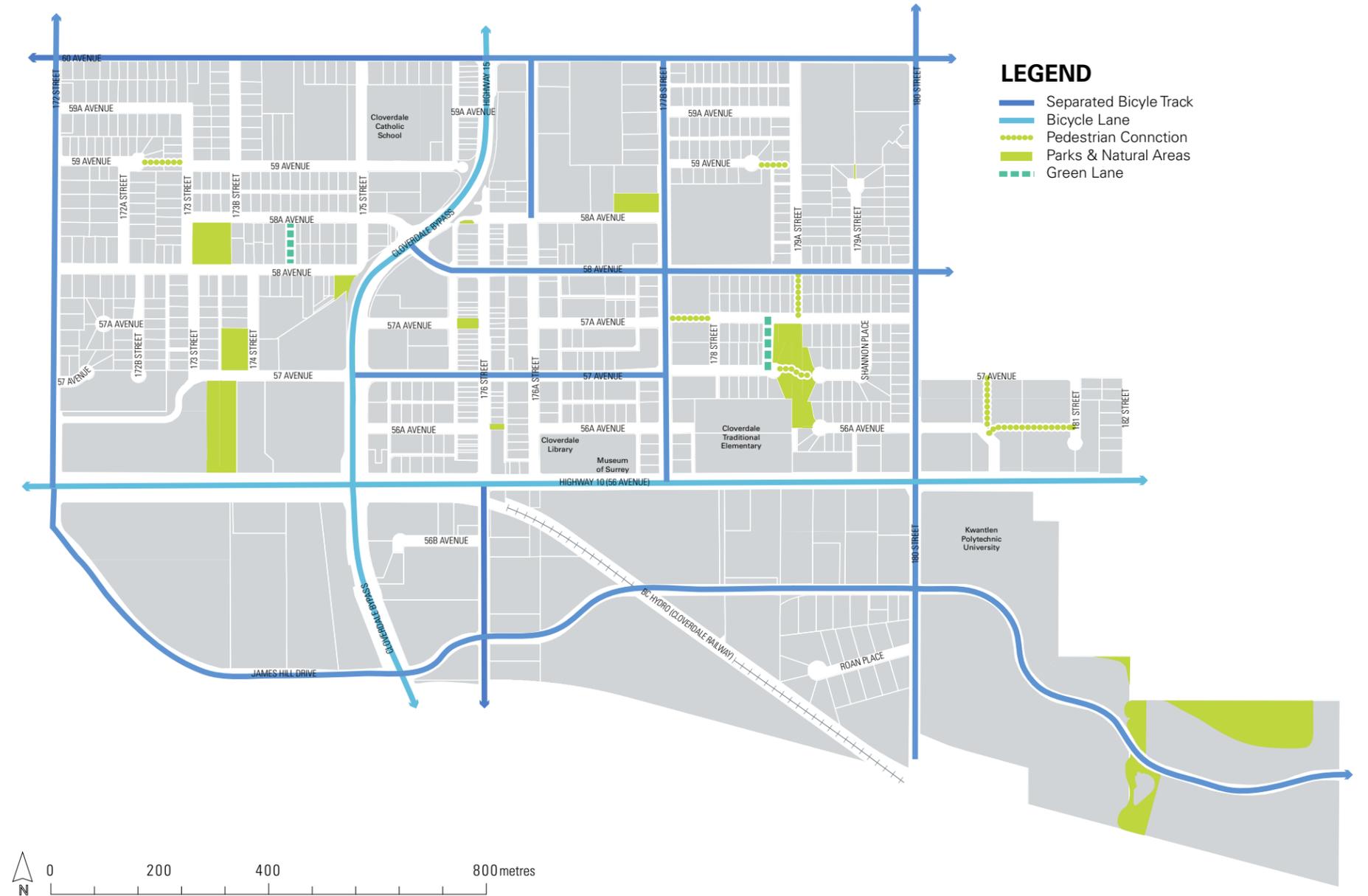


4.3 PEDESTRIAN & CYCLING NETWORK

Walking and cycling infrastructure outside of the historic downtown area is limited. Most existing local roads do not have sidewalks and can only support minimal pedestrian volumes. Collector roads do not currently meet basic cycling standards. The Hook Greenway along Highway 15 is partially completed between 58 and 60 Avenues. Where older existing infrastructure does exist, it may not meet current standards.

Most new walking and cycling infrastructure within the plan will be delivered through new development. This includes new sidewalks, multi-use pathways and cycling lanes (on collectors). All new walking and cycling infrastructure will meet contemporary construction standards and will reflect the road cross sections outlined in this plan.

Figure 4.10: Bicycle and Pedestrian Network



4.5 PARKING

Parking in downtown Cloverdale supports local business. The downtown area consists of 176 and 176A Streets, as well as connecting streets, between Hwy 10 and 60 Ave. This area includes 260 on-street parking spaces with an additional 210 spaces in four City-owned parking lots: three along 176A Street and one on 56A Avenue, which are to provide off-street parking for the public. Additional on-street parking is available in the surrounding neighbourhood.

The City's off-street parking lots are made available to businesses that are unable to provide the required off-street parking on their own properties. New commercial development that cannot meet off-street minimum parking requirements can utilize the payment in-lieu of parking provisions of Part 5 of the Zoning By-Law, which will go towards the City lots.

The plan calls for City-owned land east of 176A to be sold, and proceeds to be used for the purchase and development of new public parking facilities west of 176 Street. This will serve the additional mixed-use development designated within that area.

In 2018 the City studied parking capacities within downtown Cloverdale and determined that there was enough parking. However, additional parking is planned to address growth.

Figure 4.12: Designated Off-Street Parking



Area	Total Parking Spaces	Weekday Occupancy	Weekend Occupancy
Downtown (on-street)	260	56%	43%
Downtown (off-street)	210	77%	42%

2018 City of Surrey Parking Capacity

4.6 ELECTRIC VEHICLES

4.6.1 Electric Vehicle Infrastructure

The City requires that electric vehicle (EV) charging infrastructure be provided on the heritage main streets. Two roughed-in EV charging stations will be provided on each block of 176 and 176A Streets between Highway 10 (56 Avenue) and 58A Avenue (i.e. one on each side) where on-street parking is provided. The City will designate these spaces as "EV only" and install Level 2 (240V) charging stations.

The City will develop an Electric Vehicle Curbside Charging Station Design Standard that will be incorporated into the City's Supplementary Master Municipal Construction Documents (MMCD). It is anticipated that the Design Standard will include:

- Charging station location criteria;
- Concrete base for attaching the charging station;
- Conduit and wiring to a streetlight service base; and,
- Protective bollards to prevent damage to the charging station.

The City also requires new development to install EV charging infrastructure. Refer to Section 8.1.3 for additional details.

Figure 4.13: Location for On-Street EV Infrastructure



Section 5: Parks & Natural Areas

| Keeping it Green

Parks in Surrey are planned and designed through the lens of various plans, strategies and policies. These include the Parks, Recreation and Culture Strategic Plan, the Biodiversity Conservation Strategy (BCS) and Parks Design Guidelines along with various sub-plans and strategies including dog off-leash areas, playgrounds, natural areas and greenways.

- 88 5.1 Park Sites
- 90 5.2 Plazas
- 93 5.3 Supporting Green Spaces



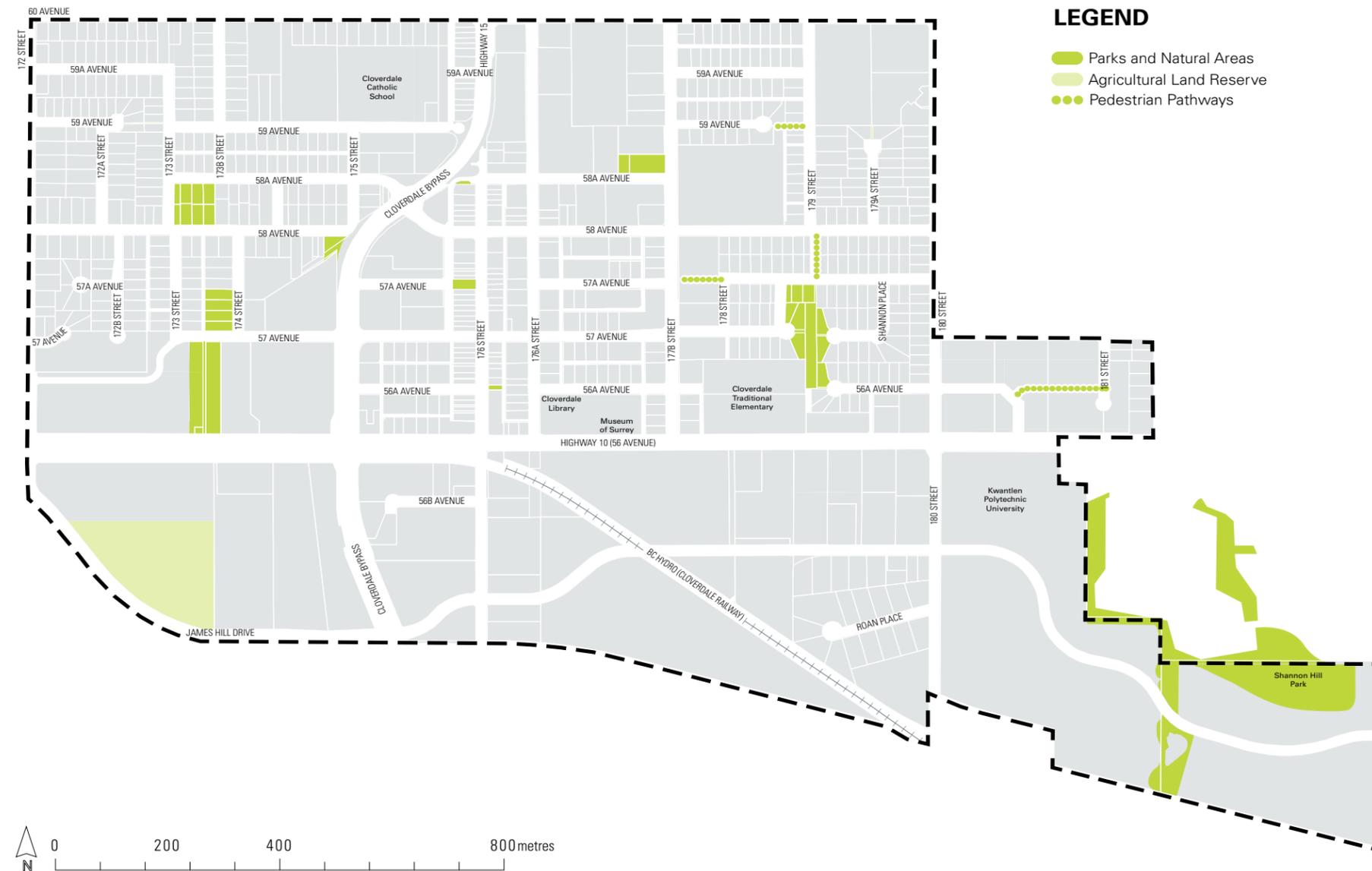


OVERVIEW

One of the goals of the City's Parks, Recreation & Culture Strategic Plan is to provide neighbourhood parks within 500 metres or a 10-minute walk of all residents. The plan delivers on this principle through new and enlarged parks in the area.

The plan features the expansion of existing parkland and the addition of two new neighbourhood parks in the north and west of the plan area. The plan also presents a network of smaller public plazas to support retail uses and active and vibrant streetscapes. Together, these parks and open spaces total 6.47 hectares (16 acres) of open space. All streams and riparian areas will also be conveyed to the City, to be protected and maintained as natural area parkland and habitat corridors.

Figure 5.1: Parks & Open Space Strategy

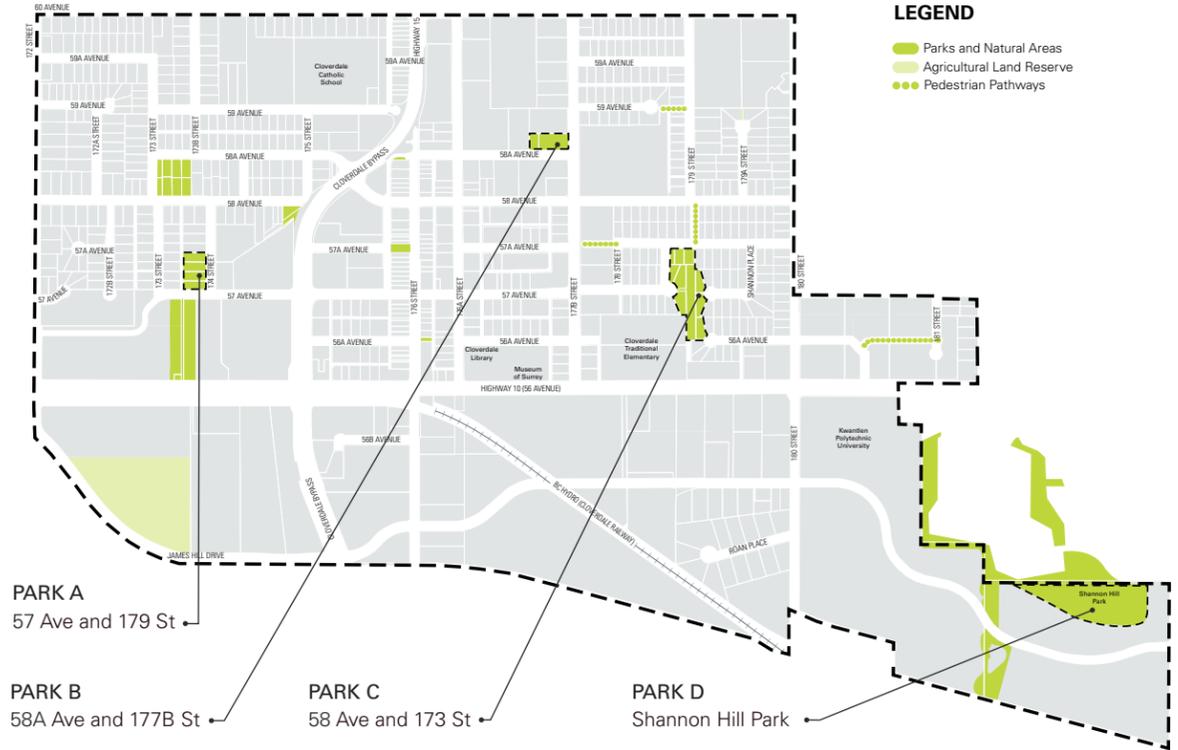


5.1 PARK SITES

Once parkland is acquired the City works with the community to design new parks. Typical neighbourhood park amenities include playgrounds, pathways, natural areas, seating areas and landscaping. While each park will be subject to its own detailed design and public engagement process, a general overview of the park network follows.

- Park A:** A park on the west side of Highway 15 is planned for the north-east corner of 58 Avenue and 173 Street. This will be a new 0.57 ha (1.4 acre) neighbourhood park serving existing and new residents in the area. It will protect many of the significant trees while providing new amenities in consultation with the neighbourhood.
- Park B:** A new park at 177B Street and 58A Avenue will be a small local park that protects Dr. Sinclair House, a registered heritage house. The heritage house will be repurposed in consultation with the neighbourhood to a public use and incorporated into the future park design. At 0.3 ha (0.75 acres) in size, this park will meet the City's mini-park designation.
- Park C:** The park at 57 Avenue and 179 Street builds off existing parkland to provide a more sizable neighbourhood park at 1 ha (2.6 acres). It will contain more active amenities including a playground, sports field, paths and seating opportunities and improve the pedestrian connectivity to the elementary school and the commercial core of the plan.

Figure 5.2: Park Sites



- Park D:** Shannon Hill park will be expanded south to protect the existing forest as well as any riparian areas in and around this park. The lands will be protected as natural area with the potential for public paths along the edge.

In addition to these parks, residents within the plan area are served by several nearby parks and outdoor recreation amenities including Mound Farm Park, Greenway Park (outdoor pool and tennis courts), Cloverdale Ball Park (baseball) and the Cloverdale Youth Park.

PARK DESIGN GUIDELINES

Development adjacent to parkland should positively contribute to park design and function by complying with the following guidelines:

GUIDELINE 1: Development adjacent to, or across the street from all parks and public pathways shall ensure CPTED design principles such as unit orientation, clear site lines, active rooms and windows facing public spaces be applied. Adjacent commercial or retail developments shall provide active frontage and avoid loading or other 'back of house' functions adjacent to public space.

GUIDELINE 2: Multi-family development adjacent to parks should front units onto parkland and will provide an on-site sidewalk within the private property onto which all units will front. Any fencing to delineate private property will be a maximum of 1.2m tall, visually permeable and located on the private property side of the frontage sidewalk.

GUIDELINE 3: Design development to meet the existing natural grade of a park or plaza wherever possible. If retaining walls are required adjacent to a park or plaza, they must be entirely on private property including any underpinning with all necessary setbacks required for maintenance of private property.

GUIDELINE 4: If rights-of-way for servicing or any other access (temporary or permanent) is required through existing or future parkland, compensation for the access and cash in lieu for the restoration re-planting are required, to Parks standard.

GUIDELINE 5: Any development adjacent to an existing or future park must submit an arborist report including the first 15m of land within the park and report on all trees 8cm DBH or greater. Removal of any tree on parkland requires advanced written approval from the Parks, Recreation & Culture (PRC) Department.



5.2 PLAZAS

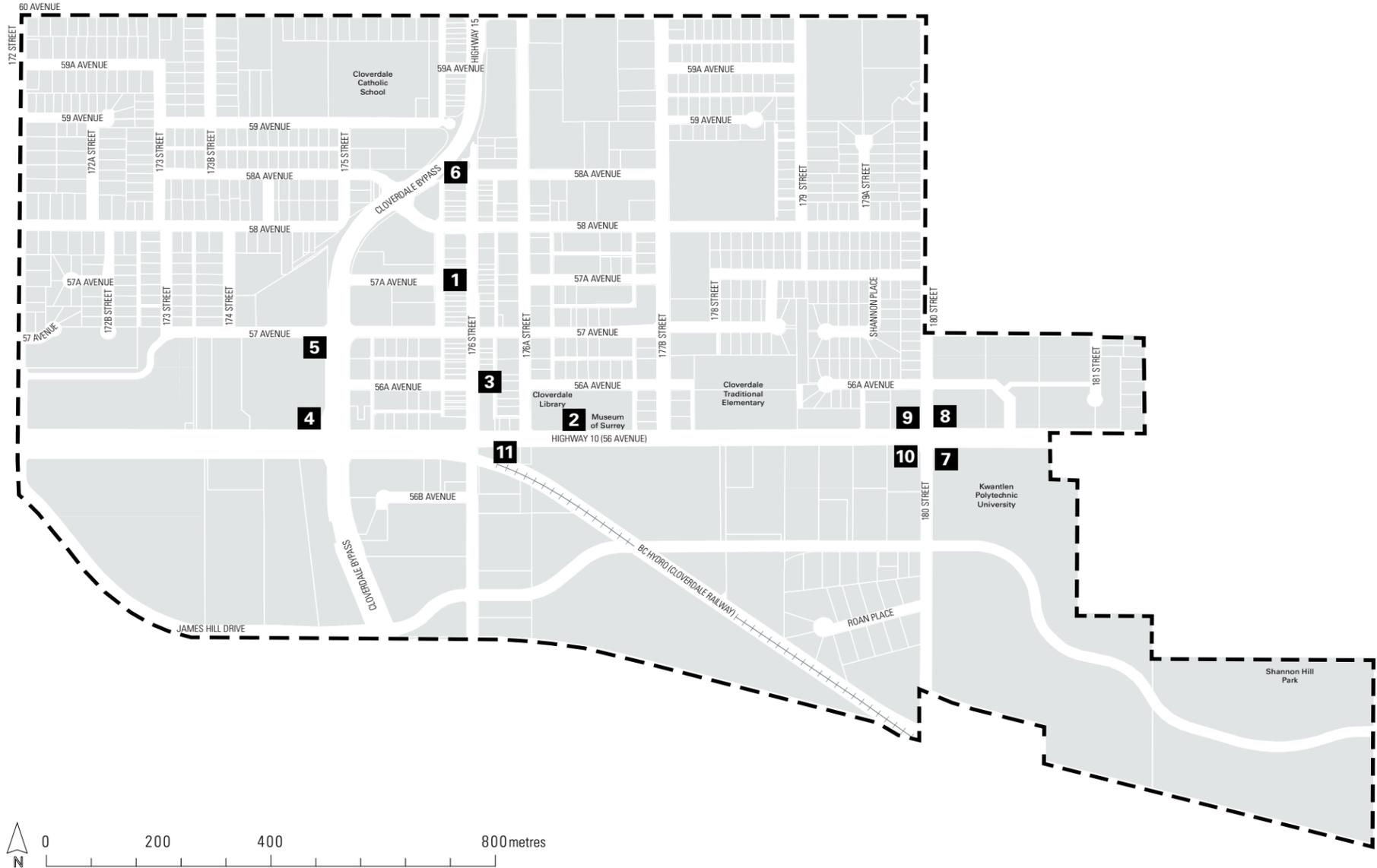
Plazas encourage social interaction and activity and reinforce the public realm. They provide a second tier of public open space in higher density areas. Activities supported by public plazas such as socializing, resting, and eating, add to the quality of city living and provide positive social and cultural opportunities.

Like parks, plazas require a strong program of use and design. Careful thought should be given to a plaza’s principal function and its relationship with adjacent buildings and uses. Individual plazas function best as part of a hierarchy of open spaces, serving immediate local needs. A general overview of identified plaza locations follows.

PLAZAS			
	Name	Location	Intent
1	Hawthorne Square (existing)	West side of 176A Street at 57A Avenue	Hawthorne Square is a small urban plaza that incorporates the ‘Heritage Main Street’ theme and provides key social space along 176 Street. The plaza also provides a key pedestrian link between 176 Street and the residential areas to the west. It is home to one of the Moments in Time (2009) public artwork.
2	Veterans Square (existing)	Northeast of 176A Street and Highway 10	Veterans Square is a public plaza frequently used for larger events. Located between the Museum of Surrey campus, the plaza is home to the Cloverdale Cenotaph and is the site of Remembrance Day service as well as other public events. It is home to the Kneeling in Remembrance (2006) and The Rivers that Connect Us (2019) public artworks. A collection of heritage buildings such as the Anniedale School and the Anderson cabin are also located into the plaza.
3	56A Avenue Plaza (existing)	56A Avenue, between 176 and 176A Street	A small plaza that provides a key pedestrian link between 176 and 176A Street and the Museum of Surrey campus. The plaza incorporates the ‘Heritage Main Street’ theme and provides a small downtown social space. It is home to one of the Moments in Time (2009) public artwork.
4	Turntable Square (existing)	Northwest of Hwy 10 and Highway 15	This corner plaza incorporates a railway turntable design at the entrance to a commercial shopping centre. The plaza provides landscaping and seating areas.
5	57 Avenue Plaza (existing)	Southwest of 57 Avenue and Highway 15	This corner plaza incorporates a heritage railway design with landscaping, seating area and bike racks.
6	Proposed	Road right-of-way bounded by Highway 15, 176 Street, and 58A Avenue	Opportunity for Town Centre gateway feature including landscaping, and pedestrian and cycling support features.
7, 8, 9, 10	Proposed	Corners of 180 Street and Highway 10	Delivered through enhanced 5x5 metre corner setbacks at the corners of 180 Street and Highway 10, these future plazas will act as a gateway and signify the entrance to the Town Centre.
11	Proposed	176A Street	A future plaza within road right-of-way to extend the ‘Heritage Main Street’ theme and support the Surrey Heritage Rail Station.

Table 5.1: Existing and Proposed Plazas

Figure 5.3: Plaza Locations





PLAZA DESIGN GUIDELINES

Plazas will typically be delivered as publicly accessible open space on private property. Development adjacent to parkland should positively contribute to plaza design and function by complying with the following guidelines:

GUIDELINE 1: Layout and site design should be planned comprehensively within identified sites to complement and extend public streets, pathways and parks.

GUIDELINE 2: Open space should be designed to serve specific uses of adjacent buildings such as outdoor seating, eating and play.

GUIDELINE 3: Provide clear street visibility to indicate the space is public, and to encourage street activity and public safety. Avoid screening or blocking off the plaza from the street.

GUIDELINE 4: Grade at street level to provide clear access for all.

GUIDELINE 5: Take advantage of distant views to mountains, agricultural land, and other landmarks wherever possible.

GUIDELINE 6: Plazas should maximize seating opportunities and comfort and consider opportunities for weather and sun protection.

GUIDELINE 7: Design with multiple activity generators, such as adjacent food and retail outlets, as well as entertainment to support socializing and relaxation. Provide infrastructure for events (e.g. electrical outlets, water supply and lighting) and to facilitate activity.

GUIDELINE 8: Furnished with a variety of amenities to encourage public usage and to create a sense of liveliness and excitement. Key amenities can include bike racks, drinking fountains, tables and chairs, games and public art.

5.3 SUPPORTING GREEN SPACES

RIPARIAN AREAS

Streams (including wetlands, ditches, and natural streams) are all protected under the City's Streamside Protection Bylaw (Part 7A of the Zoning Bylaw 12000) and subject to the Sensitive Ecosystems Development Permit Area Process. The aim of the bylaw is to protect the public's interests by planning for flood hazards, as well as for agricultural land use, particularly as climate change progresses and adds uncertainty to existing flood and drought conditions. As a result of the Bylaw, these riparian areas will require a prescribed buffer between the stream and proposed development. This buffer is to be naturalized with native vegetation species, which will aid in bank stabilization to reduce erosion and flood potential, and will encourage native pollinators and wildlife to occupy riparian spaces.

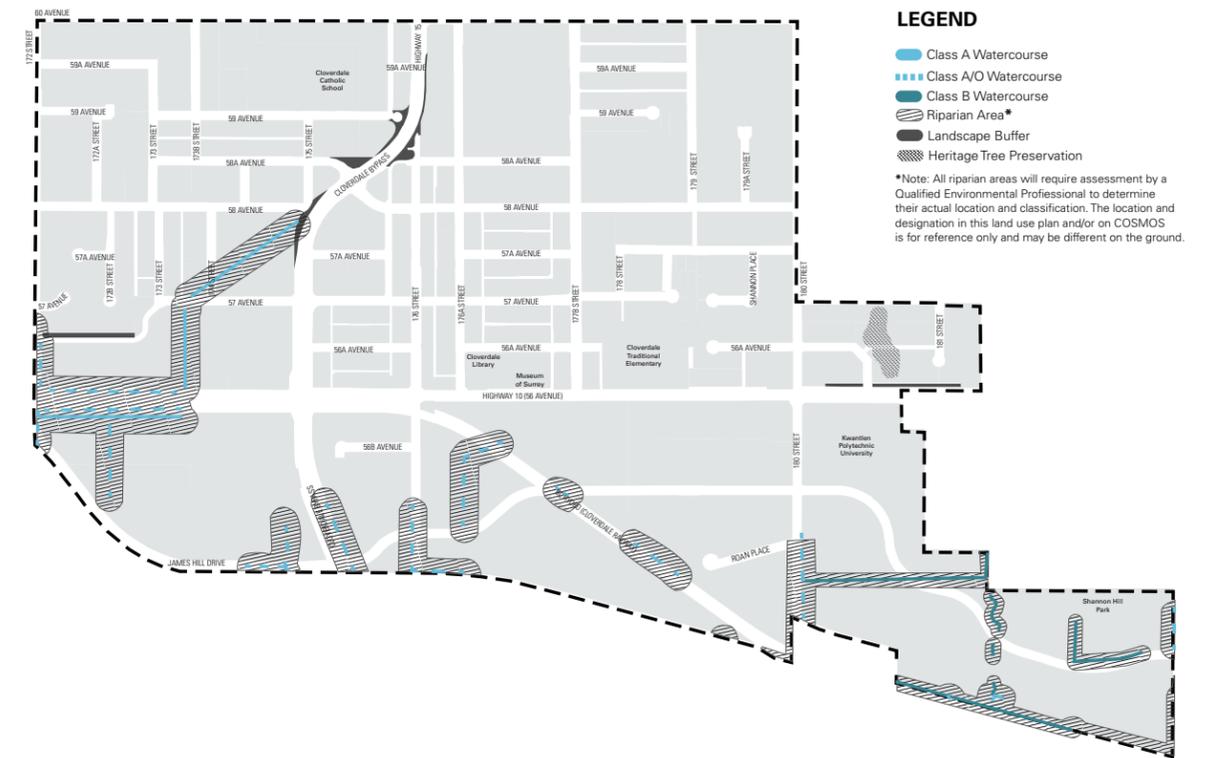
Riparian areas in the Cloverdale Town Centre tend to be limited to constructed agricultural ditches and channelized natural watercourses. These streams are critically important for fish species throughout their life cycle; for example, adolescent salmon species will use these ditches for overwintering habitat, when the lowlands flood and bring water and nutrients into the ditch systems.

LANDSCAPE BUFFERS

The plan illustrates (Section 3.6.3) several locations for the use of landscape buffers. The intent is to provide screening to buffer residential uses from adjacent non-residential uses. It also includes green spaces within public rights-of-way where streets have been closed - particularly along Highway 15.

Installation of plantings or other improvements to these areas may be required as part of new development projects, or by special request through the City of Surrey's established community enhancement programs.

Figure 5.4: Riparian Areas



Section 6: Community Amenities

I Building Community

Town Centre areas create a critical mass of activity which facilitate cultural, social, educational, and economic exchange. Community facilities, services and events are the foundation to that exchange.

- 96 6.1 Civic Facilities & Services
- 100 6.2 Neighbourhood Enhancement
- 102 6.3 Schools & Post-Secondary
- 104 6.4 Public Art
- 106 6.5 Heritage Conservation





OVERVIEW

Cloverdale is unique in that it has many established community and cultural assets including heritage sites, public art, festivals and events which build on the area's rich history. In addition to creating a sense of place, these are vital to realizing the Plan's objectives to attract new residents, enhance character and support local business.

6.1 CIVIC FACILITIES & SERVICES

Civic facilities and services are essential components of the overall health and wellness of all residents. They provide year-round amenities and programming that encourage active lifestyles, learning, opportunities for social interaction, and the capacity to provide dynamic programming that supports all ages and abilities. Civic facilities and services welcome the entire community, and strive to serve vulnerable individuals, families and children through fostering a sense of belonging and connection.

Figure 6.1: Civic Facilities & Services



6.1.1 Community Recreation & Facilities

Community and recreation facilities and services act as community hubs that bring people together, supporting community capacity, volunteerism and a sense of place. They will be transformational health and social service centers that, in collaboration with community partners, will make a positive impact on real social issues facing the community. Although just outside of the Town Centre, several nearby facilities serve current and future recreation and social needs of residents, including:

- Cloverdale Recreation Centre
- Cloverdale Ice Arena
- Cloverdale Curling Rink
- Shannon Hall
- Greenaway Outdoor Pool (Greenaway Park)
- Don Christian Recreation Centre

The existing Cloverdale Ice Arena can still provide years of service to the local community. The Parks, Recreation & Culture 10-year plan calls for a new sports and ice complex to be planned for the town centre. This will provide opportunity for the future expansion of additional ice sheets, while also offering added flexibility for the redevelopment of the community, recreational and social components within Cloverdale.

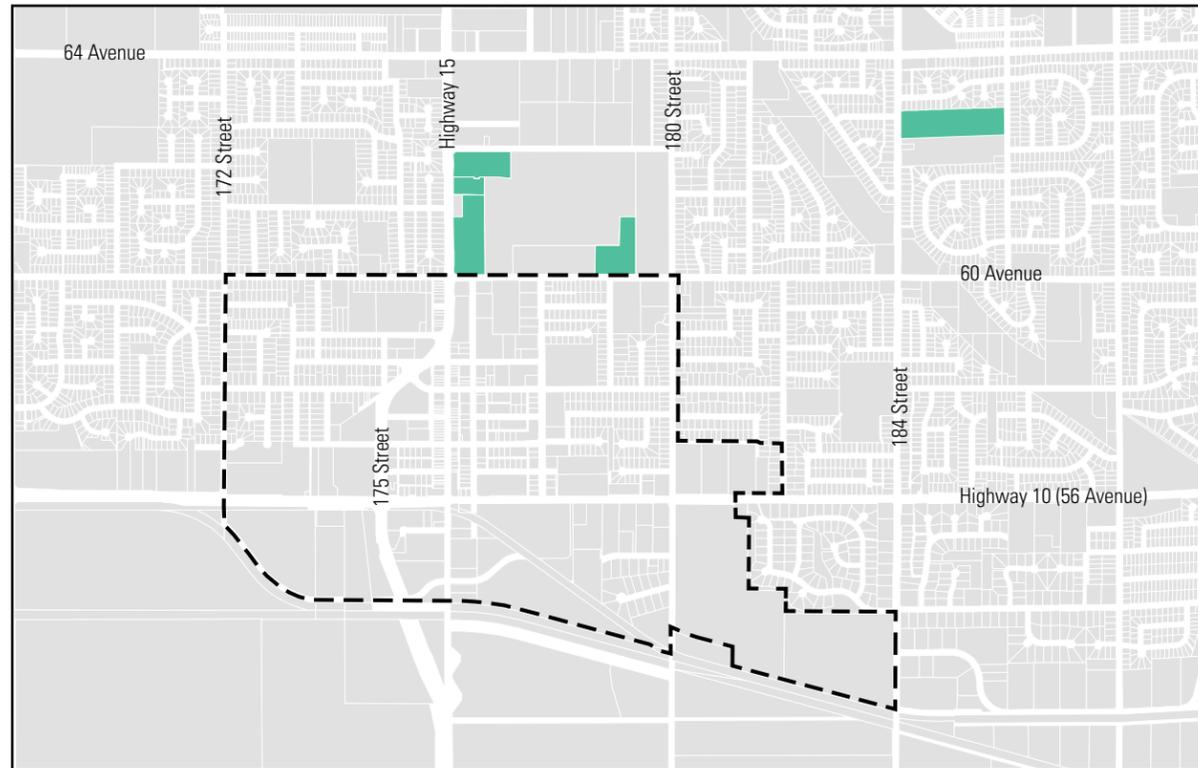


Figure 6.2: Community Recreation & Facilities

6.1.2 Cultural Facilities



As the area transitions into a more urban landscape, cultural facilities and assets will play an essential role in contributing to a more distinct and thriving downtown. They will support this vision by providing opportunity for social, educational, and economic exchange and by celebrating the historical and cultural heritage of Surrey. Within the plan area there are several cultural facilities that serve current and future residents, including:

- Museum of Surrey
- Surrey Archives
- Veterans Square

While the Museum of Surrey, Surrey Archives and Veterans Square currently provide an essential community service, additional facilities are required to address future needs of the community. For example, the Surrey Archives may outgrow its' current location and may need to relocate, opening up the potential to re-purpose the 1912 Hall.

6.1.3 Library Facilities



There's been a library in Cloverdale since the 1930's. From 1976-1988 it was located in the 1912 Municipal Hall which is now the Surrey Archives. It was relocated and expanded in 1988, and in 2019 underwent a large renovation. Cloverdale is a community library that provide a collection based on the area's demographics and expressed interests. It includes some specialized collections and services, computer workstations, children's areas, study and reading space. It also offers meetings rooms for library events and community use. The genealogy collection at Cloverdale supports the historical resources at the nearby Surrey Museum and Archives. The library also supports special events and programs.

6.1.4 Special Events



Cloverdale is home to several major annual outdoor events, as well as dozens of community festivals, concerts and gatherings. These are supported through a variety of public venues, including the Bill Reid Millennium Amphitheatre, Cloverdale Fairgrounds and Hawthorne Square.

In addition to community events and music concerts, Cloverdale is host to the City's annual Canada Day Festival and the Cloverdale Rodeo, drawing thousands of visitors to the City annually.

6.2 NEIGHBOURHOOD ENHANCEMENT

Enhancing community identity and sense of belonging will contribute to quality of life in the Cloverdale Town Centre. A vibrant public realm is a key component.

TEMPORARY SPACES & RETROFITTING

As development occurs and shapes the community, there will be a need to improve existing public spaces, as well as new in between spaces to create a cohesive public realm for the public life of residents. The City will explore opportunities for temporary parklets within on-street parking spaces to support the public space needs of the community. The City will also explore the possibility of re-purposing existing buildings with heritage value as public spaces, including use as cultural venues.



HIGHWAY 10 CORRIDOR ENHANCEMENT

Highway 10 is a key gateway corridor into both Cloverdale and Surrey. Improvements to the streetscape to enhance safety and attractiveness of corridor will be prioritized. Opportunities for boulevard and sidewalk improvement, medians, gateway features, expanded planting and street trees will explored. Pedestrian and cycle path improvements or alternative routes will also be examined. Improvements to the corridor must take into consideration the needs of the industrial and commercial land use in the vicinity of Highway 10.



GATEWAY FEATURES

Gateway features will serve as a visual indication of the Cloverdale Town Centre area. In collaboration with community groups, the Plan supports the development of Cloverdale community signage near intersection of Highway 15 And Highway 10, 180th Street and Highway 10, and Highway 15 and 58th Avenue. Features such as signage and public art should be designed to reflect Cloverdale’s agricultural and railway heritage.



COMMUNITY EVENT SPACE - “KING STREET ALLEY”

The compact form of Downtown Cloverdale limits the available space for public gatherings and community events. The City owned parking lot at 176A Street and 57A Avenue can be used as a community event during non-peak parking demand hours. This site has been conceptualized as “King Street Alley” by the local Business Improvement Association. Through working with neighbouring properties and community groups amenities such as lighting, landscaping, electrical access, murals, public art and other features can animate and beautify the site.

6.3 SCHOOLS & POST-SECONDARY

The plan anticipates new growth and development taking place gradually over several decades. This is expected to slowly increase student numbers and school enrollment in the Town Centre.

ELEMENTARY

Cloverdale Town Centre is served by George Greenaway and Martha Currie elementary schools. Enrollment at both schools is expected to grow over the next 10 years as young families continue to move into both catchment areas. George Greenaway Elementary will capture new students in portions of the plan area on the west side of 175 Street (Highway 15) while Martha Currie Elementary will capture everything east of 175 Street.

In 2019 George Greenaway was operating over capacity and required portable classroom additions. To accommodate future student enrollment increases it is anticipated that the school will require one additional portable per year for the foreseeable future. A combination of strategies will be used to accommodate future enrollment growth at George Greenaway, including catchment boundary changes, program changes, and a facility addition.

Martha Currie will capture the largest portion of anticipated growth. The School District is examining opportunities for an expansion to the school, targeted for 2022. Any enrollment growth from the revised Town Center plan will be included as part of the feasibility study.

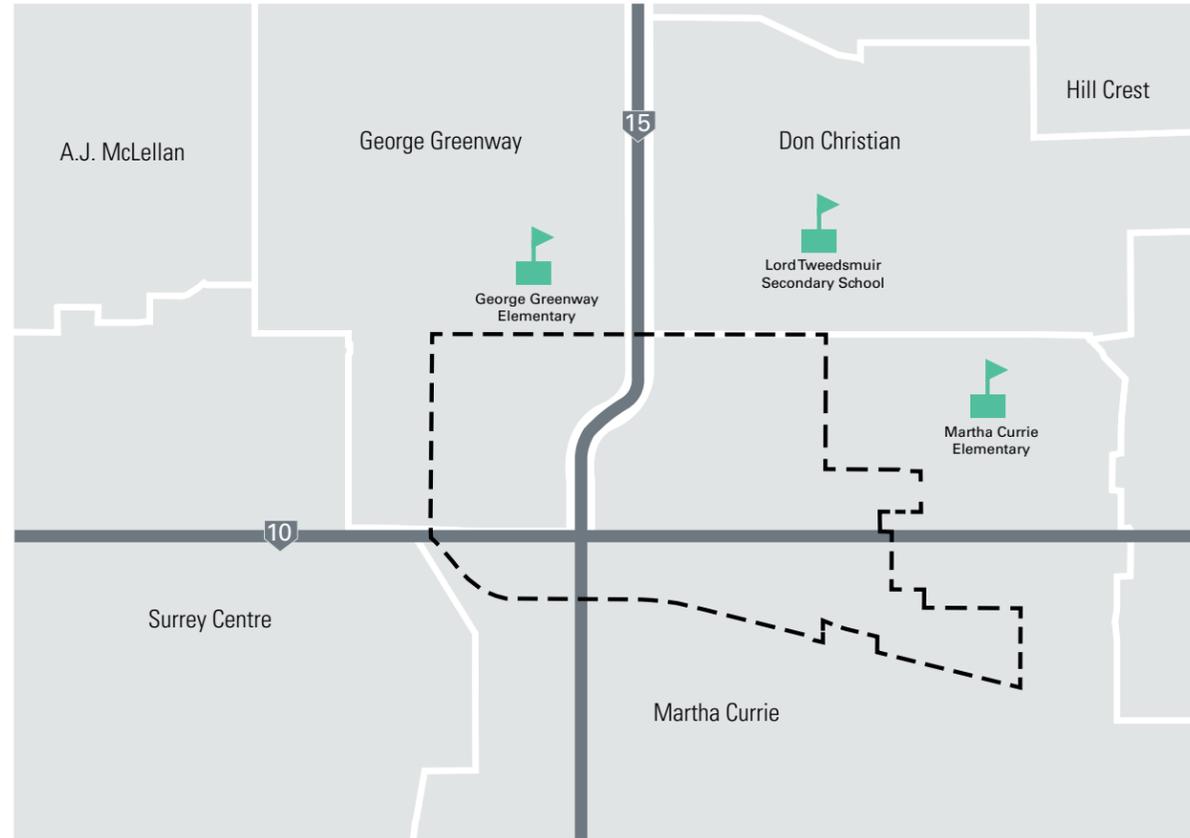


Figure 6.3: School Catchments

George Greenaway Elementary will capture portions of the plan area on the west side of 175 Street (Highway 15). Martha Currie Elementary will capture portions of the plan area east of 175 Street.

SECONDARY

Lord Tweedsmuir Secondary serves the entire plan area and will also be impacted by growth. In 2018, enrollment was above capacity with portables required to meet demand. The school is projected to continue to grow and the District will consider an addition for this school as part of future capital plans.

POST-SECONDARY

The Town Centre is home to Kwantlen Polytechnic University's technical campus. Home of Kwantlen's Faculty of Trades and Technology, the Tech Campus reflects Kwantlen's commitment to the economic development in the South Fraser region and educational programs that will provide industry with the competent and highly-skilled graduates it requires.

The Tech Campus provides leading-edge trades and technology programs, which is an important new resource in helping the rising demand for skilled trades workers and apprenticeships. It is a full service campus providing a variety of student support services, library, bookstore and food services. The plan allows for the future expansion of the campus through the institutional designation of the surrounding land.

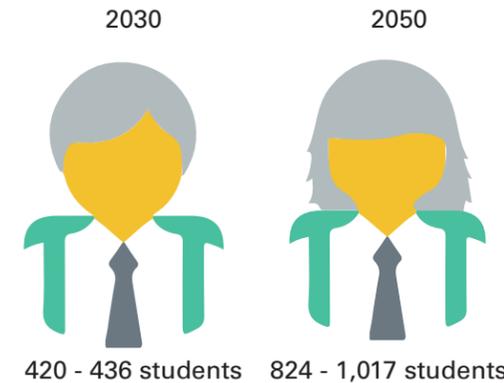


Figure 6.4: Projected Elementary and Secondary Students





Kneeling in Remembrance by André Gauthier, 2006



Flow and Variations of Flow by Robert Studer, 2011



The Rivers that Connect Us, by Drew Atkins, Phyllis Atkins, and Aaron Jordan 2019

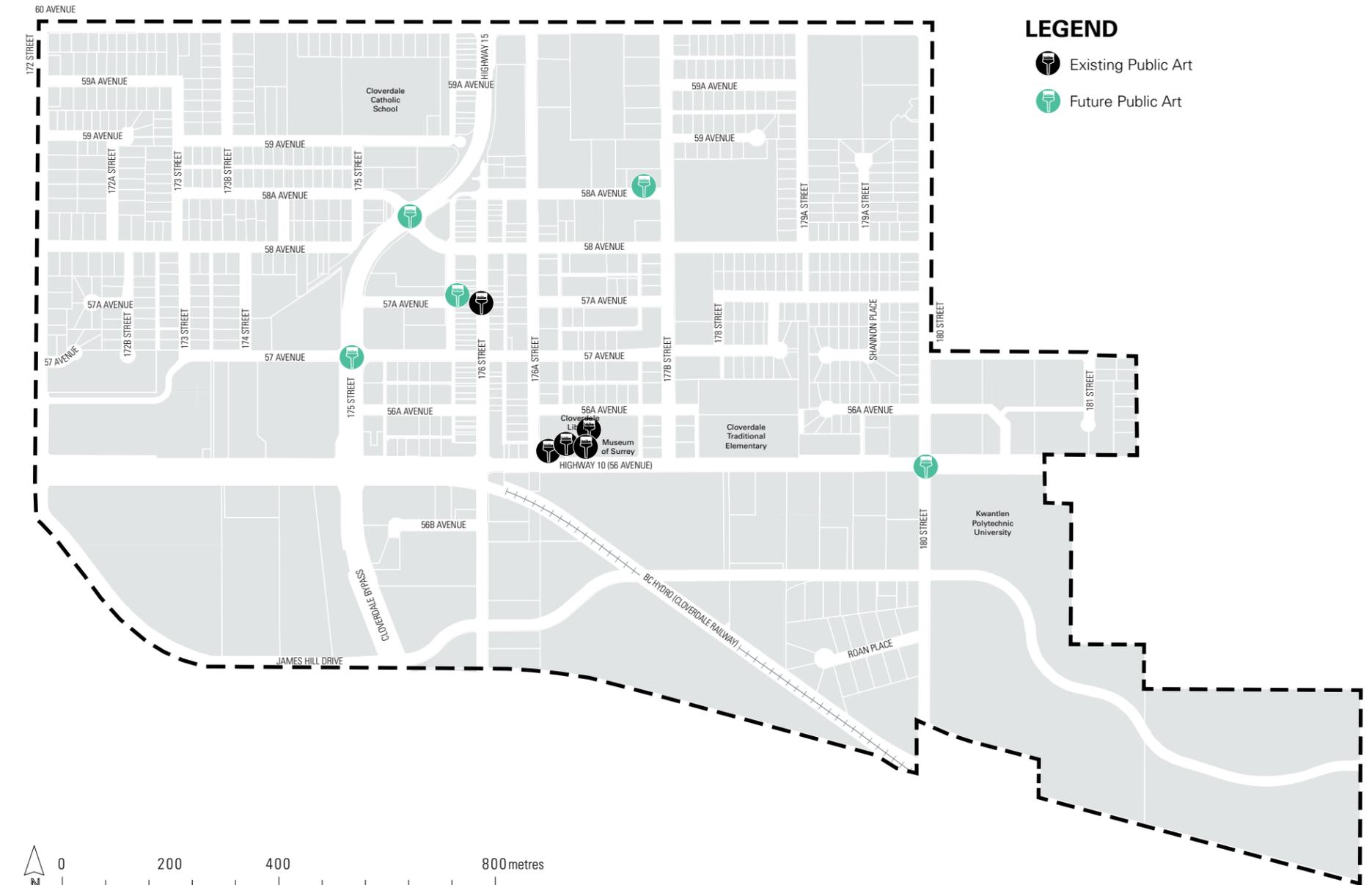
6.4 PUBLIC ART

Public art installations animate the public realm and contribute to creating a memorable and unique landscape. They also engage residents in the interpretation and expression of what is important and significant to the community.

Public art features (in addition to heritage features) are envisioned to enhance the walkability and unique character of Cloverdale. Sites for these future artworks include the gateways of the Town Centre, as well as Surrey's east border, building plazas and curbside in the heritage district.

New development is expected to contribute to public art through the City's Private Development Public Art Policy. See Section 8.1.2 for more details.

Figure 6.5: Existing & Proposed Public Art Locations





6.5 HERITAGE CONSERVATION

The continued significance of heritage buildings is prevalent in the Town Centre. Many buildings have recognizable heritage significance and have been added to Surrey’s Community Heritage Register. Several of these buildings have also been protected by Heritage Designation By-law or Heritage Revitalization Agreement. Other buildings are currently on the Heritage Inventory, which means they are considered to potentially have heritage significance but require further evaluation.

HERITAGE CONSERVATION & PROMOTION STRATEGIES

Heritage Register sites should continue to be targeted for conservation. General planning actions include the identification of appropriate regulatory tools and conservation incentives while negotiating with owners of heritage sites, as well as consideration of zoning guidelines that reinforce the intent to preserve historic character.

CONSERVATION INCENTIVES

Heritage protection and conservation will be encouraged as redevelopment occurs by offering incentives to developers who acquire recognized heritage assets. Incentives may include:

- Grants & property tax exemption;
- Relaxations to zoning requirements. Allow rezoning and conversion of heritage single family homes to multi-family dwellings with potential additions where infill is not possible; and
- Building code equivalences.

When renewing civic assets, ensure that heritage resources (architectural, social, and cultural) are considered as part of the planning and design process. This could mean retaining heritage resources or incorporating features or elements of heritage resources as part of the redevelopment.

HERITAGE REGISTERED & PROTECTED

Properties that are both Registered and Protected have been added to the Heritage Register as well as formally protected through a Heritage Revitalization Agreement, Heritage Designation By-law, or Heritage Conservation Covenant.

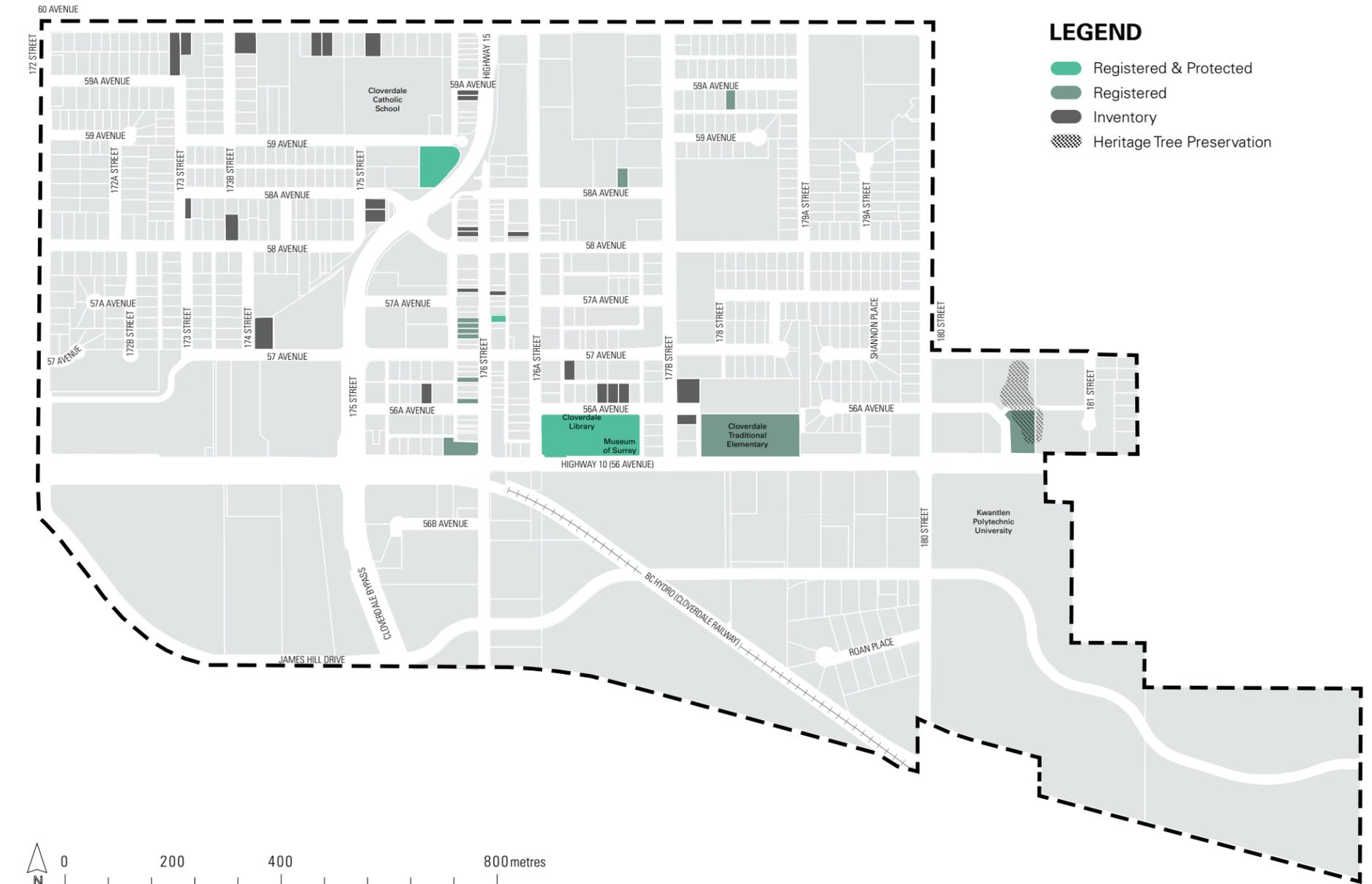
HERITAGE REGISTER

Properties on the Heritage Register have been researched and evaluated for their heritage value, and deemed significant enough to be added to the Register by Council resolution. Registered properties must be included in any redevelopment proposal for the property, and require Council approval prior to removal from the Register.

HERITAGE INVENTORY

Properties on the Heritage Inventory include those that potentially have heritage significance, but require further evaluation before being considered by Council for addition to the Heritage Register. These properties are further assessed for their potential heritage value at the time of a development application or demolition permit.

Figure 6.6: Heritage Buildings and Heritage Character Areas



ADAPTIVE RE-USE, RELOCATION, & ARCHIVAL DOCUMENTATION

Developers should consider all available tools to preserve existing heritage building forms and architectural features. These may include the adaptive re-use of existing buildings, variances to protect heritage features, relocation of heritage buildings and Comprehensive Development Zones to provide increased flexibility in the permitted uses for heritage buildings. The 1912 Municipal Hall and Clova Theatre are examples of buildings suited for adaptive reuse. The Municipal Hall, current home of the Surrey Archives, could potentially be re-purposed to provide maker spaces, workshops and programming, as well as provide room for cultural and non-profit administration.

Under certain circumstances, relocation of a heritage building to another property may be supported to avoid demolition. When retention is not possible, heritage assets should be archivally documented

HERITAGE ENHANCEMENTS

In addition to development related conservation, the City can take actions to enhance and acknowledge heritage in the Town Centre, including:

1. Develop a Town Centre-wide heritage and placemaking strategy, including recommendations for the development of heritage signage, storyboards, murals, and other creative heritage enhancements.
2. Expand heritage interpretation opportunities within the Town Centre, focusing on opportunities and partnerships within the Heritage Downtown area.
 - Increase the amount of building level interpretation through building-based panels and murals;
 - Increase Indigenous heritage recognition;
 - Increase the diversity of people and stories featured in heritage interpretive elements;
 - Develop partnerships with community groups and businesses to design interpretation programs; and,
 - Explore walking tours and self-guided walking routes to highlight local heritage sites, public art and monuments in the area.
3. Continue to expand the Museum of Surrey heritage campus to support larger exhibition space, as well as opportunity to display larger pieces in the City's heritage collection, such as its vintage fire truck and railway artifacts. Explore opportunities to develop a sports hall of fame, as well as expanded lecture hall space to support education, demonstrations and performances.
4. Continue to add sites to Community Heritage Register by evaluating potential heritage sites. Existing sites on the heritage inventory should be assessed, when circumstances allow, for addition to the Community Heritage Register.

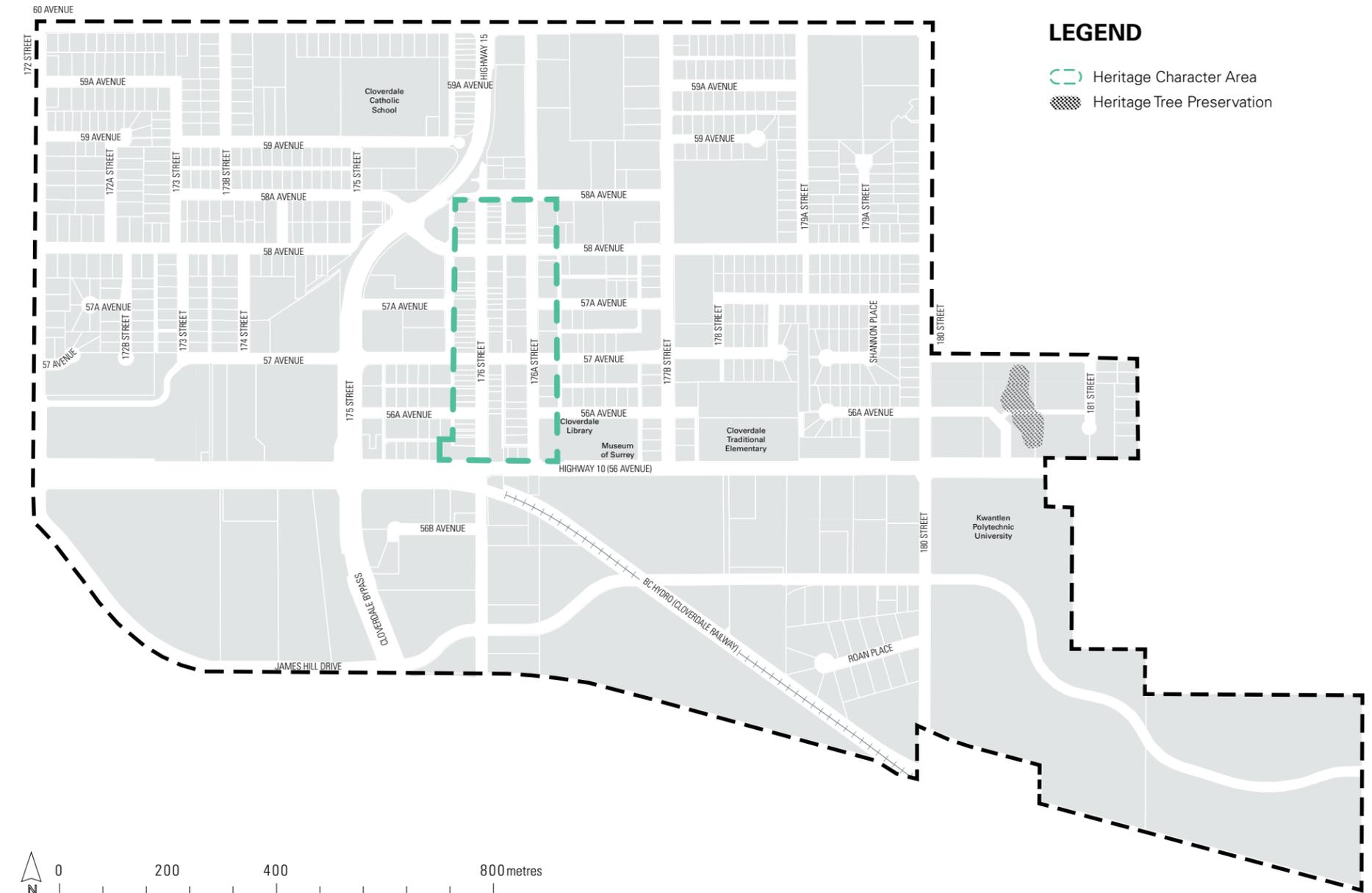
HERITAGE TREE PRESERVATION

A small grove of six heritage trees (common apple, horse chestnut, black & English walnut) is located on the Bourassa farm site at the northeast corner of Highway 10 and 180 Street.

The underlying Townhouse designation will support preservation of heritage trees by clustering buildings outside of and avoiding disturbance of the tree preservation area.

The tree preservation area shall be placed in a protected natural amenity area to ensure perpetual preservation.

Figure 6.7: Heritage Character Area



Section 7: Utilities & Servicing

I The Nuts and Bolts

Cloverdale Town Centre is an urbanized area with relatively complete utility infrastructure networks already in place. The plan will increase development intensity and population, and will require improvements to utility infrastructure, including water, sanitary and drainage systems.

- 112 7.1 Drainage
- 116 7.2 Sanitary
- 118 7.3 Water



7.1 DRAINAGE

Cloverdale Town Centre is in the Nicomekl River watershed. Stormwater from the Town Centre is conveyed by an extensive network of storm sewers and open channel watercourses. All stormwater flows south, into the lowlands, before discharging into the Nicomekl River. A portion of the plan area is within the Nicomekl River floodplain.

WATERCOURSE CLASSIFICATION

The City has four different watercourse classifications:

1. Class A (Red) - Inhabited by salmon and trout all year, or potentially inhabited all year.
2. Class A(O) (Red dash) - Inhabited by salmon and trout primarily during the over-wintering period, or potentially inhabited during the over-wintering period with access enhancement.
3. Class B (Yellow) - Significant food or nutrient value. No fish potential present.
4. Class C (Green) - Not considered a stream under any definition. No fish potential present.

Class A, A(O), and B watercourses require environmental permits and Sensitive Ecosystem Development Permit approvals and must meet the applicable Zoning By-law setback requirements.

STORM WATER MANAGEMENT

In addition to providing excellent habitat and nutrient potential for salmonid fish species, streams in Cloverdale Town Centre have riparian areas associated with them that also provide higher food security to the City of Surrey, as well as water security for the farming community. The streams (such as ditches, dykes, watercourses and wetlands) in this plan area contribute immensely to stormwater management, as they help manage natural rises and falls of groundwater while also acting as an integral system to help manage runoff from infrastructure and buildings.

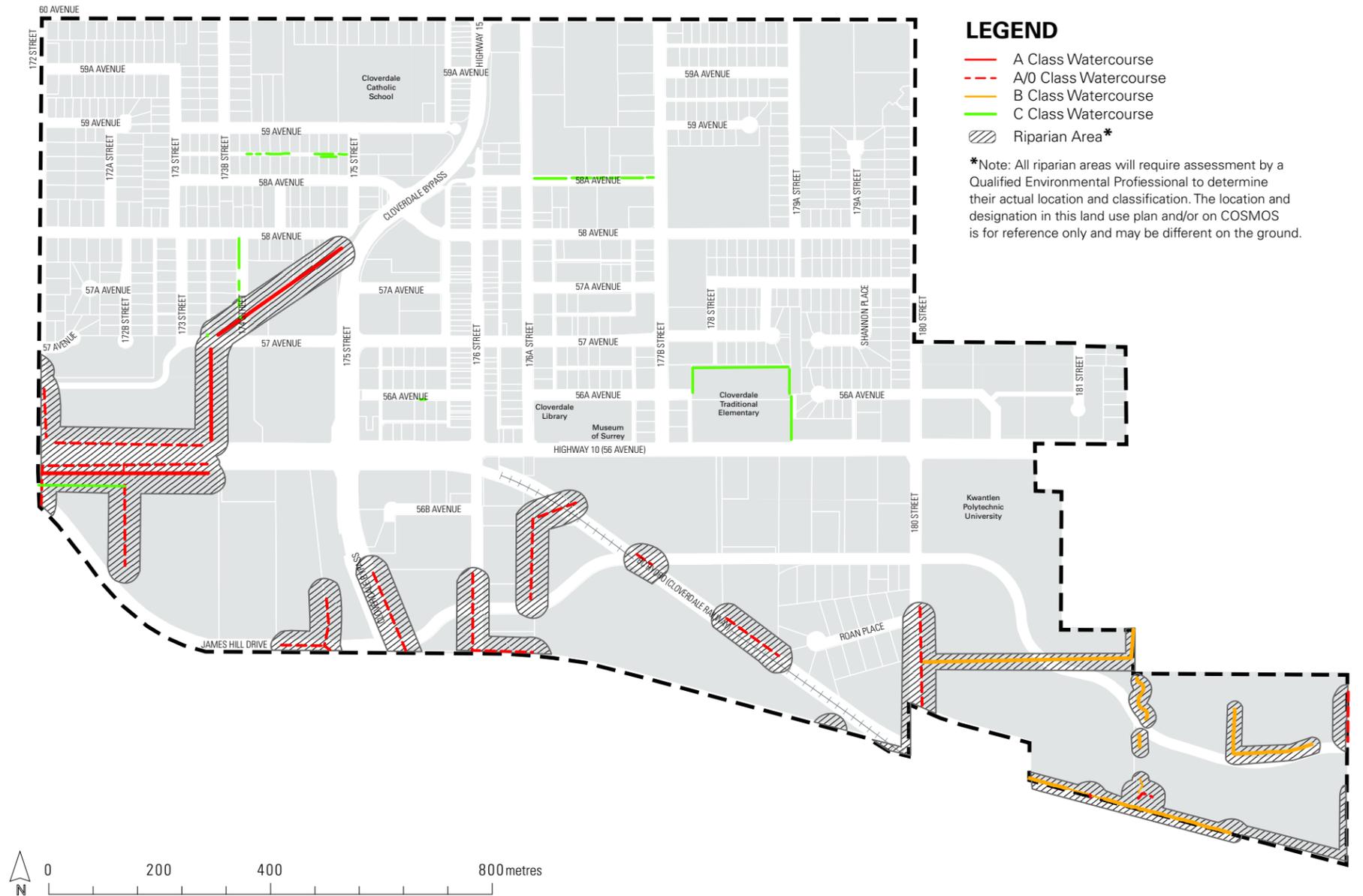
Streams also provide critical flood protection and irrigation service to land in the ALR. Many local farms have irrigation licenses to be able to seasonally water their crops. The City assists in managing the waterways during the summer irrigation months as well as providing flood management in the winter.

The interface between uplands and lowlands is very sensitive to tidal elevations and rainfall events. Flooding in the Town Centre may occur due to limited downstream capacity in the lowlands. Care should be taken with construction elevations to confirm there is positive drainage from development as some areas may flood to road elevation.

In addition to sewer upgrades, development provides opportunity to manage runoff quantity and quality at a site level through implementation of a variety of stormwater best management practices (BMPs). The following onsite BMP strategy is recommended for new development:

- Include onsite BMPs in site development plans to address runoff volume and flow control;
- Implement on-lot water quality treatment units to remove pollutants from stormwater runoff before discharging into Hyland Creek;
- No further encroachment by development on riparian areas;
- Preserve remaining natural features as much as possible, and maintain their links with external natural areas; and
- Preference should be given to permeable pavements and driveway technologies that allow precipitation to infiltrate to the ground. In addition, the footprints of impermeable structures should be minimized to maintain as much natural land cover as possible.

Figure 7.1: Watercourse Classification





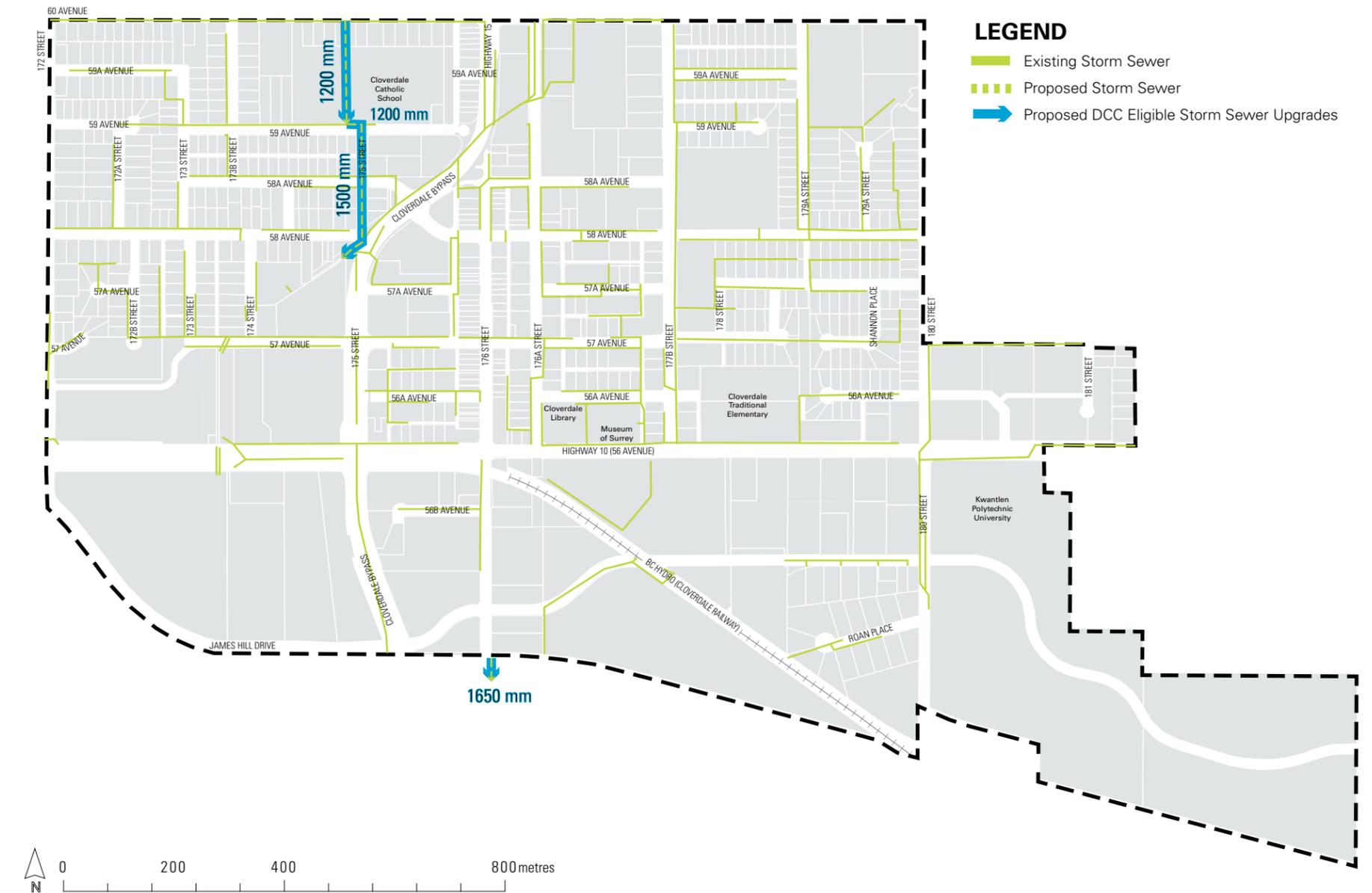
STORMWATER UPGRADES

The proposed land use plan will increase impervious surface area and stormwater runoff volumes. Conveyance upgrades are needed to address existing and future capacity requirements. Development Cost Charge (DCC) eligible upgrades include:

- 175 Street trunk storm sewer – Upsize the 175 Street trunk storm sewer system from 60 Avenue to 58A Avenue and reroute directly into the Cloverdale Canal; and
- 176 Street rail crossing – Upsize the 176 Street rail crossing culvert to 1650mm diameter

In addition to area-wide upgrades, onsite stormwater management is required with redevelopment. Individual site development plans must incorporate best management practices (BMPs) to address both quantity and quality of stormwater through detention and filtration features that are integrated into site landscaping requirements. Example features include rain gardens, pervious pavement, and French drains. In addition, natural features and stream setbacks should be preserved and enhanced where possible.

Figure 7.2: Drainage System Upgrades





7.2 SANITARY

Cloverdale's sewage is discharged via the City's sanitary sewer system to Metro Vancouver's trunk sanitary sewer, which runs along 56 Avenue (Highway 10).

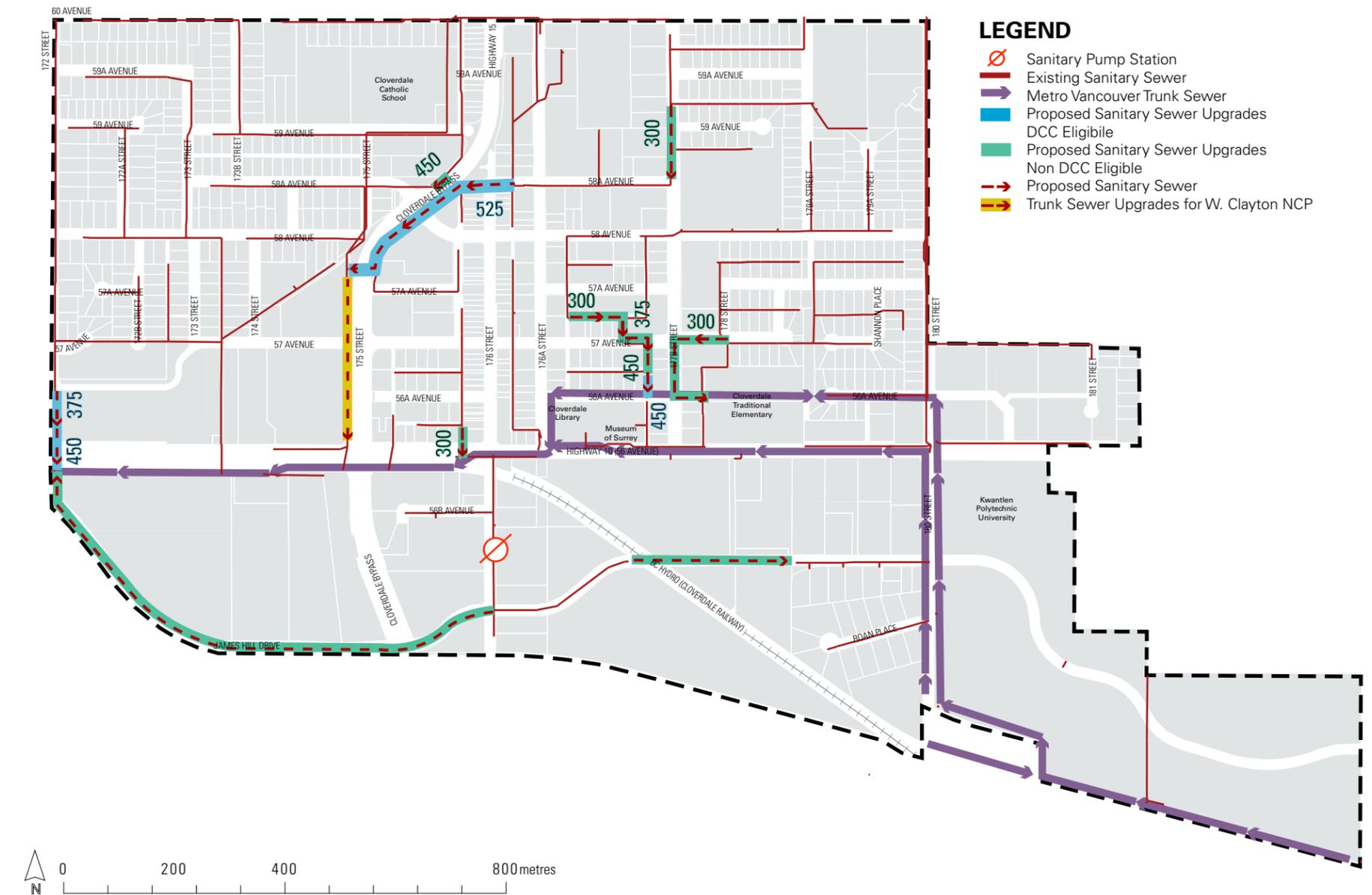
The City's existing sanitary infrastructure is over 30 years old. Much of the system is comprised of asbestos cement and vitrified clay pipes, which will require replacement.

To support future development in the plan area, sanitary sewer upgrades will be required in and around 177B Street, along with upgrades at municipal connection points with Metro Vancouver's trunk sewer. A sewer upgrade is also required along 175 Street near 58A Avenue. These upgrades are Development Cost Charge (DCC) eligible. Additional fronting development upgrades (which are not DCC eligible) may be required, and will be addressed through the development approval process.

Low pressure sewers will be required on the James Hill Drive extension to service future developments south of Highway 10. These sewers are not DCC eligible.

While not directly benefiting the Cloverdale Town Centre plan area, a 1350 mm diameter trunk sewer upgrade is planned on 175 Street between Highway 10 and 58 Avenue. This sewer upgrade is in support of the approved West Clayton Neighbourhood Concept plan area to the north.

Figure 7.3: Sanitary System Upgrades

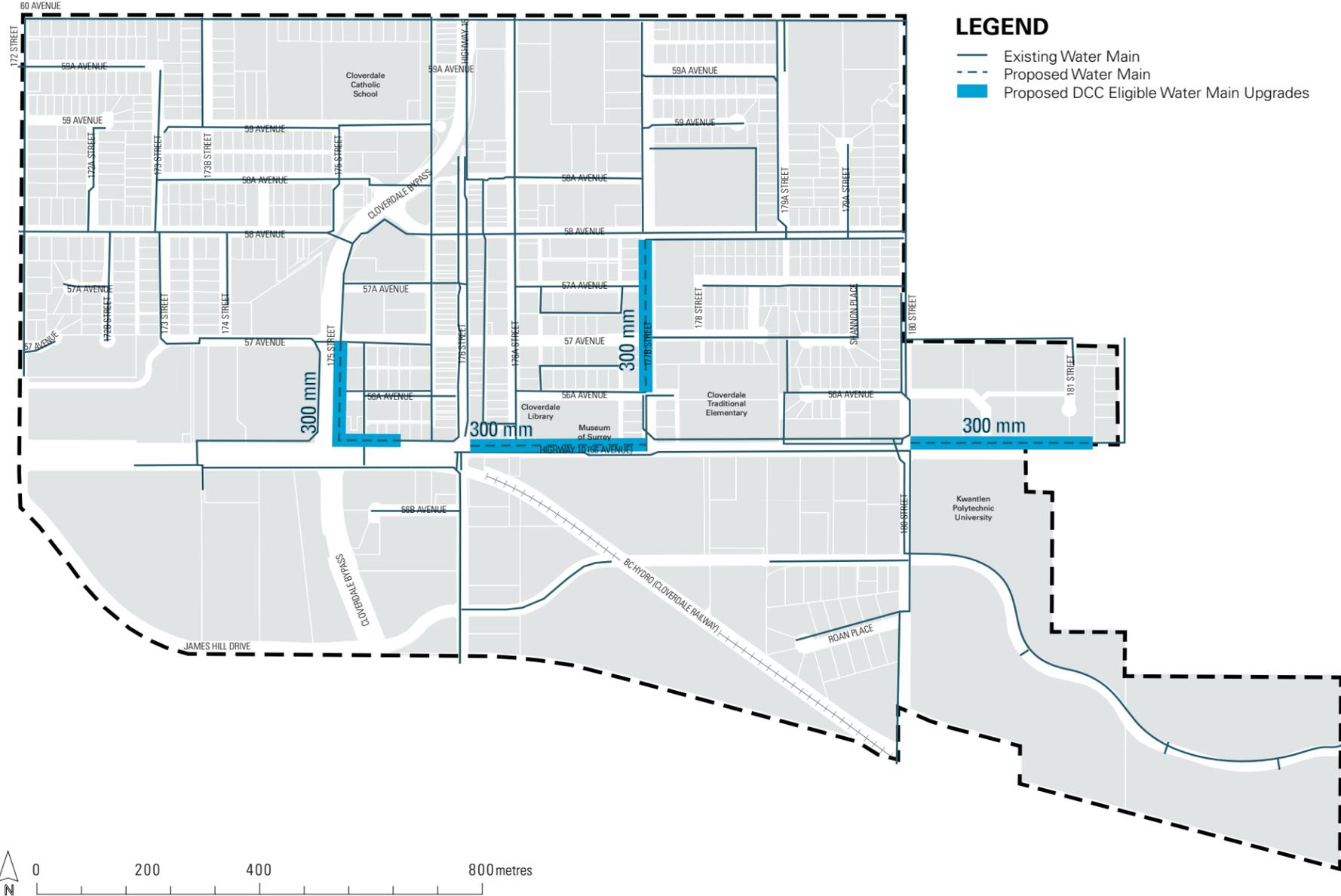


7.3 WATER

The Town Centre is located in the 90 metre pressure zone. Water supply is currently provided from two direct connection points to Metro Vancouver’s transmission mains at 54 Ave and 192 St, and at Fraser Hwy and 176 St. The City’s existing feeder main network has sufficient capacity to service the proposed development in the plan area.

Local distribution mains will need to be upgraded in accordance with the City’s Design Criteria Manual (to a minimum size of 250mm diameter). These upgrades will be implemented as development proceeds and are not Development Cost Charge (DCC) eligible. Water main upgrades larger than 250mm diameter are shown on the figure below and will be partly funded by DCCs.

Figure 7.4: Water System Upgrades



Section 8: Implementation

I Making it Work

The plan will increase development intensity and population. To address the impacts of growth, funding will be required to improve local amenities and infrastructure necessary for a high quality of life. A number of area specific considerations, such as flooding and watercourse protection, must also be considered as the area grows.

- 122 8.1 Development Policies
- 129 8.2 Community Amenity Contributions
- 133 8.3 Infrastructure Financing



8.1 DEVELOPMENT POLICIES

8.1.1 Housing Policies

As a designated Town Centre, Cloverdale plays an important role in achieving the City’s housing goals. The following housing objectives support the City’s Affordable Housing Strategy, and ensure that residents of all income groups benefit from development:

- Focus most new development within walking distance of downtown;
- Encourage more housing options, which benefits young families and seniors;
- Plan for a rapidly increasing seniors’ population with accessibility challenges;
- Prevent the loss of purpose-built rental housing; and,
- Retain the character of existing neighbourhoods at the edge of the plan area.

To support these housing objectives the Plan outlines the following policies that apply to new development within the Plan Area:

HOUSING POLICY 1

A minimum of 30% of new multi-family housing units should be family oriented 2-bedroom or greater, and at least 10% as 3-bedroom or greater.

HOUSING POLICY 2

All new residential units within the Town Centre should meet the Adaptable Housing Standards in the BC Building Code.

HOUSING POLICY 3

All new multi-family housing developments should meet or exceed indoor and outdoor amenity space requirements as outlined in the Zoning By-Law.

HOUSING POLICY 4

Re-development of purpose-built rental housing should conform with the City’s Rental Housing Redevelopment Policy (Policy O-61).

HOUSING POLICY 5

New residential developments that require a rezoning should provide a per unit contribution to the Affordable Housing Reserve Fund. The funds will be used to purchase land for new affordable rental housing project.

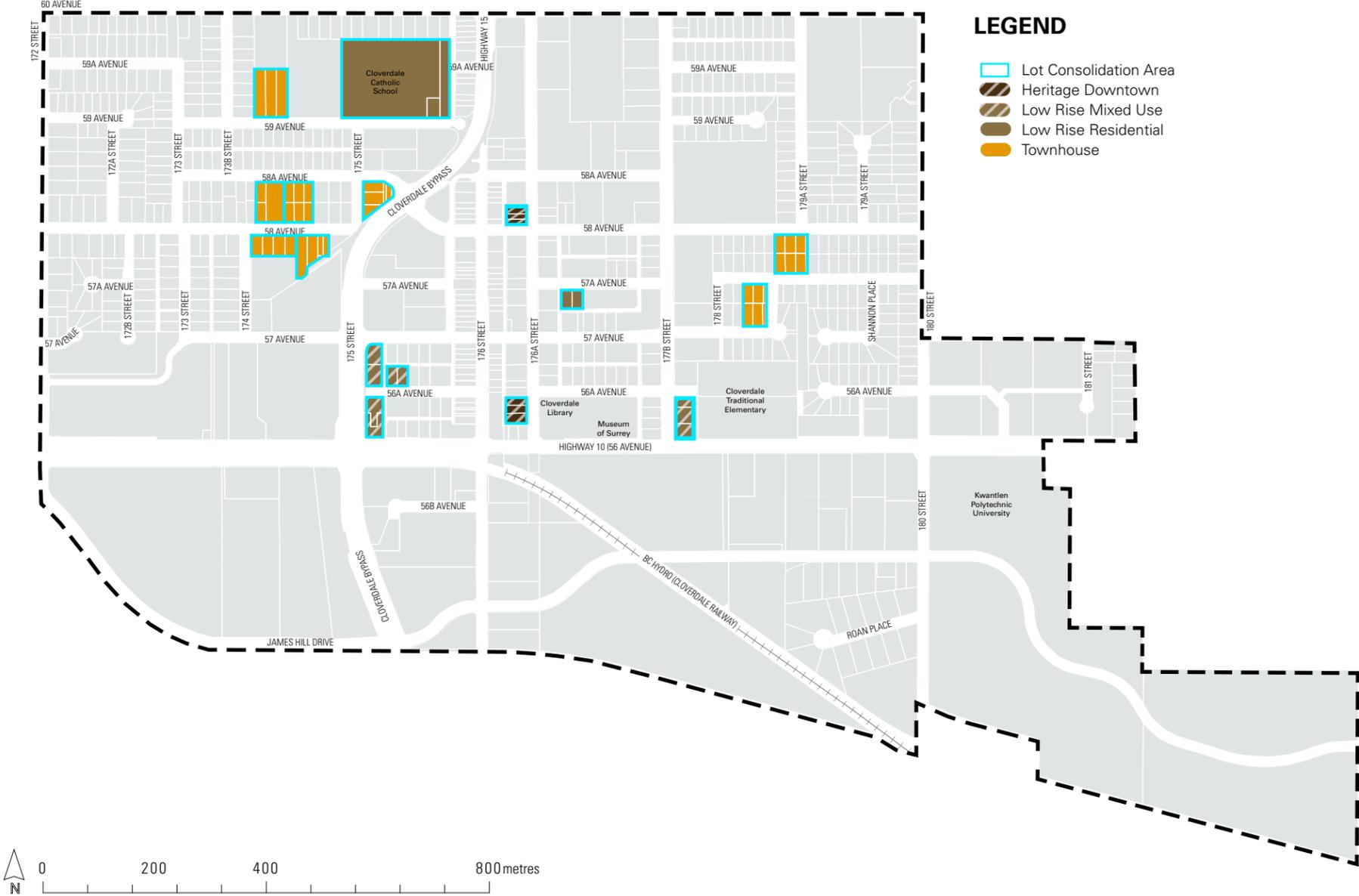
8.1.2 Lot Consolidation Areas

Lot consolidation requirements prevent the creation of land remnants which are undevelopable based on proposed land use designations. They also ensure equitable distribution of road dedication and construction costs across properties, and in some cases ensure development does not adversely impact existing residents. Lot consolidation requirements have been generally identified in Figure 8.1.

If land consolidation is proven to be unfeasible, the developer must:

- Demonstrate that the development potential of the excluded property is not compromised to the satisfaction of the City; and
- Share any required road construction costs amongst properties shown in the land consolidation area.

Figure 8.1: Lot Consolidation Areas



8.1.3 Flood Considerations

Portions of the Plan Area are situated within the floodplain of the Nicomekl River. New residential development should be avoided within the floodplain. Developments that does occur within the floodplain will need to be constructed to the Flood Construction Level (FCL). FCL is the minimum elevation of habitable space in order to be protected from the 1 in 200 year return storm event.

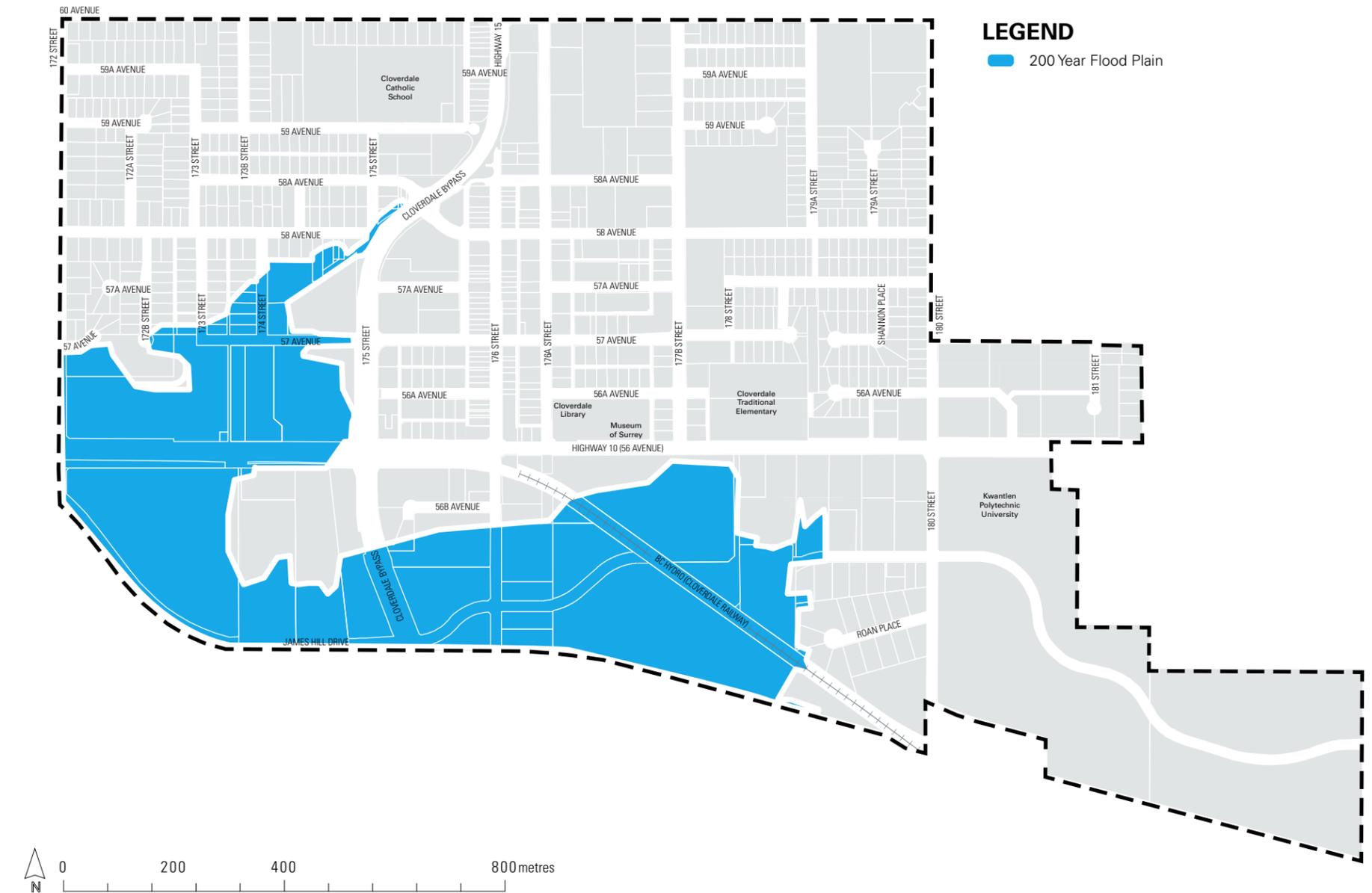
Developments outside of the floodplain are also susceptible to flooding. Flooding can be caused by stormwater runoff from the urban upland drainage system, backwater flooding from the lowland drainage system, flooding from the Nicomekl River itself, or a combination of events. Sea level rise may also increase the flood elevation for properties in the Plan Area.

If underground parking is proposed anywhere within the Plan Area, a hydrogeological assessment should be conducted to:

- Characterize the current geological and hydrogeological conditions at the site, including an evaluation of seasonal variations in the groundwater table and groundwater flow direction, and assess the constraints these variables might have on the proposed development;
- Evaluate pre-development infiltration volumes at the site, assess the impact that proposed land use changes could have on these volumes, and propose mitigation measures to address these potential

- impacts;
- Assess whether proposed site servicing will intercept the groundwater table and evaluate what mitigation measures could be employed to minimize potential disturbances to groundwater levels and flow patterns; and
- Evaluate the potential need for groundwater dewatering at the site.

Figure 8.2: 200 Year Flood Plain Area



8.1.4 Watercourse Protection

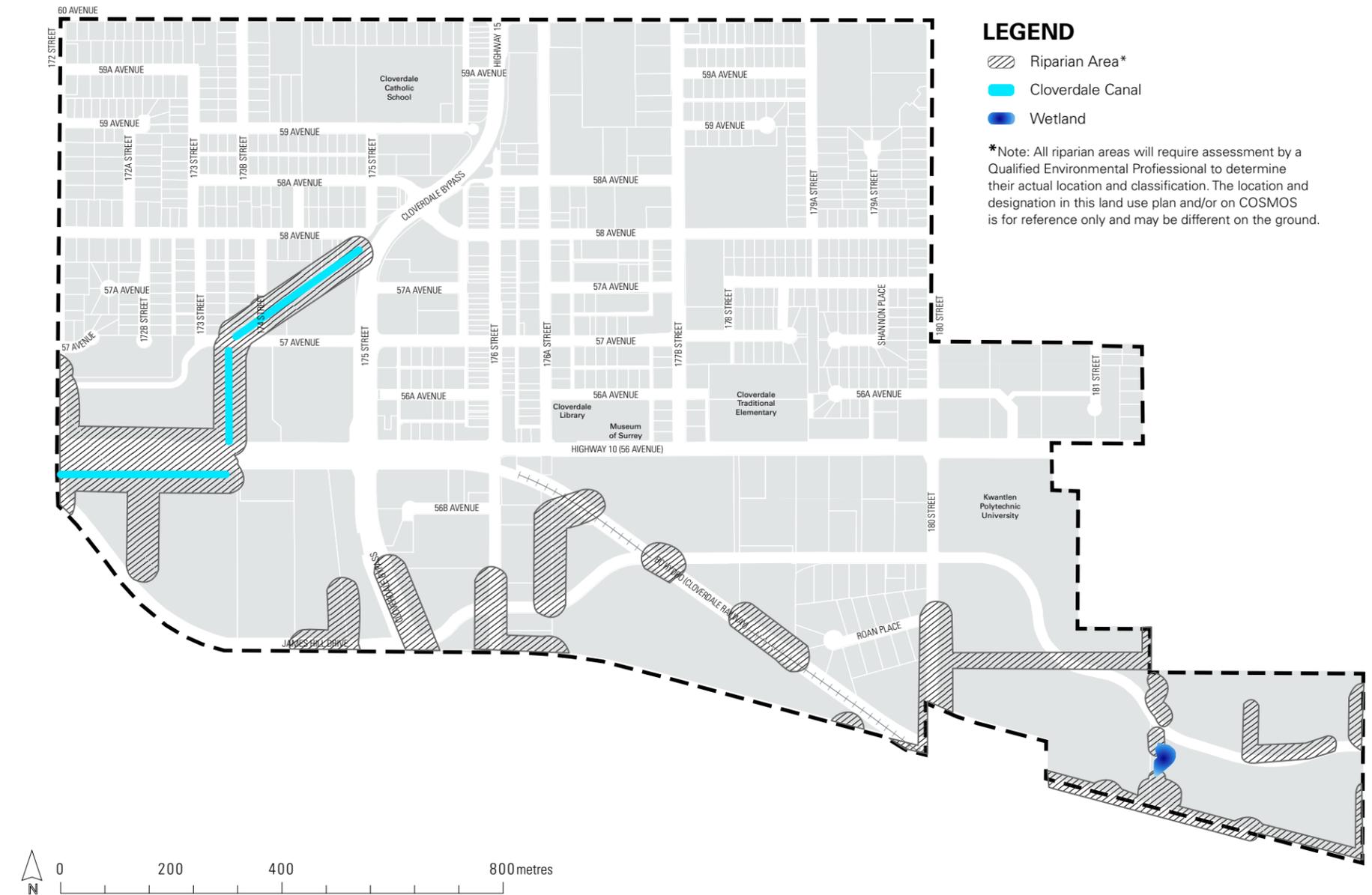
The City of Surrey’s Streamside Protection Bylaw requires that a protective buffer be established around any ditch, dyke, watercourse or wetland that is connected to potential fish habitat. Not only does this protect wildlife and aquatic resources, but it also provides essential protection to flood-prone areas by providing water storage and flow away from private land.

The Streamside Protection Bylaw is enacted by a Sensitive Ecosystems Development Permit Area (SEDPA) DP3 process, which requires that any potential development within 50 meters of a stream be assessed by a Qualified Environmental Professional (QEP). The QEP will be required to write an Ecosystem Development Plan (EDP), in which a setback will be assigned (called the Streamside Protection Area, or SPA) to the stream based on Provincial and Municipal regulation, in which no disturbance may occur. The SPA will need to be protected by either a Registered Covenant (minimum safeguarding) or by conveying the land to the City of Surrey (maximum safeguarding), to ensure that the SPA is appropriately fenced off and maintained as a natural vegetated buffer in perpetuity. The QEP will need to address Provincial and geotechnical setbacks as well, as they can be potentially larger than the SPA; the largest of all setbacks will apply for development.

The intensity of development in much of the area is limited by geotechnical constraints of soft clay soils, as well as flood levels. These constraints limit excavations to one storey below ground

and reduce the potential for underground parking needed to support vertical development. At grade parking, wrapped in building envelope or enclosed to allow active frontages, could help to achieve additional building height on larger sites. Developers should be aware that environmental constraints may limit the developability and potential densities of certain sites.

Figure 8.3: Environmental Constraints



8.1.5 Development Permit Areas

Where developments are located in designated Development Permit Areas (DPA), as identified in the OCP (steep slopes, farm protection, environmentally sensitive areas, etc.), as well as in the case of multiple unit residential or commercial developments, the OCP Design Guidelines will be implemented through the process of reviewing and approving the related Development Permit at the time of development application.

8.1.6 Electric Vehicle Charging Infrastructure

As per the Zoning Bylaw, all new residential developments are required to provide 100% of residential parking spaces to have an electrical outlet capable of supporting Level 2 EV charging (e.g. 220V outlet). All new commercial developments are required to provide a minimum 20% of parking spaces to have an electrical outlet capable of supporting Level 2 EV charging. The Zoning Bylaw requirements provide for EV Energy Management Systems to be implemented, where power can be shared between up to four parking spaces and where the minimum performance standard is achieved.

8.2 COMMUNITY AMENITY CONTRIBUTIONS

In accordance with City policy to address the impacts of growth, all development proposals at the time of rezoning or building permit issuance will be required to make a monetary contribution toward the provision of new community amenities. These include needs identified within the plan area, as well as broader Community and Citywide amenities.

Plan area specific amenity needs include the development of new parks and open spaces, as well as population related improvements to police protection, fire protection and library services. Community and Citywide needs include new capital projects (cultural and recreational facilities), affordable housing and public art.

Total estimated costs are divided evenly by the average anticipated number of dwelling units (acreages in the case of non-residential development). This ensures an equitable contribution. It also means that if a development application proposes lower density than anticipated within the plan, the applicant will be expected to “top up” the amenity fees as per the plan designation. This will avoid a shortfall in anticipated funding. Amenity contribution rates will be updated with future iterations of the plan.

To enact the above noted amenity contribution requirements, Schedule G of the Zoning By-law will be amended to add the Cloverdale Town Centre to the list of secondary plans where monetary contributions are required.

Table 8.1: CAC Rates

CLOVERDALE CAC RATES TABLE

Uses	Amenity Contributions***				
	Police	Fire	Libraries	Parks**	TOTAL
Residential* (\$/dwelling unit)	\$80.52	\$347/89	\$181.17	\$3,160.00	\$3,769.58
Non-Residential (\$/acre)	\$483.12	\$2,087.34	n/a	n/a	\$2,570.46

Explanatory Notes:

* Excludes secondary suites.

** Includes pathways and facilities.

*** See Section C of Schedule G in Zoning Bylaw 12000, Community Amenity Contributions for contributions related to Cloverdale Town Centre density increases.

8.2.1 Plan Area Specific Amenity Contributions

PARKLAND DEVELOPMENT

Monetary contributions toward parkland are based upon the estimated capital costs of all park amenity improvements within the plan area. This also includes parkland adjacent to the plan area that will serve future residents. Park amenity calculations do not include riparian area works required as part of the development process on land conveyed to the City. This includes in-stream works and any other related riparian area costs which are to be accounted for as part of the development process

The scope of parkland development within the plan includes the development of four (4) neighbourhood parks, plazas and other landscaping on public property. It also includes the restoration and management of key natural areas including forests, wetlands and riparian areas. The estimated cost of developing park amenities is \$8,081,730. Based on development rate projections over a 40 year period, this results in a contribution rate of \$3,160 (in 2019 dollars) per dwelling unit. This estimate includes the planning, design, administration and construction of park amenities, including playgrounds, washrooms, sports courts, tree and horticultural plantings, paths and trails, seating areas, and passive open spaces. This also includes natural and riparian area restoration and enhancement within parkland.



Cloverdale Ball Park



LIBRARY MATERIALS

A study of library requirements in Surrey has established that a contribution per dwelling unit is necessary to cover the capital costs for library materials and services. Monetary contributions toward library materials will offset capital costs of providing services to new development and are calculated on a standardized basis citywide. Refer to Schedule G of the Zoning By-law for current rates.



FIRE PROTECTION

A study of fire protection requirements in Surrey has established that a contribution per dwelling unit is necessary to support the capital costs for fire protection and services. Monetary contributions toward fire protection will offset capital costs of providing services to new development and are calculated on a standardized basis citywide. Refer to Schedule G of the Zoning By-law for current rates.



POLICE PROTECTION

A contribution per dwelling unit is necessary to contribute towards the capital costs for police protection and services. Monetary contributions toward police protection will offset capital costs of providing services to new development and are calculated on a standardized basis citywide. Refer to Schedule G of the Zoning By-law for current rates.

8.2.2 Citywide Amenity Contributions



COMMUNITY FACILITY DEVELOPMENT

In November 2019 Council endorsed and introduced a new community amenity contribution to support the long-term development of new capital community facilities. The CAC will support capital projects identified within the City's 5-year Capital Plan, such as community centres, ice rinks, cultural facilities and community or city-wide park development projects. The contribution applies City-wide to residential rezoning applications seeking to accommodate higher density. It outlines per dwelling unit contributions for applicable rezoning application. Applicable rezoning within approved secondary plan areas, such as Cloverdale Town Centre, are provided a discount of 50% to account area specific amenity contributions. Refer to Schedule G of the Zoning By-law for details.



PUBLIC ART CONTRIBUTION

The City's Private Development Public Art Policy was adopted on March 15, 2011. The Policy applies to rezoning applications seeking to accommodate higher density multiple residential, commercial, or industrial development. In 2018, the public art contribution percentage for eligible private development projects was set at 0.5% of the estimated total project construction cost. Contributions are added to the City's Public Art Reserve to fund new public art Citywide.

For eligible development projects where the public art contribution is calculated to be over \$200,000, the applicant will have the option to either provide a contribution to Public Art Reserve or install public art on or in the vicinity of the project site. Refer to the City's Private Development Public Art Policy for contribution levels and other details.



AFFORDABLE HOUSING CONTRIBUTION

On April 5, 2018 Council adopted the Surrey Affordable Housing Strategy. The Strategy proposed that new housing developments that require a rezoning provide a \$1,000 per unit contribution to the Affordable Housing Reserve Fund. The funds collected through this new Affordable Housing Contribution would be used to purchase land for new affordable rental housing project. Contributions are payable upon subdivision for single-family subdivisions or upon issuance of building permits for multiple development. Refer to the City's Affordable Housing Strategy for details.

8.3 FINANCING

The cost of servicing improvements is calculated based on the anticipated impacts of the location, type and intensity of planned future development. Servicing costs are recouped through development fees (DCCs), which generally reflect developers' proportional share of public services relative to their projects' estimated servicing needs.

A base DCC rate is applied to all new development in the city. Where a secondary plan shows the base rate is insufficient to cover the planned cost of local servicing, an additional "area-specific DCC" is applied.

Planned servicing improvements in Cloverdale Town Centre will not require area-specific DCCs. New development will be subject to the citywide DCC rates, which will provide adequate funding to make the necessary infrastructure improvements to support planned future development in the Town Centre. For more information and current DCC rates, refer to the City of Surrey DCC bylaw.

The costs of DCC-eligible servicing requirements are summarized in the following section.



ESTIMATED TOTAL INFRASTRUCTURE REVENUES & COSTS

The following table summarizes the anticipated DCC revenues and costs for DCC eligible infrastructure. The anticipated DCC revenues are based on the City-wide DCC rates that came into effect on May 16, 2018. The DCC revenues are sufficient to address the engineering infrastructure upgrades required to support future development in the Cloverdale Town Centre plan area. Parkland acquisition costs are determined by fair market value at the time of future acquisition.

ESTIMATED DCC REVENUES AND ELIGIBLE INFRASTRUCTURE COSTS

Service	Estimated DCC Revenues ¹	DCC Eligible Costs Attributable to Cloverdale Town Centre
Drainage & Environment	\$11,888,983	\$780,000
Sanitary Sewer	\$10,121,187	\$1,479,984
Water	\$7,723,910	\$139,000
Arterial Roads	\$38,274,719	\$336,000
Non-Arterial Roads	\$8,760,200	\$2,114,500
Parkland	\$34,032,998	Land purchase cost

Table 8.2: Estimated DCC revenues & eligible infrastructure costs

¹DCC revenues include the Municipal Assist Factor (MAF) (10% for utilities and 5% for transportation).

The differences in DCC revenues between the eligible costs and estimated revenues will be used to help fund various growth projects adjacent to and/or near the plan area. Examples include projects in the 2018 10 Year Servicing Plan such as the widening of 64 Avenue from 177 Street to Fraser Highway (estimated cost of \$20,500,000), the extension of the 450mm dia. feeder water main on 180 Street and 56 Avenue (estimated cost of \$1,667,000), and the storm sewer upgrade on 175 Street (estimated cost of \$700,000). Revenues will also go towards future road widening projects that will come about as the area (and surrounding area) develops, including the widening of other arterial roads such as 168 Street and 184 Street.

10 YEAR SERVICING PLAN

The 10-Year Servicing Plan itemizes the City's capital expenditures for engineering infrastructure to service existing development and support new growth. The following table summarizes the engineering infrastructure improvements in Cloverdale Town Centre that are included in the City's current 10-Year Servicing Plan (2018-2027).

Infrastructure upgrades identified in this report for Cloverdale Town Centre will be added to future updates to the City's 10-Year Servicing Plan.

TRANSPORTATION IMPROVEMENT COSTS

The transportation plan includes new local roads to improve connectivity in the existing street network and support higher concentrations of residential development near the downtown.

- No major changes to existing road network are proposed. Many road connections proposed in 2000 are no longer required.
- Proposed new local road, and completion of existing half-road (57 Avenue) to provide access to former "Bourassa Farm" (vacant property on eastern edge of Town Centre).
- Proposed new local road (59 Avenue) from 172A Street to 172 Street at western edge of Town Centre.
- Proposed new local road connection through vacant commercial property at western edge of Town Centre from 57 Avenue to 172 Street.

The servicing items identified above are not required prior to the City approving development applications within the Cloverdale Town Centre. Volumes for each of the associated roadways and intersections will be monitored by City staff to determine when the respective improvements are required and will be subsequently listed in Engineering's 10-year Servicing Plan.

ELIGIBLE TRANSPORTATION PROJECTS AND COSTS TABLE

Road	Unit Price	Quantity	Portion to Cloverdale	Cost to Cloverdale
Arterial Road Expenditures				
60 Avenue, Highway 15 to 180 Street (interim 3 lane)	\$4200/metre	800 metres	10%	\$336,000
TOTAL				\$336,000
Non-Arterial Road Expenditures				
172 Street, Highway 10 to 60 Avenue	\$650/metre	800 metres	100%	\$520,000
180 Street, Highway 10 to 58 Avenue	\$650/metre	800 metres	100%	\$520,000
57 Avenue, Highway 15 to 176 Street	\$350/metre	220 metres	100%	\$77,000
57 Avenue, 176 Street to 177B Street	\$650/metre	350 metres	100%	\$227,500
58 Avenue, 176 Street to 180 Street	\$650/metre	800 metres	100%	\$520,000
58 Avenue / 176A Street Traffic Signal	\$250,000	1	50%	\$125,000
58 Avenue / 177B Street Traffic Signal	\$250,000	1	50%	\$125,000
TOTAL				\$2,114,500

Table 8.3: Eligible transportation projects

