

Willowbrook Transit Exchange & Conceptual Area Plan



Presented to TransLink and the Township of Langley

PRELIMINARY DRAFT

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1 INTRODUCTION

1.1 BACKGROUND AND PROJECT CONTEXT

TransLink, the Township of Langley and the City of Langley are currently planning for future transit exchange space within the Langley Regional City Centre. This exchange space is intended to support the future transit expansion outlined in TransLink's *South of the Fraser Area Transit Plan*.

This report addresses one of the planned exchanges, in the Willowbrook neighbourhood. A second exchange, which is being planned for Downtown Langley, is described in a companion report, the *Downtown Langley Transit Exchange Final Report*.

Additional exchange space in the Langley area is required in both the near and long-term. The current Langley Exchange on Logan Ave at Glover Road has, for several years, been unable to accommodate the area's existing transit service. As population grows and the area becomes more transit oriented, it will become further strained to support anticipated future service increases. While a future Willowbrook Exchange will accommodate some of these future services, a larger exchange in Downtown Langley will also be required to meet capacity.

In addition to meeting capacity needs in the South of Fraser sub-region, the two exchanges will be able to support better transit service within the Langley Regional City Centre, including enabling residents to more directly access the major activity centres of Willowbrook and Downtown Langley as well other regional destinations. They will also support the municipalities' aspirations for transit oriented communities by providing focal points for this type of neighbourhood.

1.2 PURPOSE AND OBJECTIVES

In addition to supporting future transit service in Langley and the South of Fraser area, this project aims to support the continued enhancement of Willowbrook Centre, as described by Metro Vancouver's *Regional Growth Strategy* and the Township of Langley's *Official Community Plan*, as a high quality, livable, walkable, compact, mixed-use and transit oriented part of the Langley Regional City Centre.

Specific design objectives include:

- Accommodate transit capacity needs over the near, medium and long-term;
- Support efficient and legible transit service;
- Foster the creation of safe, secure, comfortable and accessible passenger and pedestrian environments within and around the exchange;
- Encourage transit oriented development including the establishment of a grid street network and a range of pedestrian and community amenities within the exchange catchment and larger plan area;
- Create a unique identity and sense of place for the exchange area and Willowbrook Centre as a whole;
- Achieve an affordable exchange solution; and
- Minimize negative environmental impacts.

1.3 POLICY FRAMEWORK

The vision for Willowbrook Centre as part of the Metro Vancouver designated Langley Regional City Centre is contained with a number of plans adopted by Metro Vancouver, TransLink and the Township of Langley. Together, these plans represent a vision for a walkable, vibrant, and transit oriented Regional City Centre with a high quality of design and sense of place.

The Township has recently adopted several policies that have implications for growth and change in Willowbrook Centre. This includes the *High Density Development Policy* which directs future high density residential and mixed use developments to locate within 400 metres (walking distance) of transit routes, specifically within and adjacent to the Willowbrook neighbourhood. This also includes the *Sustainability Charter*, which establishes a framework for balancing economic, social and environmental considerations and integrating transportation and community planning.

The Langley Town Centre Community Plan (1994) includes strategies for and policies to support gradual infill, densification, and expansion of the street pattern in Willowbrook over time.

Other documents that establish the policy framework for Willowbrook Centre include:

- Metro Vancouver's *Regional Growth Strategy*
- TransLink's *Transit Oriented Communities: A Primer on Key Concepts*
- Township of Langley *Official Community Plan*
- Township of Langley's *Willowbrook Community Plan*
- Township of Langley's *Town Centre Plan*
- Township of Langley's *Master Transportation Plan*

A detailed summary of these documents and the broader policy framework, along with their implications for the Willowbrook Exchange and catchment area, are contained within the *Willowbrook Exchange Context, Inventory and Analysis Backgrounder*, prepared as part of the project.

2 DESIGN PROCESS

Planning for two transit exchanges, one in Downtown Langley and one in Willowbrook, is occurring through two interrelated processes through a partnership between TransLink, the City of Langley and the Township of Langley. Close coordination between the projects is important because of interdependencies resulting from the two exchanges' close proximity, and because of their shared role in supporting local and regional transit services and in realizing the vision for the Langley Regional City Centre.

The planning process for the Willowbrook Transit Exchange is structured around the four key phases identified below. Information about previous phases of work can be found in two companion documents to this report: *Willowbrook Transit Exchange Context, Inventory and Analysis Backgrounder* and *Willowbrook Transit Exchange Concept Option Evaluation Report*.

1. Background review and context assessment
(see *Willowbrook Exchange Context, Inventory and Analysis Backgrounder*)
2. Development of design objectives and evaluation criteria
(see *Willowbrook Concept Options and Evaluation Report*)
3. Development and assessment of exchange options
(see *Willowbrook Concept Options and Evaluation Report*)
4. Identification and refinement of a preferred option (detailed in this report)

Input from the public and stakeholders, including adjacent landowners and nearby businesses, informed each stage of the project. Public open houses and a project web page facilitated engagement with the broader community. More information about consultation on this project can be found in the *Downtown Langley & Willowbrook Exchange Consultation Report*.

General themes from consultation feedback included:

- *Integration with community and/or development* – to ensure each exchange is part of, and not separated from, its context;
- *Mixed-use neighbourhoods* – to support transit use and walking, and create a more active exchange area;
- *Personal safety & security* – by ensuring design of the exchange and adjacent buildings and open spaces are oriented and designed to foster activity, 'eyes on the exchange';
- *Bicycle access/storage* - to ensure convenient transit connections for cyclists;
- *Improved pedestrian connections*, especially across major arterials to improve pedestrian access and safety;
- *Market viability* – ensure the location and design of exchange and the associated transit functions and future street network support the market viability of future adjacent transit oriented development; and
- *Placemaking (arts/amenities)* – to ensure each exchange is a unique and identifiable 'place'.

Further information on stakeholder engagement and feedback can be found in the *Downtown Langley & Willowbrook Exchange Consultation Report*. More information about the options and their evaluation can be found in the *Willowbrook Transit Exchange Concept Option Evaluation Report*.

3 ISSUES & OPPORTUNITIES SUMMARY

Conceptual options for the exchange were informed by an analysis of existing and future site conditions, opportunities and constraints. This review and analysis is contained within the *Willowbrook Transit Exchange Context, Inventory and Analysis Backgrounder* which represents a key reference document for this report. The information contained in that report is summarized below.

3.1 OVERVIEW

The Willowbrook Transit Exchange is located within the Langley Regional City Centre which, today, is characterized predominantly by large areas of surface parking, wide roadways with high traffic volumes, large blocks and large single use buildings. This auto-oriented built form is geared towards motorists and generally does not support high levels of walking and transit use. Current uses in the Willowbrook area consist primarily of regionally serving commercial and retail shops and services, service commercial and industrial uses, and limited offices. The Willowbrook Mall accounts for the majority of retail uses within the Langley Centre area.

Currently, the majority of Willowbrook Centre is 'built-out' under current zoning. Transformation of the area in a form that is consistent with the Regional City Centre designation will occur gradually over time through phased redevelopment over the short, medium and long-term. While most of the area is currently not oriented towards pedestrian use in terms of comfort and safety, the under-utilized nature of much of the study area does provide opportunity for gradual infill and intensification as well as the incorporation of new pedestrian amenities. The Willowbrook Transit Exchange and its future integration with rapid transit along Fraser Highway will play a paramount role in the area's transformation into a compact, mixed-use, walkable and transit oriented Regional City Centre over time.

3.2 STREET NETWORK

EXISTING

Siting a transit exchange within the Willowbrook area that can be accessed by pedestrians is challenging due to the existing street network which, currently, is auto-orientated and typified by wide cross-sections and dominant arterials such as 200 Street, Fraser Highway, 196 A Street, Willowbrook Drive and 64 Avenue. While this street network serves the auto-orientated retail areas as well as regional through-traffic needs, it is generally inhospitable to pedestrians and cyclists and is becoming increasingly congested with vehicle traffic.

Exchange sites are further limited by the streets that will be suitable for future transit routing. Currently, transit services connecting the Township and City of Langley are concentrated on Fraser Highway. As train frequencies on the Roberts Bank Rail Corridor increase, rail crossings in the Langley Regional City Centre will make transit service increasingly unreliable. A number of infrastructure projects included in the Township of Langley's 2009 *Master Transportation Plan* will provide alternative routes to Fraser Highway for transit.

These projects include the “Combo” project which encompasses:

- 196 Street overpass from 56 Avenue to 60 Avenue, over the Roberts Bank Rail Corridor (RBRC) and Langley Bypass;
- Upgrade of 196 Street from 60 Avenue to Willowbrook Drive;
- Extension southward of 196 Street to the new 54 Avenue overpass over the RBRC; and
- 192 Street overpass of the RBRC.

Because transit service will increasingly utilize the streets connected to overpasses over the Roberts Bank Rail Corridor, the transit exchange will need to be located so as to be accessible to these future transit routes.

Despite these challenges, anticipated changes to the street network will support the new transit exchange and will make transit, walking and cycling more attractive modes. In particular, a strong grid network, as highlighted in the Township of Langley’s *Master Transportation Plan*, will enable more direct transit routing and will disburse traffic, allowing more streets to accommodate walking and cycling facilities.

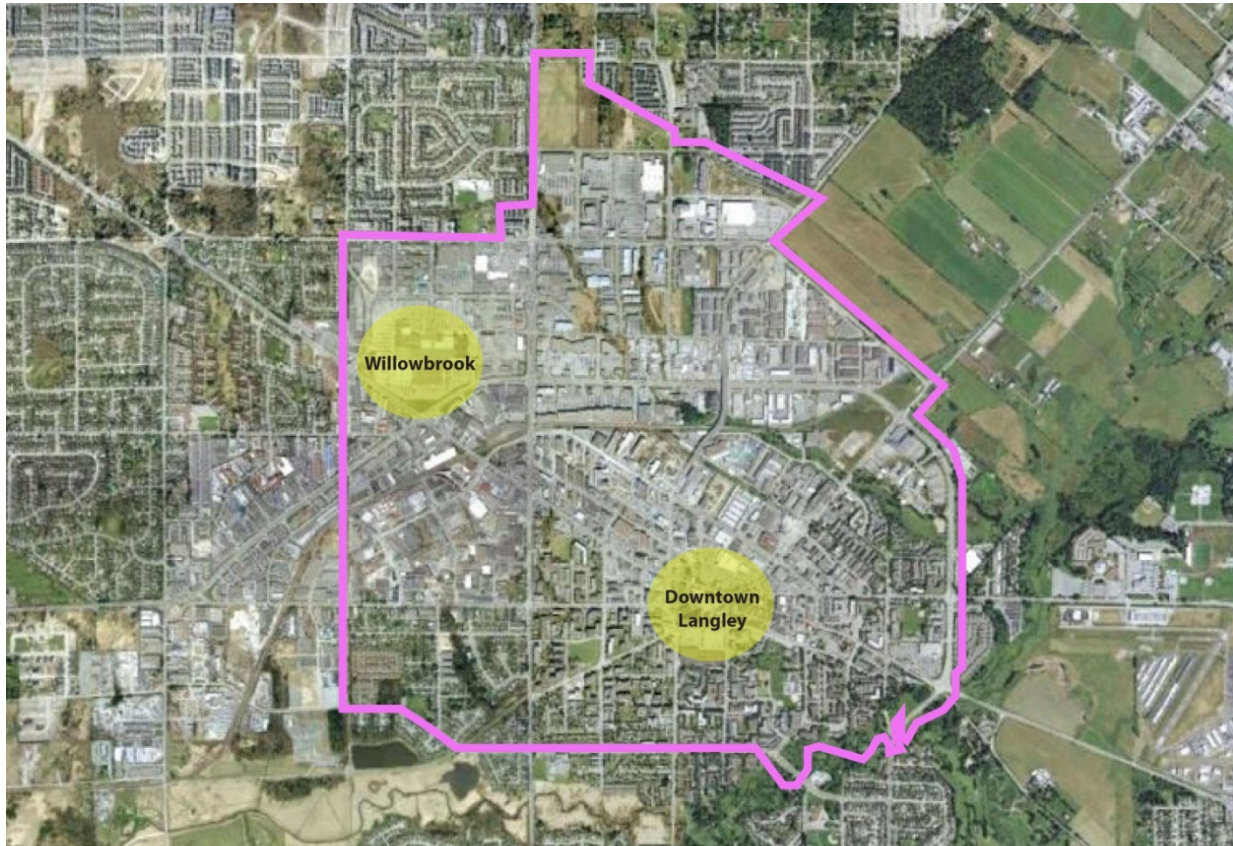
3.3 TRANSIT NETWORK

3.3.1 EXISTING AND FUTURE TRANSIT NETWORK

The existing transit network in the Langley area connects to Surrey to the west, to Maple Ridge to the north and to Abbotsford (via Aldergrove) to the east. In addition to a few major regional routes, such as those travelling on the Fraser Highway corridor, the Langley network consists of local routes forming several “figure of eights” within local communities. This prevents easy and efficient connections by bus to major destinations and transit hubs in the area. In order to increase directness and legibility, the *South of Fraser Area Transit Plan* aims to shift the South of Fraser network to a more grid-like system over time which, as noted above, is supported by the Township’s 2009 *Master Transportation Plan*. The Willowbrook Exchange can support this shift by providing a location that can be accessed with minimal detour from identified transit corridors.

Figure 1 illustrates the locations of the Downtown Langley and Willowbrook exchanges within the Regional City Centre.

Figure 1 - Regional City Centre Context



3.3.2 ROLE OF EXCHANGE IN FUTURE TRANSIT NETWORK

The Downtown Langley and Willowbrook transit exchanges are intended to provide exchange capacity that will accommodate existing needs as well as the future service expansion outlined in TransLink's *South of Fraser Area Transit Plan*. As the South of Fraser Plan only identified general locations for exchange space, additional work has been undertaken to identify more specific exchange locations within the Langley Regional City Centre.

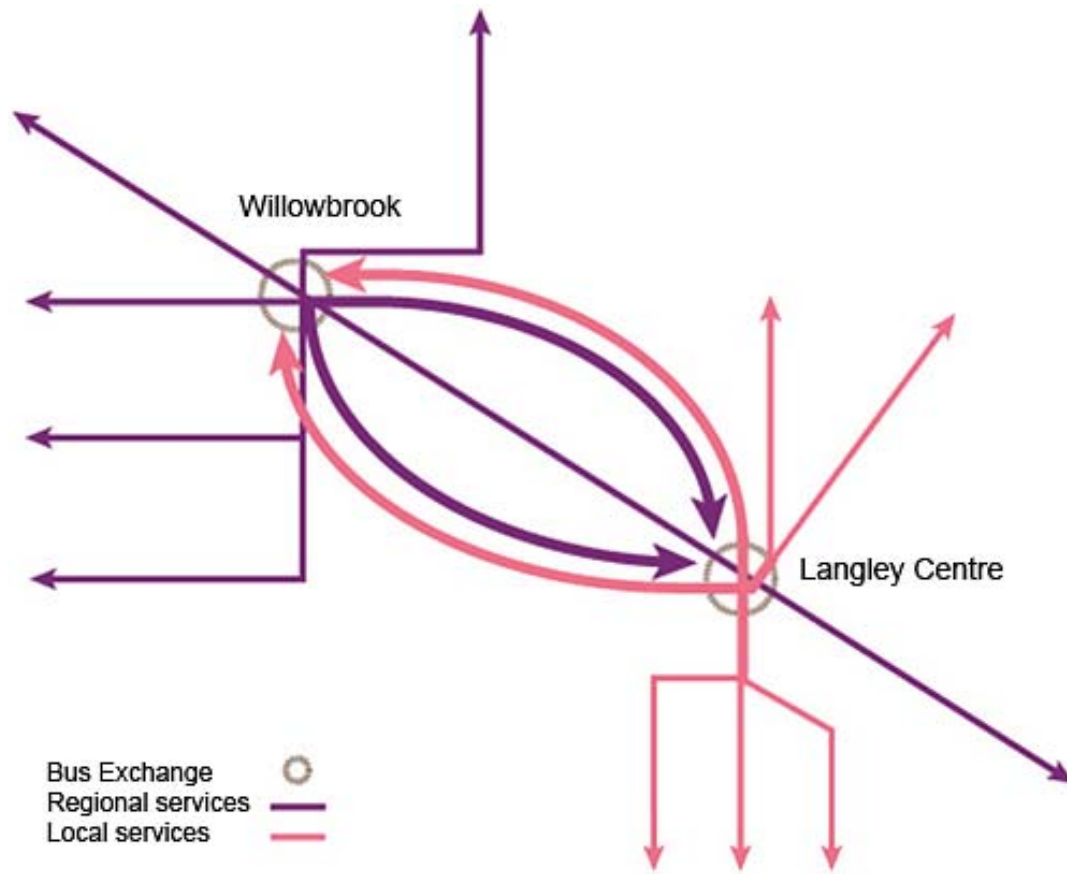
EXCHANGE LOCATION AND TRANSIT NETWORK

Generally, the following principles guided the identification of future transit exchange space and development of an associated local transit network within the Langley Regional City Centre:

- Connect transit routes to anticipated future rapid transit;
- Maximize the legibility of the transit network;
- Improve access to major activity centres;
- Maximize the directness of trips and minimize transfers within the South of Fraser and the Langley area; and
- Support transit oriented communities and regional and local land use plans.

A conceptual future local transit network based on these principles is illustrated in Figure 2. The planning horizon is defined to accommodate an expanded bus network prior to the introduction of rapid transit to Langley on Fraser Highway.

Figure 2 -Conceptual future transit network within Langley Regional City Centre



SPATIAL REQUIREMENTS

Estimated long-term spatial requirements for pick-up, drop-off and layover functions are based on anticipated existing and future bus routes identified in the *South of Fraser Area Transit Plan*. The requirements do not include pick-up or drop-off spaces for the existing 502 bus service as this will continue to utilizing its existing stops on Fraser Highway. As the stops for the 502 and future rapid transit will be located on Fraser Highway, direct visual and physical connections from transit stops along Fraser Highway to the main exchange area will be important to ensure safety, convenience and legibility for passengers transferring between Fraser Highway routes and routes served by the exchange.

WILLOWBROOK EXCHANGE		
Drop-Off	Pick-Up	Layover
3 standard	1 standard 1 community shuttle	2 standard 2 community shuttle

3.4 LAND USE, URBAN FORM AND OPEN SPACE

3.4.1 OVERVIEW

The Willowbrook area is characterized by large, contiguous areas of industrial, service commercial and other low intensity, auto-oriented land uses which do not generally support high levels of walking and transit use. The coarse-grained street network results in very large blocks, which provide large areas of surface parking to accommodate the high proportion of vehicle trips generated by uses in the study area. There is generally a low density distribution of buildings and low building coverage, with buildings set back significantly from public streets and open spaces. Large, indistinct low rise buildings surrounded by large areas of surface parking, and accessed with wide streets including highways and several arterials, reduce legibility and comfort for pedestrians.

These existing conditions do not currently support transit, cycling or walking. However, despite these challenges, there are a number of opportunities for capitalizing on the benefits provided by the future transit exchange and the area's designation as part of the Langley Regional City Centre.

3.4.2 TRIP GENERATORS

The Township envisions the Willowbrook area as continuing to be an important employment center in the community and sub-region, while gradually redeveloping over time with more compact, mixed-use development, including a greater amount of office and residential uses. Currently, the majority of the Willowbrook area is 'built-out' under existing zoning, and there is limited additional capacity for growth. While large office buildings and mixed-use residential/commercial projects are not anticipated in Willowbrook within the next 5-10 years, there may be a market for apartment and townhouse developments over this period.

An overview of existing conditions within and adjacent to the exchange catchment areas, including general land use characteristics, key activity nodes and physical barriers to walking, cycling and transit, such as roads and rail corridors, is illustrated in Figure 3. Additional details can be found in the *Willowbrook Transit Exchange Context, Inventory, and Analysis Backgrounder*.

3.4.3 STREET NETWORK AND PEDESTRIAN CONNECTIVITY

The connectivity of the open space network within the two exchange catchment areas and their longer context area is illustrated in Figure 5. The large, coarse grained block structure found throughout much of the designated Regional City Centre area results in few route options and a number of very wide streets with heavy traffic flow. This results in indirect and undesirable pedestrian, bike and transit connections to, from, through and within the exchange catchment area and the Willowbrook Centre area as a whole.

Improving network connectivity for all modes of travel and ensuring safe, convenient and attractive pedestrian and cycling connections from the exchange area to existing and planned future activity nodes is paramount to fostering a functional transit exchange and improving the transit orientation of the area. This will require the establishment of a more fine-grained grid street network that accommodates multiple modes of travel. This will further require the incorporation of active, publicly oriented pedestrian uses at grade and a variety of public realm amenities such as sidewalks, street trees, enhanced pedestrian crossings, designated bike routes, greenways, plazas and parks. The significant amount of pedestrian activity and new development potential that will be generated by the new exchange and the planned future rapid transit along the Fraser Highway present a significant opportunity and catalyst for this transformation to occur (Figure 5).















3.4.4 BUILDINGS AND OPEN SPACE PATTERNING

Like the street network, open space in the Langley Regional City Centre discourages walking cycling and transit. As is illustrated in the figure ground diagram (Figure 6), there is very low building coverage over most of the study area as a result of the large amounts of surface parking associated with the auto-oriented commercial and, to a lesser extent, industrial uses. Most buildings are set back a significant distance from public streets and sidewalks, reducing pedestrian connectivity and legibility.

As this area undergoes increasing urbanization, these parking areas represent considerable opportunities for infill and intensification. Encouraging many buildings rather than few, orienting future development towards public streets and open spaces, and locating parking underneath or behind buildings will create a more attractive pedestrian environment.

Figure 3 - Opportunities and Constraints Overview

SWOT - Inventory and Analysis

Legend	
	Housing
	Auto-oriented commercial
	Industrial
	Pedestrian oriented commercial
	Green open space, schools, parks, agricultural land, vacant land
	Civic core
	Activity node
	Exchange area
	Exchange catchment area (600m radius)
	Highway
	Rail corridor
	Network opportunities for transit routes - regional
	Network opportunities for transit routes - regional
	Transit route opportunities - future regional

SWOT - Overview

Most of the designated Regional City Centre area is characterized by large, contiguous areas of industrial, service commercial and other low intensity, auto-oriented land uses, and do not currently support transit and walking and the creation of a high quality pedestrian environment.

Highways, arterials and the rail corridor are barriers for pedestrians, cyclists and transit.

Residential uses and density are generally not located within proposed catchment areas.

Generally not a significant amount of greenspace located within the catchment areas

The traditional, pedestrian oriented Downtown Langley core, including a mix of civic, retail services and apartments, supports the downtown as a highly walkable transit village.

Future regional and rapid transit routes are an opportunity to support densification and urbanization of the Regional City

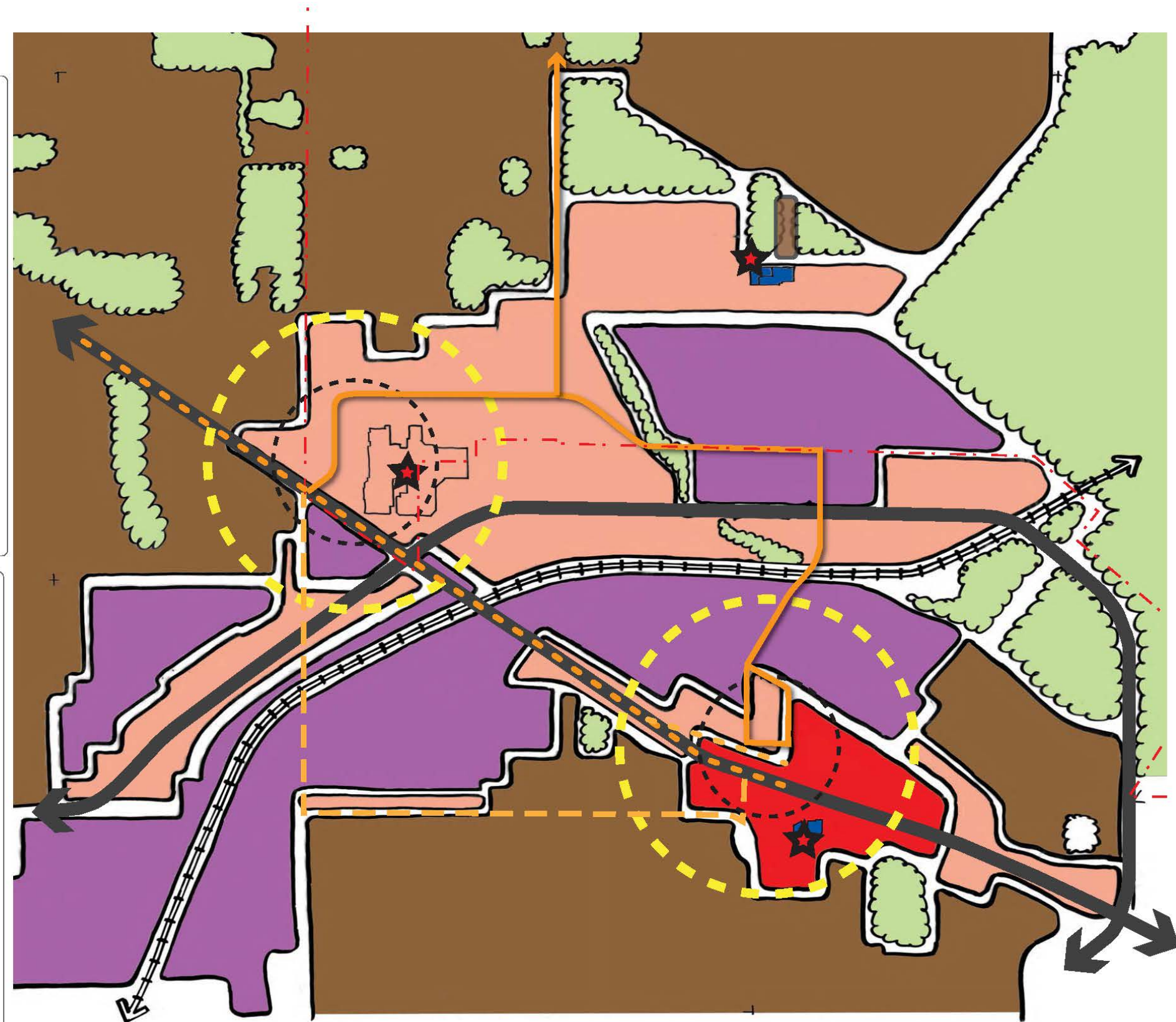


Figure 4 - Opportunities and Constraints: Land Use, Built Form and Open Space

Inventory and Analysis: Opportunities and Constraints
 LAND USE, BUILT FORM and OPEN SPACE
 Willowbrook Exchange



1
 Transit stop located on north side of Fraser Hwy separated from mall entry by large parking lot.



8
 Willowbrook Shopping Centre entrance with lots of parking in front.



7
 General exchange location adjacent to Willowbrook Drive and Fraser Hwy is a key gateway location into the Township, marked by the welcome sign above.

— — — — —
 Long term opportunities for future street network connections



2
 Intersection of Fraser Highway and 196 Street: wide streets, large turning radii and pork chops are good for vehicle traffic but not for pedestrians.



3
 Large areas of surface parking and low rise buildings throughout the study area afford great views of the mountains.



4
 Large pylon signs, large areas of surface parking, and large dumpster indicate an area designed for motorists, not pedestrians (above and below).








6
 Vehicle entrance into Willowbrook Shopping Centre parking lot entryway.



Figure 5 - Opportunities and Constraints: Street network and Block Structure

**Inventory and Analysis:
Opportunities and Constraints**
STREET NETWORK & BLOCK STRUCTURE

Legend

-  Private Space
-  Public Space (ROW)
-  Park
-  Rail Corridor
-  Municipal Boundary

The large, coarse grained block structure throughout much of the designated Regional City Centre results in few route options and indirect pedestrian/cyclist connections.

There is a confluence of streets within Downtown Langley, creating opportunities for travel to the core by all modes.

The more fine grained block structure in the Downtown creates a more walkable environment. However, there are some discontinuous streets in the downtown that are opportunities for creating increased walkability should they be connected to the surrounding street network (for example, 203a Street).



Figure 6 - Opportunities and Constraints: Building Footprints and Open Space



3.4.5 LEGIBILITY, WAYFINDING AND VIEWS

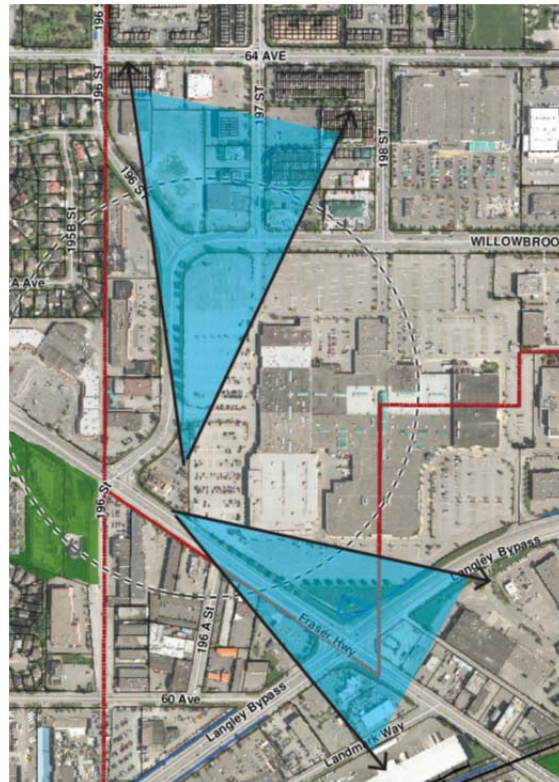
The wide streets and low rise buildings throughout the study area afford beautiful mountain views to the north/north east and east/south east. In addition to providing a beautiful natural background, these mountain views are important geographic markers and are therefore important for pedestrian legibility and wayfinding, particularly given the homogeneity of the built environment in the study area. Preserving important view corridors, including views over low rise buildings from key pedestrian areas within the exchange and catchment areas, will be important for place-making and wayfinding.

It will be important to identify important views provided by existing open space corridors and over existing low-rise buildings, and ensure future public and private realm development maintains these views.

Figure 8 - View of Golden Ears from Willowbrook Drive at Fraser Highway



Figure 7 - View cones from the proposed Willowbrook Exchange Area



4 EXCHANGE CONCEPT PLAN

4.1 EXCHANGE CONTEXT AND VISION

Conceptual options for the Willowbrook exchange were developed in the context of the desired future vision for Willowbrook area as a compact, mixed-use and transit oriented Regional City Centre. The Willowbrook Exchange is envisioned to be an important focal point and activity node within the community and the region, serving the Regional Town Centre and integrated with future rapid transit services along Fraser Highway. It will have high levels of pedestrian activity and will need to be accessible by all transportation modes. Beyond its transit service function, the Willowbrook Exchange provides a significant opportunity to develop a vibrant mixed-use and pedestrian oriented Regional Town Centre with a high quality of design and a unique sense of place.

Given the significant transformation expected to take place in the Willowbrook area as redevelopment occurs over the coming years and decades, it is necessary to design a flexible and adaptable transit exchange that will function effectively as the site transitions to a dramatically different future condition.

4.2 EXCHANGE CONCEPT OVERVIEW

The Willowbrook Exchange Concept outlines an on-street bus exchange located within the current Willowbrook Shopping Centre parking lot. The Willowbrook Exchange Concept is therefore premised on the gradual, phased establishment of a future grid street network within the Willowbrook Shopping Centre property and connected to the existing and planned future adjacent and regional street network.

An on-street exchange and the establishment of a finer grained street network will provide flexibility and adaptability for the location and design of the exchange as transit needs and functions change in the future. The establishment of a future street grid here would occur gradually over time and would be implemented in association with incremental phased redevelopment of Willowbrook Shopping Centre over a long time frame (50 – 100 years +; see section 5). However, the initial phase of the street network required to locate and serve the exchange could be implemented over the short term, with minimal impacts on existing traffic patterns, development, and associated surface parking and access.

The Transit Exchange Concept is premised on the following principles:

- **On-street:** to maximize land available for development in this strategic location, to enable a better interface between the exchange and private development in terms of pedestrian activity, amenity and safety, and to allow for greater flexibility to accommodate future transit expansion.
- **Proximity to Activity Centres:** to provide easy access to existing and planned future residential and retail areas as well as to existing transit service and future rapid transit on Fraser highway.
- **Off-Arterial:** to improve the safety and efficiency of the transit exchange by locating it away from high volume traffic.
- **Integration:** with future transit oriented development.

The conceptual design for the Willowbrook Exchange locates passenger pick-up and drop-off areas on street within a new east-west street connection, 61 Avenue (Figure 26). Layover space is also located on-street within a new east-west street connection located to the north of the passenger area (62 Avenue). The access from Willowbrook Drive to 61 Avenue is restricted to right turn movements only. A signalized intersection will be provided at Willowbrook Drive/62 Avenue and at Fraser Highway/197 Street to allow buses to circulate from the north, south, and west into and through the exchange and on the surrounding street network. The proposed new street network connections also enable better pedestrian connections through the exchange area, and provide opportunities for future transit-oriented development.

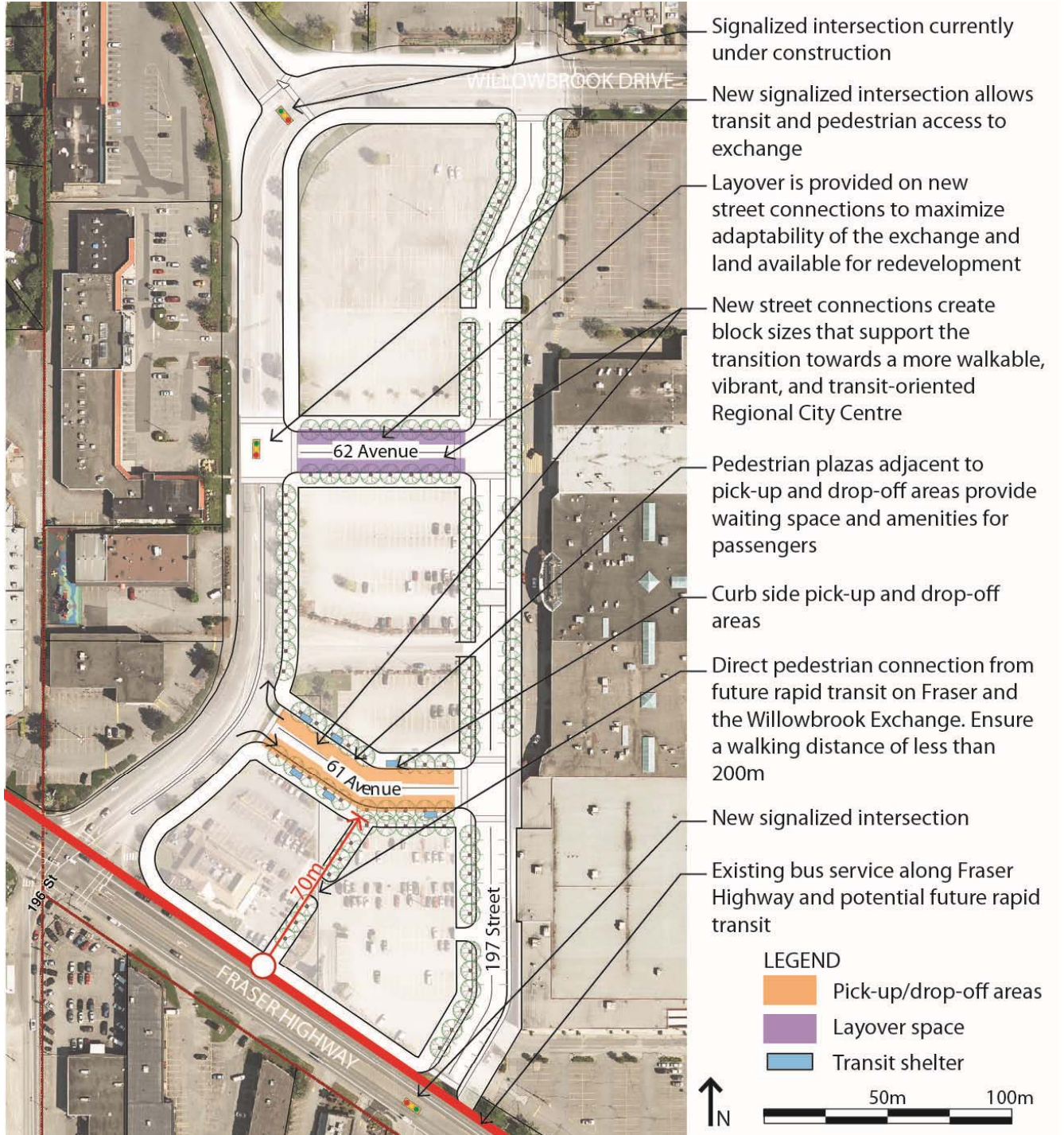
A linear transit plaza along the new east-west street provides waiting space and amenities for passengers. Over time, the passenger areas will be fronted by adjacent mixed-use, transit oriented development with active ground floor uses and upper storey uses oriented to provide overlook of the transit plaza and other passenger areas. An off-street pedestrian link from the exchange to the likely future location of rapid transit services along Fraser Highway provides direct physical and visual connections between these two future passenger areas, allowing them to be integrated into one larger transit node.

Over the short to medium term, there will be some surface parking areas adjacent to the passenger areas. These areas will be screened with an attractive landscape buffer that will still allow direct visual and physical connections from passenger areas to adjacent parking areas.

Figure 9 - View of Willowbrook Exchange and future adjacent transit oriented development



Figure 10 - Willowbrook Exchange Concept Option



4.3 TRANSIT OPERATIONS

SPATIAL REQUIREMENTS

Estimated long-term spatial requirements for pick-up, drop-off and layover functions are based on anticipated existing and future bus routes identified in the South of Fraser Area Transit Plan. The requirements include layover for the bus services on Fraser Highway but they do not include pick-up or drop-off spaces as those will continue to be located on Fraser Highway, separate from but still in close proximity to, the main exchange area.

WILLOWBROOK EXCHANGE		
Drop-Off	Pick-Up	Layover
3 standard	1 standard 1 community shuttle	2 standard 2 community shuttle

Direct visual and physical connections from the transit stops along Fraser Highway to the main exchange area will ensure safety, convenience and legibility for passengers traveling between Fraser Highway stops and the main exchange area.

The following additions to the road network (see Figure 26) are necessary to enable maximum flexibility and bus circulation opportunities:

- The extension of 197 Street to link with Fraser Highway to the south.
- The construction of 62 Avenue between Willowbrook Drive and 197 Street.
- The construction of 61 Avenue between Willowbrook Drive and 197 Street restricted to right turns only at Willowbrook Drive
- Traffic signals at these intersections:
 - 62 Avenue and Willowbrook Drive
 - 197 Street and Fraser Highway

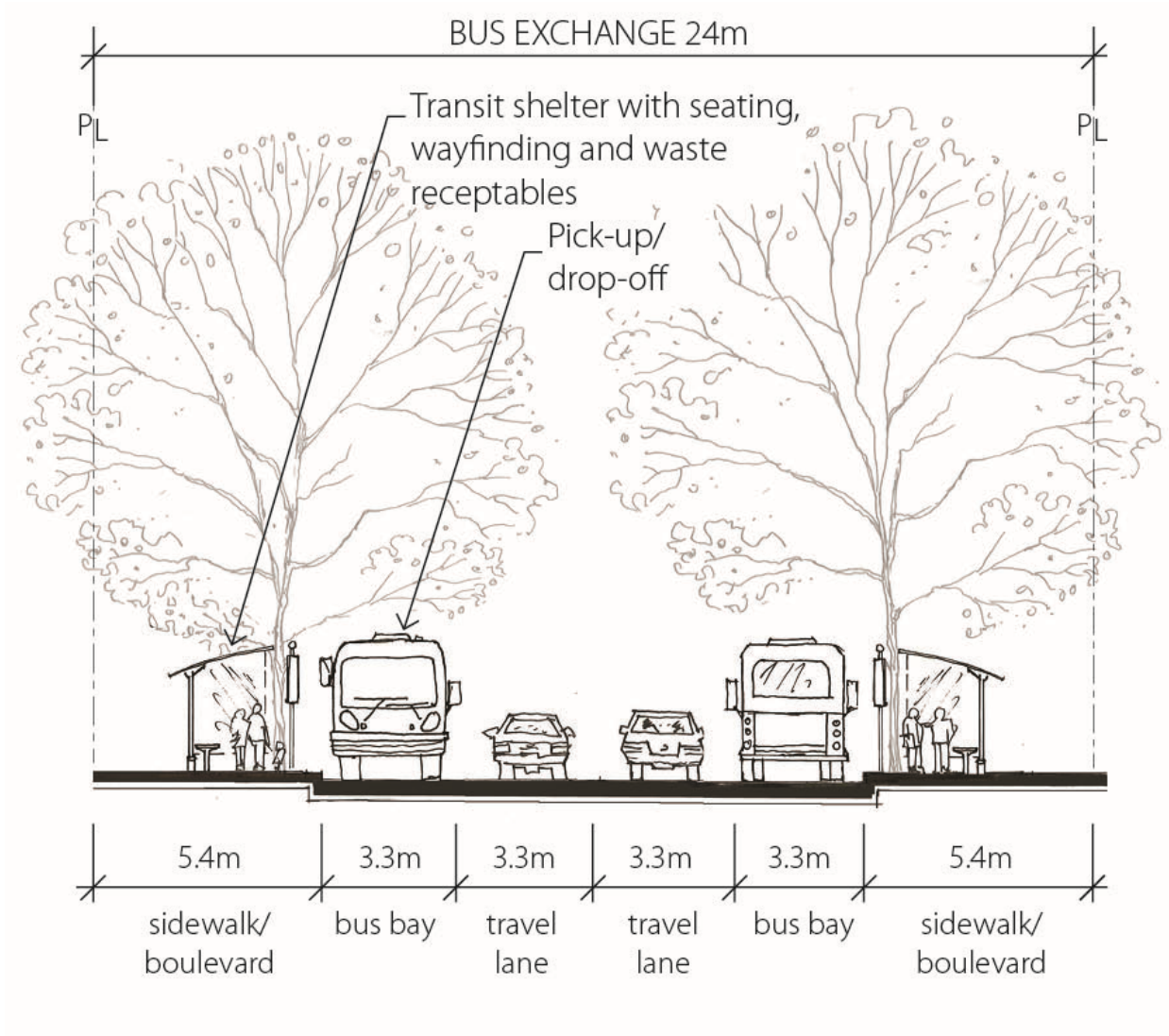
PICK-UP, DROP-OFF AND LAYOVER

Figure 11 and Figure 12 show the integration of pick-up, drop-off and layover. Pick-up and drop-off locations are based on optimizing circulation and access for routes served by the exchange. They also maximize passenger safety, comfort and amenity by focusing passenger areas on low traffic volume streets in proximity to existing and planned development. Pick-up and drop-off is located with direct visual and physical connections to transit service on Fraser Highway and in close proximity to the existing shopping centre entrance and desired future active ground floor uses fronting onto the exchange. Pick-up, drop-off and layover areas within the exchange are designed to accommodate buses, cars and pedestrians.

Pick-up and Drop-off

A 24m right of way is required for the pick-up and drop-off component of the transit exchange. This allows for 3.3m bus bays and 5.4m passenger amenity space as shown in Figure 11.

Figure 11 - Passenger Pick-up and Drop-off View

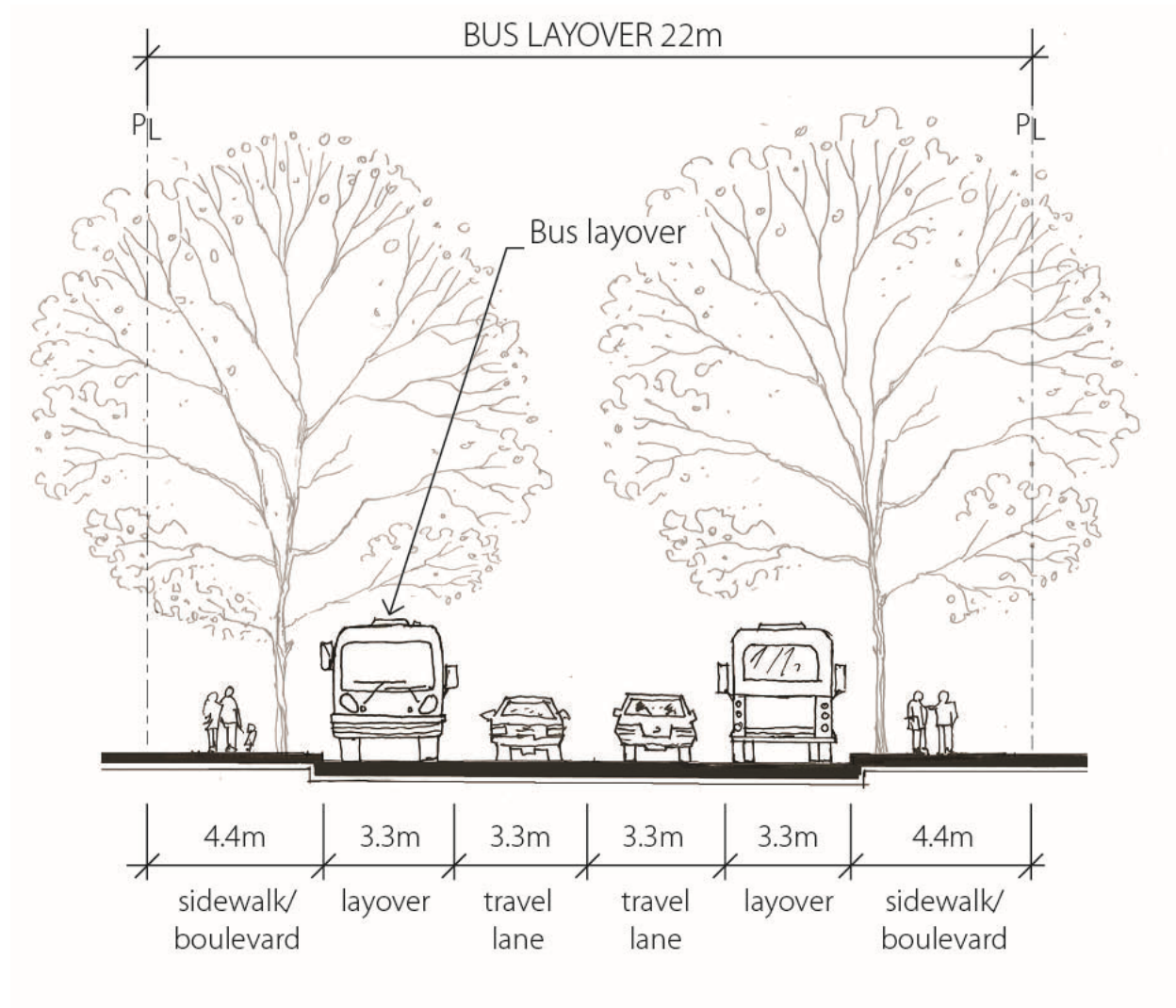


Layover

Layover is located adjacent to existing parking facilities. As parking areas are redeveloped, a generous sidewalk area with street trees and furniture will help to buffer active ground floor uses from bus layover space. Alternatively, buses could layover in other suitable alternative locations.

A 22m right of way is required for on-street layover space within the exchange. This allows for 3.3m layover spaces and 4.4m passenger amenity space, as shown in Figure 12.

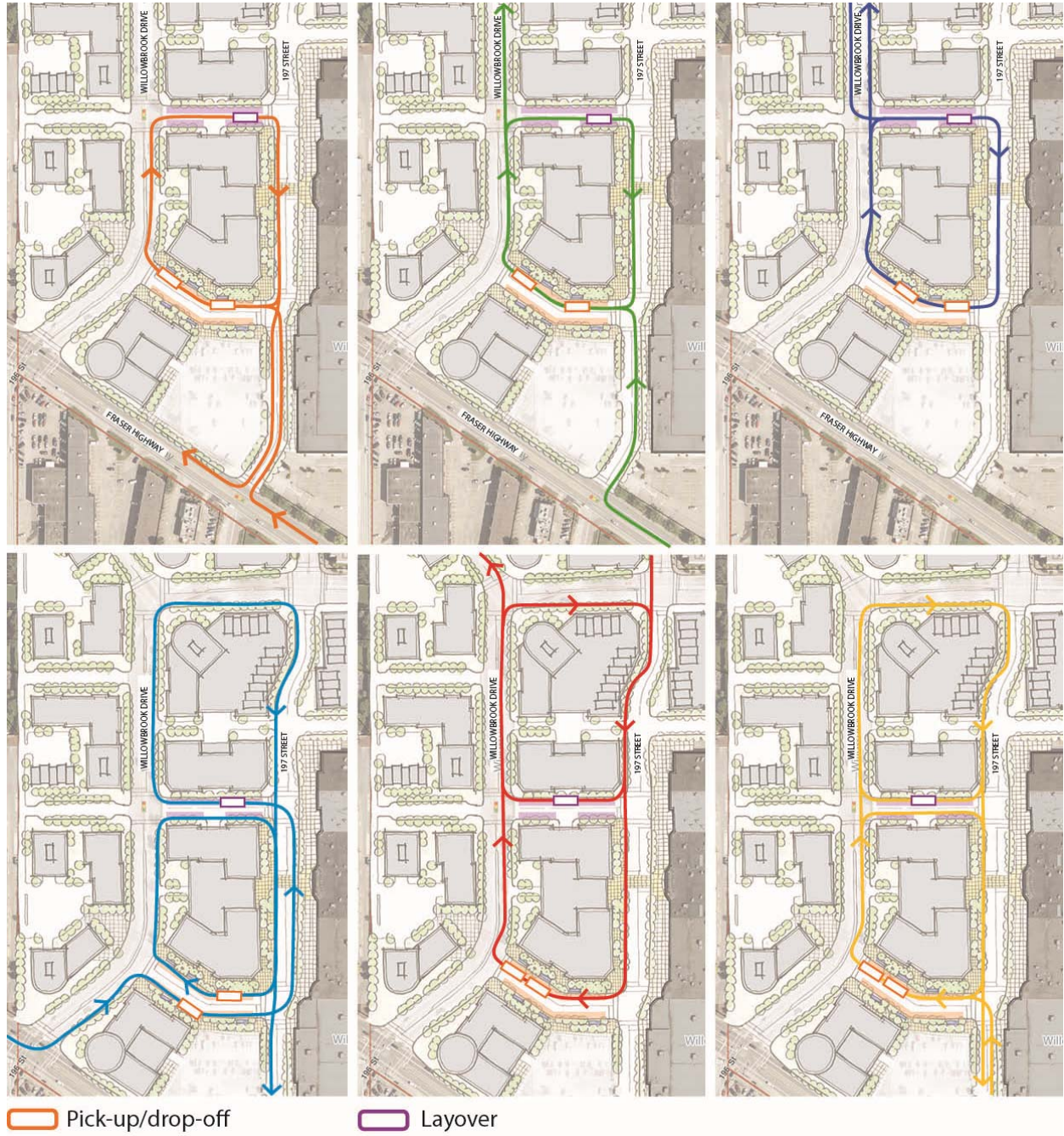
Figure 12 -- Street Layover View



POTENTIAL CIRCULATION AND ROUTING

Figure 13 shows possible circulation and routing options based on existing and planned future routes identified in the SOFA Transit Plan. The actual exchange location and configuration may differ from that shown below but should optimize bus movements and minimize bus circulation on the surrounding street network, although some circulation on the surrounding street network will be required to access drop-off, layover and pick-up areas.

Figure 13 -- Potential Circulation and Routing Options



4.4 TRANSIT ORIENTED DEVELOPMENT

The construction of the Willowbrook Exchange and the associated street network opens up opportunities for key redevelopment sites within the exchange area. These sites interface directly with the transit exchange, including its passenger areas, and should be planned, designed and constructed to accommodate transit operations and passengers while supporting the Township's vision for a transit oriented centre in Willowbrook. The following design approaches should apply to private development immediately adjacent to the exchange:

- Incorporate a new street grid network as part of future development.
- Locate active ground-floor uses adjacent to the exchange to promote passive surveillance and provide services for passengers.
- Design upper floors to strongly overlook the exchange area through the location of windows and balconies.
- Provide generous weather protection on building faces fronting the exchange.
- Set back buildings above the fourth floor to minimize shading and break up the visual massing of development.
- Site and locate massing and development to maintain mountain views, where possible.
- Provide access for parking and servicing at the rear of the building.
- If surface parking adjacent to the exchange is unavoidable, screen parking using a trellis, landscaping, or climbing vines.

The illustrative concept diagrams in Figure 14 below show integration of phased redevelopment adjacent to the exchange based on application of the design approaches above.

Figure 14 - Conceptual long-term build out and phasing of development and integration with the transit exchange.

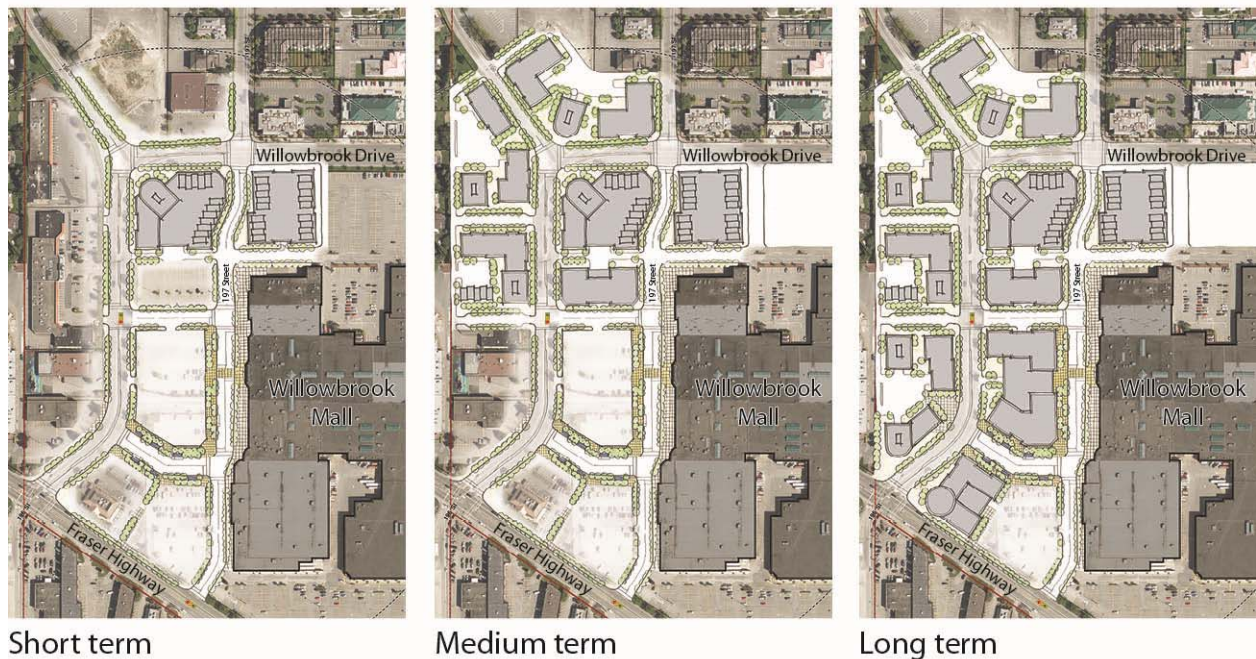


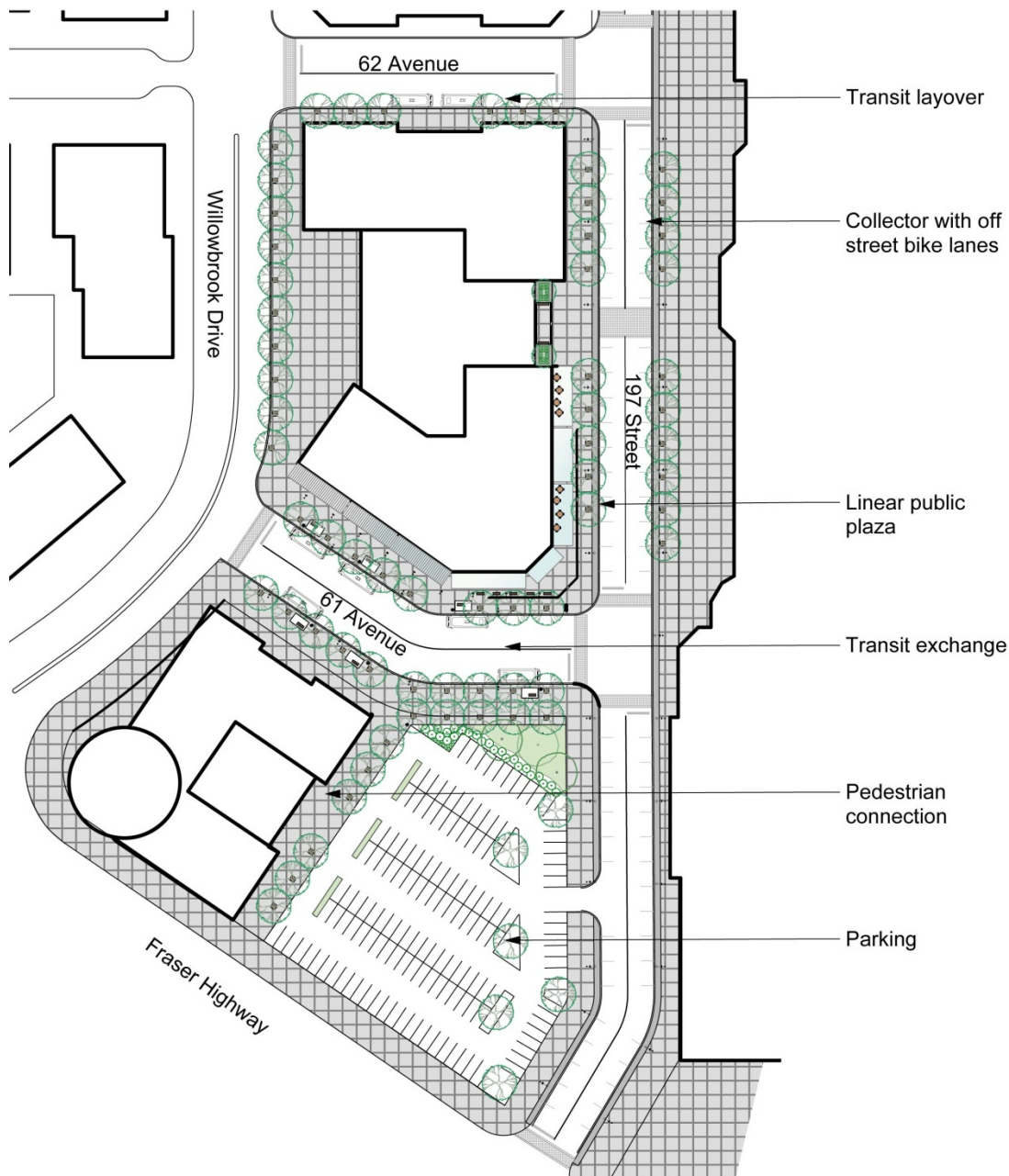
Figure 15 - Transit oriented development turns a transit exchange into a community asset



4.5 PUBLIC REALM

The Willowbrook Exchange represents a significant opportunity to support the transition from what currently exists on the site to a community focal point with a strong pedestrian/transit orientation and a unique sense of place. This requires making the transit exchange a community asset by creating vibrant people places that incorporate amenities for the community as a whole. Transit services and amenities, coordinated with private development and public realm improvements, could catalyze urbanization and support development of a walkable, transit oriented centre. Figure 16 illustrates the major exchange features and their potential interface with the public realm.

Figure 16 -Major Public Realm and Interface Components



STREETScape

Streetscape elements and approaches for the exchange and catchment area include:

- Planning of closely spaced street trees along both sides of streets, both in and adjacent to the exchange, provide comfort and visual interest for passengers while reducing the urban heat island effect.
- Crosswalks made of special paving materials at all key pedestrian crossings increase awareness of pedestrian zones.
- Public streetscape amenities, including benches, planters, garbage receptacles, bike racks, and distinctive bus shelters in areas with high pedestrian activity enhance passenger comfort, convenience and amenity in the exchange area.
- Pedestrian-scaled lighting, particularly in high-activity pedestrian areas, enhances passenger safety and comfort. Pedestrian-scaled lighting is located and spaced to provide sufficient illumination (approximately 10 m apart).



Figure 17 - Transit-oriented development contributes to the public realm

PUBLIC OPEN SPACE

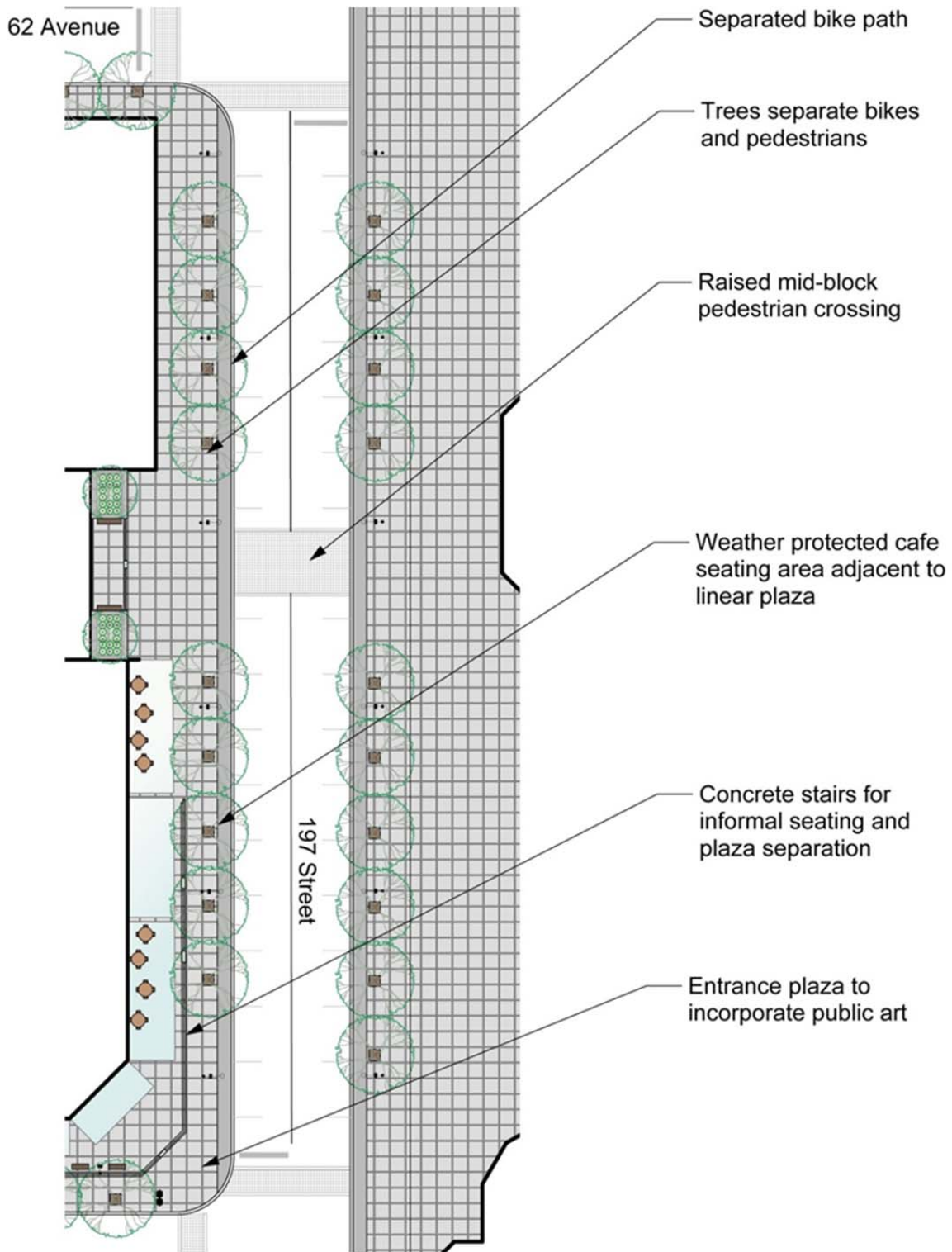
A linear plaza along 197th Street provides a range of public and private realm activities for passengers. Adjacent private development is integrated into the space and creates an active ground floor with restaurants, cafes and shops. The plaza also includes public seating areas throughout, street trees, passenger shelters and a small pocket park adjacent to the parking lot. North-south bike connections are created by an off-street bike lane.

Additional elements in the proposed Willowbrook exchange include:

- The placement of windows, balconies and street-level uses to allow for casual surveillance of the transit plaza;
- Incorporation of 'active edges' such as cafes and weather protected seating areas.
- The use of special paving materials unique to the transit plaza to help identify the plaza as a pedestrian oriented special use area; and
- Ensuring a maximum tree spacing of 10m to create a consistent and continuous tree canopy.

The plaza should be designed so as to allow additional bus stops to be added in this location, if they required in the future. This can be accomplished by allowing sufficient open space on the west block face to allow future installation of bus shelters.

Figure 18 -Linear plaza adjacent to bicycle collector and transit exchange

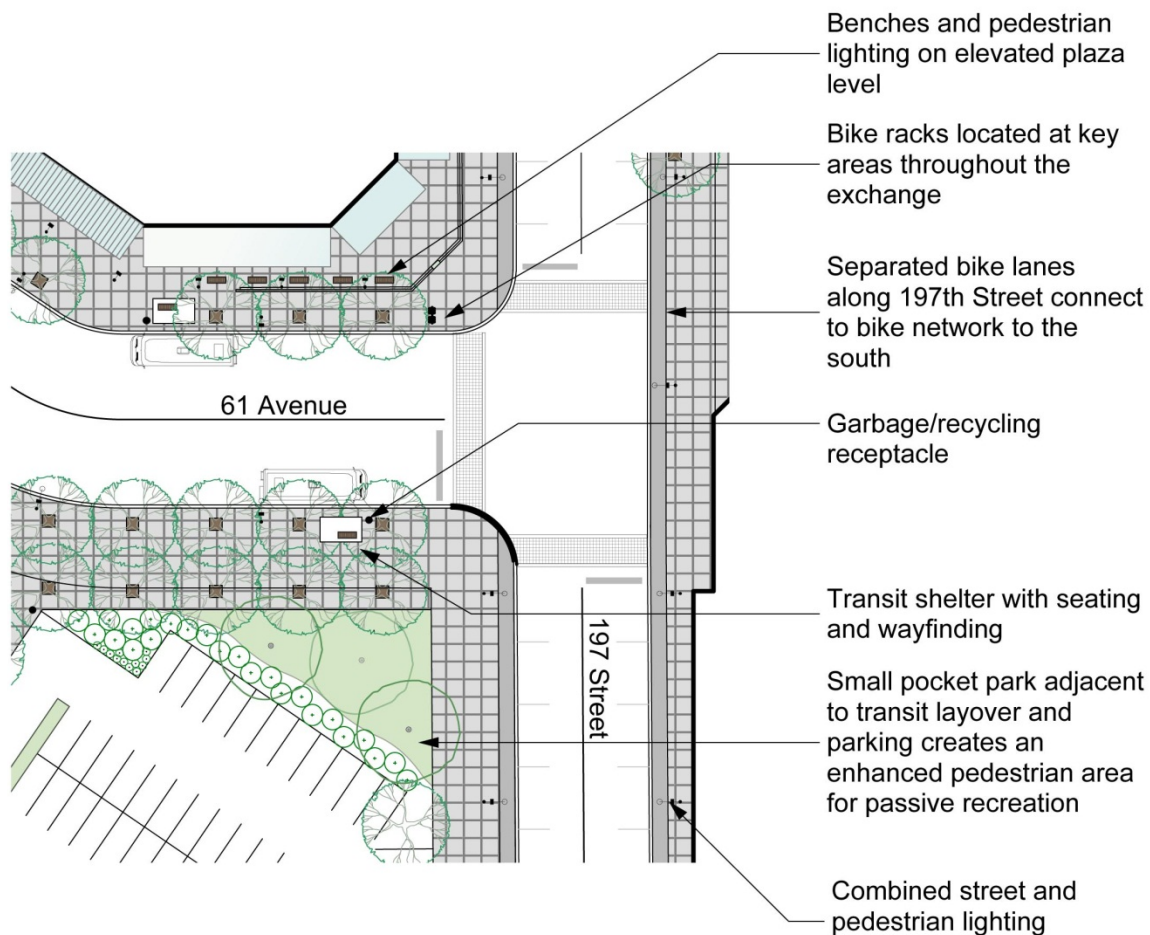


TRANSIT SHELTERS

Transit shelters in the exchange should be designed and built to enhance an attractive pedestrian environment and unique sense of place. Design of shelters should follow TransLink's Bus Infrastructure Design Guidelines (2012) and the following design approaches:

- Locate shelters at least 0.8m from the curb and 1.5m from any vertical object.
- Provide receptacles for garbage and recycling immediately adjacent to the shelter.
- Integrate appropriate wayfinding and transit information into transit shelters.

Figure 19 -Exchange Passenger Areas



KISS AND RIDE

Curb side areas within the exchange will not be able to accommodate any on-street parking. However, the surrounding adjacent street network offers opportunities for accommodating kiss and ride facilities to allow passenger pick-up and drop-off from private vehicles. 197 Street, either north or south of the passenger areas, provides good visual and physical connections to passenger pick-up and drop off areas while not interfering with transit operations.

LONG-TERM BIKE STORAGE

Bike racks and long-term bike storage boxes will be provided strategically at key locations within the exchange area.

OPERATOR/END OF TRIP FACILITIES

Bus operator facilities, such as washrooms, are envisioned to be provided in adjacent buildings. If the phasing of the exchange does not coincide with buildings that can accommodate washrooms, then bus operator facilities will be provided in stand-alone buildings.

4.6 WAYFINDING

The Willowbrook Transit Exchange Wayfinding Strategy is aligned with the 2011 TransLink Wayfinding Standards. The TransLink Wayfinding Standards are premised on three broad principles:

1. Encouraging multi-modal journeys;
2. Being consistent with information; and
3. Delivering usable, suitable and manageable information.

Information requirements are based on a series of questions that riders subconsciously ask themselves as they plan and make their journey. Figure 20 identifies the relevant zones and wayfinding features in the bus exchange.

Figure 20 -Wayfinding Strategy

External Signage

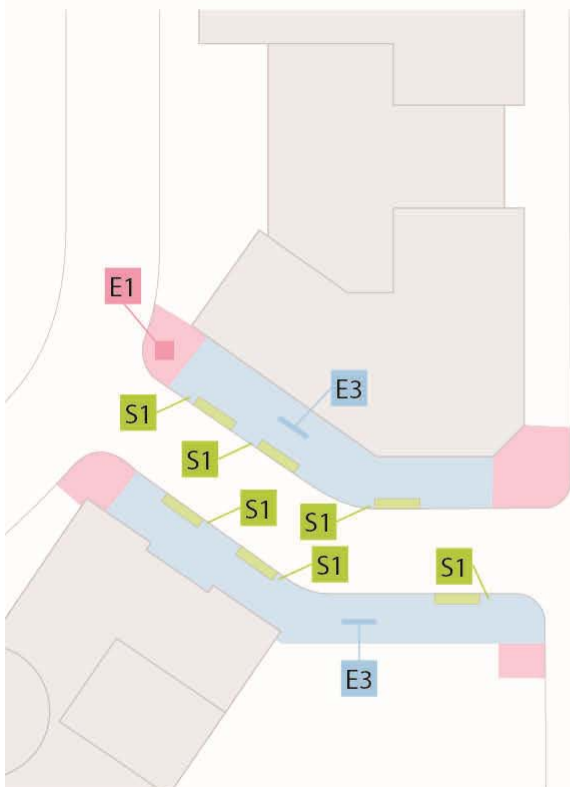
The external signage at exchanges requires only the T-Marker. The Willowbrook Exchange is located in a busy urban environment, so the T-marker should be visible from a distance at multiple viewing locations.

Circulation Signage

The exchange circulation area is where the exchange name, journey planning information, and circulatory information such as directional signage is located. Information walls, placed in the main circulation are of the exchange to maximize visibility, provide information for trip planning as well as onward journeys.

Bus Stop Signage

Bus stop signage includes the T-Marker, stop code, route information, and a bay number. In addition, the bus stop signage includes schedules, route diagrams, fare information and Next Bus service information. Shelters include a Local Bus Map.



T-Marker Pole

T-marker poles identify TransLink facilities and aid users in navigating to and from these facilities.



Journey Planning Info Wall

TransLink information walls contain regional transit maps, a local bus map, and a local area walking map.



Bus Stop ID Poles

Bus stop signage includes a T-marker plate, route information, and a bay number. Information panels attached to the ID pole provide bus schedule, route diagrams, and NextBus information.



Bus Shelter Maps

Maps provided at bus shelters include local bus maps for users that do not have immediate access to the information wall in the circulation area.

5 AREA CONCEPT PLAN

5.1 FUTURE VISION

The future vision for Willowbrook Centre is a compact, mixed-use, walkable and transit oriented centre with a high quality of design and sense of place. Today, most of the Willowbrook area is characterized by large areas of industrial, service commercial and other low intensity, auto-oriented land uses. To help the Willowbrook area transition from an auto-oriented suburban condition to a pedestrian and transit oriented regional centre, a set of planning and urban design criteria must be established while providing flexibility for the area to adapt to changing market conditions.

A transit exchange in Willowbrook and future rapid transit services along Fraser Highway would need to be supported by a grid street network. Specifically, future transit infrastructure and services will need to be integrated with adjacent, transit supportive private and public realm development as illustrated in Figure 14 in Section 4.4.

In addition to supporting transit, this transformation would be consistent with the Township's future vision for this area. This vision is illustrated in Figure 21 which shows future mixed-use pedestrian and transit oriented development looking north from the future transit exchange along Willowbrook Drive.

Figure 21 -Future vision of Willowbrook Centre looking north along Willowbrook Drive



5.2 PLANNING AND DESIGN PRINCIPLES

The Area Concept Plan, outlined in phases, aims to establish design principles that will help to shape the Willowbrook area into a vibrant, transit oriented place. The integrated conceptual area plan represents one potential application of these principles in Willowbrook. Future development, including more detailed design and implementation of the transit exchange, may vary depending on future opportunities and constraints but should follow the 7 broad principles outlined below:

- 1. Interconnected Street and Open Space Network** - establish an interconnected grid network of green streets and open spaces that create more route options and support multiple modes of travel while creating greater development frontage and density potential.
- 2. Compact, Mixed-Use and Transit Supportive** - plan and design future development to integrate a compact mix of land uses necessary to support transit as a major form of transportation.
- 3. Active Streetscapes** - orient new developments to streets and public open spaces with entrances, balconies, shop fronts and other pedestrian scale design features to provide active, attractive and safe streetscapes.
- 4. Jobs and Services Close to Home** - maintain and expand the existing commercial node at Willowbrook as a regionally significant employment centre with job and business opportunities close to regional transit service, residences and amenities.
- 5. Lots of Amenities:** create a highly livable urban centre with a high quality of design, job and business opportunities close to regional transit service, residences and a range of public and private amenities including parks, schools and other potential community uses.
- 6. Address Housing Gaps:** provide a mix of more compact and urban housing types and tenure for a range of ages, lifestyles and income levels to address existing housing gaps in the Township as a whole.
- 7. Mix of Retail:** provide a range of retail floor spaces at ground level to support existing and future businesses.

5.3 CONCEPTUAL STREET NETWORK

The establishment of a grid street network in Willowbrook Centre is an integral component of the future vision of this area as a livable sustainable and transit oriented Regional City Centre. A recommended future street network and block structure is illustrated in Figure 22. Also illustrated is a conceptual phasing plan that supports the long-term goals and objectives for the Willowbrook as well as supporting the establishment of an on-street transit exchange over the short to medium term.

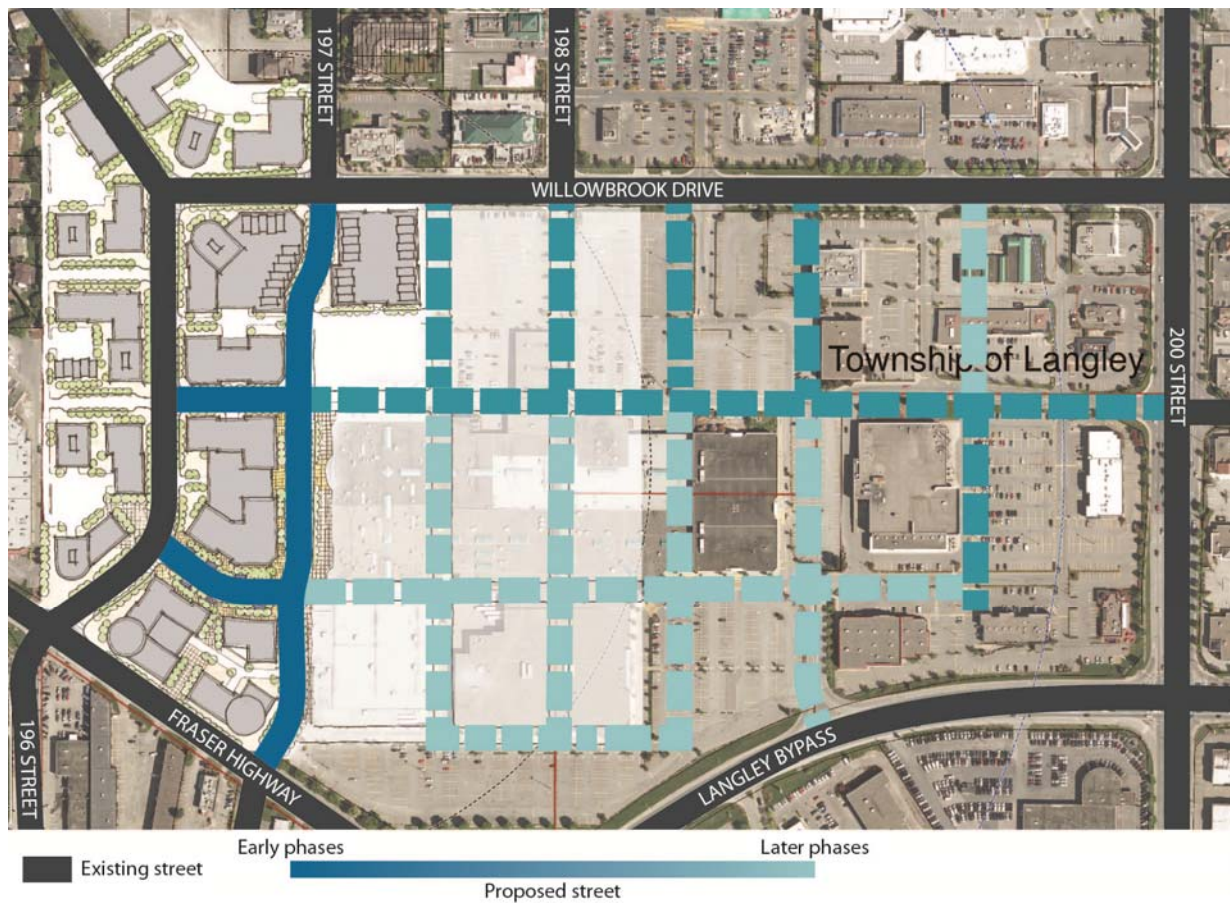
The Willowbrook Exchange Concept is an on-street bus exchange located within the current Willowbrook Shopping Centre parking lot. The Willowbrook Exchange Concept is therefore premised on the establishment of a future grid street network within Willowbrook Centre and connected to the existing and future regional street network. The

establishment of a future street grid network would occur gradually over time and would be implemented along with incremental phased redevelopment of the Willowbrook Shopping Centre over an long time frame (50 – 100 years +).

The grid provides additional east-west and north-south connections to the existing and planned future street network. This will create more route options, distribute traffic for all travel modes and provide additional development frontage and density potential. The block structure (orientation and sizes) supports redevelopment in a manner that can accommodate existing large format commercial tenants in new, mixed-use buildings oriented to public streets and open spaces with the potential for residential or commercial above.

The identification and confirmation of street network for the Willowbrook area is important to ensure gradual future redevelopment of the area. While land uses and buildings change overtime, street and open space networks, once established, are very difficult to change.

Figure 22 -Idealized Future Street Network and Block Structure



5.4 LAND USE & PHASED RE-DEVELOPMENT

The transformation of the Willowbrook area from a low density, single use auto-oriented suburban condition into a compact, mixed-use, walkable and transit oriented part of the Langley Regional City Centre with a high quality of design and sense of place could occur gradually over time through phased, redevelopment. This transformation would occur through a combination of both private and public investments.

A key component of this transformation will be phased relocation of existing uses and businesses (i.e., small to large format, primarily retail and service uses) into new mixed-use buildings incorporating residential, office, or other compatible uses above. These buildings would preferably be oriented towards public open spaces. This would allow a greater diversity of retail uses with housing and offices located above. This phased transformation approach is diagrammed conceptually in Figure 23.

A conceptual building type illustrating mix of uses and orientation is shown in Figure 24.

Figure 23 – Phased Re-development

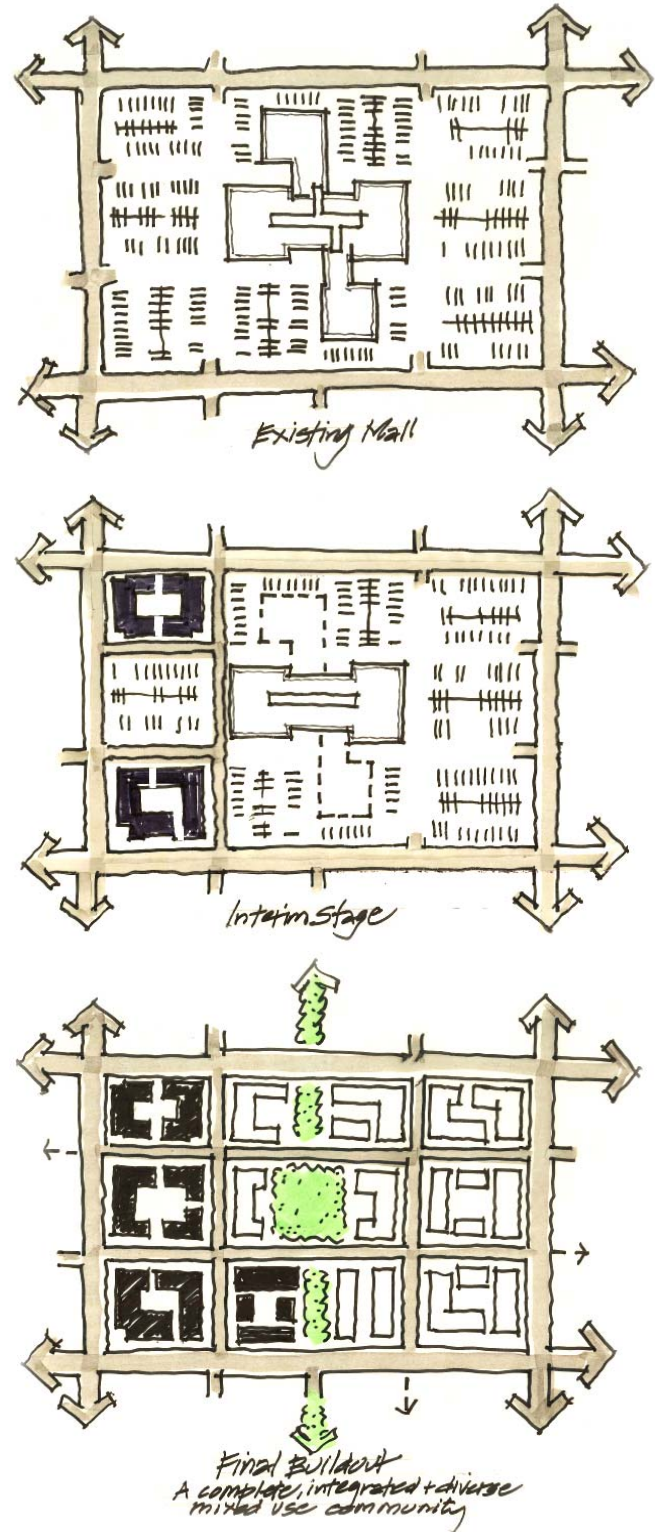
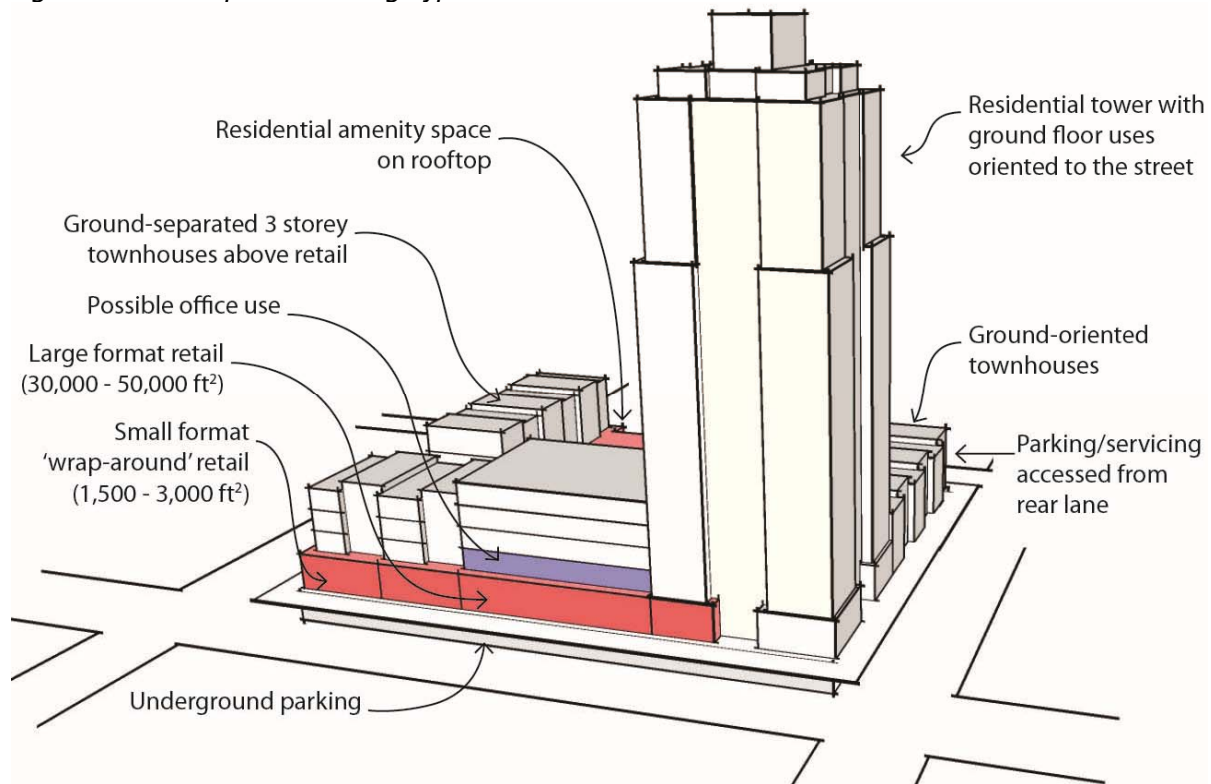


Figure 24 - Conceptual Building Type



Phased relocation of existing uses into new mixed-use buildings would further enable the establishment of the future urban street grid network envisioned for the Willowbrook area. The phased transformation approach diagramed conceptually in Figure 23 is shown in the Willowbrook area context on the following page. There are many different ways this transformation could occur, with one potential scenario illustrated conceptually in

Figure 25.

Figure 25 -Potential Transformation Approach



New mixed use buildings with large base podiums and underground parking are built on existing surface parking lots.

Existing businesses in the mall relocate to the first floor of new mixed use buildings.

A new street network connected to the surrounding existing street network is established incrementally. This gradual process helps to realize the vision for this area as a Regional City Centre.

City Centre Transformation and Parking

Currently the majority of land area in the Willowbrook area is dedicated to surface parking, access and circulation. This provides access for motorists to Willowbrook Shopping Centre and surrounding retail uses. The establishment of a future street grid network is premised on the establishment of a more urban condition where off-street parking is accommodated behind or within above/below ground structured parking incorporated with new development, with on-street parking at the curb. A complementary network of laneways will allow for street-fronting development that presents an attractive face to the street while providing parking, access, servicing and other 'back of house' uses at the rear of the building.

The incorporation of structured parking is clearly premised on the viability of future development/re-development to support it financially, given the comparatively high construction costs of structured parking, in comparison to surface parking. While it is likely that residential wood frame development can support structured parking, particularly into the future, the financial feasibility of structured parking for commercial retail and office uses over the short to medium term is expected to be marginal. However, the provision for higher density mixed-use development will support higher land values and, over the medium to long-term, mixed-use projects incorporating structured parking approaches are more likely to be viable.

The area concept plan and associated street network is necessarily premised on ensuring flexibility and adaptability to respond to changing market forces and evolution of the community vision over time. In terms of parking, this will require to continue to accommodate existing tenants and uses with surface parking in areas with convenient access from the existing arterial network and to these existing businesses while still establishing the desired future grid street network incrementally. It may also be necessary to continue to provide surface parking in some areas to accommodate future commercial uses if necessary and unavoidable. In summary, the establishment of a grid street network provides the flexibility to provide off-street surface parking for existing as well as future uses as needed, with the ability to infill surface parking areas with new development as the market dictates over time.

5.4.1 WILLOWBROOK CENTRE INTEGRATED CONCEPT DIAGRAM

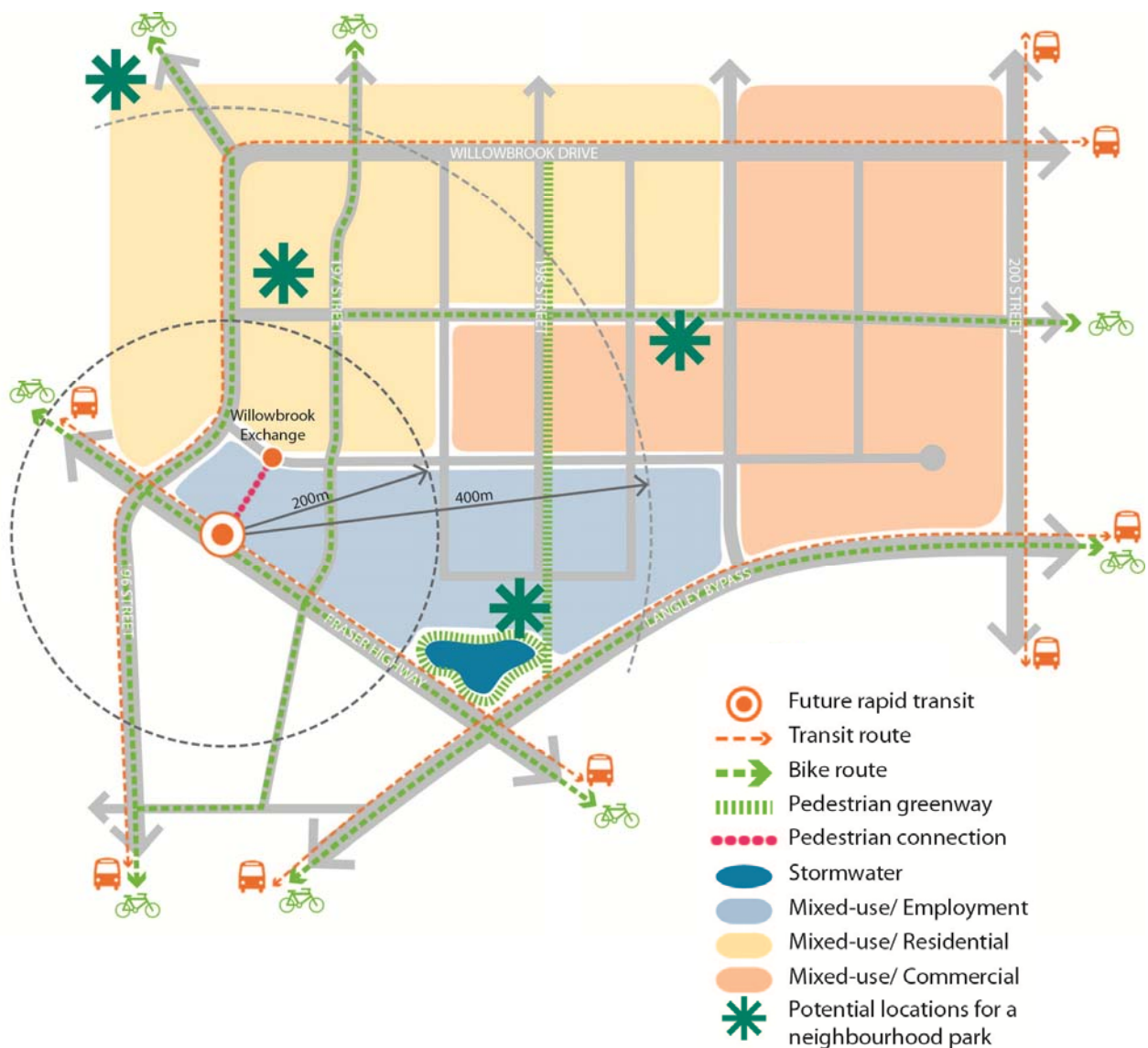
City Centre transformation will need to include comprehensive integration of a range of public and private realm amenities, uses and services needed to support a high quality and livable urban place. The integrated concept diagram (Figure 26) presents the incorporation of the principles described above to establish a broad, overarching planning framework for the Willowbrook area. It includes identification of an idealized future street grid and open space network including bike routes and greenways, future parks and other open space features and amenities, transit nodes and infrastructure, and conceptual land use precincts.

In the absence of a clear and current Township policy framework for the area, the integrated concept diagram, together with the planning and design principles, represent a starting point and overarching framework as the basis for future community and stakeholder engagement and more detailed planning, design and technical analysis. This,

in turn, will guide short term incremental redevelopment in a manner that contributes to rather than detracts from the broad future vision and associated street/open space network envisioned for Willowbrook Centre. It is important to reiterate that build out of this concept would take many decades to realize.

The conceptual land use precincts shown in the integrated land use concept are premised on a mix of uses (including potential future community uses such as a school, community centre, etc.) in all precincts with a land use focus indicated for each. The land use concept retains a strong retail focus but also introduces residential and employment land uses to augment the mix and density of development. Stand-alone and mixed residential uses are focused adjacent to existing residential areas to the north and north-west. Employment uses are focused within 200m of future rapid transit on Fraser Highway.

Figure 26 -Integrated Concept Design



5.5 PUBLIC REALM, PARKS, AND OPEN SPACE NETWORK

The desired future open space network is illustrated in the integrated concept diagram (Figure 26). This concept diagram shows high level strategies to connect key activity nodes, parks and open spaces through an interconnected street network, bicycle routes and pedestrian greenways.

The interconnected street network forms the backbone of the public realm, parks and open space network. Future streets envisioned for Willowbrook Centre are multimodal, boulevarded and pedestrian-oriented. This street network is complemented with a network of bike paths, pedestrian greenways, parks and open spaces. The integration of parks, plazas and other open space amenities is an important driver in the transformation of Willowbrook Centre. Specific locational, programming and design criteria for future parks, plazas and other open space amenities will need to be determined at a future stage as part of comprehensive, integrated planning for Willowbrook Centre. The park typologies described below will likely be included in future parks and open space planning.

5.5.1 PARK TYPES

Park types will vary within each neighbourhood based on location, adjacent land uses, development patterns, and community demand. As the Willowbrook area plan is implemented, the Township will need to consider location and types of parks required.

The parks definitions and standards were adopted by the Township in 1991 and are included in the 2002 Parks and Recreation Master Plan. Based on this, suitable park types for Willowbrook Centre can generally be categorized into three types as follows.

- **Pocket Parks** are typically 1 acre in size and are ideally placed along a collector. In the Willowbrook Area Plan, a pocket park could be placed along 198th Street, adjacent to the Greenway.
- **Neighbourhood Parks** generally respond to local outdoor passive and active recreation needs of different residential areas. They provide a neighbourhood focal point and are typically located close to an elementary school. They are approximately 2ha in size and serve a population equivalent to an elementary school catchment area. The park standard for neighbourhood parks is 0.8ha/1000 people. Several potential candidate sites for a Neighbourhood Park are indicated in the integrated concept diagram in Figure 26.
- **Community Parks** are large spaces that serve the entire community and often provide recreation opportunities that appeal to a broad range of residents and visitors. These parks are ideally located close to secondary schools are minimum 20ha in size. The park standard for community parks is 0.8ha/1000 people. As the Willowbrook area transitions into a more walkable, transit oriented mixed-use city centre, the Township will need to consider whether the increase in residential density will require additional neighbourhood and community parks.

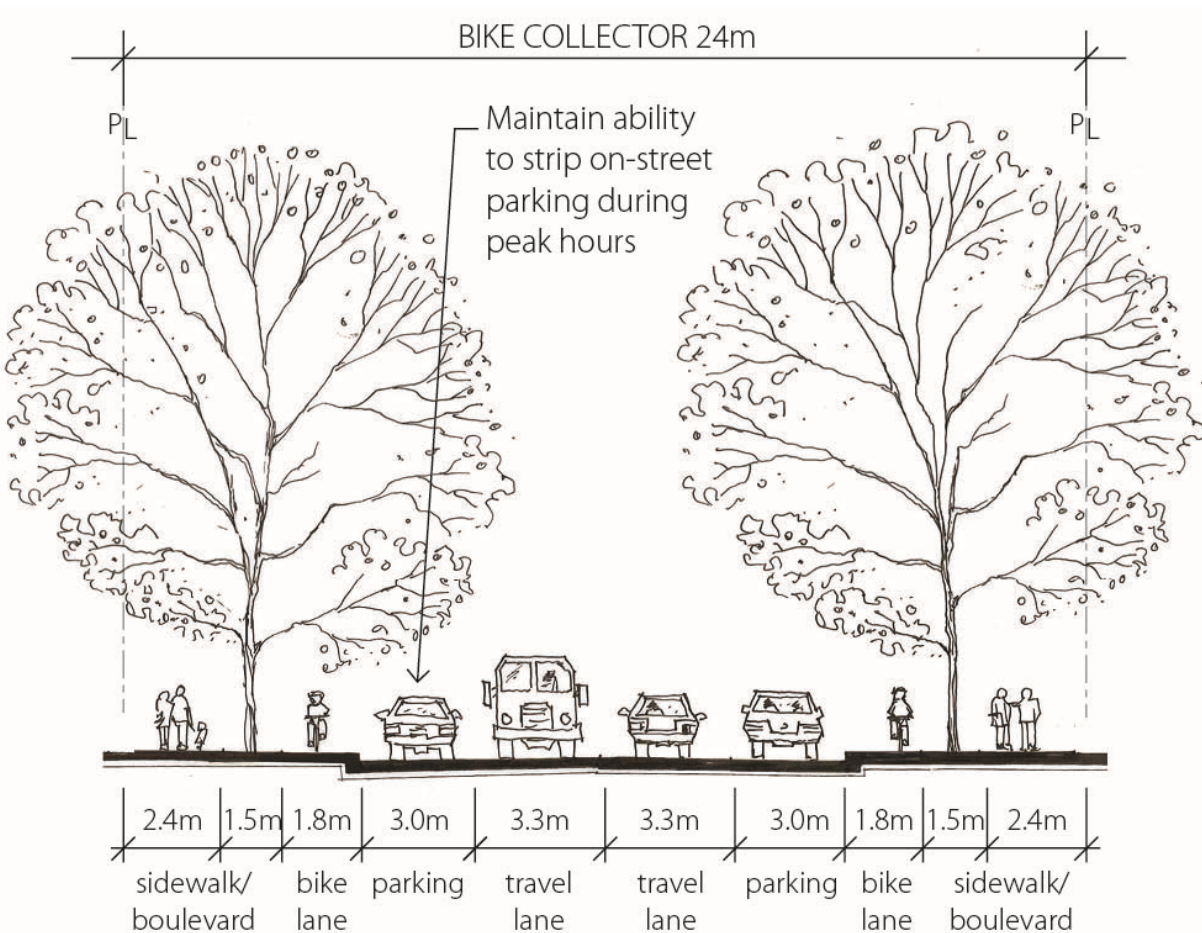
Fundamental components of the open space network are two proposed multi-use greenways: a multi-use bicycle greenway and an urban pedestrian greenway. These two greenways are described in more detail below.

5.5.2 MULTI-USE GREENWAYS

URBAN BICYCLE GREENWAY

The multi-use bicycle greenways are located on 197 Street, an important north-south Collector, and 62 Avenue, an important future east-west Collector. These multi-use greenways have similar function to the generic collector but include an additional off-street dedicated bike lane. The 24m ROW contains two 3.3m travel lanes two 3.0m parking lanes and two 5.7m spaces on either side including a 1.8m separated bike lane and a large sidewalk with street trees. On-street parking would be removed at intersections to allow for left turn lanes.

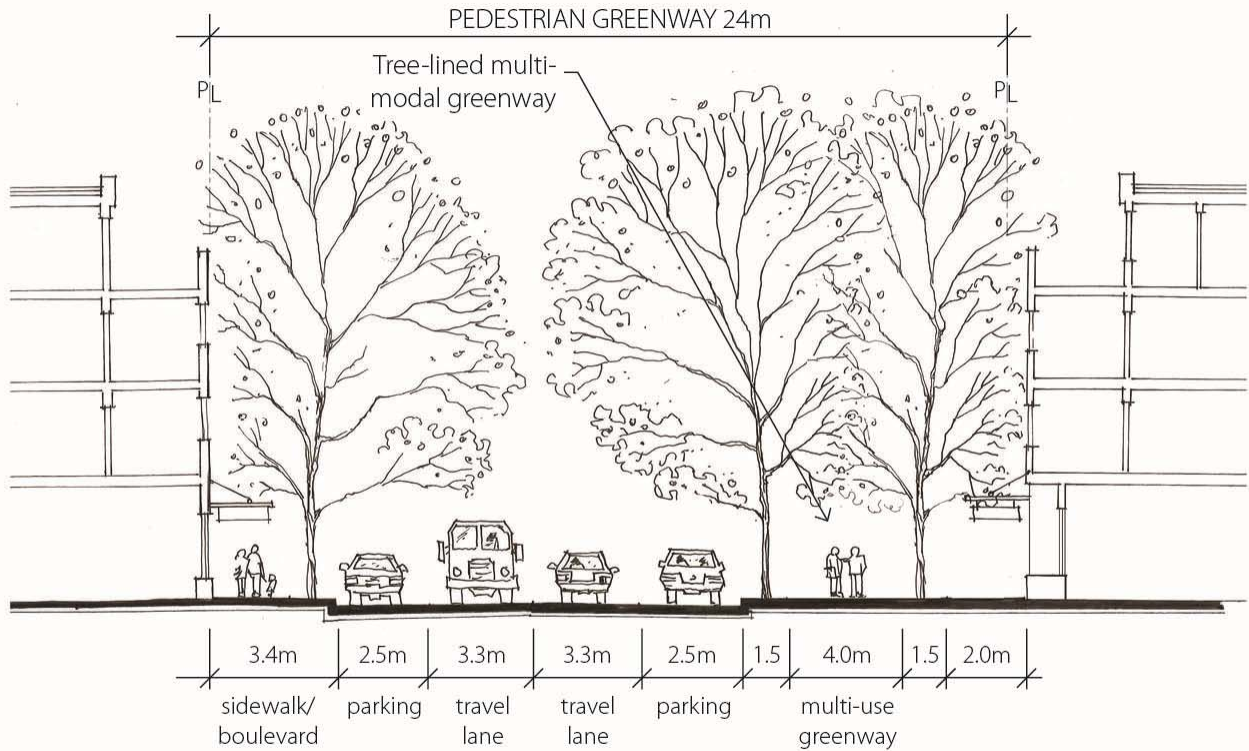
Figure 27 -Multi-Use Bicycle Greenway View



URBAN PEDESTRIAN GREENWAY

A pedestrian greenway is proposed for 198th Street. The greenway will consist of a double row of trees and integration of pedestrian amenities including benches and special paving materials on the east side of the street. This will provide a 'green' pedestrian connection with a west facing exposure (for afternoon sun) =to the integrated storm water catchment area and park located on the corner of Fraser Highway and the Langley Bypass.

Figure 28 -Urban Pedestrian Greenway View



5.5.3 STORMWATER CONSIDERATIONS

A natural watershed relies on vegetation and soils as a key part of its water cycle. Rainfall is partially intercepted by vegetation and soils and released as evapotranspiration. In a natural watershed, there is very little impervious area, very little surface runoff, and the slow movement of rainfall through the soil keeps streams flowing for many weeks after rainfall stops.

In an urbanized watershed such as Willowbrook, impervious surface is a high percentage of the land area, which creates very fast runoff. The high flows that periodically hit streams result in more erosive energy than in a natural watershed, resulting in stream downcutting in steep areas, and infilling with sediment in flatter reaches. These changes to stream flows and sedimentation can be damaging to wildlife health and habitat, particularly in fish-bearing watercourses. Too much sediment changes the amount of air and light that filter through which can be detrimental to aquatic plants (on which aquatic species feed) and can cause blockages which restrict stream flow or fish passage.

To create a more natural functioning watershed, it is desirable to decrease the amount of impervious services. This can be accomplished through absorbent landscapes such as raingardens, pervious paving, and green roofs. As the area plan is implemented and developed, the Township of Langley should implement best management practices at all stages of development to reduce the risk of sediment runoff during the construction period and increase the amount of pervious surfaces. In addition, the existing detention pond at the corner of Fraser Highway and Langley Bypass should continue to be utilized and enhanced.

In addition to innovative stormwater techniques, the Willowbrook plan presents an opportunity to incorporate visible stormwater capture and release methods into the transit exchange and public art as illustrated in Figure 29 below.

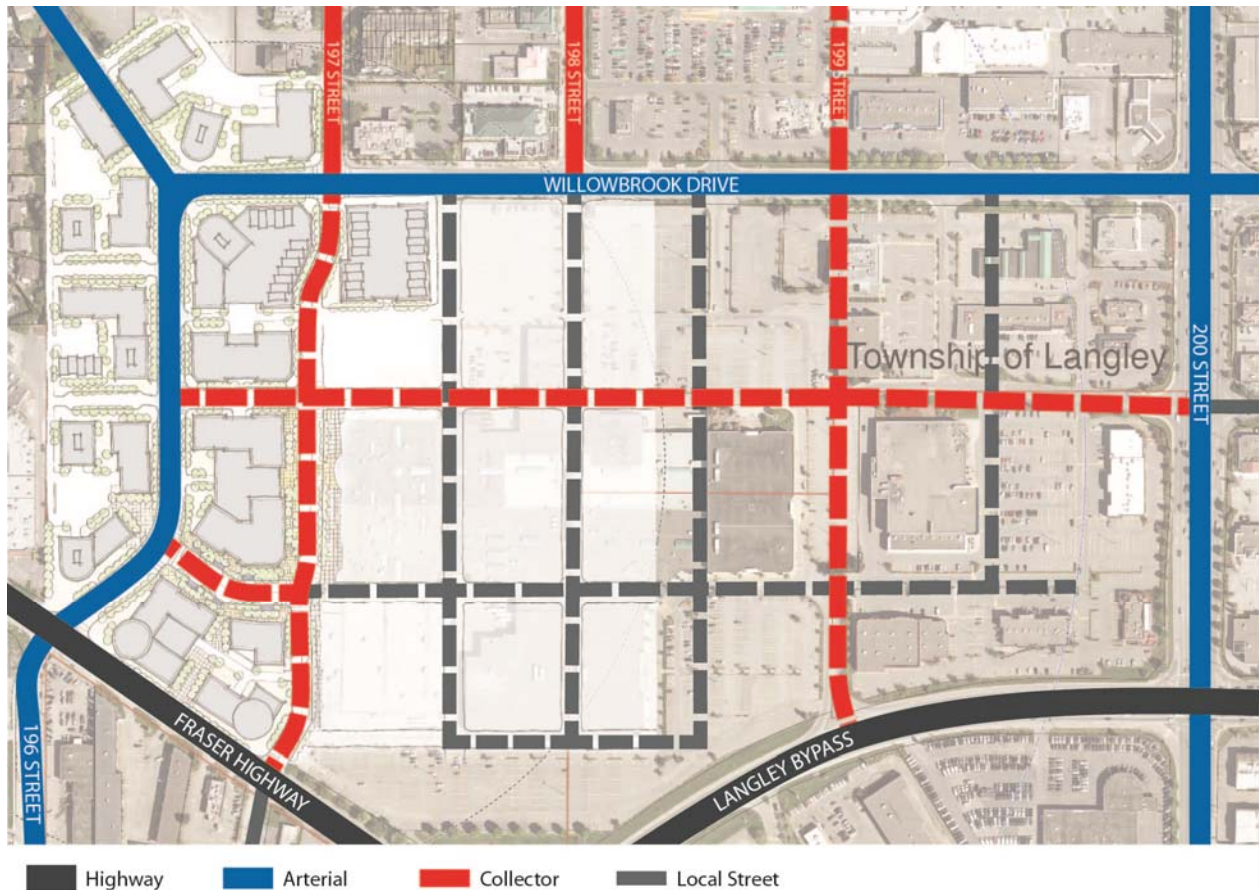
Figure 29 - Example of stormwater infrastructure incorporated into public art



5.5.4 STREET TYPES

Figure 30 shows desired street types/classifications in Willowbrook Centre. A new north-south collector and a new east-west collector provide additional connectivity through the area while the suggested network of local streets provides for a fine grained pattern of movement within Willowbrook Shopping Centre.

Figure 30 - Willowbrook Area Proposed Street Types

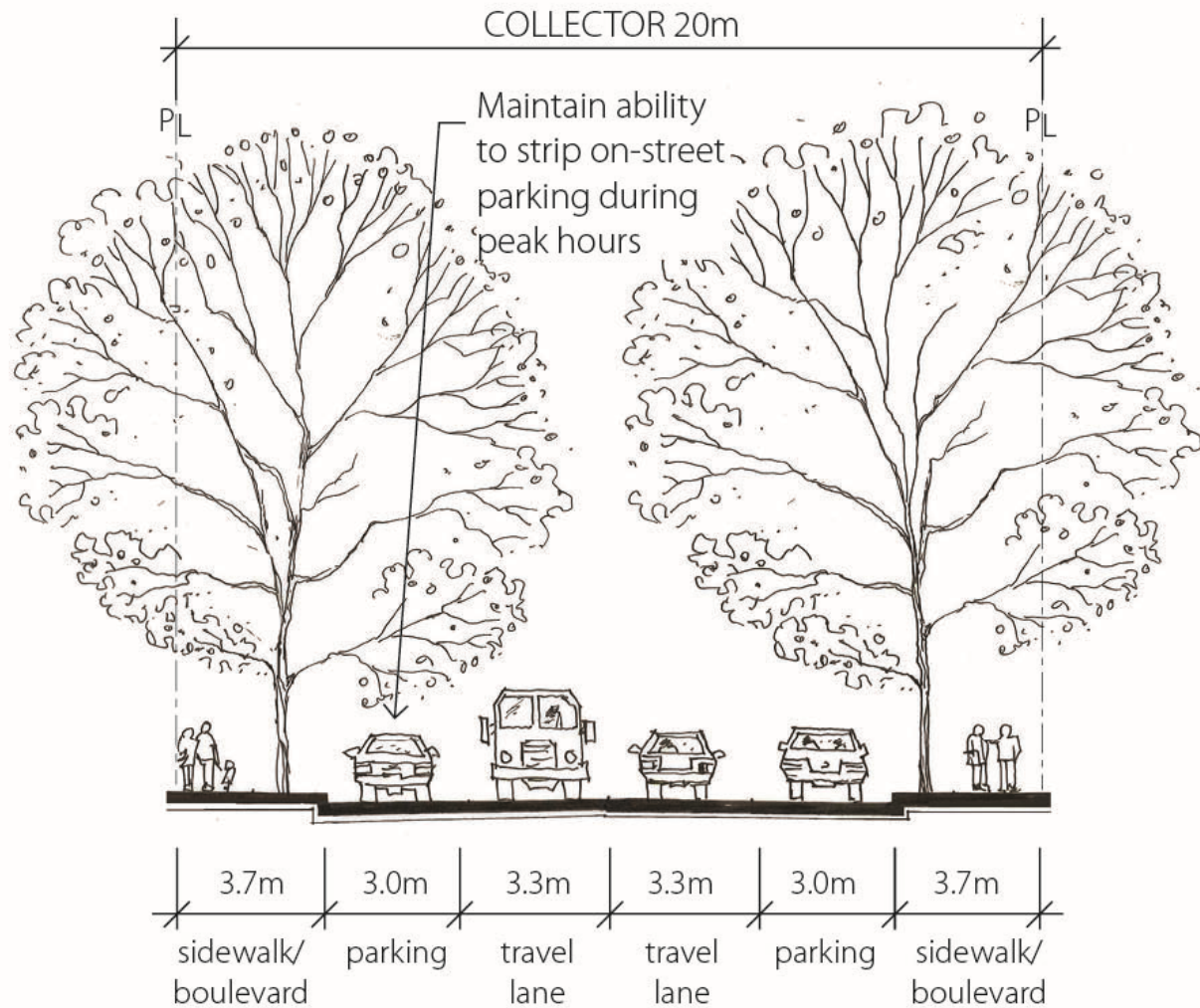


COLLECTOR

Collector

Collectors receive traffic from local roads and allow traffic movement and site access. The proposed collector has a 20m ROW with a 3.7m sidewalk/boulevard on either side, two 3.3m travel lanes and two 3.0m parking lanes. 3.0 m parking lanes provide the flexibility to strip on-street parking and restrict left turns at peak periods to accommodate additional future capacity if needed. Left turn lanes will be provided at intersections by the removal of parking lanes.

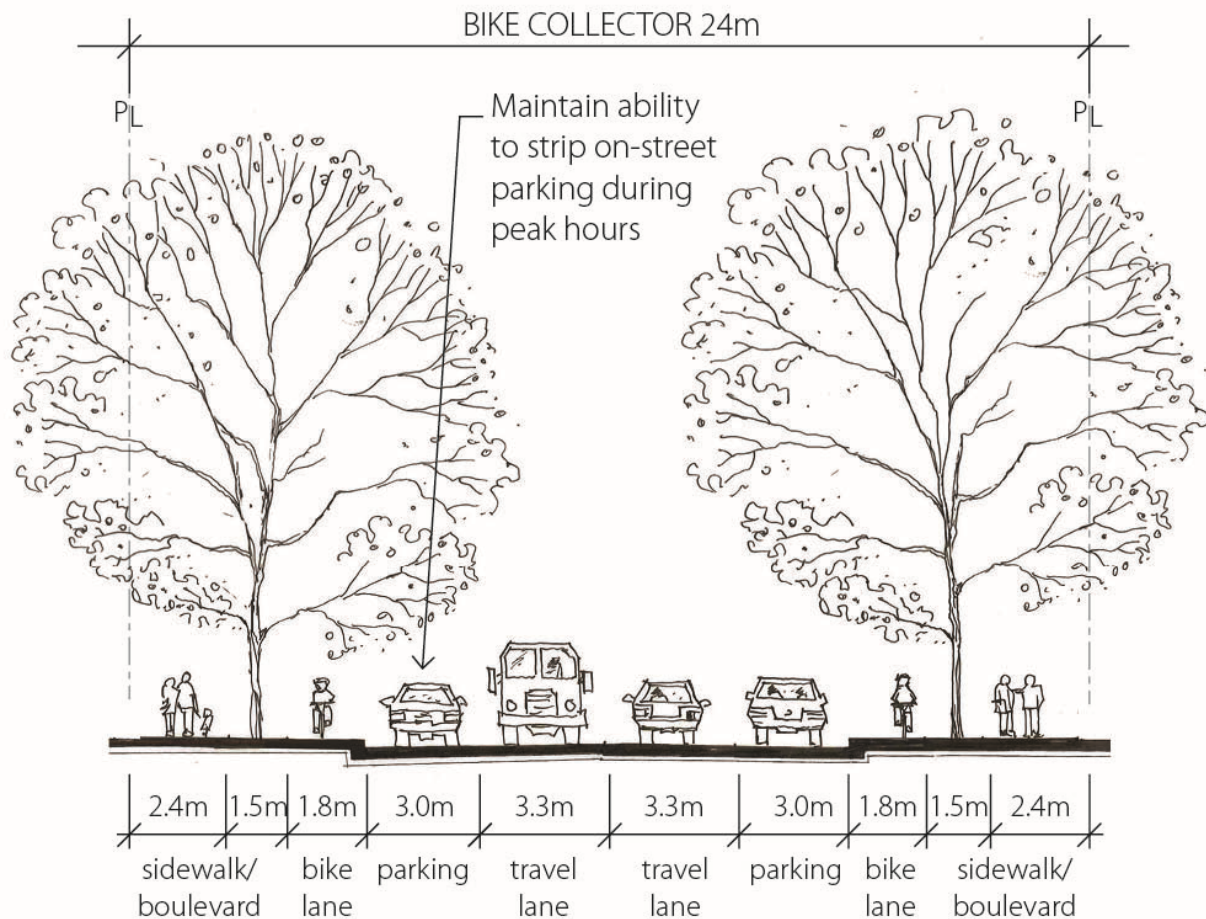
Figure 31 - Generic Collector View



Collector – Bicycle Greenway

The collector bicycle greenway serves a similar function to the generic collector but has an additional off-street dedicated bike lane. The 25m ROW contains two 3.3m travel lanes, two 3.0 m parking lanes and two 5.7m spaces on either side with a 1.8 m separated bike lane and large sidewalk with street trees. Alternatively, the bike lane could be provided on-street between the parking and travel lanes within the 24 m ROW, but may be less amenable to novice cyclists such as children and seniors.

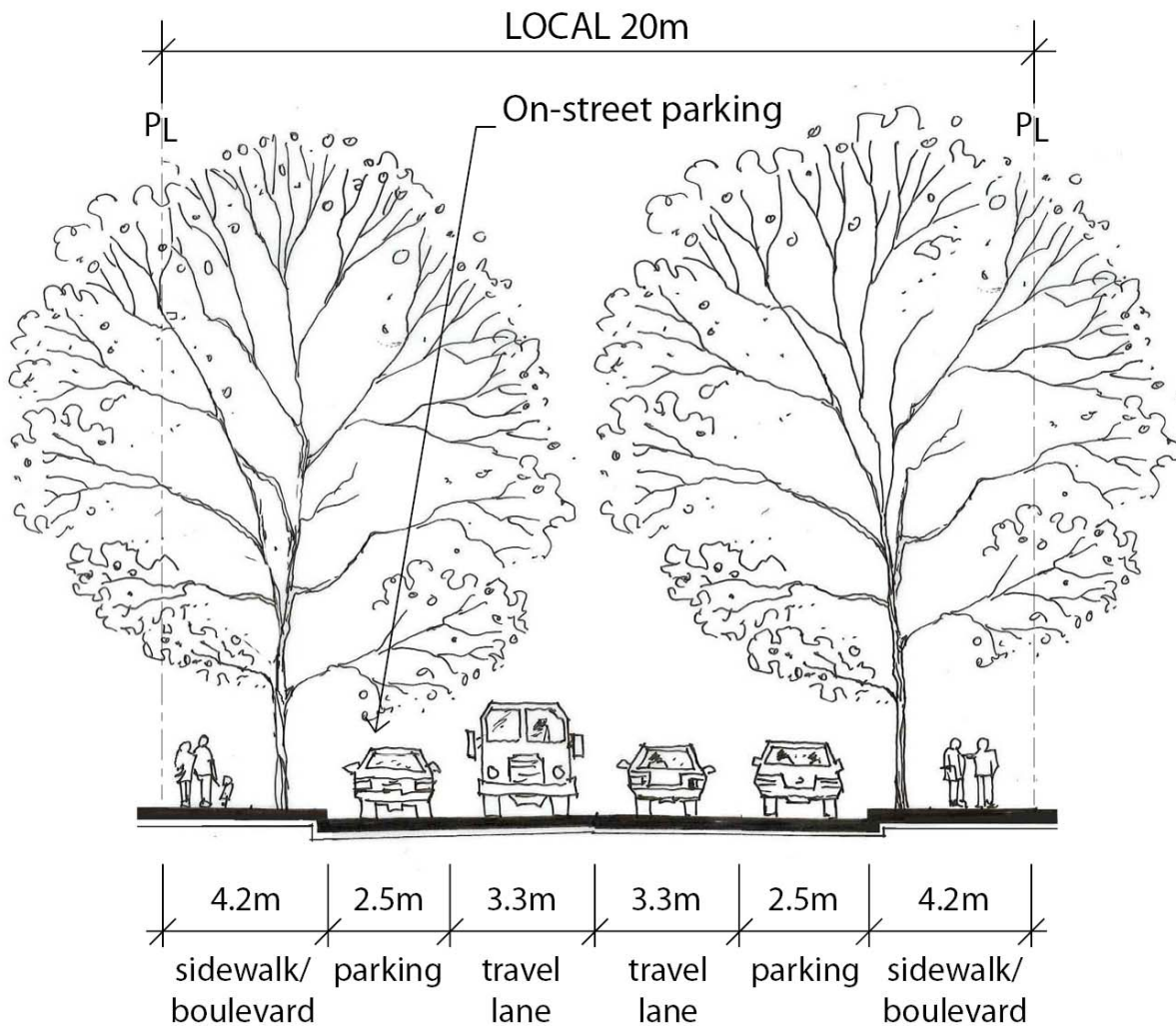
Figure 32 -Bicycle Greenway View



LOCAL STREET

Local streets function to provide site and building access with vehicle movement as a secondary function. The local street has a 20m ROW with two 3.3m travel lanes, two 2.5m parking lanes and two 4.2m sidewalks. Street trees are incorporated into the sidewalk space.

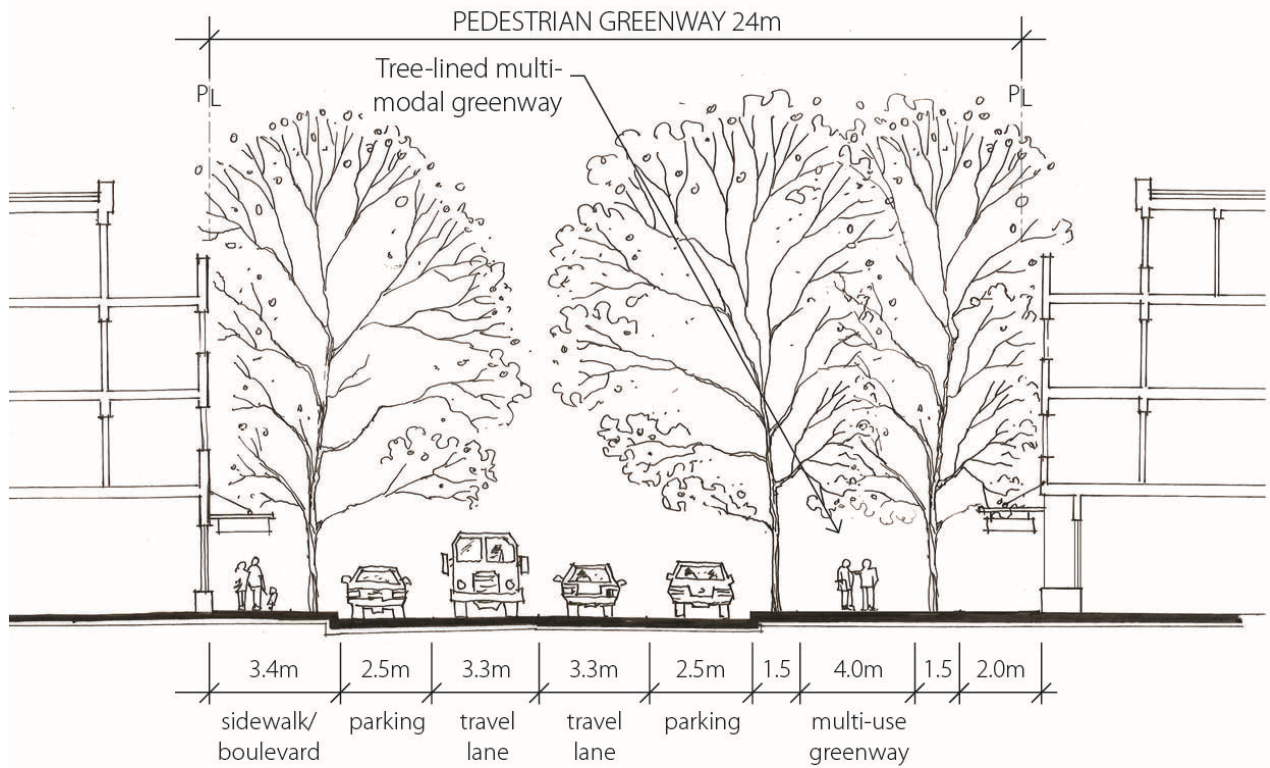
Figure 33 - Local Road View



URBAN PEDESTRIAN GREENWAY

The area plan proposes a local pedestrian greenway design for 198th Street. This consists of a 24m ROW with standard local road lane widths, a 3.5m sidewalk/boulevard on the east side and an 8.5m greenway on the east side.

Figure 34 -Urban Pedestrian Greenway View



6 IMPLEMENTATION & PHASING CONSIDERATIONS

As noted previously, the Willowbrook Exchange is premised on the establishment of a future street network. The establishment of a future street grid will occur gradually over time and will be implemented in association with incremental, phased redevelopment of Willowbrook Shopping Centre over a long time frame (50–100 years+). Potential phasing of the future grid street network is shown conceptually in Figure 22. The initial phase of the street network required to locate and serve the exchange could be implemented over the short term with minimal impacts on existing traffic patterns, development, and associated surface parking and access.

Implementation of the exchange will require acquisition of land for the new rights of way, the transit plaza and other public open space components of the exchange. Land acquisition will occur as part of future re-zoning and sub-division at the time of re-development of this area. Specifically, these include:

- 197 Street Extension: Approximately 410 linear meters of new public right-of-way, 25 meters in width (bike collector), is required from Willowbrook Drive through to Fraser Highway.
- 62 Avenue Extension: Approximately 650 linear meters of new public right-of-way, 25 meters in width, is required from Willowbrook Drive to the 197 Street extension to accommodate on-street layover functions.
- 61 Avenue Transit Extension: Approximately 85 linear meters of new public right-of-way, 30 meters in width, is required from Willowbrook Drive to the 197 Street Extension to accommodate on-street passenger pick up and drop off.
- New signalized intersections will need to be designed and built in the following locations:
 - Willowbrook Drive at 62 Avenue; and
 - 197 Street at Fraser Highway.

Additional property acquisition for public rights-of-way will be required to achieve full build-out of the proposed, long-term street network. The exact extent and layout of this future street network will be determined through a more detailed neighbourhood planning exercise.

6.2 IMMEDIATE IMPROVEMENTS

Throughout the planning process it was acknowledged that the current bus stop on Willowbrook Drive is insufficient to adequately serve transit users. Immediate improvements to enhance this environment could include:

- Re-designing the Willowbrook Shopping Centre access point at Willowbrook Drive to provide more space for buses and a more pedestrian-friendly crossing, and
- Additional covered seating in the passenger waiting areas.

These improvements could be implemented immediately to improve the quality and functionality of the existing transit infrastructure. The improvements are illustrated in Figure 35 and Figure 36.

Figure 35 - Immediate improvements to the bus stop at Willowbrook Mall

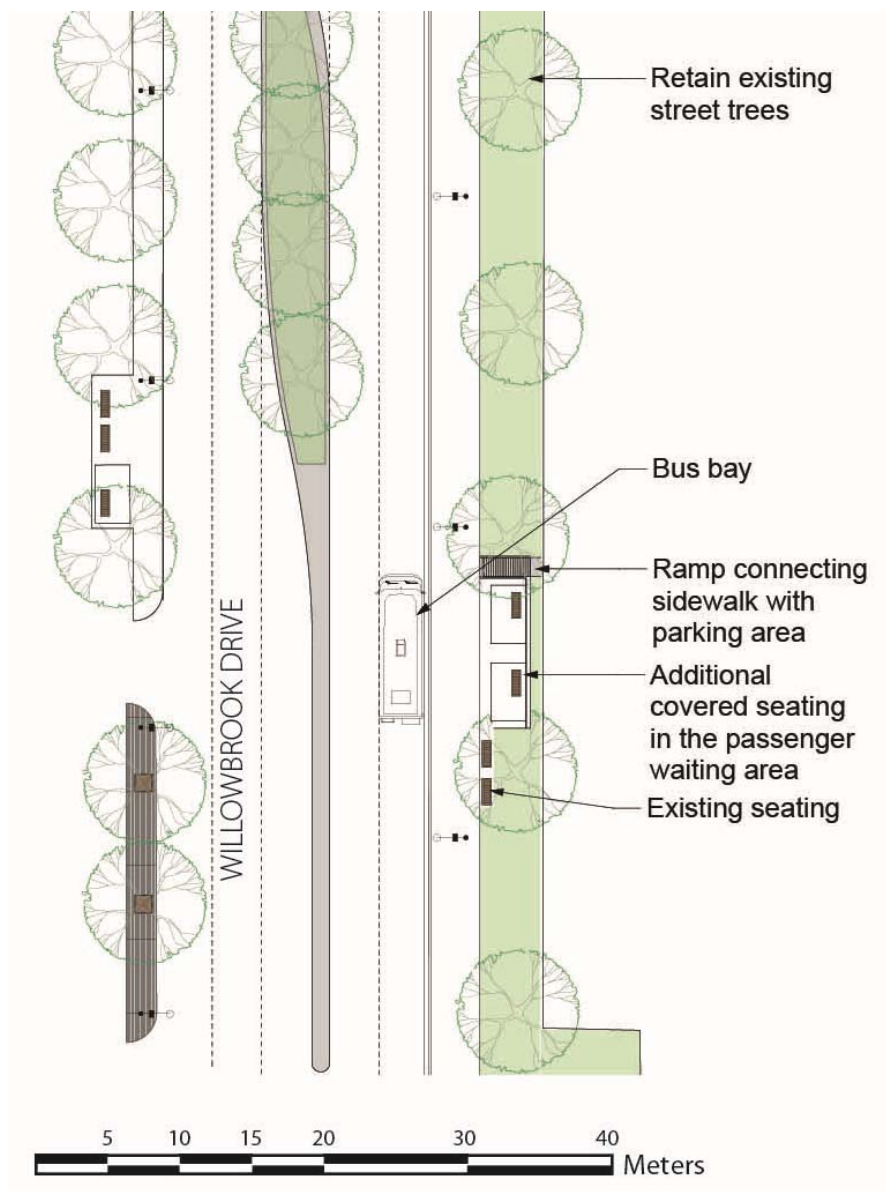
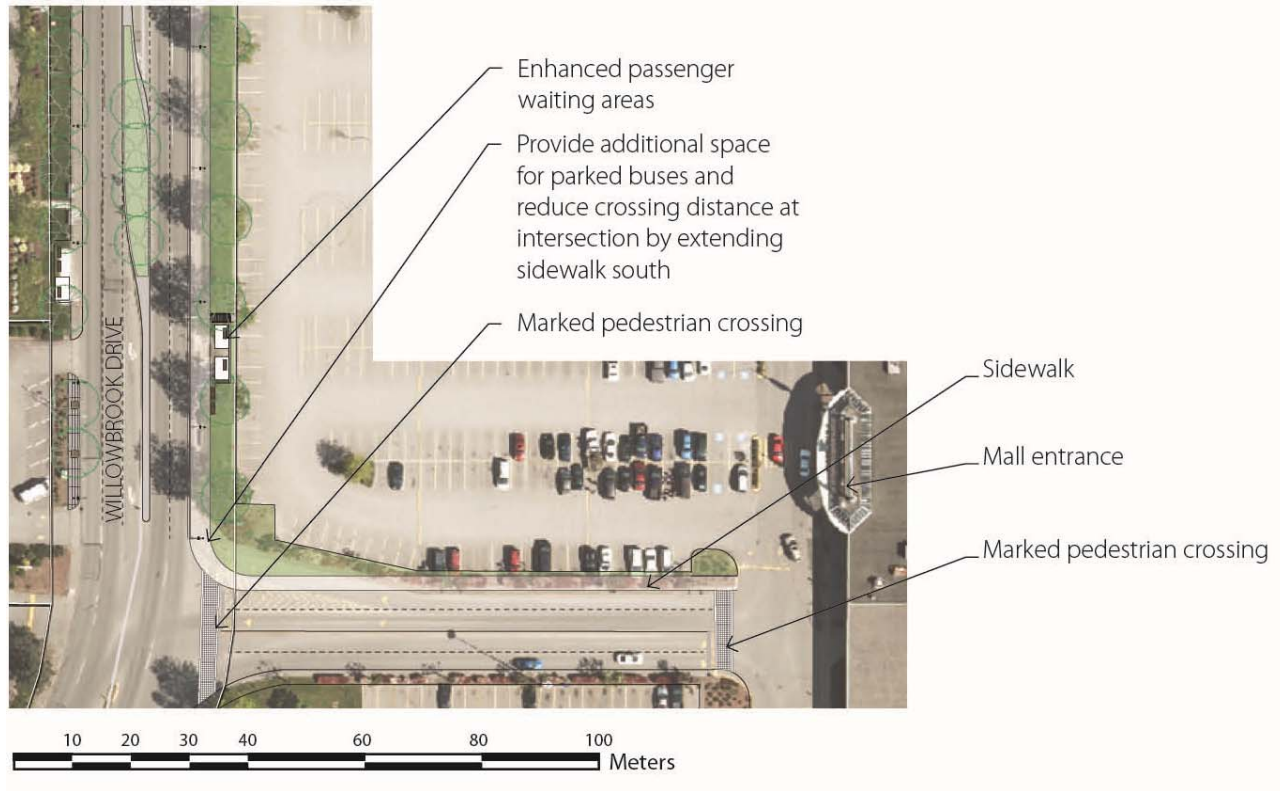


Figure 36 - Immediate improvements to the bus stop and access to Willowbrook Mall



6.3 LONG-TERM IMPROVEMENTS

6.3.1 ILLUSTRATIVE CONCEPT VISION AND PHASING

Willowbrook Centre is designated in Metro Vancouver's Regional Growth Strategy as part of the Langley Regional City Centre. This designation articulates a vision for a compact, mixed-use walkable, and transit oriented urban centre. The transformation of Willowbrook Centre from a low density, single use auto-oriented suburban condition into a high density, high amenity pedestrian and transit oriented urban place will occur gradually over the long time through phased, incremental redevelopment. This transformation will take place through a combination and integration of private and public investment.

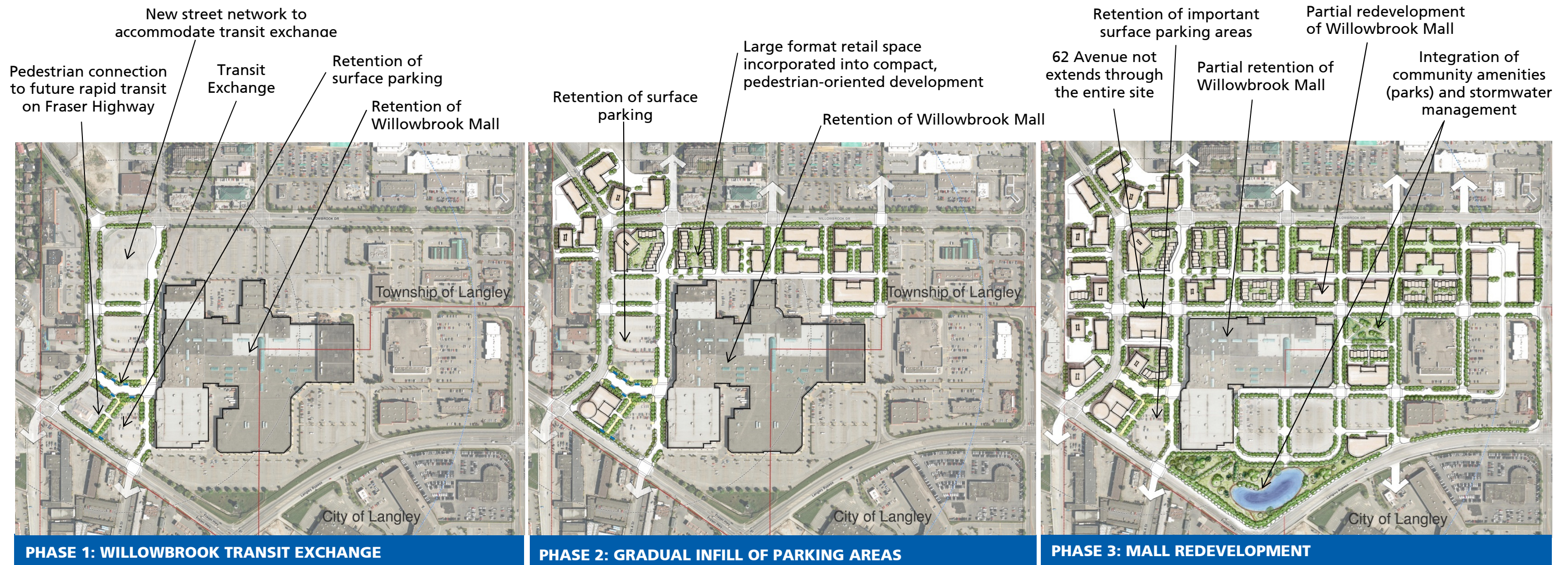
Phased relocation of existing uses and businesses (i.e. small to large format retail uses and service into new mixed-use buildings) will be a key component of the transformation into a regionally significant urban centre. The planning and design principles that underlie the future vision for Willowbrook Centre (see Section 5.2) are illustrated in the concept plan and birds-eye sketch on the following pages. It is important to note that the purpose of the concept plan and birds-eye sketch is strictly to illustrate what this future vision could look like based on implementation of these principles. Ongoing and more detailed master planning will be required as phased redevelopment occurs.

The phasing diagram in Figure 37 is intended to illustrate the transformation of Willowbrook Centre over time. The first phase is focused around development of the Willowbrook Transit Exchange. It includes the extension of 197 Street from Willowbrook Drive south to Fraser Highway as well as the construction of two new east-west street connections (61 Avenue and 62 Avenue) linking 197 Street to the east to Willowbrook Drive to the west. This new street network will improve traffic flow, accommodate the Willowbrook Transit Exchange and allow for buses to circulate on the adjacent street network. This eliminates the need for a large off-street transit exchange that takes up valuable real estate to allow for on-site bus circulation and layover. Instead, the blocks created by this new street network are conducive to the long-term redevelopment of parking areas into street-fronting, transit oriented, mixed-use development.

Phase 2 illustrates the gradual infill of parking areas with development that can accommodate the relocation of existing businesses and uses, including large format retail, from the mall. The development shown in Phase 2 is characterized by large format retail on the ground level, wrapped in smaller scale retail and/or ground-oriented multi-family units with residential and/or office uses above. This gives a place for existing tenants to, over time, relocate into new buildings that create a more walkable, transit-oriented and compact built form. Parking is accommodated in a mix of surface parking and underground parking in the new developments.

Phase 3 shows how the Willowbrook Shopping Centre could be gradually disassembled over time. As large (and small) format retail space becomes available in the adjacent neighbourhood, tenants continue to relocate from the Willowbrook Shopping Centre to the new retail space nearby. This allows for the partial redevelopment of the Shopping Centre as it transitions to a new transit-oriented neighbourhood. In Phase 3 a larger proportion of parking is provided underground but surface parking in front of prominent tenants (such as Target in the southwest quadrant) is retained.

Figure 37 - Illustrated Concept Plan Phasing



- PHASE 1: WILLOWBROOK TRANSIT EXCHANGE**
- The extension of 197 Street from Willowbrook Drive to Fraser Highway;
 - Two new east-west streets linking 197 Street to Willowbrook Drive;
 - An on-street transit exchange on the new street network;
 - A direct pedestrian connection between the new transit exchange and the future rapid transit station on Fraser Highway; and
 - Retention of existing surface parking for the Mall.

- PHASE 2: GRADUAL INFILL OF PARKING AREAS**
- Redevelopment of under-utilized surface parking areas;
 - Large format retail space incorporated into compact, pedestrian-oriented development;
 - Relocation of some mall tenants into new retail space; and
 - Transition from surface parking only to a mix of underground and surface parking.

- PHASE 3: MALL REDEVELOPMENT**
- Continued redevelopment of under-utilized surface parking;
 - Continued relocation of mall tenants to retail space provided in new adjacent development;
 - Continued transition to underground parking with the retention of key surface parking areas;
 - Strategic disassembly of Willowbrook mall to allow for new development; and
 - Extension of 62 Avenue through the entire site to improve traffic flow and provide frontage for new development.

Figure 38 -Illustrated Concept Plan

Willowbrook Regional City Centre 100 Year Vision

Willowbrook Centre is designated in Metro Vancouver's RGS as part of the Langley Regional City Centre. This designation articulates a vision for a compact, mixed use, walkable and transit oriented urban centre.

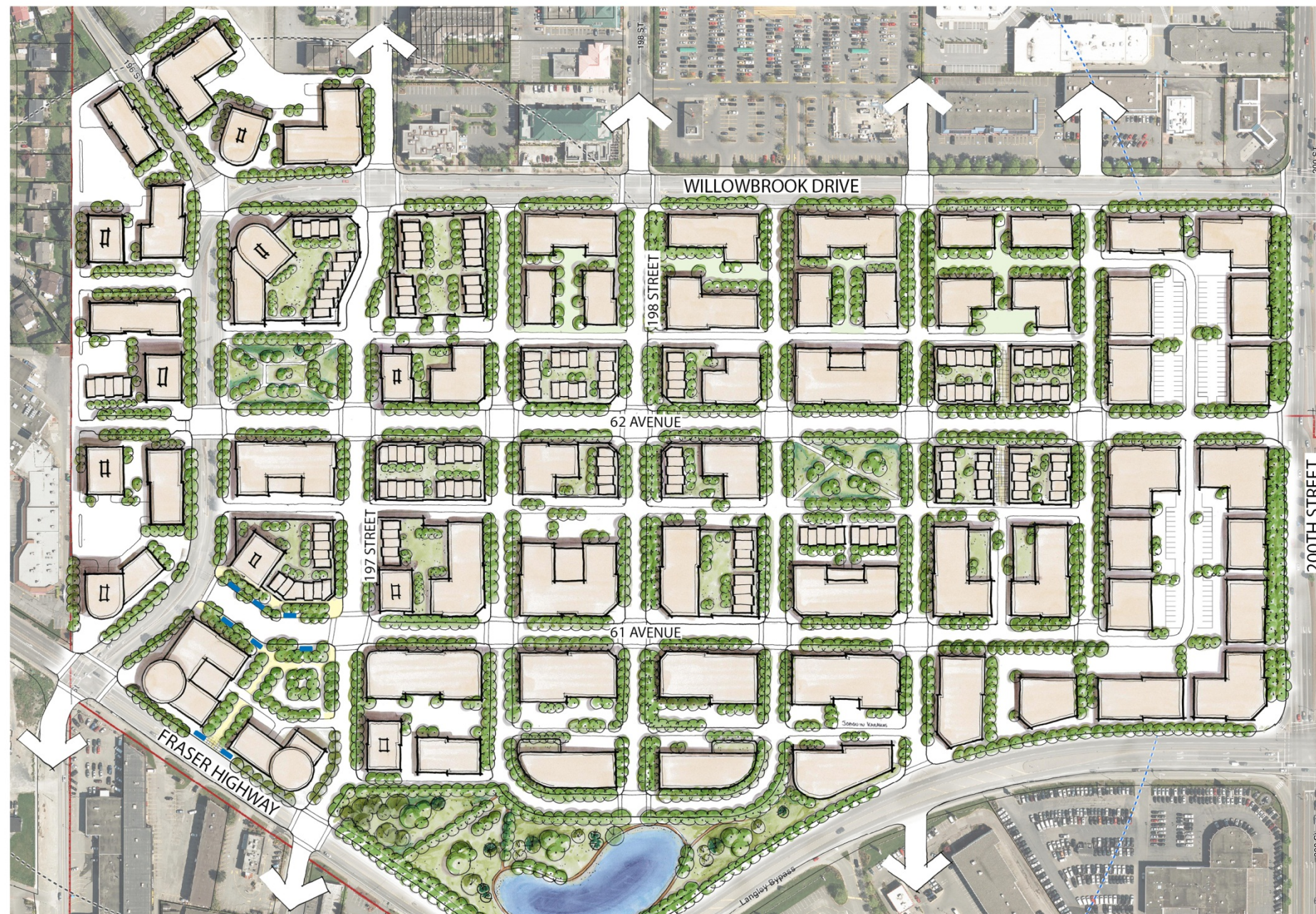
The transformation of Willowbrook Centre from a low density, single use auto-oriented suburban condition into a high density, high amenity pedestrian and transit oriented urban place will occur gradually over the long

term through phased, incremental redevelopment. This transformation will take place through a combination and integration of private and public investment.

Phased relocation of existing uses and businesses (i.e. small to large format retail uses and services into new mixed use buildings) will be a key component of the phased transformation of this area.

The planning and design principles that underlie the future vision for Willowbrook Centre are identified and illustrated conceptually below to paint a picture of what this future vision could look like based on implementation of these principles.

- 1 Interconnected Street and Open Space Network:** an interconnected network of green streets and open spaces is an integral component of the gradual transformation of the Willowbrook area to a livable, sustainable and transit-oriented Regional City Centre. It creates more route options and supports multiple modes of travel while creating greater potential for compact development.
- 2 Compact, Mixed Use and Transit Supportive:** new development integrates the compact mix of land uses necessary to support transit as a major form of transportation to from, through and within Willowbrook Centre.
- 3 Active Streetscapes:** new development is oriented to streets and public open spaces with entrances, balconies shop fronts and other pedestrian scale design features to provide active, attractive and safe streetscapes.



- 4 Jobs and Services Close to Home:** the existing commercial node at Willowbrook is maintained and expanded as a regionally significant employment centre with job and business opportunities close to regional transit service, residences and amenities.
- 5 Lots of Amenities:** a highly livable urban centre with a high quality of design, job and business opportunities close to regional transit service, residences and a range of public and private amenities including parks, schools and other potential community uses.
- 6 Address Housing Gaps:** a mix of more compact and urban housing types and tenure for a range of ages, lifestyles and income levels addresses existing housing gaps in the Township as a whole.
- 7 Mix of Retail:** a range of retail floorspaces at ground level support existing as well as potential future small, medium and large scale businesses.

Figure 39 - Illustrated Concept Plan Birds Eye

