



101 AVENUE CORRIDOR STUDY

BUILDING A BRIGHTER 101 AVENUE





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Thank you to the many people who contributed to the development of the 101 Avenue Corridor Study especially the dedicated volunteers from our community partners.

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 Background	1
1.2 Rationale and Objectives	2
1.3 Study Area	2
1.4 Process.....	5
2. CONTEXT	7
2.1 History of 101 Avenue	7
2.2 Existing Conditions.....	8
2.3 Issues & Opportunities	16
2.4 Redevelopment Potential	18
2.5 Policy Alignment	21
3. VISION, GOALS & STRATEGIES	23
3.1 Vision for 101 Avenue	23
3.2 How Do We Get There?	23
4. REDEVELOPMENT FRAMEWORK	25
4.1 Illustrated Development Concept	25
4.2 Public Realm.....	29
4.3 Land Use and Built Form	33
4.4 Mobility	37
4.5 Green Infrastructure	49
5. IMPLEMENTATION	53
5.1 Implementation Strategy.....	53
5.2 Implementation Categories	53
5.3 Implementation Matrix	57

LIST OF FIGURES

Figure 1 - Study Area	3
Figure 2 - Opportunities	4
Figure 3 - Existing Conditions	9
Figure 4 - Existing Zoning.....	10
Figure 5 - Existing Land Use	10
Figure 6 - Existing Mobility Network	13
Figure 7 - Redevelopment Potential.....	19
Figure 8a - Forest Heights.....	27
Figure 8b - Main Street	27
Figure 8c - East 101	28
Figure 9 - Public Realm.....	31
Figure 9b - Nodes.....	32
Figure 10 - Land Use & Built Form.....	35
Figure 11 - Roadway Cross Sections.....	36
Figure 12 - Mobility Concept.....	39
Figure 13 - East Entrance to 101 Avenue	40
Figure 14 - Intersection Improvements.....	43
Figure 15 - Bicycle Network	44
Figure 16 - Main Street Parking	47
Figure 17 - Green Infrastructure.....	51

APPENDICES

Appendix A - Glossary	
Appendix B - Engagement Summary	
Appendix C - Water Network Upgrade Concept	



View west along 101 Avenue from 71 Street (June 2016)

1 INTRODUCTION

101 Avenue is a main thoroughfare through some of Edmonton's mature southeast neighbourhoods. It is characterized by auto-oriented strip mall development and a lack of pedestrian activity on the street. It is surrounded, however, by engaged communities who love living in beautiful tree lined streets with close access to downtown and the river valley. These communities would like to see 101 Avenue become more than just a travel corridor cutting through their neighbourhoods. 101 Avenue has the potential to become a destination that welcomes people with better sidewalks, bike paths, trees and greenery, places to gather and vibrant commercial and residential development.

1.1 BACKGROUND

The 101 Avenue Corridor Study is a response to the community, which identified 101 Avenue as a space for real positive change in their neighbourhoods. A number of factors combined to make 101 Avenue a candidate for revitalization:

- ELEVATE was looking for a pilot project to work with communities to create more vibrancy and resiliency in communities
- The Hardisty cluster of neighbourhoods had recently formed a grassroots community group to discuss how they can manage change, decline, and development in their neighbourhoods
- Members of the Forest/Terrace Heights Community League approached City staff with a desire to take action on vacant and brownfield properties along 101 Avenue
- City staff identified 101 Avenue as a corridor with transformative potential

More about the stakeholders:

ELEVATE

Elevate is a Council initiative that seeks to engage community organizations and all levels of government. The goal is to create physical and social environments that allow residents to meet all of their needs, for their entire lifetime, in their own communities. Elevate is one of the 101 Avenue Corridor Study project sponsors.

GHCS

The Greater Hardisty Community Sustainability Coalition (GHCS) is a grassroots community group that formed in 2014 to prevent school closures. During that time, ELEVATE worked with the GHCS to conduct citizen meetings and develop a set of community priorities. The GHCS continues to engage its member communities in conversations about how to ensure vibrant, inclusive, healthy communities.

Forest/Terrace Heights and Fulton Place Community Leagues

The Forest/Terrace Heights and Fulton Community Leagues encompass the three neighbourhoods that will be most affected by changes to 101 Avenue. These community leagues have been engaged and important stakeholders in the 101 Avenue project.

1.2 RATIONALE AND OBJECTIVES

There are three main factors that have driven administration's development of the 101 Avenue Corridor Study:

1. Opportunity - Changes are happening along 101 Avenue that make it an ideal time to invest in this corridor (see Figure 2).

2. Efficiency - A number of city initiatives can be used to transform the corridor by combining resources and staff. These projects include arterial road renewal, low impact development pilot projects and ELEVATE's focus on community hubs.

3. Community Ownership - Strong community involvement has shaped the 101 Avenue Corridor Study. The residents living near 101 Avenue will continue to play an important role in implementing the vision for 101 Avenue.

The objectives of the 101 Avenue Corridor Study are to:

- Establish a vision for the future of 101 Avenue (see Section 3)
- Identify development options for land use, street design and community programming (see Section 4)
- Recommend specific actions to realize the area's potential, using existing land use and transportation tools and civic programs where possible (see Section 5)

1.3 STUDY AREA

101 Avenue runs through the Forest Heights, Terrace Heights, and Fulton Place neighbourhoods. The study area (see Figure 1) includes the following features, as shown in Figure 2:

- The area west of 75 Street, including a commercial strip mall and the Patricia Motel redevelopment site
- The core commercial strip along 101 Avenue between 75 and 71 Street, including a brownfield site
- Community amenities east of 101 Avenue including the future Capilano Library and Fulton Ravine
- The higher density residential and commercial area east of Fulton Ravine, which is partially within the Transit Oriented Development area of the Capilano Transit Centre

FIGURE 1 - STUDY AREA

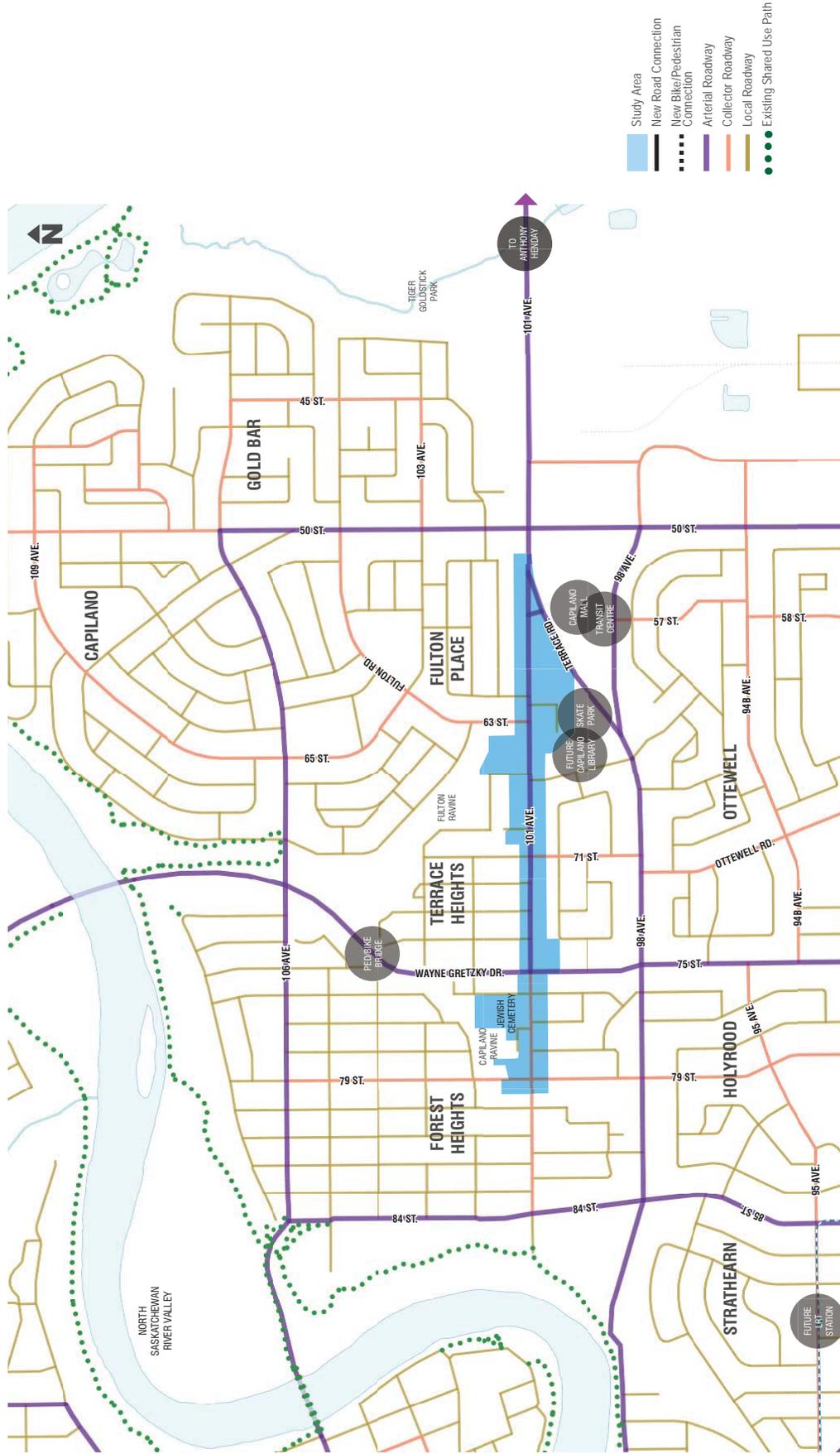
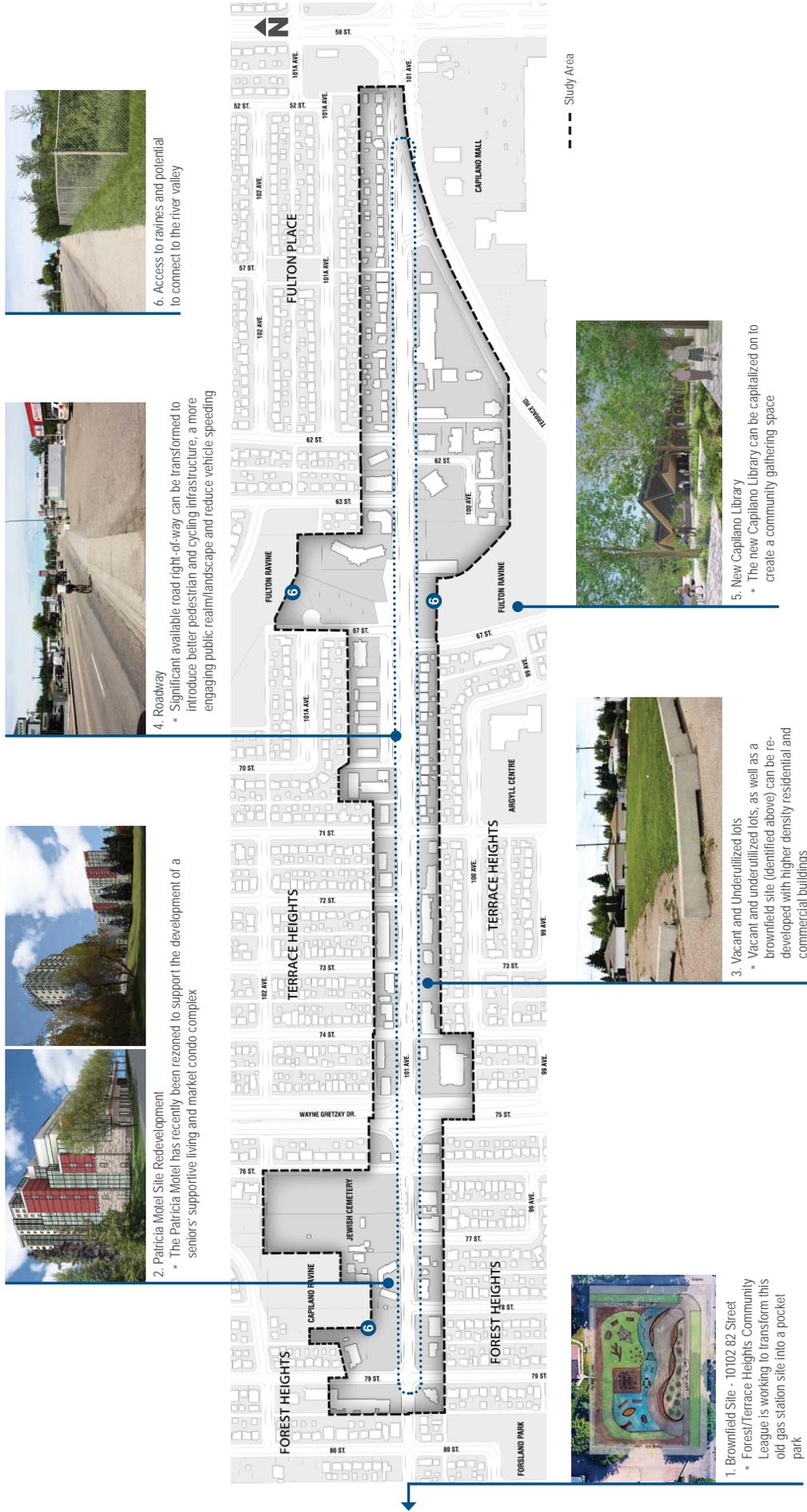


FIGURE 2 - OPPORTUNITIES



1.4 PROCESS

The 101 Avenue Corridor Study involved a number of key groups:

- A project team of City staff, including urban designers, planners and engineers
- Forest/Terrace Heights and Fulton Community Leagues and the Greater Hardisty Community Sustainability Coalition (GHSC)
- ELEVATE as a project sponsor
- A transportation consultant

The following timeline includes a breakdown of the process to create the 101 Avenue Corridor Study. This timeline includes key engagement moments in the project. For a detailed engagement summary see Appendix A. The project team built on the enthusiasm present in the Greater Hardisty Community Sustainability Coalition meetings and the interest from the Forest/Terrace Heights Community in city programs. A number of engagement events informed the content and direction of the 101 Avenue Corridor Study.

INFORMATION GATHERING May - June 2016	Key Work Completed
	<ul style="list-style-type: none"> ▪ Consulted with community league members ▪ Held internal discussions to determine arterial road renewal timelines, servicing constraints along the avenue, and scope of the 101 Avenue project
	Engagement Events
	<p>Jane's Walks - May 7 and 8, 2016</p> <ul style="list-style-type: none"> ▪ Led by the Forest/Terrace Heights Community League ▪ Attended by about 50 people (plus a few dogs) ▪ Walked 101 Avenue and discussed challenges and opportunities along the corridor <p>Community Workshop - June 21, 2016</p> <p>Over 200 people attended the Community Workshop. They were asked to provide their input on:</p> <ul style="list-style-type: none"> ▪ Opportunities and constraints - What is the potential for 101 Avenue? What is/ isn't working now? ▪ Vision and Values - What is important to you about how 101 Avenue develops in the future? ▪ Desired facilities and amenities - What do you wish was available on 101 Avenue?

**VISION &
CONCEPT
DEVELOPMENT**
July - Dec 2016

Key Work Completed

- Commissioned a mobility study to explore options for improving the movement and experience of pedestrians, cyclists and vehicles along 101 Avenue
- Presented initial findings and vision to the Edmonton Design Committee and internal stakeholders for feedback
- Refined the vision and principles based on public input from previous engagement
- Developed mobility, public realm and redevelopment options for three different sections of the corridor
- Validated 101 Avenue as a bike route

Engagement Events

Pop-up Engagement - July and August, 2016

Members of the project team visited various locations around 101 Avenue to raise awareness about the 101 Avenue project and collect input. Staff members had conversations with 125 people, where they asked:

- What changes would you like to see on 101 Avenue?
- What would make it more comfortable for you to walk or bike along 101 Avenue?
- If you were able to use the parking lot space in front of the buildings for something else on 101 Avenue what would you do with it?

Open House - September 29, 2016

Over 200 people attended the open house. They were asked to provide their input on different concept options for the corridor and answer the following questions:

- How can we design the street and adjacent development to make 101 Avenue more walkable and vibrant?
- What types of building forms and land uses are appropriate along 101 Avenue?
- How can we make it easier for pedestrians and cyclists along 101 Avenue?
- How can we make 101 Avenue more interesting and beautiful, and provide spaces for people to gather?

**CONCEPT
REFINEMENT**
Nov 2016 - May
2017

Key Work Completed

- Continued internal discussions to refine the concept
- Presented initial draft of the corridor design to the Edmonton Design Committee and received full support with no conditions
- Planned implementation actions and potential budget requests to move the project forward

Engagement Events

Open House - January 31, 2017

Over 200 people attended the open house. The project team displayed the draft concept for 101 Avenue and checked in with attendees to ask:

- Is there anything missing?
- Does the concept address your concerns with 101 Avenue?
- Will the concept achieve the community vision for 101 Avenue?

2 CONTEXT

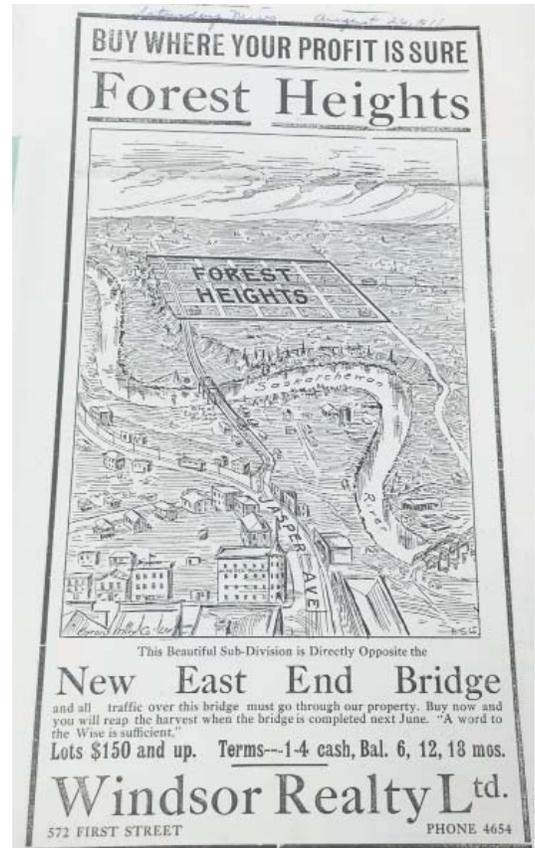
2.1 HISTORY OF 101 AVENUE

The 101 Avenue study area is located within Treaty No. 6 territory.

In 1907 Edmonton's first Jewish citizen, Abraham Cristall, purchased land for a Jewish Cemetery. At that time the land in the area was primarily agricultural. The cemetery is still in active use today and is the oldest built environment along 101 Avenue. Fulton and Capilano Ravines are the oldest natural environments in the area, and although altered they remain as a physical connection to the pre-development landscape.

Although lots in Forest Heights were for sale in 1911, and Terrace Heights was subdivided in 1912, development didn't take off until after World War II. Forest Heights remained mostly agricultural land until the late 1940s when the bulk of development began. The City of Edmonton annexed land in the mid-1950s, extending the Terrace Heights neighbourhood and adding Fulton Place. Fulton Place is named for settlers (the Fulton family) who came to the area from Nova Scotia in 1880 and farmed over 400 acres in the area.

101 Avenue was a main route into the city from the east, and by the late 1960s it had developed into an auto-oriented corridor with businesses and services focused on that market. By the early 1970s however Terrace Road and the James MacDonald bridge were complete and traffic was able to bypass 101 Avenue to quickly access downtown on a more direct route. Since that time there has not been a significant amount of development or change in the avenue.



Newspaper Ad - 1911
City of Edmonton Archives



Jewish Cemetery - 1915
Photo sourced from Provincial Archives



Patricia Motel - 1960



101 Ave East at 71 St - 1960



101 Ave West at 63 St - 1963



Old Fire Hall - 2006

Photos sourced from City of Edmonton Archives

2.2 EXISTING CONDITIONS

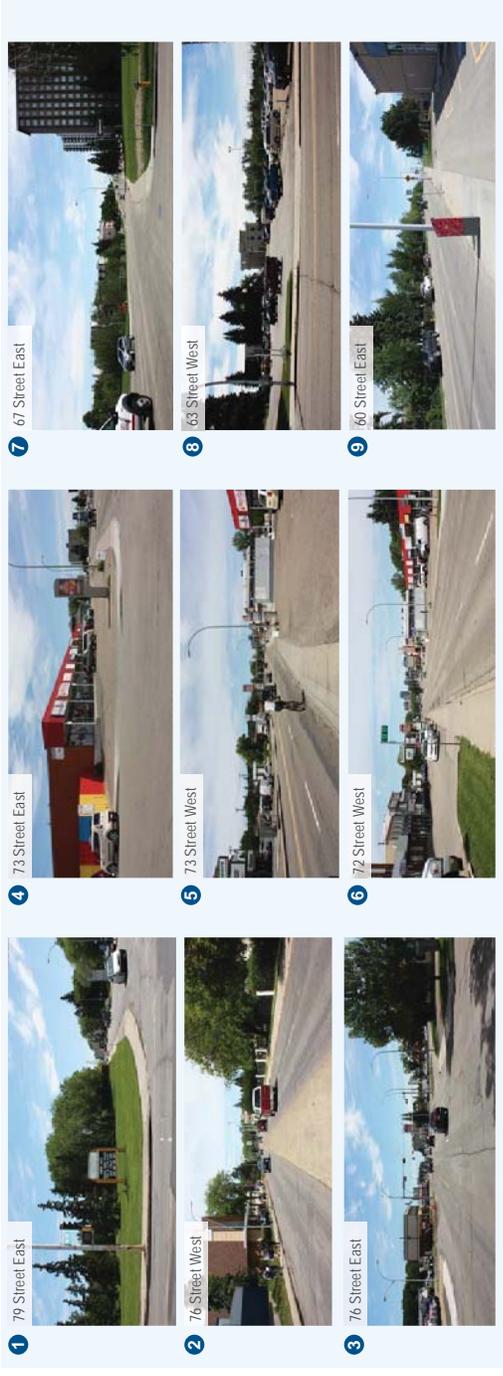
The mature neighbourhoods surrounding 101 Avenue are generally comprised of single detached residential homes. There is a combination of long time residents, and new residents seeking the benefits of a mature community with excellent access to downtown and connections to major transportation corridors. There is a strong sense of community ownership in the area and it is not uncommon for multiple generations to live in the same neighbourhood.

As demonstrated in Figure 3, the 101 Avenue corridor is characterized by auto-oriented design, with front surface parking lots and a mix of land uses set back from the street. 75 Street cuts the study area in two and presents a significant barrier between the east and west side of the avenue. To the west of 75 Street is the neighbourhood of Forest Heights, and to the east are Terrace Heights and Fulton Place.

Based on differences in existing characteristics and redevelopment opportunities, the study area can further be divided into three areas:

Forest Heights	Main Street	East 101
<ul style="list-style-type: none"> ▪ Commercial development is auto-oriented with surface parking lots in front of buildings ▪ This section of 101 Avenue is one of the few streets in Forest Heights without a mature tree canopy ▪ The Patricia Motel site has been rezoned to allow for a mixed use development ▪ The Jewish Cemetery is a significant historic site, established in 1907 ▪ Capilano Ravine provides a park space but lacks formal access 	<ul style="list-style-type: none"> ▪ Predominantly auto-oriented commercial development with surface parking lots in front of buildings ▪ Some mixed use buildings with residential above commercial uses ▪ Some vacant properties ▪ Vacant brownfield site (old gas station) ▪ Lack of green landscaping ▪ Poor pedestrian environment 	<ul style="list-style-type: none"> ▪ A mix of low and medium density residential buildings with a higher density residential core ▪ Larger buildings are set back from the avenue with large surface parking lots in front ▪ Development adjacent to Fulton Ravine turns its back on the natural area ▪ Auto-oriented “small box” commercial development site on east end across from Capilano Mall ▪ New Capilano Library will be constructed south of 101 Avenue along Fulton Ravine

FIGURE 3 - EXISTING CONDITIONS



Site Photos June 13, 2016

2.2.1 LAND USE, ZONING, AND BUILT FORM

101 Avenue has a mix of land uses and densities, as shown in Figures 4 and 5. The most prevalent zone is CSC - Shopping Centre Zone. The purpose of this zone is to provide for larger shopping centre developments intended to serve a community or regional trade area. Residential, office, entertainment and cultural uses may also be included within such shopping complexes. Most of the commercial and mixed use development is set far back from the property line and is fronted with surface parking lots. Many sites along 101 Avenue are zoned for higher intensity commercial or residential development than what is currently built.

In contrast to the mix of land uses and zones along 101 Avenue, the surrounding mature neighbourhoods are generally homogenous and stable. Mature neighbourhoods of mostly RF1 development, with low density single family homes, surround the plan area. However, incremental small scale residential infill is occurring in these neighbourhoods.

The existing massing along the corridor is generally one to four stories, with the exception of the high rise residential towers east of Fulton Ravine (at 14 and 15 stories) and the approved future development on the Patricia Motel site (at about 16 stories).

Capilano Ravine, Fulton Ravine, and the Jewish Cemetery bring green edges to 101 Avenue. The ravines combine natural tree stands with open grassed space but are physically disconnected from the broader North Saskatchewan River Valley system by roadways. The Jewish Cemetery is a significant historic site. Established in 1907, it predates all other development in the area.

EXISTING BUILT FORM



West at 63 Street



South at 71 Street



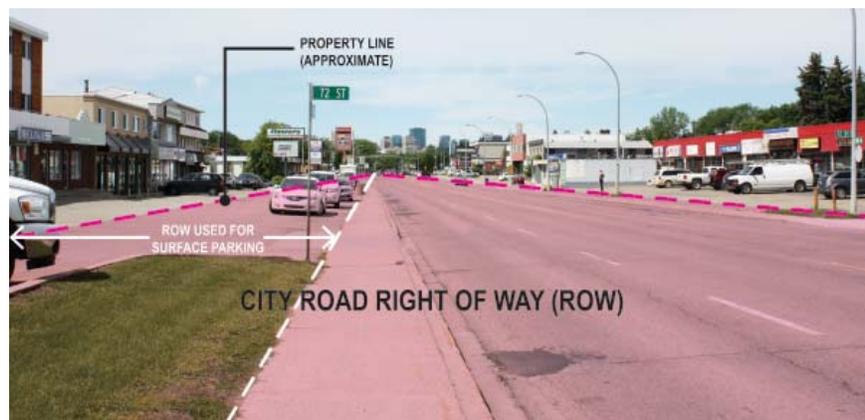
South at 72 Street



West at 78 Street

2.2.2 MOBILITY

101 Avenue was once a primary route into Edmonton's downtown from the east. The construction of Terrace Road and the James MacDonald Bridge in the late 1960s and early 1970s allowed traffic to bypass 101 Avenue and provided a more direct access to downtown. The avenue was originally built to accommodate higher volumes of traffic than has been experienced over the last few decades. In places the right of way is much wider than what has been built for sidewalks and travel lanes. In some cases the City road right of way has been used for front surface parking or integrated into front yards, as shown in the image below.



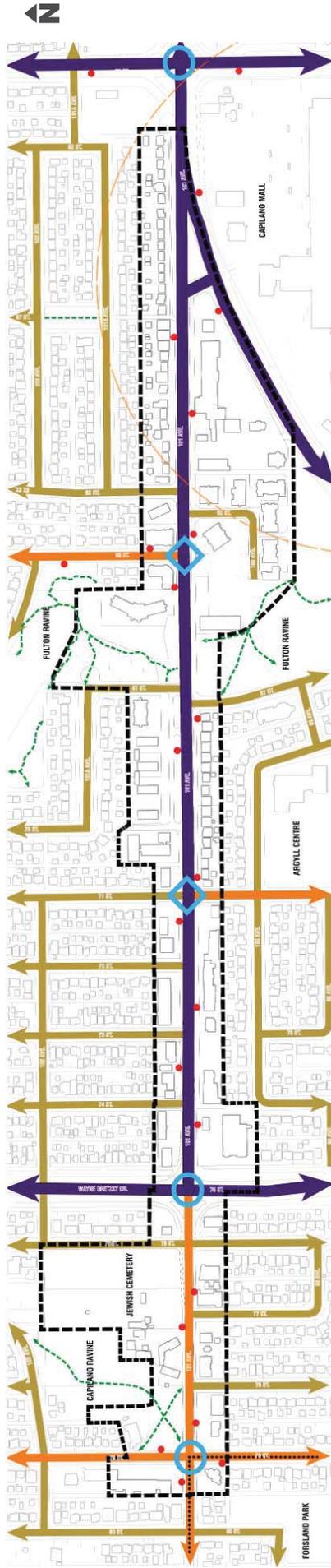
Surface parking within City Road Right of Way

Pedestrian

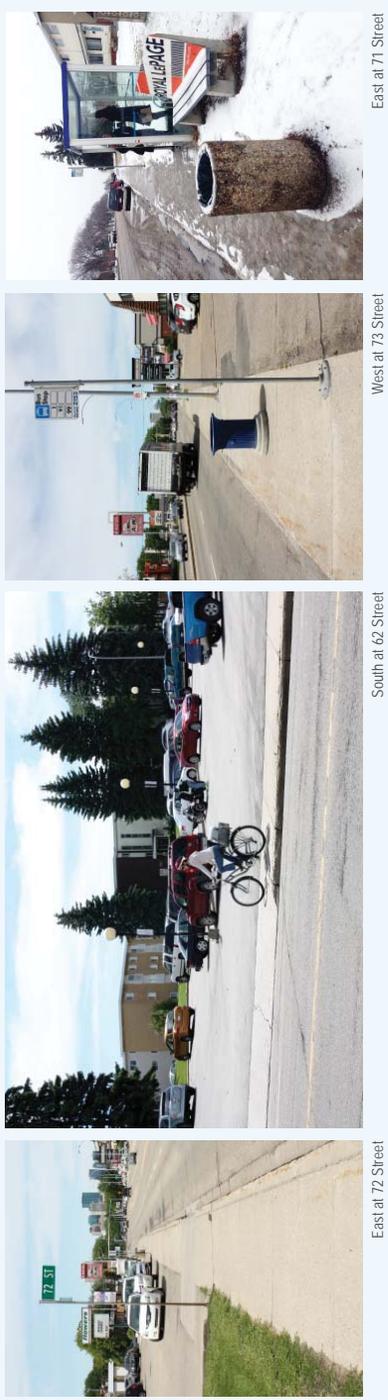
Today 101 Avenue retains much of its original auto-oriented design and character, creating a challenging environment for pedestrians:

- Driveway access to front surface parking lots frequently cross sidewalks, particularly in the commercial areas
- Sidewalks provided on both sides of the road are minimal by today's sidewalk standards. Sidewalks are built to the curb with very little separation between pedestrians and moving traffic
- There are few marked crosswalks and two pedestrian activated crossing lights (at 63 Street and 71 Street, see Figure 6)
- Speeding is an issue (driver feedback signs have been posted by the City) and contributes to people feeling unsafe walking or biking along the corridor. See the 101 Avenue Mobility Assessment for an analysis of speeding along the corridor.
- There are few places for pedestrians to rest, aside from bus stop benches, and few places to safely lock a bicycle or properly dispose of trash/recycling
- The avenue is lit with auto-oriented light standards on one side of the corridor. There is no lighting focused on the experience of people walking or biking along the corridor
- There is a lack of greenery or notable landscaping along the corridor

FIGURE 6 - EXISTING MOBILITY NETWORK



EXISTING CONDITIONS



Bicycle

101 Avenue is a signed bike route from 79 Street west to 84 Street (outside of the study area, see Figure 6) and does not have any dedicated bike facilities. The Conceptual Bicycle Network in the Bicycle Transportation Plan identifies 101 Avenue as part of a future city-wide system. As part of a bicycle network, 101 Avenue would fill in a gap, connecting the river valley trail system at 84 Street and at Tiger Goldstick Park, as well as connect residents to a number of destinations along the avenue. Any additions to the bicycle network require validation through public consultation.

Transit

The 101 Avenue corridor is served by several ETS bus routes but no route travels the length of 101 Avenue. Bus stops (see Figure 6) along 101 Avenue are generally well spaced, although the stops closest to the future Capilano Library location are planned to be moved to improve access. In some locations bus stop benches encroach on the sidewalk, reducing the path of travel. Many of the bus stops lack a full suite of standard elements installed at new stops such as benches, shelters, and garbage receptacles.

The City of Edmonton is in the process of developing a new Transit Strategy. As part of that work, the City will be developing a conceptual transit network design. This work is expected to be completed in 2017 and may impact transit service on 101 Avenue.

Motor Vehicle

101 Avenue was originally built to accommodate higher volumes of traffic than has been experienced over the last few decades. On an average day 101 Avenue sees a lower volume of traffic compared to other arterial roads in the area (see Table 1). However, vehicle traffic turning north onto 75 Street from the east is significant during the morning peak.

Table 1: Average Daily Traffic

Roadway	Average Daily Traffic
101 Ave (east of 75 Street)	12,000 - 15,000
106 Ave (west of 67 Street)	16,000 - 21,000
98 Ave (west of 75 Street)	20,000 - 25,000
75 Street (north of 98 Ave)	40,000 - 50,000
Whyte Ave (east of 75 Street)	23,000 - 25,000

101 Avenue carries two lanes of vehicle traffic in each direction with left and right turning lanes at the 75 Street intersection. Aside from signalized intersections at 50 Street, 75 Street, and 79 Street (Figure 6), there are few places along the avenue where vehicles are forced to stop. The auto-oriented design of the road, combined with a lack of street trees, on-street parking, curb extensions, marked crosswalks, or building frontages close to the street, may encourage vehicle speeds higher than the posted limit.

Parking along 101 Avenue is predominantly located in front surface parking lots with frequent driveway accesses, particularly in the commercial areas. Although rear lanes serve most of the 101 Avenue properties, little rear parking is provided. On-street parking exists adjacent to low density residential and angle parking is provided on 74 Street and 73 Street from 101 Avenue north to the lane. West of 75 Street on-street parking is permitted on the south side of 101 Avenue, but it is rarely used.

Refer to the 101 Avenue Mobility Assessment for detailed analysis of transportation existing conditions.

2.2.3 MUNICIPAL SERVICING

With any reconstruction of 101 Avenue comes the opportunity to improve or upgrade servicing infrastructure. This is important to accommodate future redevelopment along the corridor, particularly higher density mixed use or residential buildings.

Water

A preliminary assessment of the 101 Avenue corridor indicates that water servicing upgrades would be required to meet current fire flow requirements for higher density development than currently exists. EPCOR Water has an interest in upgrading some water mains in the area at the same time as arterial road renewal construction. However, these upgrades would not be sufficient to support intensive redevelopment. The exact nature of upgrades to meet the needs of denser redevelopment will be site specific and determined as part of the development process. See Appendix C for more information.

Drainage

The 101 Avenue corridor and its surrounding neighbourhoods are serviced by a combined sewer system where both sewage and rainwater go into the same pipe, are treated at the sewage treatment plant, and ultimately expelled into the river. In a combined sewer system untreated sewage can overflow into the river in the event of a large storm. A preliminary assessment of the area has determined that 101 Avenue is not a candidate for sewer separation at this time.

There is opportunity to include low impact development (LID) facilities as part of the roadway redesign. Installing LID facilities reduces the volume of water going into the pipes meaning less water has to be treated, and in the event of a large storm, less water overflows into the river with minimal or no treatment.

2.3 ISSUES & OPPORTUNITIES

The 101 Avenue Corridor Study was undertaken because both community organizations and City staff could envision its transformative potential. Issues and opportunities were identified through:

- Research and analysis of the history of the corridor
- Local knowledge collected through community engagement
- Land use and mobility data
- Site visits

Several City departments have been engaged to identify opportunities and potential alignments to implement change strategically and effectively. Key issues and opportunities along 101 Avenue are shown in Table 2.

Table 2: Issues and Opportunities

ISSUE		OPPORTUNITY
Unwelcoming pedestrian and cyclist environment	<ul style="list-style-type: none"> ▪ Few marked pedestrian crossings ▪ Lack of street furniture ▪ Minimal space allocated to pedestrians ▪ Cyclists must share the road with vehicle traffic 	Redesign 101 Avenue to create a welcoming and safe pedestrian and cyclist environment
Challenging for people with mobility issues	<ul style="list-style-type: none"> ▪ Pedestrian crossings are wide ▪ Driveways cross the sidewalk frequently (ramps can be difficult to navigate, especially in the winter when they can be slippery) 	Ensure the corridor is barrier free for people of all ages and abilities
Negative impacts of vehicle traffic are exacerbated	<ul style="list-style-type: none"> ▪ Current design and function of 101 Avenue exacerbates speeding, safety, and noise and air pollution issues 	Reduce the negative impacts of vehicle traffic including speeding, safety, and noise and air pollution
Lack of human scale	<ul style="list-style-type: none"> ▪ Buildings are generally set back far from the property line with surface parking separating the sidewalk from entrances ▪ Signage and lighting is auto oriented ▪ There are no street trees or notable landscaping in most of the study area 	Ensure the redesigned streetscape and new buildings contribute to a sense of human scale
Vacant and/or derelict properties	<ul style="list-style-type: none"> ▪ Vacant and/or derelict properties negatively impact the image of the corridor ▪ Maintenance, including lack of timely snow clearance, has been identified as an issue by the community 	Support redevelopment of vacant and/or derelict properties. Encourage proper maintenance of properties including the timely snow clearance of sidewalks.
Lack of housing choice in the broader area	<ul style="list-style-type: none"> ▪ Challenging for residents to stay in their neighbourhood as they age and require different types of housing to meet their needs 	Encourage new residential development which contributes to a wider variety of housing choice in the neighbourhood
Inadequate density to support commercial	<ul style="list-style-type: none"> ▪ Strong community desire for a greater variety of commercial services on 101 Avenue 	Encourage higher density residential and mixed use development along 101 Avenue to better support a wider variety of commercial
Green landscaping is lacking	<ul style="list-style-type: none"> ▪ The main street sub-area is almost entirely paved from building face to building face 	Bring more green landscaping to the streetscape with trees, planters, and planted boulevards.
75 Street is a significant barrier	<ul style="list-style-type: none"> ▪ Challenging intersection for pedestrians and cyclists to cross 	Improve the pedestrian and cyclist crossings at 75 Street and visually connect the two sides of 101 Avenue
Ravines are underutilized and disconnected	<ul style="list-style-type: none"> ▪ Connections through the ravines and to neighbourhood destinations are lacking ▪ Ravines are underutilized amenities 	Improve connections to and through the Capilano and Fulton Ravine areas and better utilize the park spaces as community amenities

2.4 REDEVELOPMENT POTENTIAL

New development can bring a range of benefits to the area:

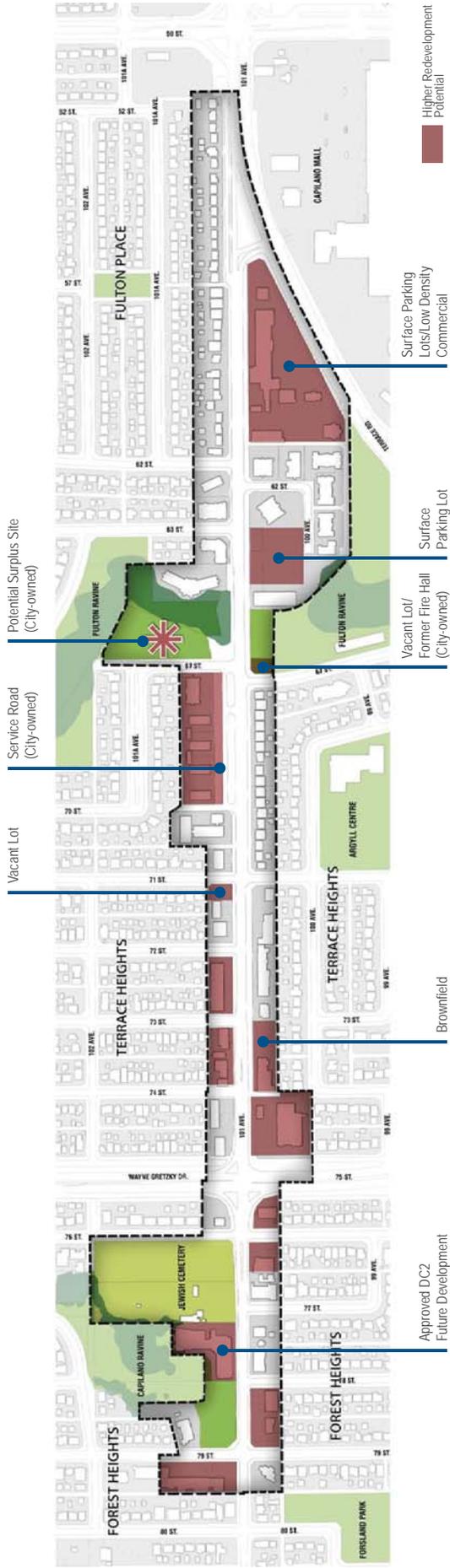
- New building forms offer increased choice for seniors and for new residents moving into the neighbourhood
- Denser residential development along 101 Avenue can help support new commercial services that the whole neighbourhood will use and a new main street destination for the broader area
- New residents help support a more vibrant street life and contribute to a sense of safety in the area with more “eyes on the street”
- New development may attract further investment into the area
- New development can provide community amenity contributions

The study area includes several sites with redevelopment potential, as shown in Figure 7. Sites are determined to have high redevelopment potential if:

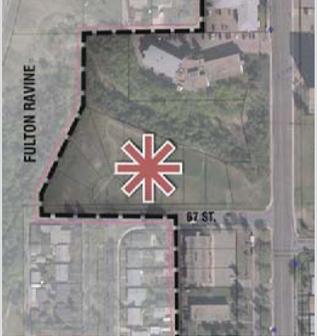
- The value of the property is low for the area
- The land is vacant
- Buildings on the site are older than 50 years (but are not a historical resource)
- The current zoning allows more density or site coverage than what is currently built (the site is underbuilt)
- It is zoned to allow commercial development
- If a building is on site it has one owner or is rented (rather than many owners as is the case with condo ownership)
- Some combination of the above

There are many sites on 101 Avenue that can be redeveloped at a higher density or site coverage without having to be rezoned. With municipal servicing built to accommodate the maximum development possible under current zoning, the corridor can accommodate more density and commercial development on existing underbuilt sites without requiring servicing upgrades. This contributes to a more favourable redevelopment scenario for prospective developers.

FIGURE 7 - REDEVELOPMENT POTENTIAL



POTENTIAL SURPLUS SITE
 As the 101 Avenue Corridor Study process was underway, the City's Land Managers identified an area next to Fulton Ravine as potentially surplus to the City's needs. As part of the Study's engagement process the community was asked for their input and ideas about how this site should be used in the future. See Section 4.3 for land use and built form recommendations.




View northeast from 67 Street and 101 Avenue

2.5 POLICY ALIGNMENT

Through the Nodes and Corridors Planning Initiative (*The Way Ahead Implementation Plan*), the City is focusing on key areas of change. Administration is using resources to determine the future of areas that are in need of redevelopment, rather than undertaking area redevelopment planning for entire neighbourhoods that are stable and unlikely to change. 101 Avenue is an area undergoing change with the potential to transform further.

The 101 Avenue Corridor Study supports strategic objectives outlined in *The Way We Grow*, the City's Municipal Development Plan, by accommodating growth in mature areas, integrating transit and land use, and supporting the development of complete communities. The 101 Avenue Corridor Study seeks to achieve this by:

- Guiding, coordinating, and supporting investment along the corridor
- Engaging the community in defining the redevelopment vision for 101 Avenue
- Raising awareness of existing City economic development programs that are currently available to local businesses

Design Guidelines

Key alignments with relevant design guidelines include:

Transit Oriented Development Guidelines	
<p>Application: The portion of 101 Avenue within 400m of the Capilano Transit Centre is classified as a Neighbourhood Station Area</p>	<p>Key Alignments:</p> <ul style="list-style-type: none"> ▪ Arterial and collector roads and larger sites provide an opportunity for more transit supportive densities, and the guidelines allow for intensification with the provision that development is sympathetic to surrounding existing uses. ▪ The guidelines promote a mix of uses. Where opportunity sites meet fundamental real estate siting requirements for access and visibility, neighbourhood-serving retail uses are encouraged.
Residential Infill Guidelines	
<p>Application: The study area includes three neighbourhoods within the Mature Neighbourhoods Overlay area</p>	<p>Key Alignments: Higher intensity infill development should be focused on the edge of neighbourhoods to:</p> <ul style="list-style-type: none"> ▪ Encourage the revitalization of those areas that are generally in the greatest need ▪ Place higher density development closer to transit service ▪ Create opportunities for sustainable community focal points to be shared by bordering neighbourhoods ▪ Medium and large scale residential infill is encouraged on sites in proximity to LRT stations, on high frequency transit corridors and at major shopping centres

Complete Streets Guidelines

Application:

Arterial and neighbourhood renewal are listed as opportunities to apply the Complete Streets Guidelines. 101 Avenue east of 75 Street is planned for arterial renewal, and west of 75 Street is planned for neighbourhood renewal.

Key Alignments:

The Complete Streets Principles are to be used to help shape the goals and objectives of any road design project:

- Provide travel options for all users and trip purposes in a safe, accessible, context sensitive manner in all seasons
- Form a network of streets that together accommodate all users and allow for efficient and high quality travel experiences
- Be adaptable by accommodating the needs of the present and future through effective space allocation for the many functions of the street
- Contribute to the environmental sustainability and resiliency of the city
- Consider both direct and indirect costs, as well as the value of the roadway and the adjacent real estate
- Be vibrant and attractive people places in all seasons that contribute to an improved quality of life

3 VISION, GOALS & STRATEGIES

3.1 VISION FOR 101 AVENUE

Vision for 101 Avenue

101 Avenue is a cherished **community** space.

It connects people and destinations. 101 Avenue has a **vibrant** street life, a diversity of businesses, **beautiful** public spaces, and great transit options. People **safely** walk and bike to **explore, shop** and **visit** along 101 Avenue.



3.2 HOW DO WE GET THERE?

Goals

Goals are statements about a desired end. While a vision statement is aspirational, goals should be more concrete. Goals provide more detail on how to realize the 101 Avenue vision. Each goal highlights a different aspect of the vision for 101 Avenue.

Strategies

Strategies describe how a vision and goals can be achieved. For 101 Avenue we have outlined a series of strategies to address each goal. These strategies will be the basis for an implementation plan that will move us closer to the vision for 101 Avenue. The strategies will lead to direct actions along 101 Avenue.

The Goals and Strategies for 101 Avenue are:

Goal 1

Connect 101 Avenue to a broad network of transportation options and destinations and **prioritize more vulnerable users** to ensure a safe and vibrant avenue.

Strategies:

- **Re-allocate space** to active transportation modes (walking and biking)
- **Prevent speeding** through road and streetscape design
- Create **safe and efficient** ways for pedestrians and bikes to cross and travel 101 Avenue
- Ensure **barrier free design** in the public realm along 101 Avenue
- Improve **access to transit** along 101 Avenue and link the avenue to key destinations, such as the library, schools and downtown
- Create a **better environment for cycling** along 101 Avenue and connect the avenue to the broader cycle network in Edmonton

Goal 2

Support residential and commercial development that promotes **active, vibrant spaces** along 101 Avenue.

Strategies:

- Require **active edges** (individual access to buildings, transparent glazing, articulation of the building) when redevelopment occurs
- Apply the Pedestrian Commercial Shopping Street Overlay, or other tools, to **support a vibrant street** when redevelopment occurs
- Support **mixed use** development to provide more housing options and increase the population base to support commercial businesses
- Where possible **increase pedestrian access** to 101 Avenue by breaking up larger block faces
- When redevelopment occurs require **parking underground** or at the rear of lots

Goal 3

Create a unique sense of place and foster pride in 101 Avenue with enhancements to public spaces.

Strategies:

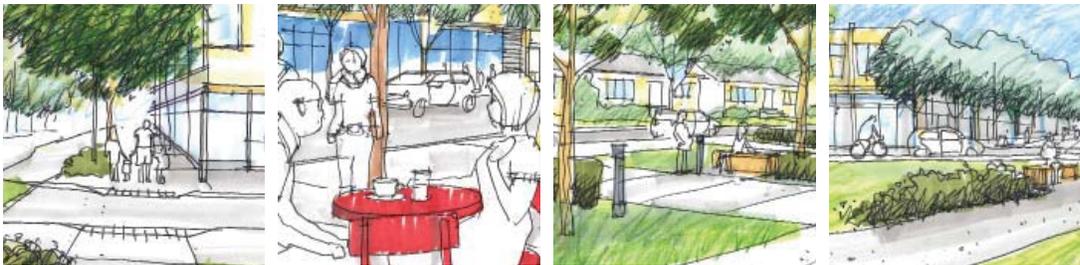
- **Improve the streetscape** with the addition of street furniture, landscaping, and public art along 101 Avenue
- Add **green infrastructure** to 101 Avenue, including trees and landscaping with low impact development facilities
- Explore options to use public space, underutilized lots, or parking lots for community gathering or other neighbourhood activities that **animate 101 Avenue**
- Encourage the creation of **business improvement associations** or other tools for communities and businesses to collaborate on common goals
- Ensure the public realm along 101 Avenue is **well maintained** (maintenance, removing trash, clearing snow)

4 REDEVELOPMENT FRAMEWORK

4.1 ILLUSTRATED DEVELOPMENT CONCEPT

The redevelopment framework for 101 Avenue includes increased residential density, a greater variety of commercial services, and transformation into a pedestrian friendly corridor. These are key ingredients to creating a place that is functional and beautiful, a destination where people want to spend time, and a corridor that supports the City's aim to create complete and sustainable neighbourhoods.

The illustrated development concept (Figures 8a, 8b, 8c) shows what 101 Avenue could look like in the future. The concept does not prescribe future redevelopment. Instead it offers a depiction of the place 101 Avenue could become if the community's vision, and the study's recommendations, are implemented.



Key Actions:

1. Elevate the planned arterial renewal of 101 Avenue to a full redesign and construction as a pedestrian and bike friendly street
2. Use City-owned land to improve connectivity, create an attractive public realm, and contribute to the creation of redevelopment opportunities
3. Identify opportunities to improve connectivity and the public realm as redevelopment occurs
4. Use land use tools to ensure new development contributes to a pedestrian friendly environment
5. Support redevelopment which provides an increased variety of housing choice
6. Encourage higher density residential development on the corridor to support a greater variety of commercial services for residents
7. Bring "green" to the corridor with landscaping and low impact development facilities
8. Improve transit service and provide a bus route that runs the length of 101 Avenue
9. Tap into the community's energy and abilities to help implement recommendations

The redevelopment framework provides recommendations for the public realm, mobility, land use and built form to advance the vision, goals, and strategies for 101 Avenue. Should improvements above and beyond planned arterial renewal be funded, the recommended changes to the mobility network will occur first. The redesign of the roadway will act as a catalyst for future commercial and residential redevelopment and improvements to the public realm.

FIGURE 8A - FOREST HEIGHTS



View east from SW Corner of 101 Avenue and 79 Street

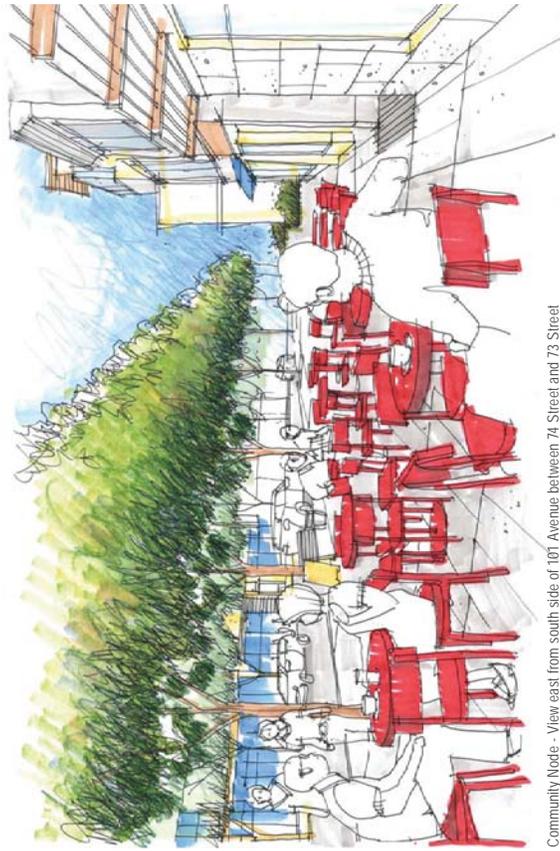


FOREST HEIGHTS

This section of 101 Avenue is a gateway to Forest Heights, welcoming residents and visitors to a lively hub in the centre of the neighbourhood.

- Study Area
- Higher Redevelopment Potential
- ⊙ Community Node
- Commercial Node
- Trail
- ⋯ Shared Use Path
- Bus Stop Location

FIGURE 8B - MAIN STREET



Community Node - View east from south side of 101 Avenue between 74 Street and 73 Street



MAIN STREET

What used to be an auto-oriented commercial strip is transforming into a main street commercial destination for east Edmonton.

- Study Area
- Higher Redevelopment Potential
- ⊙ Community Node
- Commercial Node
- Active Edge
- Bus Stop Location
- ⇄ Vehicle Connection
- ⇄ Pedestrian Connection

FIGURE 8C - EAST 101



Linear Park - View west from north side of 101 Avenue at 67 Street



East Entrance - View west from Terrace Road gateway



EAST 101

The gateway feature at Terrace Road, the green spaces along the avenue, and the views of downtown contribute to this area's unique sense of place.

- Study Area
- Higher Redevelopment Potential
- Community Node
- Commercial Node
- ★ Community Hub/Old Fire Hall Site
- Active Edge
- Trail
- Shared Use Path
- Bus Stop Location
- ← Vehicle Connection
- ← Pedestrian Connection

4.2 PUBLIC REALM

The public realm is made up of publicly accessible outdoor spaces, including streets, walkways, plazas, parks, and publicly accessible privately owned space. The public realm also includes public indoor spaces such as libraries and other City facilities.

Buildings and natural spaces create edges around the public realm. These edges influence the character of a place and help activate the place they surround. Enhancing public spaces, and creating a high quality and welcoming public realm, will help to create a memorable sense of place and foster pride in 101 Avenue.



101 Avenue stretches through three distinct neighbourhoods. Upgrades to the corridor’s public realm and streetscape (should they occur) will connect the neighbourhoods creating a cohesive identity for 101 Avenue. The Forest Heights, Main Street, and East 101 portions of the corridor each have unique public realm opportunities. These opportunities are built around community and commercial nodes (Figures 9 and 9b). Recommendations to achieve the public realm vision for 101 Avenue include:

Recommendation	Outcome
<p>1 Provide street furniture to support the pedestrian environment including:</p> <ul style="list-style-type: none"> ▪ Seating ▪ Garbage/recycling receptacles ▪ Bike parking ▪ Pedestrian scaled lighting 	<p>A welcoming pedestrian environment that is easier and more pleasant to move through</p>
<p>2 Bring more “green” to the public realm with landscaping elements along the entire length of 101 Avenue, such as:</p> <ul style="list-style-type: none"> ▪ Treed boulevards ▪ Planter boxes ▪ Planting in curb extensions and setbacks 	
<p>3 Improve maintenance along the avenue with:</p> <ul style="list-style-type: none"> ▪ Timely removal of snow ▪ Removal of out-of-date signage ▪ Installation of trash receptacles ▪ Provision of cigarette receptacles at bus stops ▪ New street elements that are high quality and easy to maintain 	

Recommendation	Outcome
<p>4 When owners apply for development permits for existing sites (renovations etc.), encourage pedestrian friendly site improvements such as:</p> <ul style="list-style-type: none"> ▪ Wider pedestrian walkways along building fronts ▪ Landscaping ▪ Patio/outdoor commercial space in the area between existing buildings and 101 Avenue (existing surface parking lots) 	<p>A welcoming pedestrian environment that is easier and more pleasant to move through</p>
<p>5 Expand eligibility for the Corner Stores Pilot Program (or similar City program) to include properties within the Main Street sub-area to encourage pedestrian friendly site improvements within existing surface parking lots and building setbacks that are unlikely to redevelop in the near term.</p>	
<p>6 Create a unique identity on 101 Avenue with the use of repeating elements along the corridor, including:</p> <ul style="list-style-type: none"> ▪ Special paving markers at entry points to the corridor (intersections, trail connections) ▪ Brightly coloured and or distinct street furnishings 	<p>Recognizable identity to 101 Avenue that attracts people to the corridor and reflects the vibrant character of the community</p>
<p>7 Increase the emphasis on placemaking at community and commercial nodes by including infrastructure for public events such as power receptacles, and streetscape elements such as:</p> <ul style="list-style-type: none"> ▪ Coloured lights in street trees ▪ Public art installations ▪ Seating nodes with landscaping ▪ Signage ▪ Decorative banners ▪ Decorative crosswalks (special paving or paint application) ▪ Gateway features or markers 	
<p>8 Install a gateway feature at the east end of 101 Avenue which enhances the landscaped area within the road right of way. See Section 4.5 for Green Infrastructure recommendations related to this area.</p>	
<p>9 As redevelopment occurs, include architectural features and/or landscape design that contributes to the creation of landmark buildings or public gathering spaces on prominent corners or nodes.</p>	
<p>10 Draw greater attention to the historical significance of the Jewish Cemetery through special public realm features along the edge of 101 Avenue in front of the Jewish Cemetery.</p>	

FIGURE 9 - PUBLIC REALM



- Study Area
- Community Node
- Commercial Node
- Community/Hub/Old Fire Hall Site
- Active Edge
- Trail
- Shared Use Path
- Bus Stop Location
- Vehicle Connection
- Pedestrian Connection

Create a Sense of Place

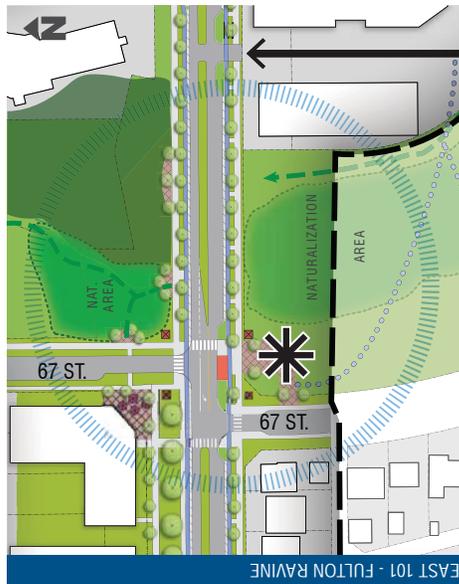
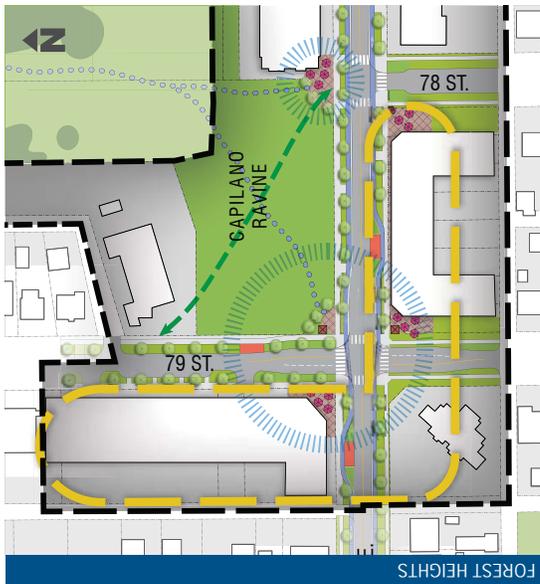
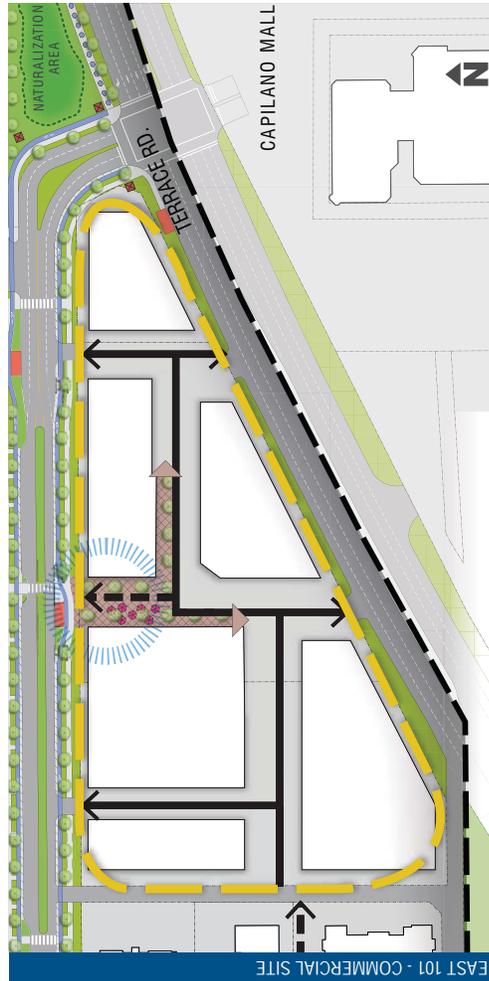
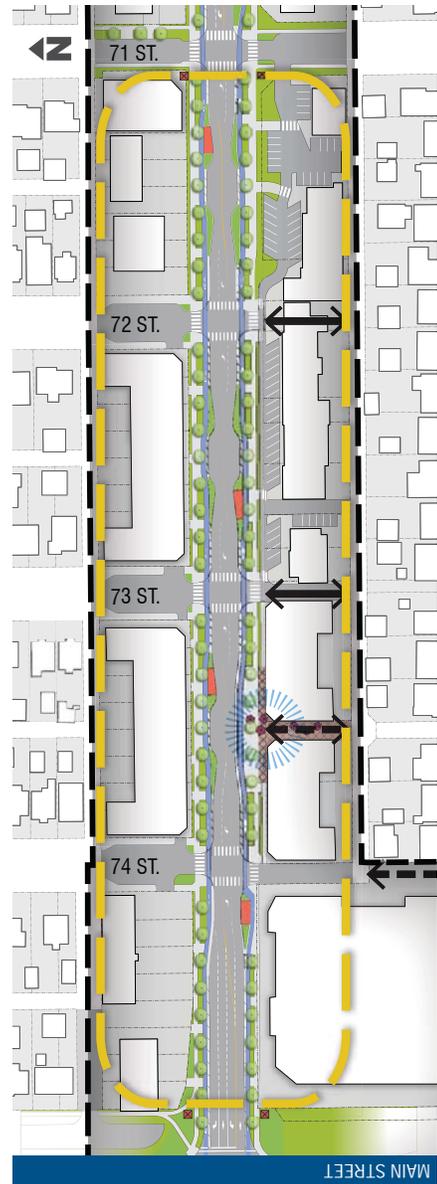
101 Avenue stretches through distinct neighbourhoods and its streetscape design will have a cohesive and strong identity which connects the neighbourhoods together. Common approaches used throughout include:

- = Enhance the streetscape with wide sidewalks protected from traffic, seating, garbage/recycling receptacles, bike parking, and pedestrian-scale lighting and signage
- = Bring more green to the street with boulevard trees, planter boxes, and planting in the curb extensions

Community and commercial nodes (identified on the map) are places of activity where people will gather, shop, and socialize. Nodes will have a greater concentration of the streetscape amenities listed above and may develop unique identities through public art, connections to park space, and/or gateway features.



FIGURE 9B - NODES



4.3 LAND USE AND BUILT FORM

Land use refers to the type of use permitted in a building or on a site, such as residential, commercial, or institutional. A building can include a mix of uses, such as commercial or retail on the ground floor and residential above. Built form is the physical form of a building and can include design details such as height, setbacks, and locations of entrances.

Land use and built form work together to form the edges of the public realm and contribute to the liveliness of the street. The land use and built form strategy seeks to guide future development and accommodate growth that contributes to a livable, pedestrian friendly, and complete community.



Pedestrian friendly built form

New development with a mix of active ground floor commercial land uses and residential uses on upper storeys is recommended for all commercial nodes in the the study area. Any new residential along the corridor outside of these nodes should front onto the avenue and where possible be designed so that the ground floors could be converted for commercial purposes in the future. Active uses and frontages on the ground floor contribute to a vibrant street life, enable the natural surveillance of parks and streets, and enhance the feeling of safety in an area. Pedestrian friendly commercial businesses attract pedestrian traffic and have the potential to engage with the public realm through window displays or spill-out uses, such as patios. A greater concentration of ground floor commercial development is desired in the Main Street area.

Recommendations to achieve the land use and built form goals include:

Recommendation	Outcome
<p>1 Apply the Pedestrian Commercial Shopping Street Overlay, or its successor, to the corridor within the study area.</p>	<p>More pedestrian activity at street level</p>
<p>2 Support mixed use development with active ground floor commercial or residential uses throughout the study area.</p>	
<p>3 Support active ground floor commercial uses which contribute to pedestrian activity in the commercial node areas, as shown conceptually in Figure 10.</p>	
<p>4 Require that buildings facing 101 Avenue within the main street sub-area be built to the front property line, as shown conceptually in the cross sections, Figure 11.</p> <ul style="list-style-type: none"> ▪ Building setbacks from the property line may be permitted to provide active uses at grade, including patios, merchandising spaces, or enhanced landscaping. 	

Recommendation		Outcome
5	<p>Require that buildings facing 101 Avenue and public open spaces have active edges at the ground floor level, as identified conceptually in Figure 10. Active edges support pedestrian activity and may include building features such as:</p> <ul style="list-style-type: none"> ▪ Building fronts close to the sidewalk ▪ Clear glass windows ▪ Frequent individual entrances ▪ Pedestrian oriented lighting and signage ▪ Awnings ▪ Patios/amenity spaces 	More pedestrian activity at street level
6	<p>Ensure the use of stepbacks in new developments to:</p> <ul style="list-style-type: none"> ▪ Reduce the negative impacts of height on the public realm ▪ Provide a transition to existing adjacent residential neighbourhoods as needed 	A human scale public realm with a reduced impact of development on adjacent residential neighbourhoods
7	<p>Ensure new residential development facing the side streets off 101 Avenue is setback with individual entrances to ground floor units and that the front yard within the setback is landscaped.</p>	
8	<p>Ensure consistent architectural treatment on both facades of corner buildings that face two public roadways.</p>	
9	<p>Ensure development of land adjacent to Fulton Ravine considers the following:</p> <ul style="list-style-type: none"> ▪ The Top of Bank setback shall be identified by geotechnical analysis and delineated per City policy ▪ Land below the top of bank should be acquired for public use as part of the ravine system at the time of development ▪ Space for shared use path or trail connections shall be provided to connect to the ravine, to 101 Avenue, and to any other trail connections 	Enhanced public access to the ravine
10	<p>Explore options to use the old fire hall site to contribute to a community hub, as described in Figure 10.</p>	New community amenities replace a vacant lot

FIGURE 10 - LAND USE & BUILT FORM



LAND USE

New development with a mix of active ground floor commercial and residential uses is supported throughout the plan area with a greater concentration of ground floor commercial desired in the Main Street area. Active uses on the ground floor contribute to a vibrant street life, enable the natural surveillance of parks and streets, and enhance the feeling of safety in an area.

BUILT FORM

The built form of new development will contribute to a vibrant street life on 101 Avenue and respect neighbouring properties. This can be achieved with good urban design and use of height transition (stepbacks) and setbacks.

<p>HEIGHT TRANSITION</p>	<p>SETBACKS</p>	<p>Height Transition (Stepbacks) and Setbacks:</p> <ul style="list-style-type: none"> Reduce building massing and contribute to a sense of human scale on 101 Avenue Provide a transition to adjacent low density residential development and reduce the impact of height Reduce sun shadowing on adjacent residential development Increase privacy and reduce overlook onto adjacent backyards
<p>ACTIVE EDGES</p>	<p>PARKING</p>	<p>Active edges support pedestrian activity and may include building features such as:</p> <ul style="list-style-type: none"> Building fronts close to the sidewalk Clear glass windows Frequent individual entrances Pedestrian orientated lighting and signage Awnings Patio/amenity spaces <p>Active edges do not typically include front surface parking - parking should be located to the rear or underground.</p>

OLD FIRE HALL SITE

The old fire hall Site can contribute to a community hub which helps animate a blank space along 101 Avenue, provides a community gathering space, and connects the Caplano Library.

Possibilities for the site could include:

- Mixed use development (residential, community, commercial)
- Recreational activities
- Urban gardens



4.4 MOBILITY

Mobility refers to all modes of transportation that people use on 101 Avenue, including walking, cycling, transit, and motor vehicles.

Complete streets are streets that are designed, operated, and maintained to enable safe, convenient, and comfortable travel for all modes of transportation.

The City has a mandate to fulfill “Vision Zero”, which will be implemented in this corridor by prioritizing pedestrians, cycling, and other active modes through dedicated, high-quality infrastructure, and reducing the speed of vehicular traffic along 101 Avenue.

The vision for 101 Avenue includes a mobility network that connects 101 Avenue to a broad network of transportation options and destinations, while prioritizing more vulnerable users. Redesigning 101 Avenue as a complete street, with safe and efficient routes for all modes of transportation, means people of all ages and abilities will feel comfortable walking, cycling, and taking transit to meet their daily needs. The mobility recommendations for the corridor consider the movement of people by all modes of transportation and the use of 101 Avenue as both a destination and a connection.

4.4.1 ROAD NETWORK

101 Avenue is both a destination and a connection to other places in the city. Fulfilling these two functions means considering:

- The way people move through the corridor
- How the corridor connects to other destinations
- How people access the businesses and residences along 101 Avenue
- The experience people have as they are using the corridor while walking, cycling, taking transit, or driving

Transforming 101 Avenue into a 3-lane road (one lane each direction with a centre turning lane) as shown in Figure 12 will help balance the corridor’s function as both a destination and a connection. Using narrower vehicle lane widths, and reducing the space allocated to vehicles, provides space for protected bike lanes and more generous space for pedestrians (see Figure 11 Roadway Cross Sections). Recommendations to improve connectivity and accessibility in the road network include:

Recommendation	Outcome
<p>1 Install a fine grained road network as shown conceptually in Figure 12, including:</p> <ul style="list-style-type: none"> ▪ Create new accesses through large blocks in the Main Street and East 101 areas and align with cross streets where possible ▪ Install pedestrian/cyclist only accesses in the Main street and East 101 areas 	<p>Improved connectivity to local destinations</p>
<p>2 Require new street and lane connections at the time of rezoning, subdivision, or development permit, as shown in Figure 12.</p>	

Recommendation		Outcome
3	<p>Require publicly accessible private roads to provide similar functionality to public roads and integrate with the surrounding road network by providing connections for all modes.</p> <p>Larger development parcels, as identified conceptually in Figure 10, are most likely to see the development of private roads. See Section 4.2 for related public realm recommendations.</p>	Improved connectivity to local destinations
4	As adjacent redevelopment occurs, close the service road north of 101 Avenue between 67 Street and 70 Street, as shown conceptually in Figure 12. Consolidate the parcel with adjacent private parcels for development, except what is needed for public boulevard or sidewalk.	Linear park space with active residential frontage
5	Close westbound access to 101 Avenue from Terrace Road/50 Street as shown conceptually in Figure 13: East Entrance to 101 Avenue.	Improved pedestrian experience due to reduced speeding and large truck traffic
6	Improve lanes to a commercial standard where commercial development shares a lane with low density residential as redevelopment occurs along 101 Avenue.	Lane infrastructure that can accommodate increased traffic due to commercial development

FIGURE 12 - MOBILITY CONCEPT

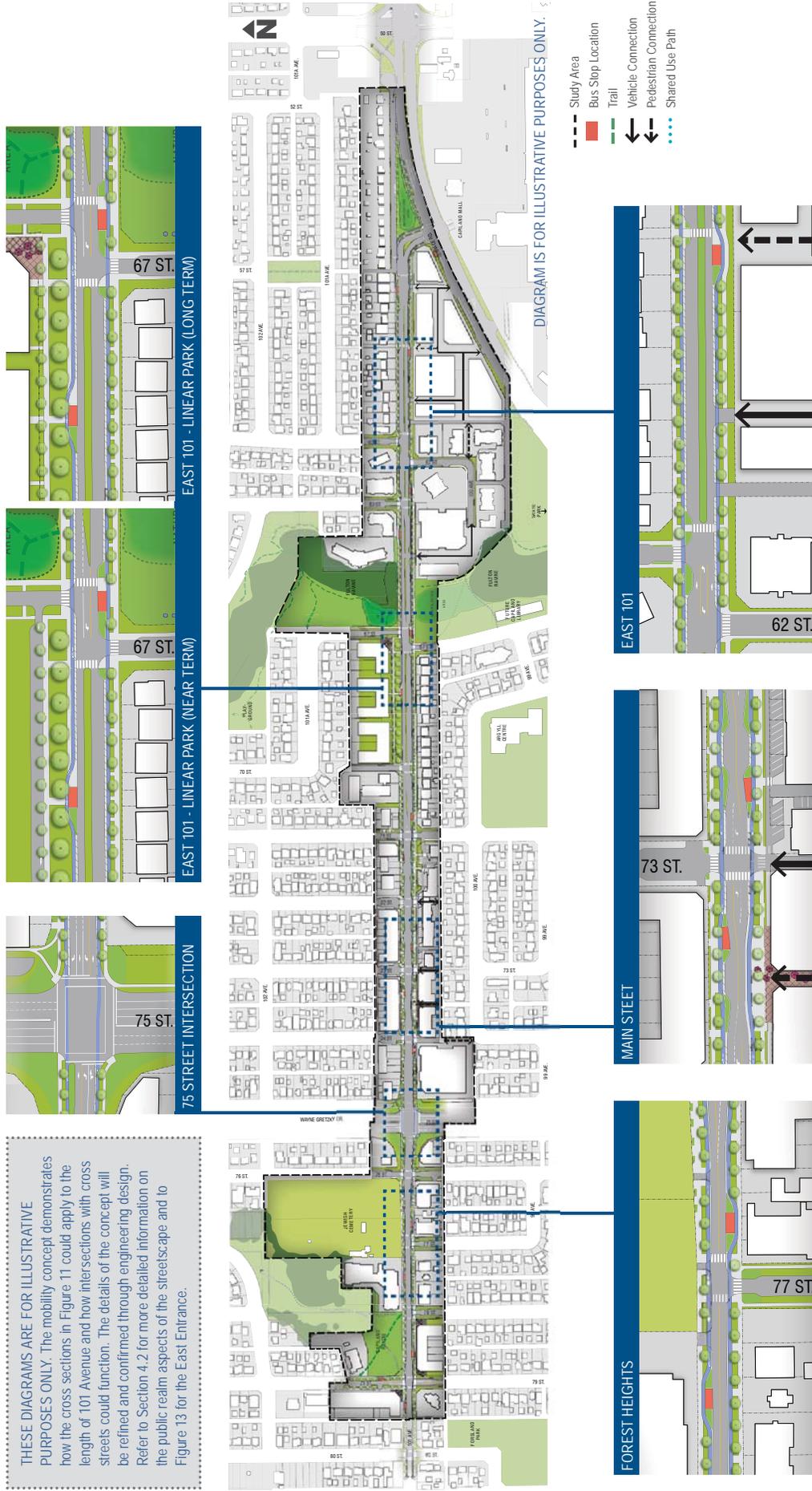


FIGURE 13 - EAST ENTRANCE TO 101 AVENUE

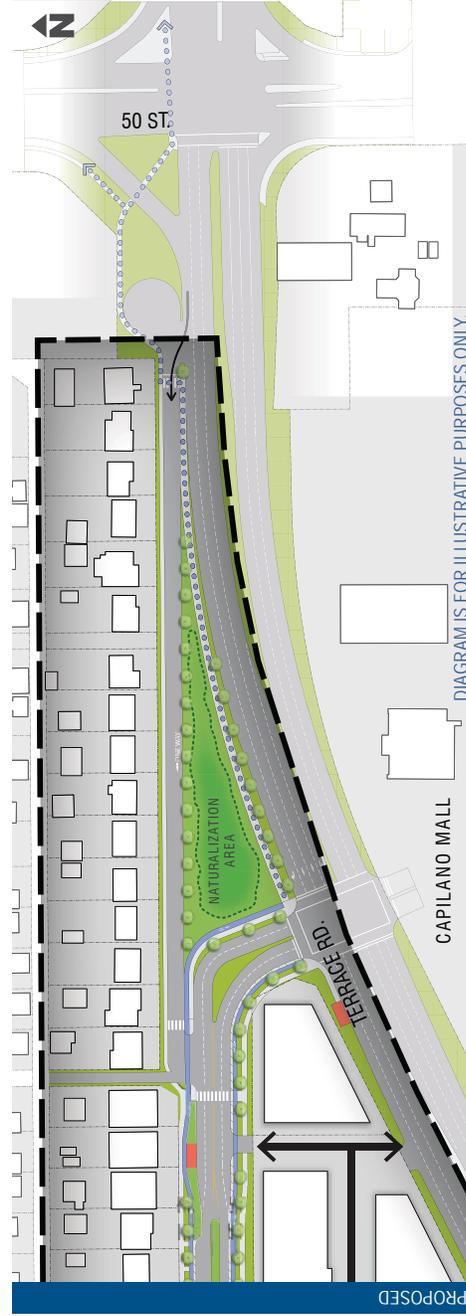


Study Area

Aside from speeding, the other major concern the public raised is that large trucks use the road as a shortcut (101 Avenue is not a truck route). One way to address both of these issues is to redesign the way 101 Avenue is accessed from the east.

The direct connection of 101 Avenue westbound from 50 Street encourages additional through traffic, including trucks. This connection could be taken out and all 101 Avenue traffic could use a normal right turn lane from Terrace Road onto 57 Street.

This would encourage trucks to use 98 Avenue, and would allow the 101 Avenue corridor to be redesigned to improve pedestrian and bicycle movement.



4.4.2 WALKING ON 101

Creating a highly walkable and welcoming pedestrian realm on 101 Avenue will serve the existing community and future development. Providing a safe and comfortable pedestrian environment makes it easier for people of all ages and abilities to choose to walk to their destinations year round and contributes to improved public health and quality of life.

Recommendations for improvements to pedestrian facilities include:

Recommendation	Outcome
<p>1</p> <p>Ensure barrier free design in the public realm along 101 Avenue, including the provision of:</p> <ul style="list-style-type: none"> ▪ Curb ramps at intersections in the direction of travel ▪ Continuous, level sidewalks across driveways ▪ Direct and clear path of travel for pedestrians ▪ Frequent benches/seating options ▪ Timely clearance of snow/ice from sidewalks 	<p>Universally accessible and safe pedestrian environment for all ages and abilities</p>
<p>2</p> <p>Improve intersection crossings for pedestrians, as shown conceptually in Figure 14, with interventions where appropriate such as:</p> <ul style="list-style-type: none"> ▪ Curb extensions ▪ Additional marked crosswalks ▪ Addition of pedestrian activated crossing lights (pedestrian flashers) ▪ Removal of channelized turning lanes ▪ Reduce crossing distance (narrowing roadway and reducing curb radii) 	
<p>3</p> <p>Consider provision of mid-block crossings for pedestrians where blocks are long or there is a mid-block destination or pathway.</p>	
<p>4</p> <p>Require barrier free pedestrian connections from building entrances to the sidewalk and along existing buildings if and when adjacent buildings and surface parking lots are renovated or reconstructed.</p>	

4.4.3 CYCLING ON 101

Bike Route Validation

Following the first public workshop, where we heard that participants strongly supported bike lanes on 101 Avenue, the project team sought to confirm whether 101 Avenue was the most appropriate location in the area for bicycle infrastructure to be constructed. More feedback about potential bike routes was requested at the second engagement event where the community was asked:

- Which alternative routes might be available for an east-west bicycle connection in the area?
- Was the criteria that was used to confirm other bicycle routes in Edmonton applicable to this corridor?
- Which destinations would you travel to by bike?

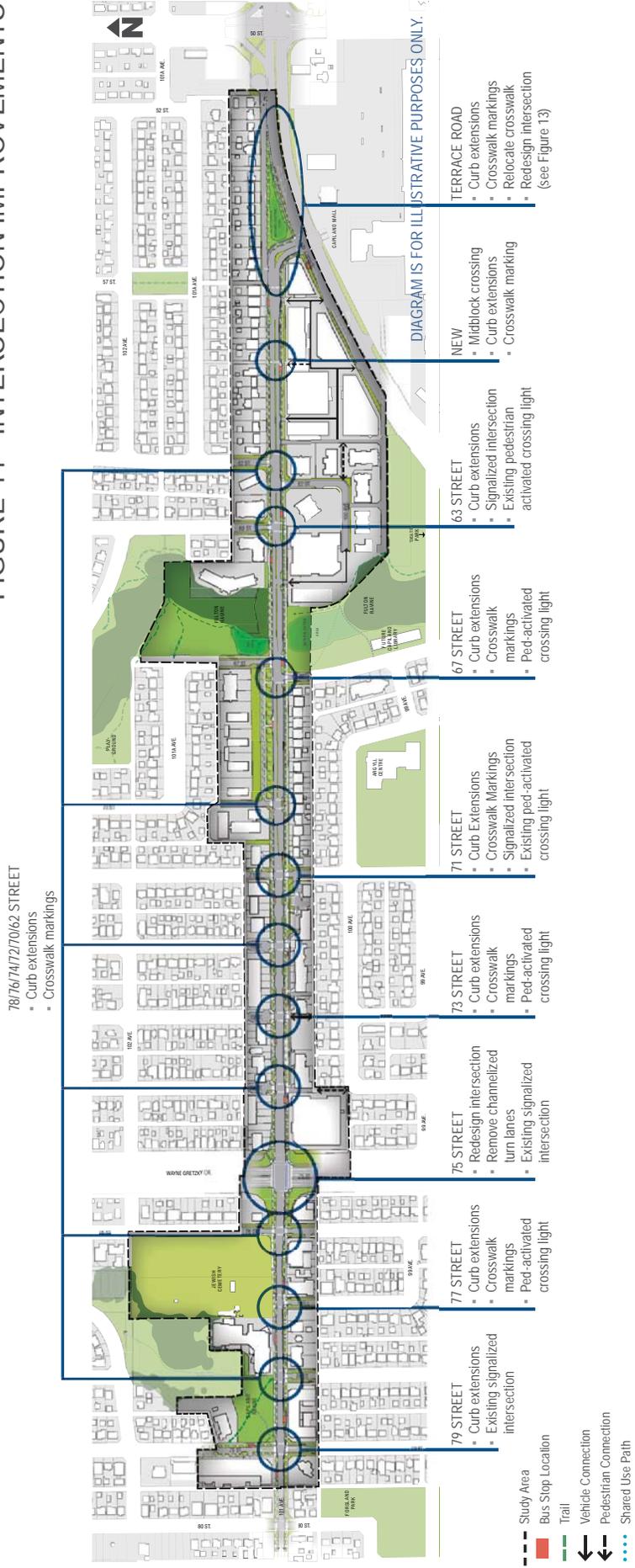
Based on feedback received at the public open house, and from internal stakeholder review, 101 Avenue was validated as a location for a bicycle route.



Throughout the engagement process participants expressed strong support for protected bike lanes on 101 Avenue. Providing a protected bike lane for cyclists along 101 Avenue will improve connectivity in the broader area and provide a safe and comfortable place for people to ride their bikes. Recommendations for cycling infrastructure and facilities along 101 Avenue include:

Recommendation		Outcome
1	Provide protected bike lanes on 101 Avenue, as shown conceptually in Figure 11 and Figure 15.	Safe and comfortable bike facilities that allow people of all ages and abilities to cycle and experience related health and environmental benefits
2	Provide adequate bike parking in the streetscape and as part of new development. Parking should include spots suitable for residents and employees (longer term secure parking), and visitors and customers (shorter term accessible parking).	
3	Connect the 101 Avenue bike lanes to the broader bicycle network, as shown conceptually in Figure 15. Important connections include: <ul style="list-style-type: none"> ▪ East to Tiger Goldstick Park ▪ West to 84 Street and the River Valley Trail System ▪ North to the pedestrian/cyclist bridge over 75 Street ▪ South to the future Strathearn LRT Station 	A completed and linked bicycle network
4	Install shared use paths through Fulton and Capilano Ravines as identified conceptually on Figure 15: <ul style="list-style-type: none"> ▪ Provide a connection to the pedestrian bridge over Wayne Gretzky Drive from Capilano Ravine ▪ Provide connections to the community hubs where the edges of the ravines meet 101 Avenue 	

FIGURE 14 - INTERSECTION IMPROVEMENTS



INTERSECTION IMPROVEMENT EXAMPLES (to be implemented where appropriate)

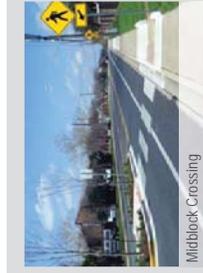
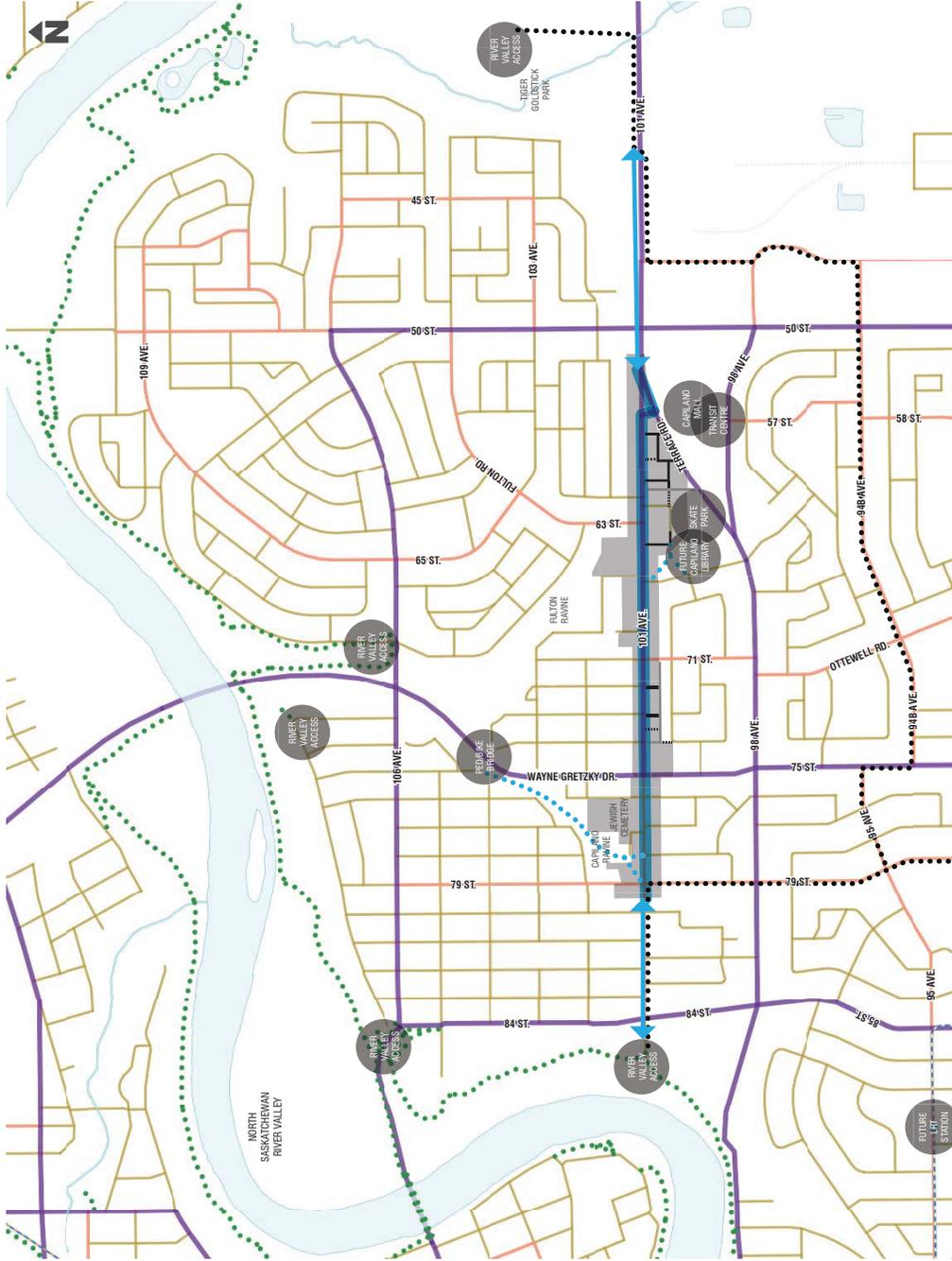


FIGURE 15 - BICYCLE NETWORK

Based on community and internal stakeholder feedback we recommend protected, separate cycling facilities on each side of a two-way roadway. This type of bike facility allows cyclists to travel in the same direction as adjacent vehicles, which is more familiar for road users and allows for a simpler design (see Figure 11 - Roadway Cross Sections).

The bike lanes proposed on 101 Avenue will need to connect to a broader bike network. Figure 15 shows a shared use path connection east to Tiger Goldstick Park and the bike route extended west to 84 Street and the river valley trail system. However additional study will be required to determine how best to complete these connections and trade-offs may be necessary. Other important connections to tie into include the pedestrian/cyclist bridge over 75 Street, the future Straithearn LRT stop, and trails in Fultion Ravine.



- Study Area
- New Road Connection
- New Bike/Pedestrian Connection
- Arterial Roadway
- Collector Roadway
- Local Roadway
- New Protected Bike Lanes
- New Bike Connection (outside of study area)
- New Shared Use Path
- Existing Signed On-Street Bike Route
- Existing Shared Use Path

4.4.4 TRANSIT ON 101

Improving access to transit and user experience along 101 Avenue will make it easier and more comfortable for people to choose the bus. Linking potential customers, employees, and users to key destinations along 101 Avenue will increase vibrancy in the area and help support local business. Increased transit ridership also results in lower greenhouse gas emissions when people choose to take transit over using a private vehicle.

Recommendations to support transit use on 101 Avenue include:

Recommendation		Outcome
1	Provide a continuous bus route along 101 Avenue.	Improved connectivity, access, and transit user experience
2	Ensure safe and direct pedestrian connectivity to bus stops.	
3	Upgrade bus stops to include the standard features installed at new stops such as: <ul style="list-style-type: none"> ▪ Benches ▪ Shelters ▪ Garbage receptacles 	

4.4.5 VEHICLE PARKING AND ACCESS

To support area businesses and limit the impact on adjacent residents, adequate parking must be provided in the 101 Avenue area. Recommendations for vehicle parking and access seek to minimize the impact of parking on the public realm. The purpose of the recommendations below is to support the corridor as it develops over time into a more vibrant and pedestrian friendly destination.



Recommendations for vehicle parking and access along 101 Avenue include:

Recommendation		Outcome
1	Ensure adequate parking is provided to support area businesses and residential development.	Decrease impact of on street parking on adjacent residential neighbourhood
2	Configure side streets (from 101 Avenue to the lane) in the main street sub-area to accommodate angle parking where possible.	
3	Require that vehicle parking for new development is located underground or behind the building. Parking will be accessed off the lane.	Improved pedestrian experience and buildings with active frontages that engage directly with the public realm

Recommendation	Outcome
<p>4 Provide a barrier or buffer where existing surface parking lots or drive aisles are adjacent to sidewalks to ensure that vehicles do not physically encroach onto the pedestrian realm. As shown conceptually in Figures 11 and 16, the buffer could include such barriers as street furniture and landscaping.</p>	<p>Improved pedestrian experience and less potential conflict between vehicles and active modes</p>
<p>5 Minimize the number of driveways crossing the sidewalk and public realm. As shown conceptually in Figure 12, consolidate existing driveway accesses at shared locations or through the rear lane when available.</p>	
<p>6 Allow for vehicle access to existing front surface parking until redevelopment occurs and parking can be relocated behind the building or underground.</p>	<p>Functional access maintained to existing front surface parking to support existing businesses</p>

Main Street Parking

On the south side of 101 Avenue between 74 Street and 71 Street there are areas where surface parking is currently located within the road right of way, as shown in Figure 16 (Existing) and in Section 2.2.2. In some locations there is not enough space on private property to accommodate a drive aisle and a row of parking in front of the existing building.

For functional access and parking to be maintained, a portion of the road right of way (City property) may need to be used as a drive aisle, as shown in Figure 16 (Near Term). The near term configuration includes the equivalent of about 80% of the existing surface parking (not including rear parking). Opportunity exists for more angle parking to be provided on the side streets (as currently seen on 74/73 Street) to increase parking supply in the main street area if necessary.

In the longer term scenario, as sites redevelop, parking will be located underground or in the back off the lane and that portion of the right of way would be used as part of the new building's frontage zone and possible landscaping.

FIGURE 16 - MAIN STREET PARKING



4.4.6 VEHICLE TRAFFIC IMPACTS

The mobility recommendations for 101 Avenue propose significant change to the function and character of the road for motor vehicle users. Many changes which improve the pedestrian and cyclist experience are also expected to slow down vehicle traffic. Land use recommendations seek to increase density, activity, and vitality in the area. Some of the additional activity will come from people walking, cycling, or taking transit in the 101 Avenue area but there will also be more people getting to and from the corridor by motor vehicle. With the recommended changes in place, people driving along 101 Avenue will generally experience:

- Slower motor vehicle travel speeds
- Having to stop more frequently for pedestrians to cross or for buses
- A delay in getting across, or turning onto, 101 Avenue from side streets during peak traffic times



The above, combined with roadway narrowing and intersection changes, will likely result in some people choosing to drive on 98 Avenue instead of 101 Avenue. Portions of the study area could experience additional specific impacts:

Forest Heights	Peak hour traffic is anticipated to flow fairly smoothly through this segment of 101 Avenue. The narrowing of the road to one lane in each direction is not a significant change in this segment, relative to what the road is like today.
75 Street Intersection	The 75 Street intersection is where it is anticipated that traffic congestion would be most challenging. More detailed design will be required to accommodate traffic volumes on 75 Street, including vehicles turning onto and off of 101 Ave, while also ensuring the intersection operates safely for all users including cyclists and pedestrians.
Main Street	Turning in and out of commercial properties and intersecting streets is anticipated to be slower than today, mostly during the few peak traffic hours each day. Traffic controls such as four-way stops or traffic signals could be implemented as needed as solutions to this issue.
East 101	Peak hour traffic is anticipated to flow fairly smoothly through this segment of 101 Avenue. The narrowing of the road to one lane in each direction is a significant change, but the transportation analysis suggests there is excess road capacity in the existing road design.

4.5 GREEN INFRASTRUCTURE

Low impact development (LID) is a land development and stormwater management approach that works with nature to manage stormwater as close to the source as possible.

Sustainability refers to a way of living which meets the needs of the present without compromising the ability of future generations to meet their needs.

Greening the 101 Avenue area with street trees and landscaping, and naturalizing the ravines can help reduce the environmental impact of urban life in the area. Installing LID facilities as part of these green features will amplify the benefit to the environment and help 101 Avenue become a more sustainable place.



Rain gardens and street trees

Older areas of the city, like 101 Avenue, have a combined sewer system where sewage, rain, and melted snow go into the same pipe. Runoff makes its way to the sewage treatment plant, where it is treated and expelled into the river. Installing low impact development facilities reduces runoff and reduces the volume of water going into the underground pipes. This means that less water has to be treated, and in the event of a large storm, less water overflows into the river with minimal or no treatment. Other benefits of LID include:

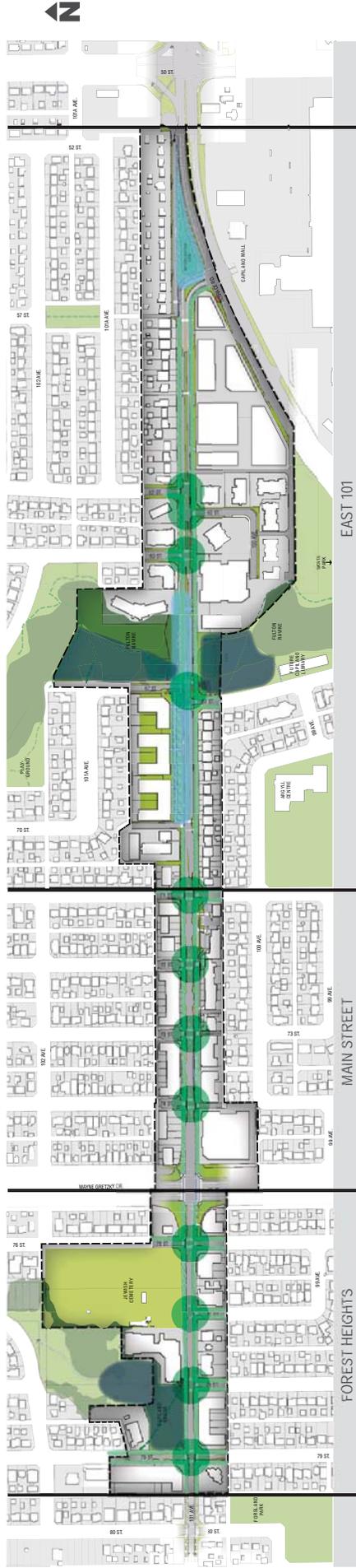
- Improves watershed health by decreasing pollutants from urban development to surrounding watercourses
- Provides green spaces that contribute to wildlife habitat and ecological corridors
- Decreases urban heat island effects (urban areas that are warmer than rural areas)

101 Avenue has little opportunity for new parks, however trees and vegetation can be included in the design of the streetscape. LID facilities can be installed along with these features and as improvements to existing park spaces. Opportunities to incorporate LID and naturalized landscaping along 101 Avenue are further described in Figure 17.

Recommendations to green 101 Avenue include:

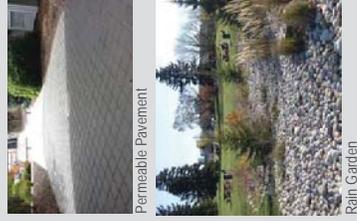
Recommendation		Outcome
1	Re-naturalize the landscape adjacent to Fulton Ravine with native and/or adaptive species.	New habitat that improves biodiversity and improved water quality due to increased infiltration
2	Re-naturalize the Capilano Ravine area with native and/or adaptive species.	
3	Incorporate low impact development (LID) facilities such as street trees, rain gardens, bioswales, and permeable pavement into streetscape and park improvements.	Improved water quality, and reduced impact on the City's stormwater system
4	Develop the triangular green area next to Terrace Road, as identified in Figure 17, to include LID and naturalization opportunities on the site where possible. See Section 4.2 for public realm recommendations related to this area.	An upgraded green space that provides environmental benefit and a community amenity

FIGURE 17 - GREEN INFRASTRUCTURE



- Large scale: Ravines / natural areas
- Medium scale: Land reclaimed from road right-of-way
- Small scale: Street trees and curb extensions

- Opportunities for LID installations along 101 Avenue include a range of scales and types:
- Street trees with LID features
 - Rain gardens in curb extensions and planter boxes
 - Existing medians in the road
 - Bioswales in Caplano and Fulton Ravines
 - Rainwater collection at community gardens
 - Permeable pavement in parking lots



5 IMPLEMENTATION

5.1 IMPLEMENTATION STRATEGY

The 101 Avenue Corridor Study lays the groundwork to be able to move efficiently from planning to implementation. There are a range of actions listed in Section 5.3 (Implementation Matrix), some of which will take many years to achieve, and others that are already well underway.

In order to bring to life the vision for 101 Avenue this implementation strategy focuses on the following key elements:

1. Coordinate with existing City projects and programs, such as
 - Arterial Road Renewal
 - Low Impact Development Pilots
 - Facade Improvement Program
2. Cooperate with multiple stakeholders to achieve common goals, such as:
 - ELEVATE (community hubs)
 - CITYlab (temporary place making)
3. Maintain momentum and community ownership of the 101 Avenue project by:
 - Supporting community initiatives that enliven 101 Avenue
 - Connecting community to City resources or expertise

5.2 IMPLEMENTATION CATEGORIES

The 101 Avenue Corridor implementation actions are divided into three categories, discussed further on the subsequent pages and viewable in Section 5.3.



LAND USE INITIATIVES



INFRASTRUCTURE INITIATIVES



COMMUNITY INITIATIVES



Area Redevelopment Plan

An Area Redevelopment Plan (ARP) is the proposed tool for achieving the land use vision for 101 Avenue. This Study has provided the foundation for the establishment of an ARP. The findings, objectives, and outcomes of the Study can be easily translated into a formal ARP document.

An ARP is an appropriate tool for the following reasons:

- There are many sites that are great for redevelopment along 101 Avenue and ARPs can provide more targeted direction on appropriate transportation and built form in an area where we want to see change and growth
- As a statutory plan the ARP can also apply City guidelines more proactively, and make it easier to secure laneway dedication and access closures
- An ARP gives a status to the 101 Avenue vision so that it can continue to be championed effectively by community members, the City, and Council through the years

As part of the 101 Avenue Corridor Study, Administration has undertaken extensive engagement to understand and distill the community needs and objectives. Therefore the process to implement the ARP is fairly straightforward and can be completed in approximately six months, including the following steps:

1. Draft ARP document (adapt 101 Avenue Vision & Corridor Study)
2. Conduct public engagement
3. Circulate ARP to internal and external stakeholders
4. Update Draft ARP based on feedback
5. Present ARP to Council Public Hearing for approval

Pedestrian Commercial Shopping Street Overlay

Another key land use initiative important for implementation is application of a zoning overlay to the corridor. The Pedestrian Commercial Shopping Street Overlay, which may become the Main Streets Overlay, should be applied to achieve the following:

- Prevent development of undesirable built forms (auto-oriented, low intensity commercial)
- Require active pedestrian-oriented street frontages that support a pedestrian-friendly, mixed-use corridor
- Maintain the existing land use permissions under current zoning, but augment them with regulations that improve the streetscape to align with the vision for 101 Avenue



Infrastructure changes includes the following elements:

- Reduced vehicle lanes
- Improved pedestrian crossings and sidewalks
- Physically separated bicycle lanes
- Opportunity for Epcor Water to coordinate water main replacement, installation, and upgrading in the avenue (crucial to accommodate new development and intensification)
- Opportunity for pedestrian-scale lighting and street furniture
- Installation of boulevard trees and other low impact development features

Streetscape Improvements

Many of the objectives of the 101 Avenue Corridor Study can be achieved by upgrading the streetscape. This requires building on the existing planned arterial road renewal in the area. Combining staff and financial resources, the money allocated for arterial road renewal can combined with additional funding to become more than simple road resurfacing. The road renewal can help deliver outcomes the community is looking for, while helping to achieve broader City strategic goals, such as:

- Supporting a mode shift to more cycling and walking
- Creating a more pleasant streetscape to attract infill and commercial development
- Supporting more livable spaces for people of all ages and abilities

Low Impact Development

Low impact development can also be incorporated along the Avenue by partnering with drainage engineers, who are testing out pilots in different areas of the City. This will ensure that new trees and plants contribute to the environmental sustainability of the Corridor as well as providing beauty.



The 101 Avenue Corridor Vision & Study has benefited from the momentum of a community united behind a common purpose. Some initiatives require residents to take the lead, and can be undertaken in the near-term. These can improve livability and use of the Avenue, and keep the community engaged as infrastructure and planning work progresses.

Supporting the enthusiasm of residents requires connecting community members to different City groups and opportunities. For example:

- Providing permits for festivals and other outdoor programs to enliven 101 Avenue
- Providing grants for brownfield development of vacant sites
- Sharing information on Business Association and Business Improvement Area processes, and Facade Improvement and Corner Store programs
- Being available to present material at community meetings or attend community events to spread awareness of different programs

5.3 IMPLEMENTATION MATRIX

	City of Edmonton										EPCOR			Community Members		
	Planning Coordination	Nodes + Corridors	ELEVATE	CityLAB	Active Transpo.	Economic Sustainability	Drainage Planning	IIS*	Heritage			Community League	GHCSC*	Community Members	Property Owners	Business Owners
Land Use Initiatives																
SHORT TERM 2017	Deliver Final Report to Urban Planning Committee of Council															
	Seek authorization to pursue Area Redevelopment Plan (ARP) based upon the report															
	Draft ARP															
	Conduct public consultation and refine ARP															
	Present ARP to Public Hearing of Council															
MEDIUM TERM 2018-2020	Apply the Pedestrian Commercial Shopping Street Overlay, or its successor, to the commercial core areas of 101 Avenue (approximately 79 Street to 71 Street))															
	Apply a Pedestrian Commercial Shopping Street Overlay, or its successor, modified for residential on remainder if directed/ deemed necessary															
SHORT TERM 2017	Additional analysis and detailed design for 101 Avenue configuration															
	Concurrent Utilities and Infrastructure Planning															
MEDIUM TERM 2018-2020	Scope capital budget request, and request funds for 101 Avenue reconfiguration not covered by the core Arterial Renewal program															
	Pilot Street Configurations: east 101 Ave-50 Street lane closure; excess commercial access closures															
LONG TERM 2020+	Complete engineering design and begin first phase(s) of 101 Avenue Reconstruction															
	Complete remaining phase(s) of 101 Avenue Reconstruction to new design															

IIS - Integrated Infrastructure Services
 GHCSC - Greater Hardisty Community Sustainability Coalition

	City of Edmonton										EPCOR				Community Members			
	Planning Coordination	Nodes + Corridors	ELEVATE	CityLAB	Active Transpo.	Economic Sustainability	Drainage Planning	IIS*	Heritage	Community League	GHCSC*	Community Members	Property Owners	Business Owners				
SHORT TERM 2017	Park Naming																	
	Murals																	
	Bike Lane Education Initiative / pop-up bike lane demo																	
	Place-Making (pop-ups, markets, festivals)																	
	Re-Naturalize Fulton Ravine																	
	Bylaw Education Initiative (snow clearance and maintenance)																	
MEDIUM TERM 2018-2020	Temporary Uses for Brownfield - Temporary Park																	
	Test expansion of Commercial Facade Improvement grant program to 101 Avenue																	
	Register the Jewish Cemetery (or portions of) as a Municipal Historic Resource																	
	Jewish Cemetery applies for grants for maintenance of Historic Resources																	
	Naturalize Caplano Ravine																	
	Form Business Association																	
LONG TERM 2020+	Further study of old fire hall site for development as a community hub																	
	Form Business Improvement Area (BIA)																	
	Develop community amenities, targeted housing																	

IIS - Integrated Infrastructure Services
 GHCSC - Greater Hardisty Community Sustainability Coalition

A GLOSSARY

Active Edges

At-grade uses and building design features that support pedestrian activity. Active edges make streets more interesting by promoting a high degree of visual and physical interaction between the inside of a building and the adjacent public realm (sidewalks).

Auto-oriented Development

Buildings and public spaces that are designed to accommodate vehicles first, rather than pedestrians and cyclists. This type of development typically has easily accessible parking lots, wider roads and less attention to bike and pedestrian facilities.

Barrier Free

A design characteristic that minimizes obstacles and maximizes accessibility for persons with physical, cognitive, and/or sensory disabilities or impairments.

Complete Streets

A street that is designed to improve comfort, safety and efficiency for various roadway users and to make a street more attractive and functional.

Density

The number of dwelling units, square meters of floor space, or people per acre or hectare of land. What is determined low, medium and high density can vary, but typically low density would be single family homes, duplexes and row housing, medium density would be 4 to 8 story apartment buildings and high density would be anything larger.

Facade

The outside of any exterior wall of a building.

Inactive Edges

Areas along a street that are the opposite of active, with uses and design that do not support pedestrian activity. Inactive edges may have vacant buildings, blank walls with no windows, narrow sidewalks, and a lack of interesting features in the public realm.

Grid Street Pattern

A way of organizing streets and land so that streets run at right angles to each other, forming a grid. A grid street pattern is typically easy to navigate and has more frequent intersections than other street patterns. These two factors make the grid street pattern good for pedestrian movement.

Low Impact Development

Low Impact Development (LID) is a land development and stormwater management approach that works with nature to manage stormwater as close to the source as possible.

Mixed Use Development

Development that includes a mixture of different land uses such as residential, commercial, and institutional. Mixed use development includes horizontal mixed use, where different uses are provided adjacent to one another on the same site, and vertical mixed use, where different uses are provided within one building.

Modified Grid Street Pattern

A way of organizing streets and land that is similar to a grid pattern, except that not all streets connect. This pattern is often used to limit the intersections on main, busy roads into residential areas. A modified grid street pattern may include more curved streets and can adapt more to natural terrain.

Pedestrian Friendly

An environment designed to make travel on foot convenient, attractive, and comfortable for people of various ages and physical or cognitive abilities. Considerations include the directness of the route, safety, amount of street activity, separation of pedestrian and auto circulation, street furniture, surface material, sidewalk width, prevailing wind direction, intersection treatment, curb cuts, ramps and landscaping.

Public Realm

All lands such as streets, parks and plazas that are owned by, or accessible to, the public.

Road Right-of-Way

Land between property lines that accommodates the pedestrian and vehicle circulation network. Road right-of-way includes traffic lanes, bike lanes, boulevards and public sidewalks. Road right-of-way can sometimes be wider than expected and cover land that is not currently being used for transportation purposes.

Streetscape

All the elements that make up the physical environment of a street and define its character, including: the road, boulevard, sidewalk, building setbacks, height and style. It also includes paving treatments, trees, lighting, pedestrian amenities and street furniture.

Transit Oriented Development (TOD)

Urban development that is integrated with transit to make the most efficient use of both land and infrastructure. In TOD, housing, shopping and employment are concentrated along a network of walkable and bikeable streets within 400 metres of a transit station.

Universally Accessible

Design of the built environment in a way that increases the accessibility, safety, mobility, and independence for people of all ages and abilities