JANUARY 2023

GLENWOOD (163 Street West) Neighbourhood and Alley Renewal Edmonton

URBAN DESIGN ANALYSIS Chapter 1: Background Report

LAND ACKNOWLEDGEMENT



The City of Edmonton acknowledges the traditional land on which we reside, is in Treaty Six Territory.

We would like to thank the diverse Indigenous Peoples whose ancestors' footsteps have marked this territory for centuries, such as nêhiyaw (Cree), Anishinaabe (Saulteaux), Nakota Isga (Nakota Sioux), Niitsitapi (Blackfoot) and Dené peoples. We also acknowledge this as the Métis' homeland and the home of one of the largest communities of Inuit south of the 60th parallel. It is a welcoming place for all peoples who come from around the world to share Edmonton as a home.

Together we call upon all of our collective, honoured traditions and spirits to work in building a great city for today and future generations.

Image source: the City of Edmonton

West Glenwood Urban Design Analysis | CHAPTER 1 BACKGROUND REPORT

CONTENTS

LIST OF MAPS

1.0	INTRODUCTION1
	1.1 Background1
	1.2 Urban Design Analysis
	1.3 Project Approach & Process
2.0	NEIGHBOURHOOD BACKGROUND & CONTEXT5
	2.1 Study Area
	2.2 Neighbourhood Context
	2.3 Neighbourhood Profile
	2.4 GBA + Analysis
	2.5 Policy & Standards Review
3.0	NEIGHBOURHOOD ANALYSIS
	3.1 Approach & Considerations
	3.2 Land Ownership & Development Opportunities60
	3.3 Commercial Nodes & Community Destinations
	3.4 Built Form & Character Areas
	3.5 Open Space Network
	3.6 Complete Streets Analysis
	3.7 Mobility Networks
	3.8 Infrastructure

Map 1. Study area
Map 2. Land Ownership63
Map 3. Commercial Nodes71
Map 4. Built Form and Character Areas77
Map 5. Surrounding Open Space Network
Map 6. Open Space Network
Map 7. School Sites
Map 8. Jack Horan Park94
Map 9. Glenwood Park95
Map 10. Complete Streets Analysis
Map 11. Mobility Network – Walking and Rolling
Map 12. Mobility Network – Transit
Map 13. Mobility Network – Biking
Map 14. Mobility Network – Parking and Traffic Controls147
Map 15. Speed Zones148
Map 16. Injury Crashes (2017 – 2022)149
Map 17. Green Infrastructure



GLENWOOD (163 STREET WEST)

1.0 Introduction



1.1 Background



1.1.1 Neighbourhood Renewal Program and 1.1.2 Alley Renewal Program outline the purpose and approach of the Neighbourhood Renewal Program and Alley Renewal Program. For this project, these two programs will be fully integrated.

Glenwood is a large, mature neighbourhood in west Edmonton bounded by the following streets:

- North Stony Plain Road
- East 156 Street
- South 95 Avenue
- West 170 Street

Sidewalks, streets and infrastructure are in need of repair in the portions of the neighbourhood west of 163 Street, hereafter referred to as **"West Glenwood."** Neighbourhood and Alley Renewal construction for West Glenwood is scheduled to start in 2025.

1.1.1 Neighbourhood Renewal Program

The purpose of the Neighbourhood Renewal Program is to outline cost-effective and long-term strategic approaches to renew and rebuild infrastructure within mature neighbourhoods and along collector roadways. The scope of work for Neighbourhood Renewal typically includes the following elements:

- Replacement of sidewalks, local roadways and collector roadways
- Upgrading streetlights and LED luminaires
- Construction of curb ramps and other intersection improvements
- Addressing missing links in the sidewalk and bike network

The Neighbourhood Renewal Program also offers the opportunity for two types of cost-sharing Local Improvements: sidewalk reconstruction and decorative streetlights. Opportunities to improve other city-owned areas, such as green spaces and parks, will also be reviewed with Neighbourhood Renewal. The intention is to make desired upgrades and enhancements in coordination with the Neighbourhood Renewal Program and leverage other funding sources.

1.1.2 Alley Renewal Program

Alley Renewal will also be included as part of this project. The Alley Renewal Program outlines a cost-effective, long-term strategic approach to renew and rebuild alleys across the City over the next 25 years. Alley Renewal involves alley reconstruction and repaving, improvements to surface drainage where possible, and upgrading of existing alley lighting to LED fixtures. Utility assessments and repairs, along with removals and pruning of trees and shrubs, are also completed and minor enhancements to improve connectivity, safety, and comfort for people who walk, roll, or bike are explored.



1.2 Urban Design Analysis

Urban design is an overarching city-building discipline that is concerned with how people experience the urban environment during their day-to-day activities. Urban design focuses on how streets, parks, trails and open spaces are organized, function and connect with larger city-wide networks. Designing the community's public spaces in a way that enhances the livability of the neighbourhood can include how public spaces function, look and feel.

This urban design analysis (UDA) looks at West Glenwood through an urban design lens in terms of the existing urban context, character areas, design aesthetics, access to day-to-day community destinations and connectivity with other parts of the city. Key objectives of the UDA include:

- Presenting concepts, developed based on City policies and programs and consideration for technical requirements and public input. Concepts will inform renewal efforts and develop a community plan to inform future City initiatives in the neighbourhood.
- Identifying gaps and opportunities within the neighbourhood from different lenses such as walkability¹, connectivity and universal design.
- Guiding future investment and redevelopment to enhance the overall quality of life.

The project team will use the UDA to support decision making throughout the renewal process (concept/design/build). Concepts selected for implementation will require detailed design prior to construction and consideration of appropriate funding sources. Funding could come from the public, private or community sectors. It is recognized that limited financial resources are available, so while some initiatives will be prioritized, others will likely be developed over longer time frames or reassessed in time.

^{1.} NOTE: References to people walking within this document include the following (as per the Complete Streets Design and Construction Standards):

⁺ people running

⁺ people standing

⁺ people using manual / motorized wheelchairs or scooters

⁺ people using canes or walkers

⁺ people pushing strollers or carts

⁺ people pushing bicycles

⁺ and users of various other low-speed forms of human locomotion

1.3 Project Approach & Process

The West Glenwood UDA is developed during the "Concept Phase" of the renewal project. It will contain three chapters that will be developed over the first four steps of the BGN Road Map shown in the figure below. This report is **UDA Chapter 1: Background and Information Analysis.**

The key steps for developing the West Glenwood UDA are:

- Gathering background information, including initial outreach to community stakeholders and performing an analysis (UDA Chapter 1 – i.e. this report)
- 2 Building a neighbourhood Vision for livability and mobility with the community to support generating ideas and exploring opportunities (UDA Chapter 2: Neighbourhood Vision and Opportunities)
- 3 Developing options by analyzing neighbourhood urban design features to identify strengths and opportunities for renewal
- 4 Developing a draft design identifying priority projects that respond to the opportunities (UDA Chapter 3: Draft Designs)

The draft design recommended within the UDA will inform the development of the final design and construction drawings.





2.1 Study Area

The scope of Neighbourhood and Alley Renewal in West Glenwood includes the areas shown in **Map 1. Study area** (alleys, local roads, collector roads, and city–owned lands). The arterial roads within and surrounding West Glenwood (170 Street, Stony Plain Road, 100 Avenue, 163 Street, 95 Avenue) are not part of the renewal scope. However, these roadways and other roads, infrastructure, and destinations surrounding West Glenwood are identified and discussed where relevant as key elements in neighbourhood's area of influence to help examine connections and potential impacts of the renewal project.

As noted in **1.1 Background**, the Glenwood neighbourhood extends from 156 Street to 170 Street. The scope of this project only includes areas west of 163 Street. Areas east of 163 Street underwent neighbourhood reconstruction in 1992. Since that time, roads have been microsurfaced in 2005 and 2015. The City currently rates the condition of roads in East Glenwood as good to fair. The condition of sidewalks in East Glenwood is rated very good. Renewal in West Glenwood will consider linkages to East Glenwood to ensure the two halves of the community are connected.



Local Residential Street in Glenwood Park



Map 1. Study area

2.2 Neighbourhood Context

The following are key characteristics of the West Glenwood neighbourhood.

2.2.1 History

Prior to the 1800's, many First Nations groups including the Cree, Dene, Nakoda, Blackfoot, and Ojibway resided on the territory known today as Edmonton. Europeans first arrived in the mideighteenth century and settlement began in the late 1700's.

Glenwood neighbourhood was once part of the Town of Jasper Place, which contained many small farms and acreage homes in the early 1900's. The population grew in the following decades with the extension of Edmonton's city boundary. Glenwood and several other neighbourhoods were eventually annexed by Edmonton in 1964. The Glenwood neighbourhood incorporated the former neighbourhoods of Westlawn (present–day West Glenwood) and Dufferin Place (present–day East Glenwood), which was established around 1912. As a result, Glenwood is now among Edmonton's largest, mature neighbourhoods.

Glenwood's name originates from a contest that was held to name the newly incorporated Town of Jasper Place in 1950.



2.2.2 Development

Most development in Glenwood occurred during the 1950s and 1960s. The portion of the neighbourhood east of 163 Street was developed during the 1950s and the area to the west was largely developed throughout the 1960s. A large proportion of Glenwood's properties are residential, with some commercial and institutional land uses, as well as schools, parks, and religious assemblies.

Housing unit types are diverse, with a mix of single and semi-detached homes, row housing, and low- and high-rise apartments. Many of Glenwood's businesses are located between Stony Plain Road and 100th Avenue. Glenwood is located near Mayfield Common to the north, West Edmonton Mall to the southwest, as well as Jasper Place Transit Centre to the northwest.

Development is broadly divided into two distinct areas in the neighbourhood: primarily commercial areas north of 100 Avenue and primarily residential areas south of 100 Avenue. However, as discussed in **3.4 Built Form & Character Areas** and shown in **Map 4. Built Form and Character Areas**, there is a mix of residential and commercial development in both areas.



Commercial development

2.2.3 Streets & Sidewalks

West Glenwood is bounded by 170 Street, Stony Plain Road, 163 Street, and 95 Avenue. With the exception of 95 Avenue which is a collector road, these streets are all arterials. All four streets contain at least four travel lanes with 170 Street being the widest with six travel lanes not including turning lanes. 170 Street is considered part of Edmonton's inner ring road. There are service roads on Stony Plain Road, 163 Street, and 95 Avenue that are used for parking and access to the residential and commercial areas. Another arterial, 100 Avenue, divides the primarily residential portions of the neighbourhood to the south from the primarily commercial portions of the neighbourhood to the north. 100 Avenue is a one-way street accommodating east-bound traffic flows and has sidewalks on both sides.

West Glenwood's internal street network is grid-like with very few cul-de-sacs and offers several vehicular access points into the community including:

167 Street

100 Avenue at 167 Street



- 96A Avenue and 99 Avenue to the east off 163 Street
- 165 Street and 167 Street to the south off 95 Avenue
- 100 Avenue to the west off 170 Street

There are three collector roads in the neighbourhood: 166 Street, 167 Street, and 168 Street. North of 100 Avenue, these streets provide access to the commercial areas. South of 100 Avenue, 167 Street continues south, connecting to 95 Avenue. There is right-in/right-out access to 167 Street for developments south of 100 Avenue. In addition, while 165 Street is designated as a local road, it functions as one by providing a direct north / south connection from 95 Avenue to 100 Avenue in a similar fashion to 167 Street. 165 Street is also serviced by transit with Community Route 924.

Most of the local residential roads include narrow curbside sidewalks along both sides with roll faced curbs. People walking to or from the neighbourhood can cross the street at crosswalks on the surrounding roads. Within the community, breezeways provide connections between the sidewalks of local residential roads. Characteristic of most streets within the commercial portion of the neighbourhood, north of 100 Avenue, the sidewalk network contains many gaps, missing links, and interruptions to accommodate access to parking lots. Sidewalks in this area are curbside walks.

The majority of residential and commercial properties back onto alleys. For most low density housing, alleys provide driveway access, with the exception of several of the single detached properties fronting 167 Street (i.e. properties on the west side of 167 Street north of 99 Avenue and properties on the east side of 167 Street north of 96 Avenue). Several multi–unit developments also have private internal roadways, parking lots, and walkways. Most multi–unit residential buildings and commercial buildings locate their waste collection and some parking next to alleys. However, most commercial sites provide the bulk of their parking in the front.

For additional information about streets, sidewalks, and alleys in West Glenwood, as well as opportunities for improvements, see **3.6 Complete Streets Analysis** and **3.7 Mobility Networks.**



167 Street, looking south

2.2.4 Utilities

Utility vaults in the sidewalks and other telecommunication infrastructure throughout the neighbourhood may constrain design options in certain locations. Existing streetlights will be replaced . If street lights are installed on a pedestal, a new base will be installed but there may be less flexibility in relocating them compared to other street lights due to the utilities contained within them. Streets where street lights with pedestals are found include 167 Street, 168 Street, 98A Avenue, 169 Street, 98 Avenue, 97 Avenue, 96 Avenue, and 95A Avenue. These are all west of 167 Street. There are no street lights with pedestals east of 167 Street.Lights will also be updated to LED as applicable. Some of the neighbourhood appears to have already been converted to LED. Standard water and gas lines exist in West Glenwood to service homes. There are no high pressure gas lines or high voltage electrical lines. The most significant utility feature in the neighbourhood is a large stormwater management facility (dry pond) north of 99 Avenue directly next to Jack Horan Park. For more information on infrastructure and utilities, as well as opportunities in West Glenwood, see **3.8 Infrastructure**.

2.2.5 Parks & Open Spaces

Two main parks in West Glenwood (not including the school fields):

- Jack Horan Park
- Glenwood Park

Jack Horan Park contains paved and unpaved pathways lined with pedestrian lighting. There are few other furniture elements (e.g. benches, trash cans) within the park. The park is directly next to a large dry pond. The dry pond and the park function as an interconnected public open space. The park is landscaped with turf and a variety of coniferous and deciduous trees. The dry pond contains a walking loop, lighting, a variety of coniferous and deciduous trees, a naturalized area on the north end, and a deteriorating concrete pad at the base of the dry pond.



Jack Horan Park and Dry Pond

Glenwood Park contains the Glenwood Community League building, a small parking area, a playground, an outdoor ice rink, picnic tables, and formal shared pathways. There is a small gazebo containing one picnic table in the northeast corner of the park. Shared pathways are lined with pedestrian lighting. Different lighting poles are used throughout the park suggesting that some have been replaced over time. The park is fenced on all sides except the southeast corner near the Community League building and parking lot. It can be accessed from all adjacent streets including through a gap in the fence at the north / south alley to the north. A portion of closed alley is located in the northwest corner of the park (municipal address 9803 165 Street) and has been incorporated into Glenwood Park. There is a drainage line connecting from the alley east of 165 Street to 165 Street in this parcel. Additional information about land ownership is provided in **3.2 Land Ownership & Development Opportunities**.

Parks and open spaces in West Glenwood and the surrounding area are discussed in more detail in **3.3 Commercial Nodes & Community Destinations** and **3.5 Open Space Network**.

Glenwood Community League

The Glenwood Community League is an active, non-profit community organization which serves the needs and interests of residents in Glenwood. The Community League operates the Community Hall on Glenwood Park which hosts various community and private events including recreational opportunities and social gatherings. The Community League also operates the outdoor ice rink on the park. As discussed in **3.2 Land Ownership & Development Opportunities** and shown in **Map 2. Land Ownership**, the Community League leases a portion of Glenwood Park for its facilities.



Glenwood Park Playground

2.2.6 Schools

West Glenwood is home to two schools:

- St. Thomas More Catholic Junior High (Catholic 7–9)
- Alex Janvier School (Public 4–9)

The schools are located on separate sites near each other in the south portion of the neighbourhood between 165 Street and 167 Street. St. Thomas More Catholic Junior High is located north of 96 Avenue and Alex Janvier School is located south of 96 Avenue. The school grounds for St. Thomas More Catholic Junior High consist of primarily turfed sport fields. Alex Janvier School is newly constructed and landscaping on the school grounds is underway.

In terms of program offerings, St. Thomas More Catholic Junior High offers an Enhanced Academics Program and Sports Academies for hockey, ringette, soccer, and baseball. Junior high students across the City can apply to enroll in this programs. St. Thomas More also offers Cree language and culture programming through its Nehiyaw Pimatisiwin Cree Language & Culture Program. Alex Janvier School offers Arts Core programming that incorporates the visual and performing arts into everyday learning. The attendance area maps for Alex Janvier School and St. Thomas More Catholic Junior High and their various programs are shown in the figures below.

The school sites are discussed in more detail in **3.2 Land Ownership & Development Opportunities**, **3.3 Commercial Nodes & Community Destinations** and **3.5.2 West Glenwood Open Space Network**.



Alex Janvier School



St. Thomas Moore Catholic Junior High



School Attendance Area

Figure 1: Alex Janvier School School Attendance (Elementary: 4–6), 2022 – 2023

Figure 2: Alex Janvier School School Attendance (Junior High: 7–9), 2022 – 2023

GF

87 Ave

School Attendance Area



Figure 3: Alex Janvier School School Attendance (Arts Core Programming: 4–6), 2022 – 2023



Figure 4: St.Thomas More Catholic Junior High Attendance Area

2.2.7 Commercial Amenities

Community Commercial

West Glenwood has three strip malls which are described as follows:

- A strip mall is located on the southeast corner of 170 Street and 100 Avenue, fronting 170 Street. It contains restaurants, a dentist office, a liquor store and a variety of retail shops. It is located within the Stony Plain Road and Area Business Improvement Area (BIA).
- Westlawn Square is located on the southwest corner of 163 Street and Stony Plain Road, fronting onto both streets. It contains restaurants, a specialty grocer, and other retail and businesses. It is located within the Stony Plain Road and Area BIA contains a number of businesses including.
- Westgate Mall is located on the northwest corner of 163 Street and 95 Avenue, fronting 163 Street. It contains restaurants, a convenience store, a pharmacy and health clinic, and other retail.

Stony Plain Road and Business Improvement Area

The Stony Plain Road and Area BIA encompasses two of the strip malls noted above as well as properties north of 100 Avenue. BIAs are geographic areas of the city in which businesses pool resources and work together, through a formal association, to enhance the economic development of their area. The Stony Plain Road BIA extends between 139 Street and 171 Street along both sides of the Stony Plain Road corridor. The portion within West Glenwood contains commercial amenities including automotive services, hospitality, food and beverage, professional and medical services, and clothing stores. One of the commercial sites located north of 100 Avenue between 164 Street and 166 Street is a business condo associate which contains six commercial buildings with a variety of business and retail shops. Some buildings in this commercial condo front 100 Avenue, 164 Street, and 166 Street while others are internally focused.

Commercial nodes within and surrounding the community are discussed in more detail in **3.3 Commercial Nodes & Community Destinations**.

2.2.8 Transit

The neighbourhood has access to ETS bus routes and stops along the collector and arterial roadways (Stony Plain Road, 100 Avenue, 95 Avenue, 165 Street, and 163 Street). Jasper Place Transit Centre is located approximately 700 metres east of West Glenwood between 158 Street, Stony Plain Road, 156 Street, and 100 Avenue. Future LRT stops on the Valley Line West extension will be available north of 100A Avenue on 156 Street and at 95 Avenue and 156 Street. Both are approximately 800 metres east of West Glenwood.

Dedicated Accessible Transit Service (DATS) is a door-to-door public transportation service for Edmontonians who cannot use regular transit for some or all of their travel needs, due to a physical or cognitive impairment. Wheelchair lift equipped vehicles, minivans, accessible minivans, taxis, and vans are used to provide DATS service. Vehicles used are clearly identified as "DATS" vehicles. On-street parking is provided along the majority of roads in West Glenwood that supports the use of the DATS service. Many multi-unit developments including seniors housing provide internal roadways and pick-up/drop-off areas near main entrances that may be utilized by the DATS service. Since from 2018–2022, there have been 36,906 service calls for DATS pick-up and drop-off in the project area (data as of October 14, 2022).Transit service, including DATS, is discussed in more detail in **3.7.2 Transit**.



Image source: the City of Edmonton

2.3 Neighbourhood Profile

This section contains key statistics for the Glenwood neighbourhood. Statistics are only available for the neighbourhood as a whole. Therefore, the following summaries includes information and data for both the study area (West Glenwood) as well as the parts of the neighbourhood to the east (east of 163 Street).

2.3.1 Neighbourhood Statistics

Population²

1,385

As of the 2016 Federal Census, Glenwood's total population is 5,385.

Largest population groups in Glenwood are in the 25-29 (15.1%) and 50-54 (15.1%) age ranges. The 30-34 is closely behind at 15.0%.

There is a significant **senior population** in the neighbourhood with 37.6% of residents being 65-years or older compared to City of Edmonton with approximately 11% in 2019.

Male 0-4 5.0% 5.0% 5-9 4.8% 10-14 15-19 5.5% 5.9% 20-2 25-29 7.6% 30-3-8.2% 35-3 5.9% 40-4 7.6% 45-4 8.0% 50-5-7.8% 55-5 5.7% 60-6-3.8% 65-6

3.1%

2.7%

2.5%

2.1%

Glenwood Population by Age and Gender

	Female	
0-4	4.5%	
5-9	4.7%	
10-14	4.9%	
15-19	4.3%	
20-24	6.3%	
25-29	6.5%	
30-34	7.4%	,
35-39	6.7%	
40-44	6.3%	
45-49	5.8%	
50-54	7.0%	
55-59	6.7%	
60-64	5.4%	
65-69	4.9%	
70-74	4.5%	
75-79	5.1%	
80-84	4.5%	
85+	4.5%	

2.2016 Federal Census

8.6%

Household Size³

Glenwood's households are predominantly **one- and two-person** households (67% of households in Glenwood compared to 59% for the City of Edmonton).



Businesses⁴

As of 2021, the Stony Plain Road and Area BIA contains 389 licensed businesses. This is a net increase of seven (7) licensed businesses from 2020 but a net decrease of 26 from 2019. Fifty-two (52) new licenses were issued in 2021. Note that these figures include the entirety of the BIA, including areas outside of the scope of this project.

Total Licensed Businesses (Stony Plain Road & Area BIA)



3. 2016 Federal Census

4. Stony Plain Road and Area Business Improvement Area Economic Indicators 2021

2.3.2 Socioeconomic Characteristics

The majority of housing stock (66%) in Glenwood was built in 1980 or earlier. Glenwood has significantly less housing stock built between 2011–2016 (3%) compared to the City of Edmonton overall (12%)



Dwelling Construction Date⁵

Very little infill development has occurred in West Glenwood. According to the <u>City's Infill Data Explorer</u>, 61 residential units of infill development has been constructed for the entire Glenwood neighbourhood in the tenyear period between January 1, 2012 and October 19, 2022. Of these, only three residential units are located in West Glenwood:

- Two were as a result of a duplex that was constructed in 2018 on 163 Street, north of 97 Avenue
- One was the replacement of an existing single detached house with a new one that was constructed in 2014 on 168 Street, south of 99 Avenue

In addition, four units of row housing was constructed in 2017 or 2018 on the southwest corner of 163 Street and 100 Avenue. Four units of row housing is also under construction across from St. Thomas More Junior High at the northeast corner of 96A Avenue and 165 Street. Neither of these developments are reflected in the City's Infill Data Explorer.

^{5. 2016} Federal Census

Commercial Development

The City of Edmonton's <u>development permit data</u> for the period of June 3, 2015 to October 12, 2022 indicates that 334 development permits have been approved for the entire Glenwood neighbourhood. Of these, 134 (40%) have been for sites zoned for commercial or business uses. Of these permits, 80 have been Major Development Permits, two have been Minor Development Permits, and 52 have been permits for signs. The figure below shows the number of development permits approved by the City by year in the Glenwood neighbourhood.



Approved Development Permits in Commercial Areas

Dwelling Types⁶

Glenwood is predominantly developed with two types of dwellings: **Apartments under five storeys** (46.2%) and **single detached housing** (42.6%). All other housing types account for 12% of housing in the neighbourhood. By comparison with the City of Edmonton overall, while single detached housing is the predominant housing form (50.3%), apartments under five storeys and other housing types account for approximately a quarter of housing types each (23.4% and 26.3%, respectively).



6. 2016 Federal Census

Occupancy (Vacancy Rates⁷ and Owner/Renter Occupied Housing⁸)

Dwelling unit vacancy rates are generally in alignment with the City of Edmonton overall (7% and 6%, respectively).



Glenwood has slightly more renters than owners (48% and 42%, respectively). This is in contrast to the City of Edmonton overall where 50% of housing is owned with only 29% renters.



7. 2019 Municipal Census 8. 2016 Muncipal Census

Household Income⁹

A comparatively high proportion of Glenwood residents are in lower household income ranges (\$49,999 or less: %) compared to Edmonton as a whole. This may indicate that access to low cost recreation options and transportation alternatives such as good walking, rolling, biking, and transit connections should be prioritized for the area to ensure that residents do not face systemic barriers to healthy living and transportation options.



9. 2016 Federal Census

Educational Attainment¹⁰

There is almost a 50/50 split between Glenwood residents who have attained some post-secondary credential (52%) and those who have none (48%). This is in contrast to the City of Edmonton overall where 75% of residents have attained a post-secondary credential and 25% have not.



10. 2016 Federal Census

Household Languages¹¹

Glenwood households are predominantly English speaking (52.2%). Tagalog (Pilipino, Filipino) is the next most predominant language with 8.7% of households speaking it. The next most common languages spoken in Glenwood households are French (2.6%), Punjabi (1.2%), and German (1.1%).



Mode of Transportation to Work¹²

While the majority of Glenwood residents drive to work (64%), a significant number take transit (20%) compared to the City average of 13%. Improving connectivity for people who walk, roll, or bike to transit stops may emerge as a priority for residents through engagement during this project. Note that data reported here is prior to implementation of the City's Transit Network Redesign and the COVID-19 pandemic. Statistics here are not necessarily reflective of the current rates for transportation modes.



11. 2016 Muncipal Census 12. 2016 Municipal Census

Field Use (Booking Hours)¹³

City of Edmonton field booking data indicates that only St. Thomas More Catholic Junior High park site has bookable fields because the fields at Alex Janvier School were still under construction at the time of writing this report. From 2018 to 2021, soccer fields have been the most popular amenity with 431 hours being booked on soccer fields (100x50 and combo fields). Baseball diamonds have been booked a total of 167 hours during that time period. The COVID–19 pandemic greatly affected booking hours in 2020 and 2021.



^{13.} City of Edmonton Field Bookings Data

Economic Indicators¹⁴

The average commercial assessment value in the Stony Plain Road and Area BIA has been declining since 2019. As of 2021, this value is \$2.43 million, down \$0.29 million from 2019.

Average Commercial Assessment Value (\$ Millions) for Stony Plain Road and Area BIA





Great Smile Family Dentist located within Stony Plain BIA

14. Stony Plain Road and Area Business Improvement Area Economic Indicators 2021

In 2021, 36 building permits were issued in the BIA. While the number of building permits has declined from 47 in 2020, the total value of construction remained the same. This data is an indication that property owners and businesses are improving their properties.

Number of Buildings Permits for Stony Plain Road and Area BIA







The vacancy rate in the BIA in 2021 was 4.9%, down from over 6% in 2020.

With respect to patron perceptions of the BIA in 2021 (sample of 613 patrons):

- 53.0% of patrons disagree that the BIA is aesthetically pleasing (compared to 14.8% who agree)
- 57.1% of patrons agree that the BIA is a destination location (compared to 37.5% who disagree)
- 42.7% of patrons disagree that the area is safe (compared to 22.3% who agree)

With respect to business perceptions of the BIA and surrounding areas:

- 50.0% of businesses disagree that the area is safe (compared to 20.0% who agree – sample of 10 businesses in 2021)
 - In 2020, 33.3% of businesses disagreed that the area was safe (compared to 30.0% who agreed – sample of 90 businesses)
- 40.0% of businesses very much identified with surrounding neighbourhoods and communities in 2020 and 2021

Note that these figures include the entirety of the BIA, including areas outside of the scope of this project.

2.4 GBA + Analysis

2.4.1 What is GBA +?

Gender-based Analysis Plus (GBA+) is an analytical tool often used with the intention of advancing gender equality. The "plus" in the name highlights that Gender-based Analysis goes beyond gender and includes the examination of a range of factors such as age, education, race, language, disability, culture and income, and their intersectionality. The goal of GBA+ is to ensure that gender and other diversity characteristics are properly considered in all government programs and policies that affect Edmontonians. A GBA+ approach recognizes that people are influenced by intersecting identity factors that are either marginalized or privileged, and that change over time.

The community of Glenwood is composed of a diversity of people with varying ages, abilities, and social factors, which must be considered in the development of design solutions that benefit all residents. The City of Edmonton has a GBA+ and Equity Toolkit which provides best practices that project teams can follow. Applying GBA+ requires ongoing research, reflection, sharing, and evaluation.

2.4.2 Analysis Criteria

This UDA considers the ways that Glenwood's built form in the public realm works (or doesn't work) for its diverse residential population which includes:

- Seniors (65+) (37.6%)
- Children (0–14) (28.8%)
- People with impaired mobility
- Gender, racial, and cultural minorities

It is also important to consider the needs of business owners, employees, customers, and other people coming to West Glenwood for the services and amenities it offers through the schools, seniors housing, Community League, commercial businesses, and events hosted in the community.

As noted above in **2.4.1 What is GBA +?** people are influenced by multiple identity factors. For each person, these factors intersect and interact to make them who they are (intersectionality). Using an intersectional approach to evaluating the neighbourhood's urban design can help to identify and address systemic barriers to equitable community access and enjoyment.

The GBA+ analyzes four conditions and some built form / public realm considerations that vary depending on the population groups identified above:

- 1 Physical ability
- 2 Personal comfort
- 3 Physical infrastructure
- 4 Safe roadway crossings

1 Physical Ability

Physical ability varies based on factors such as age and presence of mobility impairments. The following are factors to consider when analyzing how these factors impact one's mobility in their neighbourhood:

- Typical five-minute walk on clear, level ground for an able-bodied adult: 400-500 m
- Typical five-minute walk on clear, level ground for a senior or person with a walker or cane: 275-300 m
- In addition to a shorter walkshed, seniors and people with impaired mobility require more places to rest along their walking journey.
- Slopes, stairs, curbs, and street crossings are also factors that can affect mobility for all people but may more greatly impact children, seniors, and people with impaired mobility.
- Typical distance travelled independently by children over the age of 10: approximately 500 m
- The distance can increase depending on age and mode of transportation (i.e. a child on a bike will travel further). Children under the age of 10 are typically accompanied by an adult or older sibling.

AQ -500m Walkshed -

2 Personal Comfort

Personal comfort in public spaces impacts how people will move and use spaces. The following are perceived personal comfort and safety barriers:

- Children and seniors travelling in their neighbourhood: traffic volumes, speed of traffic, directness of routes and whether infrastructure is available that increases personal comfort and safety such as street lighting, marked and lit crosswalks, and covered bus shelters with benches
- Women and gender, racial and cultural minorities: lack of proper sightlines (i.e., hidden or winding walkways and walkways obscured by overgrown vegetation), adequate lighting and other people around



Access to 170 St from West Glenwood



Crosswalk in West Glenwood next to senior's facility
3 Physical Infrastructure

The provision and condition of infrastructure is important to the equitable use of the public realm. Lack of appropriate infrastructure is not only a comfort and safety concern but may also encourage illegal or unsafe usage of infrastructure, such as riding bicycles on the sidewalk or crossing where no crosswalk exists. This often exposes users to the possibility of conflict or law enforcement, which has radically different consequences for racialized individuals as compared to non-racialized individuals.

The design of physical infrastructure can also improve the safety, comfort, and visibility of seniors, children, and families with infants or toddlers. For example, wheelchairs or strollers require wider sidewalk widths than an able-bodied individual. Enhancements to the physical infrastructure to accommodate these user groups makes the public realm safer and more comfortable for all users.

The following are some common issues to look out for when analyzing a neighbourhood's physical infrastructure:

- Lack of appropriate infrastructure for modal uses such as missing sidewalks and lack of marked or separated bike routes
- Inadequate sidewalk widths for strollers, wheelchairs, walkers passing or walking side-by-side
- Placement of street furniture such as benches, signage and streetlights that block or impede movement
- Lack of protection from fast moving traffic or high-traffic volumes
- Inappropriate vehicle speed for local context
- Inconvenient or limited crosswalk locations
- Expansive road widths that take longer to cross
- Short crossing times for people walking at controlled intersections
- Missing or inappropriate curb ramps
- Lack of places to rest
- Too frequent or poorly constructed driveway crossings
- Lack of or insufficient lighting
- Lack of adequate drainage during rain events and lack of snow clearing on sidewalks, roads, and at crossings
- Facilities, amenities, and site design that does not accommodate or support year-round use such as lack of shelter from wind and rain and lack of landscaping to provide shelter from wind and shade from summer sun

The City of Edmonton Access Design Guide and the City of Edmonton Complete Streets Design and Construction Standards provide a number of design considerations and solutions that support a well-designed city that is inclusive, accessible, safe, and considers the needs of everyone, regardless of age and ability.

4 Safe Roadway Crossings

The type and design of roadway crossings impacts the safety and comfort for seniors, children, and people with impaired mobility. The following are some considerations when analyzing roadway crossings:

- Length of roadway crossing: Can a user cross the roadway relatively quickly or should additional infrastructure, such as a refuge island, be provided?
- Appropriate crossing control type: What type of control is present to alert drivers of a crossing pedestrian? E.g. overhead flasher, pedestrian activated signal, stop control, uncontrolled
- **Distance between safe crossings:** Are crossings provided at the right locations and at an appropriate distance or frequency? Are there any missing crossings?
- Sightlines: Are people walking, rolling, and biking visible to drivers? Does landscaping, infrastructure, or roadway design such as curves in the road obscure the view of oncoming traffic for people waiting at a crosswalk or in the act of crossing a road? Does landscaping, infrastructure, or roadway design such as curves in the road obscure the ability of drivers to see people waiting at a crosswalk or people in the act of crossing a road?



Marked zebra crossing in West Glenwood



Sidewalk markings in West Glenwood

2.5 Policy & Standards Review

The Neighbourhood Renewal Program implements City guiding policies, standards and strategies to maximize opportunities for renewal in West Glenwood. The following plans, policies, standards, and guidelines will be used to guide the development of urban design concepts. Public input and technical constraints will help guide how City plans, policies, and other guidance is applied in West Glenwood.

2.5.1 Strategic Plans

Connect Edmonton

ConnectEdmonton is Edmonton's Strategic Plan for 2019 – 2028. It sets the direction for Edmonton's future and outlines where we need to change today to realize the vision for Edmonton in 2050. The Plan includes four strategic goals that require transformative changes to support a 2050 vision of Edmonton. The goals will be achieved through strategic actions, partnerships and collaboration. The four strategic goals are:

- Healthy City: Edmonton is a neighbourly city with community and personal wellness that embodies and promotes equity for all Edmontonians
- Urban Places: Edmonton neighbourhoods are more vibrant as density increases, where people and businesses thrive and where housing and mobility options are plentiful
- Regional Prosperity: Edmonton grows prosperity for our Metro Region by driving innovation, competitiveness and relevance for our businesses at the local and global level
- Climate Resilience: Edmonton is a city transitioning to a low-carbon future, has clean air and water and is adapting to a changing climate

The Glenwood project team will explore renewal design concepts for sidewalks, parks and roads that support the strategic goals of ConnectEdmonton.



Edmonton Action Plan

The Edmonton Economic Action Plan is a 10-year roadmap to build a vibrant, inclusive, and sustainable economy. The action plan is one of the key elements of the City Plan and is aimed at creating jobs, attracting investment and strengthening our economy.

Action 10 in the plan aims to develop tools and strategies to attract commercial, residential and mixed-use development in nodes and corridors. In support of this action, partnership opportunities to revitalize the commercial areas in the portions of the Stony Plain Road and Area BIA that are within West Glenwood will be explored with the BIA, business owners, and community to identify improvements that can improve safety and security, support increased foot traffic, and enhance the attractiveness of the area to businesses, employees, and customers.

Climate Resilient Edmonton: Adaptation Strategy and Action Plan

The Climate Resilient Edmonton: Adaptation Strategy and Action Plan focuses on understanding climate impacts due to ongoing climate change and provides insight into how the City can build resilience around those impacts.

The project team can support the strategy and action plan through elements such as preserving and increasing the tree canopy, implementing climate-sensitive designs for roads and sidewalks, decreasing impervious surface area, and partnering with EPCOR to implement low impact development facilities.

Climate adaptation also encourages us to embrace potential opportunities that may come with a changing climate. The warmer weather may encourage more people to use active modes of transportation more frequently. This opportunity can be supported through the development of enhanced biking, walking, and rolling networks.

Edmonton's Community Energy Transition Strategy & Action Plan

The Community Energy Transition Strategy is the City of Edmonton's path forward for a low carbon city —transforming how energy is generated, how people move around the city, how buildings are constructed, all through the lens to ensure a just and equitable transition. The plan includes four pathways to support limiting the rise of global average temperature increase to 1.5 degrees Celsius:

- 1 Renewable and Resilient Energy Transition
- 2 Emission Neutral Buildings
- **3** Low Carbon City and Transportation
- 4 Nature Based Solutions and Carbon Capture

The project team can directly support pathways #3 and #4 by seeking ways to make active transportation within the community safer, more convenient, and more accessible and by seeking nature-based solutions to support attractive, healthy urban places such as protection and enhancement of Glenwood's urban tree canopy.



Image source: City of Edmonton

2.5.2 Statutory Plans

City Plan

The City Plan charts out how we will get to a future city, a city that has the benefits we enjoy today with new opportunities for the future. The City Plan is about our spaces and places and how we move around the city. It is about our community and what we need to do together to grow, adapt and succeed.

The City Plan, Edmonton's combined Municipal Development Plan and Transportation Master Plan, sets strategic direction for the way Edmonton grows, its mobility systems, open spaces, employment and social networks, generally touching on most aspects of life in Edmonton. The City Plan is a statutory plan providing policy direction that must be followed. The Plan provides a framework to direct Edmonton's population growth as the city grows from one million to two million people and seeks to create a safe and livable city that is welcoming and attractive to existing and new residents.

The City Plan contains stretch targets and strategic measures that support renewal, including creating districts that enable people to easily complete their daily needs within 15 minutes of their residence and increasing the number of trips made by transit and active transportation through investment in bicycle networks and more frequent and accessible transit.

The City Plan speaks to activating growth in the city by investing in infrastructure upgrades and stimulating area readiness for development or redevelopment, which aligns with the Neighbourhood Renewal and Alley Renewal Programs. 170 Street and Stony Plain Road, on the west and north boundaries of Glenwood, are Primary Corridors in the City Plan which are defined as:

The largest, most vibrant, and most prominent urban streets in the city and region. They serve as destinations in and of themselves, but also provide critical connections between nodes, the rest of the city, and the region.

In addition, Glenwood is in proximity to a Major Node (West Edmonton Mall to the southwest) and District Node (Meadowlark Health and Shopping Centre to the southeast). While these nodes and corridors are outside the scope of the West Glenwood renewal project, the project team will seek to identify public realm improvements that support connectivity to these destinations within the neighbourhood. Notably for this project, City Plan identifies a priority growth area bounded by Stony Plain Road on the north, 163 Street on the east, 100 Avenue on the south, and 170 Street on the west within the Stony Plain Road priority growth area (see figure below). Priority growth areas are areas with more intense growth in the first population horizon of the City Plan (1 million to 1.25 million). As a priority growth area, it has been identified for strategic investments that enhance equitable access to amenities and public services, maximize the benefits of mass transit investment, and expand infrastructure capacity to enable redevelopment and intensification. Given the strategic importance of this area in City Plan, opportunities to revitalize the commercial areas and enhance surrounding infrastructure in this area will be explored.



Glenwood Project Area

The UDA concepts will help to achieve the **five Big City Moves** of the City Plan:

1 Greener As We Grow

Planting new urban trees within West Glenwood to help achieve the City Plan goal of two million new urban trees planted

2 A Rebuildable City

- Reimagine and rebuild communities and public spaces to adapt to a changing future
- Explore opportunities to partner with the BIAto incentivize the revitalization of commercial areas within the Stony Plain Road and Area BIA that are located in the project area

3 A Community of Communities

- Creating opportunities for neighbours to socialize and get to know each other through the design of parks and open spaces
- Support the use of transit and active transportation through the design of potential bike facilities and enhanced walking connections to transit stops
- Support the goal of creating 15-minute districts by identifying and providing missing public amenities within West Glenwood

4 Inclusive and Compassionate

- Creating enjoyable spaces such as public parks and amenity areas for people of all ages, backgrounds, and abilities to express themselves
- Adopt a GBA+ lens throughout project design
- Design opportunities that help to eliminate racism and progress towards Truth and Reconciliation

5 Catalyze and Converge

- Support innovation and create well-designed urban spaces and places to help attract and retain a talented population
- Support employment along the 170 Street and Stony Plain Road Primary Corridors by exploring opportunities to revitalize the public realm and commercial areas in the Stony Plain Road and Area Business Improvement Area
- Support strategic investments in the Stony Plain Road primary growth corridor

Jasper Place Area Redevelopment Plan (ARP)

Jasper Place is defined as the neighbourhoods of Britannia Youngstown, Canora, Glenwood, and West Jasper Place. It also includes portions of the Stony Plain Road commercial area from 149 Street to 170 Street. The ARP is a tool to help guide growth and change over the next 15 to 20 years by providing land use guidance and highlighting redevelopment opportunities in the area. It also sets out civic infrastructure policies to guide investment decisions on parks and open space, mobility, and utilities infrastructure. The ARP is intended to help make the neighbourhoods within the Jasper Place area more livable for existing residents and businesses, and to ensure new community members are welcomed and accommodated in the area to support vibrant neighbourhoods, schools, and businesses.

ARP policy for West Glenwood addresses both the residential portions of Glenwood as well as the commercial portions to the north (Stony Plain Road Focus Area). In support of anticipated incremental, small–scale redevelopment and infill, civic infrastructure renewal is envisioned to enhance the vibrancy, connectivity, and access to existing and future transit service, commercial centres, and park amenities. The ARP identifies the following opportunities for civic infrastructure in West Glenwood:

- Improve connectivity to parks and open spaces
- Incorporate winter weather adaptations, naturalized landscaping, and LID features in parks, open spaces, and the public realm
- Improve east-west connections for people walking, rolling, or biking
- Expand the existing shared pathway on 100 Avenue westward from its current terminus at 163 Street westward to 170 Street
- Enhance connectivity to the Stony Plain Road commercial area
- Improve walkability of the Stony Plain Road commercial area



Winter conditions in Jack Horan Park

These opportunities are illustrated in the figures below from the Jasper Place ARP.



Figure 6: City Plan Priority Growth Areas in Proximity to the West Glenwood Project Area

Source: Figure 24 of Jasper Place Area Redevelopment Plan

2.5.3 Accessibility

Accessibility for People with Disabilities, Policy No. C602

Accessibility is fundamental to the quality of life, well-being, and engagement of individuals with disabilities in the social, economic, cultural, spiritual and political aspects of society. The purpose of Policy C602 is to ensure people with disabilities are treated with respect, have equitable access and opportunity to contribute and to provide awareness that the City of Edmonton is committed to the internationally recognized principles of Universal Design, which are founded on the philosophy that accessibility is a fundamental condition of good design.

Access Design Guide, Version 4

The Access Design Guide is intended for use when planning, designing, building, and maintaining facilities, parks and open spaces owned or leased by the City of Edmonton to ensure designs are inclusive for all ages and abilities. This includes transportation and open space infrastructure.

Central to West Glenwood are several schools and seniors housing developments. This heightens the necessity to ensure that the project thoughtfully considers designs that improve safety, accessibility, and comfort of these vulnerable users. The Access Design Guide will be incorporated in project designs by identifying opportunities to:

- Improve connections (e.g. closing gaps where bike routes and sidewalks do not connect with other existing routes and sidewalks, widening pathways);
- Make public spaces more accessible (e.g. providing access points near schools and seniors housing, ensuring paths of travel are not obstructed by street furniture or trip hazards);
- Provide barrier-free amenities (e.g. picnic tables, gathering areas); and
- Ensure seating is provided (e.g. providing seating with views to points of interest, providing a variety of seating options at 100 m intervals along trails and in clusters within parks).



Poor accessibility into Glenwood Park

2.5.4 Winter

Winter Design Policy No. C588 and Winter Design Guidelines

The Winter Design Policy encourages designing year-round spaces with a winter lens. The policy includes the following five winter design principles across neighbourhoods, streets, sites, and open spaces that will:

- 1 Incorporate design strategies to block prevailing winds and downdrafts
- 2 Maximize exposure to sunshine through orientation and design
- 3 Use colour to enliven the winterscape
- 4 Create visual interest with lighting, while being mindful of density, spread, and colour
- 5 Design and provide infrastructure that supports desired winter life and improves comfort in cold weather

These five principles can be applied to all contexts (neighbourhoods, streets, sites and open spaces) in a myriad of different ways. The Winter Design Guidelines build on the principles by providing several goals and outcomes to improve the outdoor experience in winter, championing active winter living. Investments in the public realm and transportation network, along with private sector investment, is encouraged. Specifically, the guidelines speak to ensuring neighbourhoods are designed with winter comfort, safety, access and aesthetic appeal in mind, considering all ages and abilities. These considerations, along with providing opportunities for winter programming and designing elements to attract residents outside during the winter, will be reviewed during the analysis of West Glenwood and considered when proposing enhancement opportunities for sidewalks, walkways, roads, parks, and other open spaces.



Jack Horan Park in winter

2.5.5 Transportation

Snow and Ice Control Policy No. 409

Edmonton is a winter city and its transportation network needs to function for people in all seasons. The Snow and Ice Control Policy sets guidelines that support a safe, reliable, and connected transportation network after snow and ice events. The associated Snow and Ice Control procedure identifies timelines and levels of service for roadways and active transportation facilities based on classification. The West Glenwood project team will consider the level of service required for all-season service within the project area when designing streets and paths.

Active Transportation Policy No. C544

The purpose of the Active Transportation Policy is to optimize opportunities to walk, roll and cycle, regardless of age, ability, or socio-economic status in Edmonton. The policy supports active transportation by providing infrastructure to enhance safety and accessibility; raise awareness of the options available to Edmontonians and the benefits of being active; educate users of their rights and responsibilities; enact policies, procedures and programs to support and encourage active transportation modes; and support and encourage active transportation through collaboration, cooperation and partnerships.

West Glenwood renewal presents an opportunity to evaluate the current active transportation networks at the local scale and enhance the safety and accessibility of the infrastructure in alignment with the policy, and in particular, Policy Statement 1: "Enhance accessibility, safety, security, and convenience through strategic improvement, expansion, and maintenance of the infrastructure and facilities that support Active Transportation, including sidewalks, curb ramps, shared pathways, marked bicycle and shared use lanes, and end-of-trip facilities."



Image source: the City of Edmonton

Community Traffic Management Policy No. C590 in coordination with the Neighbourhood Renewal Program

Traffic shortcutting and speeding issues, as well as other negative driver behaviours, can have a profound impact on the safety and quality of life of residents. The purpose of the Community Traffic Management Policy is to support livable, healthy, and safe communities by providing guidance for a systematic and transparent process to identify, assess, respond to, and report on community traffic issues.

The City of Edmonton strives to mitigate the community impacts of the transportation system by managing the behaviour of traffic in residential communities. Community Traffic Management includes physical measures that minimize traffic shortcutting and speeding to enhance safety for residents and all road users. The implementation of Community Traffic Management initiatives concurrently with neighbourhood renewal is explicitly encouraged in the policy. The West Glenwood renewal project presents an opportunity to improve traffic safety through physical measures such as raised crosswalks, curb extensions, and narrowing lanes to reduce traffic speed.

Safe Mobility Strategy 2021–2025

The Safe Mobility Strategy's purpose is to achieve Vision Zero through safe and livable streets in Edmonton. Vision Zero is the internationally endorsed long-term goal of zero traffic-related fatalities and serious injuries. The City of Edmonton adopted Vision Zero in 2015 and its first strategy, the Road Safety Strategy 2016–2020, made significant progress in reducing serious injuries and fatalities by targeting hotspot locations for infrastructure improvements and enforcement. The Safe Mobility Strategy builds on this momentum by evolving from a hotspot approach to a combination of location-based and system-wide approaches that will help tackle widespread issues that contribute to crashes, including street design and the deep-rooted cultural norms around traffic and mobility. The strategy directly ties traffic safety to The City Plan and ConnectEdmonton to reflect the interdependence between safe mobility and other City goals such as mixed land use, climate resilience, and health. The West Glenwood project team will identify traffic safety issues through public engagement and evaluation of traffic safety and collision data. This information will be used to develop concepts that mitigate traffic safety issues in the community through design interventions that may include curb extensions and/or signalization at crossings and implementing engineering countermeasures for reducing speeds near schools and seniors' facilities such as raised crossings and bulb outs.

The Bike Plan

The Bike Plan provides a strategic framework to support the implementation of The City Plan into an all ages, abilities and seasons bike network. Six principles outlined in the plan are intended to guide the planning and design of the bike network:

- Health and Comfort Grounding the design in safety principles
- **Connectivity** Providing a complete bike network without gaps or missing links
- Directness Providing direct routes with fewer detours
- **Network Density** Ensuring the routes are properly spaced according to demand
- Attractiveness Designing the routes to be aesthetically pleasing
- Integration Ensuring the bike routes fit into the local context and area

Two of the three route types identified in the Bike Plan are relevant to renewal efforts in West Glenwood:

- District Connector Routes Act as cycling arteries connecting multiple neighbourhoods
- **Neighbourhood Routes** Provide local access to community destinations and opportunities for recreational cycling

The West Glenwood renewal project will seek opportunities to provide future bike routes (i.e. new bike routes that would contribute to creating a comprehensive city-wide bike network) in accordance with the Bike Plan. Potential bike route alignments will be explored and constraints identified (e.g. right-of-way constraints) both through public engagement and technical review prior to considering bikeway facility design options.

For the project area, the Bike Plan identifies 163 Street as a district connector route. It also identifies an existing route (shared roadway, lower traffic) along 165 Street, 96a Avenue, and 163 Street (north of 96A Avenue). This existing route has no signage or markings. Adjacent to the project area, 95 Avenue is also planned as a future district connector route. Existing and future bike routes in accordance with the Bike Plan are discussed in **3.7.3 Biking** and shown in **Map 13. Mobility Network – Biking**.

Bike Wayfinding Guide

The document is under development as of January 2022. The project team will review key destinations, within and surrounding West Glenwood to help inform potential wayfinding locations. Potential destinations within the neighbourhood include schools, parks, Community League facilities, and commercial centres. Outside of the community, destinations include West Edmonton Mall, Mayfield Common, Meadowlark Health and Shopping Centre, and MacKinnon Ravine and MacKenzie Ravine.

2.5.6 Open Spaces & Environment

Open Space Policy C594 (2017)

The Open Space Policy outlines the importance of open space networks to Edmonton's environmental and community wellness. The policy acknowledges that green networks should be connected, multifunctional and equitable. It also identifies the need for collaboration within City departments and with community members to promote stewardship in open space development and enhancement. The Open Space Policy recognizes open space as part of a connected landscape, and values public land as an important resource that requires holistic planning. The open spaces and open space network in West Glenwood should be reviewed under this lens and, with community engagement, opportunities should be identified to make certain that the open spaces serve all residents of the Glenwood neighbourhood.

Parkland Bylaw (Bylaw 2202) and Corporate Tree Management Policy C456C

The City-owned parkland in Glenwood falls under the City of Edmonton's Parkland Bylaw and Corporate Tree Management Policy. Any work for open space upgrades that includes work around existing trees or removal of existing trees requires review by the City of Edmonton's Urban Foresters. All trees to remain are to be protected during construction in accordance with the Corporate Tree Management Policy.



Jack Horan Park in summer

Breathe: Edmonton's Green Network Strategy

Breathe: Edmonton's Green Network Strategy calls for an integrated network of open spaces throughout the city. Breathe adopts a multifunctional network approach to open space planning. The strategy considers the amount, function and configuration of not only municipal parks, but all publicly accessible open spaces, in order to form a comprehensive picture of how the entire green network performs. The strategy focuses on outdoor open spaces that are publicly owned or publicly accessible which includes parks, plazas, pedestrian–friendly streets, natural areas, green ways, and green infrastructure.

The driving principles of Breathe is to ensure that development of open spaces is done in a way that supports community celebration and socialization, provides ways for residents to recreate and live healthier lifestyles and preserves and enhances the ecological capital within our city. This is reflected in the three themes of Breathe:

- **Ecology** open space protects the environment by supporting natural ecological processes, saving the riverbank from erosion, and building habitat for flora and fauna
- **Wellness** open space supports health and well-being, offering places for people to physically and mentally recharge
- Celebration open space connects people, building a sense of place and providing places for communities to thrive, gather and celebrate

Breathe's ten strategic directions address safety, inclusivity, vibrancy, community engagement, equitable distribution, vibrancy, public accessibility, ecological integrity, flexible spaces, collaborative planning and other important goals. Breathe also goes beyond a simple supply-based approach to provision of open space in neighbourhoods and considers measures of:

- **Distribution** The arrangement of, and access to, open spaces across the landscape.
- Quality The functionality of an open space, considering the condition of parkland infrastructure and the value of the functions it provides.
- **Diversity** The range of different open space types and functions within the landscape.
- **Supply** The physical amount of open space.

The open spaces within West Glenwood will be analyzed within the context of Breathe's themes and strategic directions, with opportunities seeking to enhance open space provision in the neighbourhood. It should be noted that parkland acquisition is outside the scope of the renewal project. However, through engagement and technical analysis, we will seek opportunities to improve the overall function, quality, diversity, accessibility, and connectedness of existing open spaces.

Urban Parks Management Plan (2006 – 2016)

The Urban Parks Management Plan (UPMP) establishes appropriate amenities for various types of open spaces as well as who should be funding the various types of development. While the park classification system in Breathe has been refined to be more diverse and flexible to better align with the three themes of Breathe, the park classification system, guidelines, and standards used in the UPMP are still used by Administration and other stakeholders. It is anticipated that the UPMP will guide the exploration of opportunities and improvement options for municipal parkland in West Glenwood.

While this plan was intended to be updated or replaced in 2016, no equivalent replacement plan has been completed. Therefore, the Urban Parks Management Plan continues to be a source for guidance on park development and programming for the City.

Live Active Strategy 2016–2026

Live Active is a collaborative strategy to encourage Edmontonians of all ages, abilities, and interests to enjoy the benefits of physical activity – creating positive social and cultural change through increasing health and wellness. The core principles of the strategy are Inclusion, Accessibility, Physical Activity Has a Social Benefit, Supporting Excellence, Collaboration and Innovation, and Continued Connections. The West Glenwood renewal project can support the goals and outcomes of the strategy by improving the safety and accessibility of parks and open spaces, providing supporting amenities for active recreation, and improving the elements of Glenwood's active mobility network.



Image source: the City of Edmonton



Image source: the City of Edmonton



Urban Forest Management Plan

Edmonton's Urban Forest Management Plan (UFMP) is a strategy for sustainably managing and enhancing the diverse urban forest. Edmonton's urban forest provides many benefits including reducing heat island effect, contributing to low-impact development, and enhancing the ecological network.

The UFMP is rooted in four guiding principles:

- 1 Promote a healthy and sustainable urban forest
- 2 Engage the community in protecting and managing the urban forest
- 3 Think globally and regionally; plan and act locally
- 4 Use best practices, innovation, science, information and technology

Maintenance of existing trees will be an important objective of the renewal in West Glenwood. Where possible, adding new trees will be considered to contribute to Strategy 1.1 of the UFMP: "Develop and implement programs that will lead to the establishment of a 20% tree canopy coverage through partnerships, residential action, naturalization and additional landscape tree plantings."

While no metrics are available on tree canopy coverage for West Glenwood or the Glenwood neighbourhood overall, both the project area and neighbourhood are likely well below the 20% target as the vast majority of tree planting is limited to parks, 95 Avenue, and sections of 96 Avenue in East Glenwood.

Dogs in Open Spaces Strategy

The Dogs in Open Spaces Strategy is a 10-year strategy to guide the planning, design and management of off-leash areas in Edmonton. It is accompanied by the Dogs in Open Spaces Implementation Plan (2017), which recommends actions to advance planning, design, and management of the strategy.

Some of the relevant planning recommendations for Off Leash Areas include:

- The target number of Neighbourhood Off Leash Areas should be determined based on population density and dog ownership numbers
- Triggers for new Off Leash Areas may be through the City's identification of an underserved or high demand area, application for new development or redevelopment, or a request from the public through an application process
- Access to neighbourhood Off Leash Areas should be located along walking, biking and transit routes and use on-street parking where feasible
- Preferred land types for Off Leash Areas include open space, transportation or infrastructure right-of-ways, utility right-ofways, drainage lands, or other public land holdings



Image source: the City of Edmonton

The strategy also includes a number of design recommendations, including:

- Boundary of the off-leash area including when "hard edges" (e.g. fencing) or "soft edges" (vegetation, land forms, etc.) should be used
- Standard amenities (including waste bins, waste bag dispensers, signage, open space and trees) as well as when special amenities can be considered
- Guidance on designing primary walking trails and circulation
- Other considerations such as environmental protection, winter design, surface material, signage, vegetation, drainage, etc.

The City's analysis indicates there is a need for a dog off-leash area within or in close proximity to the Glenwood neighbourhood. There are currently no off-leash areas in abutting neighbourhoods with the closest off-leash areas being located over 2 km away at Valleyview Drive (Parkview) and Buena Vista Great Meadow to the east, Callingwood to the southwest, and Patricia Ravine to the south. Beginning in January 2023, the City is piloting off-leash areas in Community League rinks in the adjacent neighbourhoods of Meadowlark Park and West Jasper Place.

The opportunity for a dog park or off-leash area will be reviewed through analysis of neighbourhood open spaces as well as public engagement. Identification of the location and concept design for any dog park or off-leash area in West Glenwood will align with the Dogs in Open Spaces Strategy.



Image source: the City of Edmonton

2.5.7 Zoning Overlays

West Glenwood is subject to two zoning overlays in the Edmonton Zoning Bylaw 12800:

1 Mature Neighbourhood Overlay (MNO)

The MNO applies to residential zoned properties in Edmonton's mature neighbourhoods. Among the requirements of the MNO, it requires vehicular access from a lane where the property abuts an alley. As a land use bylaw requirement, this is typically triggered when a site is redeveloped – for example, with infill developments. In other words, infill developments are required to remove driveways to the street where an alley is present as a condition of development permits. Through this project, opportunities will be explored to remove select front drive accesses where:

- traffic safety issues are identified or
- where properties are also accessed by a driveway and/or garage off alleys.

The Zoning Bylaw Renewal initiative proposes to retire the MNO. However, regulations related to alley access are proposed to be maintained in the new proposed (RS) Small Scale Residential Zone that would apply to the majority of residential properties in the neighbourhood.

2 Major Commercial Corridor Overlay (MCCO)

The purpose of this overlay is to ensure that development along major commercial corridors is visually attractive and that due consideration is given to pedestrian and traffic safety. The MCCO applies to commercial properties in West Glenwood generally bounded by Stony Plain Road, 167 Street, 99 Avenue, and 170 Street, as shown in the figure below.

The Zoning Bylaw Renewal initiative proposes to retire the MCCO. However, the new proposed (CG) General Commercial and (BE) Business Employment Zones that would apply to the majority of commercial properties north of 100 Avenue are proposed to include building design regulations to support good design.

Any partnership opportunities that are explored to revitalize these commercial areas through this project, such as façade, site, or landscape improvements, will need to consider the regulations contained within this overlay. For example, regulations in the overlay require:

- Similar architectural themes on the same site
- Architectural and landscaping measures to reduce perceived massing of large buildings (over 3000 square metres) and long walls (over 40 metres) that are visible from Stony Plain Road
- Integrated accesses between adjoining sites
- Clearly defined, safe, efficient and convenient circulation patterns for both on-site and off-site vehicular traffic and for people walking or rolling
- Relocation of any on-site services for power and communications that are above ground to underground



Figure 7: Major Commercial Corridors Overlay, Glenwood

2.5.8 Design & Construction Standards

Concept and detailed design for renewal in West Glenwood will adhere to the Edmonton Design and Construction Standards where possible. As a normal part of the renewal process, trade-offs may be required in constrained situations (e.g. limited right of way, utility requirements, and street trees). A Design Exception may be required to provide a design that is implementable (e.g. constrained right of way locations) or may be required to provide a non-traditional or alternative design that will result in significantly improved performance. Examples for when design exceptions may be required include the following:

- Constraints, such as right of way, buildings, utilities, or heritage designations that may not be able to be changed or moved.
- Multimodal safety audit findings that clearly show critical risks that require mitigation.
- Emerging best practices or a trial installation that will be used to test a new design or operational approach.

The Edmonton Design and Construction Standards are organized into eight volumes by discipline. Each volume contains a design section, specifications and drawings as required, plus any other guidelines or manuals appropriate to that discipline. Select volumes are highlighted below.



West Glenwood winter road conditions

Edmonton Design and Construction Standards Volume 2 (Complete Streets Design and Construction Standards, Version 4)

The Complete Streets Design and Construction Standards (CSDCS) integrate best practices in design guidance to support the planning, design, and construction of complete streets in Edmonton. The intent is to develop streets that are safe, attractive, comfortable, and welcoming to all users in all seasons while also considering operations and maintenance challenges. The CSDCS provide direction on how elements like street type (building orientation, land use, roadway classification) and modal priority need to be considered in the design.

The CSDCS addresses designing with a retrofit lens, where designers need to consider constrained right-of-ways, locations of existing buildings, mature trees, utilities, private landscaping as well as ongoing operation and maintenance costs. Retrofit situations in the West Glenwood renewal project may require conceptual design of multiple options and the evaluation of trade-offs inherent in each option.

Design Principles outlined in the CSDCS will guide the West Glenwood renewal project:

- A network of streets, transitways, and off-street pathways that together accommodate all users and allow for efficient and high quality travel experiences;
- The transportation network provides travel options for users of all ages and abilities that are safe, universally designed, context sensitive, and operable in all seasons (including winter);
- Streets are adaptable by accommodating the needs of the present and future;
- Streets contribute to the environmental sustainability and resiliency of the city;
- Consider both direct and indirect costs, as well as the value of the public right of way and the nearby real estate; and
- Streets are vibrant and attractive places in all seasons to contribute to an improved quality of life.

Low Impact Development Best Management Practices Design Guide and Edmonton Design and Construction Standards Volume 3 (Drainage)

Low impact development (LID) is a form of stormwater management that mimics natural hydrology by using landscape features to manage frequent, low-volume storm events close to their source. This approach focuses on maintaining or restoring the natural hydrological processes of a site, providing opportunities for natural processes to take place. By collecting stormwater in this manner, benefits such as decreased flooding, increased water quality, and decreased urban heat island effect are provided.

Based on the City of Edmonton's LID Best Management Practices Design Guide, key LID principles include:

- Preserving natural site features
- Small scale, integrated stormwater management controls dispersed throughout the site
- Minimizing hard surface areas such as pavement and asphalt

Controlling stormwater as close to its source as possible

- Prolonging stormwater runoff flow paths and times, and
- Creating multifunctional landscapes

Design of any LID facilities or features in West Glenwood will adhere to the City of Edmonton's LID Best Management Practices Design Guide as well as the Drainage Design Standards.

Design and Construction Standards Volume 5 (Landscaping)

The intent of the Landscaping Design and Construction Standards is to ensure that landscaping on City land provides wellconstructed, functional, aesthetically pleasing and sustainable public open space. Creativity and innovation are encouraged by the standards, but landscaping must take into account the City's maintenance standards.

In alignment with the landscaping standards, landscape design of the City's parks and open spaces through the West Glenwood renewal project will consider the following:

- Safety and security of the general public
- Functional relationship of the landscape design to existing and proposed utilities, land uses, flood / drainage patterns, and vehicular and pedestrian circulation networks
- Factors such as site suitability (location, size, scale), microclimates, soil conditions, hydrology, slope stabilization, erosion control, successive plant growth, visual screening, and control of pedestrian circulation
- Maintenance requirements, including consideration for access by maintenance equipment and crews
- Accessibility, including consideration of opportunities for barrier-free access
- Protection and preservation of the natural environment and enhancement of local biodiversity
- Visual interest and aesthetics
- All-season design, including accommodations for weather protection and all-season use



3.1 Approach & Considerations

The approach to neighbourhood analysis and future creation of concepts for streets and places is based on the philosophy that design needs to reflect the context—– current and future. The purpose of this analysis is to understand the existing conditions and context of the community and identify opportunities, constraints and gaps which are then targeted with design options and analysis of tradeoffs.

The neighbourhood analysis will be supported with public engagement where analysis findings will be shared with the community and to seek their input. The input from the community will provide information on their lived experiences and identify areas where the quantitative data from the neighbourhood analysis may not be telling the whole story.

The neighbourhood analysis was completed through desktop review of geospatial, sociodemographic, and transportation data as well as site visits where notes and photos were used to capture observations.

The following areas were analyzed:

- Land ownership and development opportunities
- Commercial nodes and community destinations
- Built form and character areas
- Open space network
- Complete Streets analysis
- Mobility networks
- Infrastructure

3.2 Land Ownership & Development Opportunities

Land ownership is an important consideration for renewal projects. Different parcels of land are associated with different organizations, such as the City of Edmonton, the Public and Catholic School Boards and other privately owned land. These lands may be subject to different land governance requirements and property rights and require different types of approvals in order to build improvements. Land ownership within West Glenwood is identified in **Map 2. Land Ownership**.

Municipal Use Properties

- Municipal Use Properties (MUPs) provide land to be used for public consumption or benefit for utilities, infrastructure and transportation
- Similar to Walkway Lots, MUPs in Glenwood are typically used for breezeways
- City's Municipal Use Property holdings do not need easements for public access or utilities
- MUPs in West Glenwood include:
 - A stormwater facility north of Jack Horan Park This is a dry pond with steep slopes. The inlet is located in the northwest corner. The bottom of the dry pond is a concrete pad. The slopes and surrounding areas are landscaped with turf as well as coniferous and deciduous trees. A 3.0 m shared pathway encircles the storage area and connects to the path network in Jack Horan Park.
 - Edmonton Police Service (EPS) West Division Station located south of 100 Avenue and west of 165 Street.
 - A triangular parcel abutting the northwest corner of the St. Thomas More Catholic Junior High school site. This parcel is landlocked and leased to the Edmonton Catholic School District (ECSD).

Public Utility Lots

- The purpose of Public Utility Lots (PULs) is to provide land to be used for public consumption or benefit for utilities, infrastructure, and transportation
- PULs are part of the City's MUPs and do not need easements for public access or utilities
- The PUL located south of 95A Avenue and west of 167 Street (Lot 19U, Block 9, Plan 5417NY) is City-owned and under a lease agreement with a private property owner

Walkway Lots

- Used for breezeways (see **3.7 Mobility Networks** for more information on breezeways)
- Walkway Lots are a Transportation Holding and are treated as road right-of-way when undergoing approvals (for example, no development permit required)

Land Ownership and Leases

- The City of Edmonton has established joint-use agreements with the Edmonton Public School Board (EPSB) and ECSD for the respective school sites.
- Map 2. Land Ownership shows the lands owned by the City of Edmonton (Parks Holding), lands under the joint-use agreement with the EPSB for Alex Janvier School and with the ECSD for St. Thomas More Catholic Junior High, and lands leased to the Glenwood Community League.
- There are two Parks Holdings in West Glenwood:
 - Jack Horan Park was created as a Reserve lot through a subdivision replotting scheme in 1968
 - Glenwood Park was created as a Public Works Reserve lot through a subdivision in 1954
- A vacant property located directly east of the EPS station across 165 Street is also a City Holding and has been identified as a City Real Estate Holding on Map 2. Land Ownership. The site is zoned for row housing and pending sale by the City.

Commercial Sites and Stony Plain Road and Are Business Improvement Area

The commercial sites in the area, including those within the Stony Plain Road and Area BIA are privately owned. See 3.3
Commercial Nodes & Community Destinations and Map 3. Commercial Nodes for locations of commercial sites and the BIA.
Streets, alleys, sidewalks, and street lights will be evaluated and considered for improvements in these areas. In addition, there may be opportunities to coordinate enhancements to these sites during project planning, design, and construction through City of Edmonton programs such as the Façade Improvement Program for eligible buildings and businesses in the BIA

In-progress Projects

Alex Janvier School opened in September 2021. Completion of landscaping and construction of the open spaces and sport fields is ongoing as of August 2022 and completion is planned for the fall. The site plan is shown in 3.5.2 West Glenwood Open Space Network.

Opportunities

- Explore the feasibility of enhancing mid-block connections by adding new or missing pathways, widening existing pathways, adding/upgrading additional lights and adding landscaping
- Coordinate with the EPSB and ECSD to explore renewal opportunities on their lands such as new pathways and seating areas through or adjacent to the school sites.
- Where possible, coordinate public engagement activities of the West Glenwood renewal project with other ongoing and planned public and private projects
- Explore opportunities with businesses and the BIA for improvements to the streets and public realm around commercial sites and consider opportunities to coordinate on-site improvements to commercial sites and buildings for eligible properties through existing programs such as the Façade Improvement Program



Glenwood Park seating area



3.3 Commercial Nodes & Community Destinations

The existing commercial nodes and community destinations in West Glenwood and in surrounding areas within a 5-minute walk for an able-bodied adult (400 metres) from the edge of West Glenwood are identified on **Map 3. Commercial Nodes**. Future LRT stops will be available along the Valley Line West just over 800 metres from the edge of West Glenwood (approximately a 10-minute walk for an able-bodied adult). Based on the analysis below, West Glenwood meets the City Plan definition of a 15-minute district. Improvements to streets, sidewalks, lighting, and street crossings to make walking, rolling, biking, and access to transit safer, more comfortable, and more convenient will help enhance the experience of the area for residents, visitors, businesses, employees, and customers.

Community Facilities and Civic Sites

Within West Glenwood

Glenwood Community League
 EPS West Division Station

Within a 5-minute walk

South of the neighbourhood on 163 Street, Jasper Place

Fitness and Leisure Centre as well as the nearby Jasper Place Annex Building and Bill Hunter Arena are just beyond a 5-minute walk from West Glenwood



Glenwood Community League

Small and Medium Scale Commercial Development

Within West Glenwood

- West Glenwood is well-served with a variety of small and medium scale commercial developments including
 - Westgate Mall which contains a convenience store, deli, daycare, pharmacy, health clinic, personal services shops (e.g., barber, nail salon), and restaurants
 - Commercial sites within the Stony Plain Road Business Improvement Area (BIA) including restaurants, specialty grocer, general retail, liquor stores, personal service shops (e.g., barber and hair salons, massage clinic), professional services, vehicle repair and service shops, private education services, and a hotel.

Within a 5-minute walk

- A significant amount of small and medium scale commercial development is within a 5-minute walk to the west, north and east of West Glenwood. In addition to many of the types of commercial development within the neighbourhood, other commercial services are available including cafes and banks.
- It should be noted that accessing the small and mediumscale commercial sites that are in proximity to West Glenwood by walking, rolling, or biking requires crossing wide arterial roads (i.e., 170 Street, 100 Avenue, Stony Plain Road).

Large Scale Commercial Development

Within West Glenwood

There is no large-scale commercial development in West Glenwood

Within a 5-minute walk

- West Glenwood is within a 5-minute walk of a number of large-scale commercial developments including but not limited to:
 - □ RioCan Mayfield (formerly Mayfield Common)
 - Terra Losa Shopping CentreDepot 170
- It should be noted that accessing the large-scale commercial sites that are in proximity to West Glenwood by walking, rolling, or biking requires crossing wide arterial roads (i.e., 170 Street, Stony Plain Road).
- Services provided in these sites include restaurants, grocery stores, a variety of retailers, liquor stores, personal service shops (e.g., nail salons, hair salons, massage clinic), banks and professional services, pharmacies, health services, fitness centres, vehicle repair and service shops, and private education services.

Places of Worship

Within West Glenwood

- St.Herma's Orthodox Church
- The Villa Marguerite Seniors Community and Benevolance Care Centre (see below) also contains a chapel for residents and visitors

Within a 5-minute walk

Annunciation Catholic Church is located just south of the neighbourhood on the southwest corner of 95 Avenue and 163 Street

Senior Housing and Long-Term Care

Within West Glenwood

- Villa Marguerite Seniors Community and Benevolence Care Centre
- Westlawn Courts

Within a 5-minute walk

- Lifestyle Options Retirement Living in the Terra Losa neighbourhood
- The Waterford of Summerlea Retirement Residence in the Summerlea neighbourhood



Benevolence Care Centre



Alex Janvier School

Schools

- Within West Glenwood
 - Alex Janvier School (Public 4-9)
 St. Thomas More Catholic Junior High (Catholic 7-9)

Within a 5-minute walk

- St. Francis Xavier High School (Catholic 10–12)
- Annunciation Catholic School (Catholic K–6)
- Aleda Patterson School (K-3) is just beyond the 5-minute walkshed

Parks and Open Spaces

Within West Glenwood

Jack Horan Park and adjacent stormwater facility to the north
 Glenwood Park

Within a 5-minute walk

- Westlawn Cemetery
- Glendale School park site
 - Note that Glendale School was closed by EPSB in 2020 following the opening of Aleda Patterson School (K-3) in West Meadowlark Park and Alex Janvier School

Allin Park

■ Johnny Bright Sports Park



Jasper Place Transit Station and Future LRT Stops

- The Jasper Place Transit Station is located east of 156 Street on 100A Avenue. It is outside of a 5-minute walk (400-metre walkshed) shown on Map 3. Commercial Nodes. Drawing a straight line from 163 Street to the Transit Station along 100A Avenue, it is approximately 700 metres from the edge of West Glenwood or an 8-minute walk for an able-bodied adult.
- Construction of the Valley Line West LRT started in 2021 and is expected to take 5–6 years to complete. There are two future LRT stops in proximity to the West Glenwood area on 156 Street, but they are outside of a 5–minute walk (400–metre walkshed) shown on Map 3. Commercial Nodes. Both stops are just over 800 metres from the edge of West Glenwood when drawing a straight line from 163 Street to 156 Street. The proposed LRT stops are shown in more detail in the figures below.



Figure 8: Glenwood / Sherwood Stop (156 St and 95 Ave) (Source: Valley Line West LRT Downtown to Lewis Farms Booklet, Spring 2021)


Figure 9: Jasper Place Stop (156 Street and 100 Avenue)

(Source: Valley Line West LRT Downtown to Lewis Farms Booklet, Spring 2021)

Commercial and Community Node Opportunities

- Review local community destinations and neighbourhood active transportation connections using GBA+ criteria to determine equitable access
- Focus public realm improvements around key nodes and community destinations
- Explore opportunities to enhance the experience of people walking along key walking routes
- Explore opportunities to enhance connections within the neighbourhood to surrounding destinations
- Explore improvements to surrounding roads to improve accessibility for people walking, rolling, and biking to and from West Glenwood to enhance the 15-minute district



Alex Janvier School



Map 3. Commercial Nodes



3.4 Built Form & Character Areas

The general built form types and character areas within West Glenwood are identified on Map 4. Built Form and Character Areas.

Built Form

Low-density residential

- One- to two-storey single detached homes set back from roads with front yards
- Front Driveway Housing
 - The majority of homes have rear alleys and rear detached garages. However, the lots on the east side of 167 Street as well as the lots on the west side of 167 Street north of 99 Avenue do not have alleys and have front attached garages with driveways.
 - There are some homes scattered throughout the neighbourhood that have rear alleys and front attached or front detached garages with driveways. Most of these are located on corner lots.

Multi-unit residential

- One- to two-storey duplexes and row houses set back from roads with internal fenced yards or within private multi-unit sites.
- Two-and-a-half to four-storey apartment buildings with grassed front yards, balconies and parking lots positioned internally to sites or to the rear of the buildings
 - Some buildings are street-oriented. Others are internally oriented with internal walkways and ground-level amenity spaces.
 - One building (The Vanier), a seniors community apartment condo, south of 99 Avenue on the west side of 165 Street has underground parking off 165 Street and an internal parking lot on the south side of the building adjacent to the main entrance.



Low-density residential



Multi-unit residential

Commercial

- One-storey strip commercial buildings set back from roads with off street surface parking lots at the front and back of buildings. Commercial buildings are generally vehicleoriented with large parking areas and few amenities for people walking, rolling or biking such as sidewalk
- connections or bike racks.
 Warehouse-style building south of Stony Plain Road, west of 168 Street (West End Bottle Depot). Entrance is
- internally-focused.
 Temporary indoor (Quonset) and outdoor storage (vehicles) associated with a vehicle service business north
- of 100 Avenue, west of 168 Street.
 Six-storey hotel building on Stony Plain Road, east of 166
 Street. The building faces Stony Plain Road with parking in the front.

Institutional

St. Herman's Orthodox Church is set back from the road with the main entrance facing the internal parking lot on the north side of the building.

Civic

The Edmonton Police Service West Division station fronts onto 100 Avenue with drive aisles in the front of the building and parking to the rear and west side of the building. Landscaping and trees line the east side facing 165 Street, screening the building and parking from the street.

Parks and Open Spaces

- School buildings set back from the internal residential collector and local roads with main building entrances facing the road and separate parking lots off to the sides
- Glenwood Park contains the Glenwood Community League building which is a one-storey building with the main entrance facing the internal parking lot on the east side of the site.

Vacant Private Development Sites

There are four vacant private development sites in the neighbourhood, all on 100 Avenue.

Character Areas

Seniors Housing

- The center of West Glenwood, west of 165 Street, is characterized by internally focused Seniors Housing developments on large sites with interconnected buildings, suites, and varying levels of on-site supports from independent living with community amenities to long-term care supports.
 - The buildings range from two- to four-storeys with internal parking lots facing main entrances (and underground parking at the
- Vanier noted above). Staff parking for the Villa Marguerite Seniors Community / Benevolence Care Centre is at the rear, accessed from 167 Street.
- Grounds are landscaped with internal walkways and on-site, ground-level amenity areas as well as private patios for some units.

Community Hub

- Glenwood Park serves as a central open space within West Glenwood
- A community hub is created through its central location in proximity to schools and seniors housing, the on-site amenities including a playground and Community League hall, and its location on an important neighbourhood road (165 Street) connecting the park with other destinations and clusters of activity in the community such as schools, sport fields and other recreational amenities.
- Provides a space for the community to gather and socialize

Internal Neighbourhood Travel Corridor

- 167 Street, 165 Street, and 96 Avenue act as the main travel routes within the neighbourhood providing access to all local roads, commercial areas, the two schools, Glenwood Park and Community League, seniors housing, bus stops, and a place of worship
- Most roads are bordered by sidewalks but few are lined with boulevard trees or landscaped separation to create a comfortable environment for people to walk
- These roads serve as key access points and travel routes into and through the neighbourhood
- A variety of uses front onto these roads including low-density and multi-unit residential development, Commercial sites, schools, parks, and civic uses.
- Low density residential uses typically have alley access except for some lots fronting onto 167 Street. Multi–unit residential uses have street accesses to internal parking lots or parkades.

100 Avenue

- 100 Avenue is a major travel route through the neighbourhood that connects areas west of West Glenwood to the area and provides eastbound access to other parts of the city.
- 100 Avenue provides access to the primarily commercial areas to the north and primarily residential areas to the south.
- There are sidewalks on both sides of the road but only 1.5 metres, providing little or no room for people to walk, roll, or bike sideby-side.
- Sidewalks are obstructed in some locations by traffic signage and other infrastructure, including fire hydrants on the south side east of 169 Street, east of 168 Street, and west of 166 Street
- One bus stop on the south side of the street, east of 168 Street, provides eastbound transit service via Local Route 914
- A large cowboy boot associated with a local business on the north side of 100 Avenue, east of 167 Street, acts as a local landmark 100 Avenue is discussed in more detail in 3.6.3 Arterial Roads.

Built Form and Character Area Opportunities

- Strengthen walking and biking connections within the neighbourhood by enhancing breezeways, adding missing sidewalk connections, replacing and widening sidewalk/pathway surfaces, replacing/adding pedestrian-oriented lights, and adding landscaping
- Explore the feasibility of enhancing the character of the neighbourhood by planting boulevard trees and creating seating areas along key walking routes
- Explore opportunities to connect the public network of breezeways, sidewalks, and paths with private internal pathways of the various multi-unit developments to create a cohesive network of walking connections
- Explore opportunities to strengthen the functionality of the Internal Neighbourhood Travel Corridor as shown in Map 4. Built Form and Character Areas for all users
- Consider community-led public art and artistic enhancements near the community hub and commercial areas to help create a strong sense of place and establish a distinct character for the area
- Collaborate with businesses and the BIA to explore opportunities to leverage the City's existing programs such as the Façade Improvement Program Corner Store Program to identify placemaking opportunities on public and private land in commercial areas
- Explore how designs can enhance the character and function of the commercial areas
- While 100 Avenue is not within the scope of the West Glenwood renewal project, there may be opportunities to provide intersection or crossing improvements to improve safety



3.5 Open Space Network

3.5.1 Surrounding Open Space Network

It is important to analyze the surrounding context of a neighbourhood to understand the availability of various types of open spaces and the amenities within them. By doing so, insights can be gathered to identify opportunities and gaps within the open space network. Various parks and amenities in the neighbourhoods surrounding West Glenwood are identified on **Map 5. Surrounding Open Space Network (within 400m)**.

Parks and Open Spaces

Parks and Open Spaces surrounding West Glenwood serve both the residents of the neighbourhood and surrounding areas. The parks in the neighbourhoods located in the immediate vicinity of West Glenwood (Britannia Youngstown, East Glenwood, Meadowlark Park, and West Meadowlark) include:

- Glendale School park site (East Glenwood)
- Allin Park (East Glenwood)
- Johnny Bright Sports Park (West Meadowlark)
- Westlawn Cemetery (Britannia Youngstown)

Other parks and open spaces located just beyond the 5-minute walking distance buffer from the edge of West Glenwood include:

- Gordon Drynan Park (Britannia Youngstown)
- Voungstown School park site (Britannia Youngstown
- Jasper Place Jubilee Park (Meadowlark Park)
- Aleda Patterson School park site (West Meadowlark)

Parks Amenities

Parks amenities within a 5-minute walk from the edge of West Glenwood include:

- Eight (8) Tennis Courts
- Four (4) Baseball Diamonds
- Three (3) Soccer Fields
- Two (2) Playgrounds
- One (1) Outdoor Rink / Skating Area
- One (1) Artificial Turf Staffed Sports Field (Jasper Place Bowl)
- One (1) Basketball Court
- One (1) Spray Park

5-minute Walk and Bike Ride from West Glenwood

- The City Plan promotes 15-minute districts where people can easily complete their daily needs in a 5-minute walk, bike ride or transit trip
- Map 5. Surrounding Open Space Network (within 400m) shows what parks and amenities surrounding West Glenwood are within a 5-minute walk from the edge of West Glenwood (average walking speed of 5 km/h)
- All parks and amenities shown in Map 5. Surrounding Open Space Network (within 400m) are less than a 5-minute bike ride from the edge of West Glenwood (average speed of 15 km/h)

Surrounding Open Space Network Opportunities

- Through public engagement, identify missing amenities that may benefit current and future residents of West Glenwood and surrounding neighbourhoods
- Improve connections for people who walk and bike between West Glenwood and surrounding open space destinations to contribute to an interconnected green network in west Edmonton
- Explore placemaking opportunities within or near West Glenwood parks to help create a sense of place



Map 5. Surrounding Open Space Network (within 400m)



3.5.2 West Glenwood Open Space Network

Open spaces in a community should provide multiple recreation and social opportunities for all age groups. The design of open spaces can allow for active and passive activities. Open spaces can be programmed for organized sporting events and supporting social interaction throughout all seasons. The public open spaces and amenities within each of the parks in West Glenwood are identified on **Map 6. Open Space Network (West Glenwood)**. Detailed maps of each park are also provided. Any improvements to titled property (parks spaces) will require a Development Permit. Typically, construction needs to start within a year of the Development Permit being issued.



Jack Horan dry pond and pathway

Jack Horan Park

Jack Horan Park is a community park with an area of almost 2.5 acres (1.0 hectares) located in the northwest part of West Glenwood. The park is bordered by 169 Street and 168 Street to the west and east respectively, 98A Avenue to the south, and a large stormwater management facility (dry pond). The dry pond is seamlessly integrated with the surrounding park site giving the feeling of a much larger open space (approximately 8.6 acres or 3.5 hectares with the park and dry pond combined). There is also a drainage swale on the east side of the dry pond, shown as a Public Utility Lot on **Map 2. Land Ownership**.

Adjacent land uses to the west, south and east are single detached houses. Commercial uses back onto the park and dry pond to the north and northwest. There are a number of mature trees within the park and dry pond. Trees line the west, south, and east borders of the park providing valuable tree cover but also limit views into the park from adjacent residential areas. There is also some naturalized landscaping on the north border of the dry pond. The dry pond features steep slopes which people in the community use as a toboggan hill in the winter but can also limit views into the space from some vantage points. Few other amenities exist within the park other than lighting along the pathway and one bench.

Winding concrete pathways travel east-west and northeast-southwest through the park. However, the pathways do not connect to any sidewalks as there are gaps in the sidewalk network on 169 Street, 98A Avenue, 168 Street, and 99 Avenue. The pathways connect north to an asphalt path that forms a loop around the dry pond. Informal trails (i.e., worn paths in the grass) are present north from the dead-end at 168 Street and northwest from the dry pond to the strip mall commercial development (see detailed figure of Jack Horan Park). The commercial development contains a number of uses including restaurants, a dentist, a bakery, a liquor store, and other commercial storefronts.









Glenwood Park

Glenwood Park is a community park with an area of approximately 3.3 acres (1.3 hectares) located in the west part of West Glenwood. The park is bordered by 165 Street and 164 Street to the west and east respectively, 97 Avenue to the south, and single-detached housing to the north. The park is fenced on all sides and can be accessed through six gaps in the fence located (see detailed figure of Glenwood Park). One of the accesses is through the south end of the alley east of 165 Street which dead-ends on the north side of Glenwood Park. There is no formal path connecting the asphalt in the alley to the shared pathway in the park. Another access point exists on the southeast corner through the Glenwood Community League building's parking lot.

The Community League building, associated parking lot, and outdoor rink are within the Community League's lease area. In addition to these amenities, the park also contains a playground with a concrete pathway circling it, trash receptacles, three benches, and four picnic tables. One of the picnic tables in the northeast corner of the park is covered by a small gazebo. Concrete pathways connect to adjoining sidewalks on the street to the south and east. The south sidewalk terminates at an entrance to the rink. Asphalt pathways also provide access from the west, northwest and northeast. The east-west pathway connecting the northwest and northeast entrances also connects to the north entrance but the asphalt surface leads to an approximately 7.9 metre informal trail to the alley. Pathways are lined with pedestrian-oriented lighting.

In addition to the single-detached housing to the north, other adjacent uses include single detached housing to the east and south, a duplex and row housing condominium development to the west and seniors housing to the west. The nearest marked crosswalk to the park is over 100 metres away on 165 Street and 99 Avenue to the north.

St. Thomas More Catholic Junior High Park Site

The St. Thomas More Catholic Junior High park site is a school and community park owned by the ECSD. There is a small triangular parcel that is landlocked and owned by the City of Edmonton but leased to ECSD due to its lack of access to adjacent roads. These two parcels combined provide an area of approximately 6.8 acres (2.7 hectares). The park is bordered by 165 Street and 96 Avenue to the east and south respectively, a duplex and row housing condominium development to the north, and single-detached housing to the west. The school building and associated parking lot are located on the southeast corner of the park site. Marked pedestrian crossings are provided across 165 Street at 96 Avenue and 96A Avenue.

At the time of writing this report, this park contains the only bookable sport fields in West Glenwood: One baseball diamond and two soccer fields. The park also contains moveable soccer goal posts and a basketball court. The park is fenced on all sides with openings near the school on 96 Avenue and 165 Street. Trees line the inside of the fence.

Alex Janvier School Park Site

The Alex Janvier Park site is a school and community park owned by the EPSB with an area of approximately 10.5 acres (4.2 hectares). The park is bordered by streets on all sides: 165 Street to the east, 95 Avenue to the south, 167 Street to the west, and 96 Avenue to the north. The newly built school is located on the northwest corner of the site and includes on-site drop-off parking stalls next to 167 Street and a staff parking lot next to 96 Avenue. A bus drop-off area is located on the south side of 96 Avenue. Signalized crossings provide access across 95 Avenue at 167 Street and 165 Street and across 165 Street at 95 Avenue. Rectangular rapid flashing beacons support crossing 167 Street at 95A Avenue and 96 Avenue. Marked pedestrian crossings are provided across 165 Street at 96 Avenue.

At the time of writing this report, only the school grounds landscaping has been completed. Sports fields are in active construction with planned completion in fall 2022. The site plan is shown in the figure below.



Figure 10: Alex Janvier Park Site Plan

Other Open Spaces

- Breezeway between 167 Street and 165 Street: A breezeway (approximately 3.4 metres wide) connects 167 Street to 165 Street south of the EPS station. This breezeway contains a sidewalk, limited landscaping, and no lighting.
- Breezeway west of Alex Janvier School: A breezeway (approximately 3.0 metres wide) is located west of Alex Janvier School just south of 96 Avenue. This breezeway is between two single-detached houses and connects to the alley west of 167 Street. It contains a sidewalk, limited landscaping (turf), and no lighting.
- Breezeway and Natural Area east of 170 Street:
 - A breezeway connects the alley east of 170 Street to 170 Street just south of 98 Avenue. It contains a sidewalk bordered by the noise attenuation fencing along the east side of 170 Street.
 - The north-south alley east of 170 Street is identified by City of Edmonton mapping as a natural area. This consists of trees lining the berm and noise attenuation fence adjacent to 170 Street and a buffer of long grass.



Breezeway between 167 Street and 165 Street, looking east



Breezeway connecting to 170 Street, looking north



City-identified Natural Area next to noise attenuation fence in lane west of 169 Street, looking northwest

Breathe Analysis

Breathe: Edmonton's Green Network Strategy considers the amount, function and configuration of municipal parks and other open spaces in order to form a picture of how the entire green network performs in order to plan and sustain a healthy city. Breathe seeks to ensure that each neighbourhood will be supported by a network of open space for the next 30 years.



Image source: the City of Edmonton

Provision

- According to the analysis performed with Breathe, the Glenwood neighbourhood is well-served by parks and open spaces. Breathe indicates that Glenwood contains 4–6 hectares of open space per 1000 people.
 - Note that this figure includes all "open space" which is defined by Breathe to include parks, civic spaces, roadway greens, campuses, cemeteries, and golf courses
- Review of this figure against 2016 Federal Census population data for Glenwood and only looking at parks, supply of parkland per 1000 people in Glenwood is as follows:
 - 3.0 hectares per 1000 people (16.32 hectares of total parkland)
 - 1.3 hectares per 1000 people when only factoring in City of Edmonton owned parkland (6.85 hectares of municipal-owned parkland)
- The City strives to provide 2 hectares of parkland per 1000 people for all neighbourhoods. This is not a stated policy but a general guideline or benchmark. Therefore, when including all parkland in the neighbourhood, Glenwood meets this benchmark. However, when excluding school board land (9.47 hectares), Glenwood does not meet this benchmark. Since acquisition of new parkland can be difficult and costly in mature neighbourhood contexts, acquisition of school board land by the City may be desirable in the event that it is no longer needed by the school boards in the future.

- Other options for improving provision of parkland in Glenwood that do not involve parkland supply and that align with Breathe include identifying opportunities enhancing the quality, diversity, and/or distribution of parkland:
 - Quality considers the functionality of parkland (see "Function" topic below) and considers the condition and quality of infrastructure and amenities. For the West Glenwood renewal project, this will be a key goal of any parkland improvements and could include measures such as replacement of playground equipment, improving lighting and landscaping, and adding pathways where informal trails demonstrate walking and biking desire lines.
 - Diversity considers the range of different types of open spaces and functions in the green network. For the West Glenwood renewal project, increasing diversity could involve measures such as replacing sections of turf with naturalized landscaping, adding plazas or gazebos to provide opportunities to gather, and providing new recreational amenities.
 - Distribution considers the arrangement of and access to open spaces. The West Glenwood renewal project can address this by providing safe and convenient crossing locations to parks, closing gaps in sidewalk connections, and aligning with the City's Access Design Guide when designing park improvements.

Function

Breathe considers how open spaces function according to three overarching themes:

Ecology

Open space protects the environment by supporting natural ecological processes, saving the riverbank from erosion, and building habitat for flora and fauna. Examples of spaces that provide ecological functionality include spaces that provide habitat for plants and animals, vegetation that mitigates urban heat island effect, and open spaces that can absorb stormwater, prevent flooding, and provide water treatment and purification.

Wellness

Open space supports health and well-being, offering places for people to physically and mentally recharge. Examples of spaces that provide wellness functionality include spaces that contain shared pathways, sport fields, bicycle racks, playgrounds, or splash pads. In addition, spaces that support educational and recreational programs such as the Green Shack program also support wellness functionality.

Celebration

Open space connects people, building a sense of place and providing places for communities to thrive, gather and celebrate. Examples of spaces that provide celebration functionality include spaces that protect heritage resources, provide spaces for social interaction and community gathering, and spaces that provide attractive and welcoming design. Based on these functional characteristics, the parks in West Glenwood can be generally described as follows:

Jack Horan Park and Adjacent Dry Pond

- *Ecology* Provides the most ecological functionality of all parks in West Glenwood through the naturalized spaces on the north end of the dry pond, the dry pond itself, as well as significant tree planting throughout the park.
- Wellness Some wellness functionality is provided through the various pathways throughout the park but this is somewhat limited by gaps in the sidewalk network connecting to the park as well as a lack of benches for resting. In addition, the slopes of the dry pond provide space for tobogganing in the winter. The open spaces provide space for unstructured play.
- Celebration The park has not formal gathering spaces for social interaction or community gathering. Public safety may also be an issue with the significant tree planting on the periphery of the park that makes it difficult to see in or out.

Glenwood Park

- *Ecology* Ecological functionality is limited to tree planting on the periphery of the park as well as near the playground.
- Wellness A playground and ice rink are key features of this park, providing some wellness functionality. There is also an open area with gentle slopes that provides space for unstructured play.
- Celebration This park site contains the Glenwood Community League hall as well as benches, picnic tables and a small gazebo for social interaction and community gatherings. It is a central place in the community that hosts Community League events for the entire neighbourhood.



Glenwood Park seating area



Glenwood Park shared pathway

Alex Janvier School Park Site

- Ecology Reconstruction and new landscaping at this park has provided additional planting and some naturalization. Where possible existing trees are been protected and retained.
- Wellness When complete, wellness functionality will primarily be focused on athletic recreation with two soccer fields, a baseball diamond, and an asphalt play surface.
- Celebration The school is a focal point for educational programming and community building. Outdoors, it contains picnic tables and paved areas for gathering. Improvements to the site have improved aesthetics and resulted in a more welcoming design.

St. Thomas More Junior High School Park Site:

- *Ecology* Ecological functionality is limited to tree planting on the periphery of the park.
- Wellness This park is primarily focused on athletic recreation with two soccer fields, a baseball diamond, a basketball court and moveable soccer goal posts.
- Celebration The school is a focal point for educational programming and community building. Outdoors, formal gathering space is limited with only two benches identified near the basketball court.

West Glenwood Open Space Network Opportunities

- Explore opportunities to improve the community's open spaces. Including but not limited to improved four season programming, naturalization, improved amenities for children and families and more cohesive neighbourhood identity.
- Explore improvements to open spaces that enhance functionality including providing parkland that performs multiple functions and that enhances existing ecological, wellness, and celebration functionality.
- Explore opportunities to include or formalize winter-oriented open space amenities
- Explore opportunities for passive recreation and unstructured play areas
- Enhance the accessibility of Jack Horan Park by connecting missing links with new pathways
- Explore opportunities to provide enhanced landscaping and Low Impact Development in Jack Horan Park and the adjacent dry pond.
- Explore opportunities to improve the natural area east of 170 Street to provide additional natural amenity in the neighbourhood.
- Explore opportunities to improve breezeway connections to strengthen connections for people who walk and bike through measures such as bollard lighting, sidewalk connections within alleys, and pedestrian crossings where breezeways connect to the street.



Map 7. School Sites

- School Sites Boundary Picnic Table
- Bench
- Trees
- Breezeway
- Shared Roadway
 - Public Park/School Playground
- City Owned Parcel
- Soccer Field
- Baseball Diamond
- Basketball Court



Map 8. Jack Horan Park Jack Horan Park Boundary Bench Trees Informal Path

- Shared Pathway
- Public Park/School Playground
- Natural Area
- Commercial Building
- Public Utility Lot





3.6 Complete Streets Analysis

The City of Edmonton uses the Complete Streets Design and Construction Standards (CSDCS) to guide roadway design. The Complete Streets approach provides direction for designing streets that reflect the surrounding context, land use and users.

Complete Streets are designed to be:

- Safe
- Attractive
- Comfortable
- Welcoming to people of all ages and abilities

In a retrofit context such as renewal, design must consider the location of existing buildings, mature trees, utility infrastructure, private landscaping within the public right-of-way, and numerous other constraints within an existing right-of-way. These constraints must be addressed while striving to balance the needs of all street users and incorporating input through

public engagement. Strategic compromises and tradeoffs may need to be explored to balance costs, technical feasibility, and other constraints.

CSDCS acknowledges that it may not be feasible or possible to completely align with the standards in a retrofit context. In these instances, it should be clearly identified where there is a variation from the standards and the rationale for the deviation should be documented using a Design Exception.

Roadway classifications in West Glenwood that are in the scope of this analysis are identified on **Map 10. Complete Streets Analysis**:

- Alley
- Service road
- Local
- Collector



Intersection at 163 Street and 100 Avenue

Adjacent streets surrounding West Glenwood were also reviewed as they are essential to connecting West Glenwood to the rest of the city. These include 170 Street (arterial), Stony Plain Road (arterial and service roads), 163 Street (arterial and service roads), 95 Avenue (collector and service roads). With the exception of 95 Avenue which is being addressed in a separate project, service roads are in scope for West Glenwood renewal. In addition, while also out of scope, 100 Avenue (arterial) was evaluated since it runs eastwest through the community. This road separates the primarily residential area from the primarily commercial area. Enhancing the safety of connections across 100 Avenue for these areas would help improve the sense that the commercial areas are part of the community.

Each street type has been summarized on the basis of the following criteria:

- Presence / absence of sidewalks or shared pathways
- Presence / absence of boulevards separating sidewalks from roads (not applicable for alleys)
- Presence / absence of biking infrastructure (i.e. bike route signage, on-street markings, an/or separated bike lanes)
- Transit routes (not applicable for alleys)
- Number of bus stops with benches and shelters (not applicable for alleys)
- Presence / absence of street lighting
- Presence / absence of on-street parking (not reviewed for alleys)
- Number of front driveways or parking lot accesses interrupting the sidewalk (not reviewed for alleys)
- Roadway speed(s)

In addition, the sections below provide some general commentary on the various user experiences for people who walk, bike, take public transit and drive in West Glenwood. Land uses adjacent to the various street types is also addressed.

Cross-sections for 165 Street (local road), 167 Street (collector road), and 100 Avenue (arterial road) are also provided in the sections below. These cross-sections illustrate approximate right-of-way widths, width of travel space within the right-of-way, and the percentage of space allocated to various users.

Neighbourhood-Wide Opportunities for Streets

- Where possible, retrofit streets to meet the CSDCS
- Improvements to enhance all user experiences during all seasons
- Identify roadways with speeding and shortcutting issues and explore the feasibility of implementing traffic calming measures to ensure the safety of all road users throughout the neighbourhood, specifically around schools and playgrounds
- Identify popular walking connections and routesto explore widening sidewalks
- Identify key biking connections, routes, and facility types to accommodate people to bike
- Explore the feasibility of replacing curbside sidewalks with separate sidewalks and planting boulevard trees
- Evaluate service vehicle requirements for commercial areas and sites including waste collection, deliveries, and curbside, loading, and parking management requirements related to digital retail (e.g., Uber Eats, Doordash, etc.) for commercial areas
- Consider improvements to streets in the commercial areas north of 100 Avenue that reflect the area's prominence as a priority growth area in City Plan

Map 10. Complete Streets Analysis

West Glenwood Neighbourhood Boundary

LAND USE

Low-density Residential

Multi-Unit Residential

Mixed Use

Commercial

Institutional

Civic

Park/School/Open Space

Vacant Private Development Site

ROAD CLASSIFICATION

Arterial

Collector

Local Residential

- ---- Service Road
- Alley

— Shared Pathway

- Shared Roadway
- Breezeway
- IIII Zebra Crossing
- Marked Crosswalk
- Amber Flashing Beacon
- Rapid Flashing Beacon
- Signal Controlled Crosswalk



3.6.1 Local Roads

Local roads are shown on **Map 10. Complete Streets Analysis**. The various elements and amenities available to serve different user groups (walkers and rollers, transit riders, people who bike, and drivers) are shown in the maps in **3.7 Mobility Networks**.



Example of Local Road Cross-Section (165 Street)

Figure 11: 165 Street (Local) | 20m width, 11m road width

Table 1. Local Roads Summary

Presence / absence of sidewalks or shared pathways	 Sidewalks present on most local roads Significant gaps in sidewalk connections on local roads north of 100 Avenue Approximately 1 km of missing sidewalks on local roads in West Glenwood (see Map 11. Mobility Network – Walking and Rolling)
Presence / absence of boulevards separating sidewalks from roads	175 metres of boulevard on 165 Street (west side of street, south of 99 Avenue)
Presence / absence of biking infrastructure (i.e. bike route signage, on-street markings, an/or separated bike lanes)	 165 Street and 96A Avenue are designated bike routes (shared roadway, neighbourhood route) (see Map 13. Mobility Network – Biking) No signage or on-street markings to communicate that this is a bike route
Transit routes	Community Route 924 – Jasper Place to Rio Terrace provides service along 165 Street and 96A Avenue (see Map 12. Mobility Network – Transit)
Number of bus stops with benches and shelters	 One bus stop (west side of 165 Street, south of 99 Avenue near the Benevolence Care Centre) See Map 12. Mobility Network - Transit for details
Presence / absence of street lighting	 All local roads have street lighting except: 169 Street, north of 100 Avenue Small section of 165 Street that dead-ends south of Stony Plain Road
Presence / absence of on-street parking	 On-street parking available on most local roads (see Map 14. Mobility Network – Parking and Traffic Controls for details)
Number of front driveways or parking lot accesses interrupting the sidewalk (does not include alley accesses)	 31 front driveways in primarily residential area south of 100 Avenue (see Map 4. Built Form and Character Areas) 11 parking lot accesses in the primarily residential area south of 100 Avenue Approximately 14 parking lot accesses in the primarily commercial area north of 100 Avenue (site accesses on 169 Street may have changed with development of the parcel on the northwest corner of 169 Street and 100 Avenue)
Roadway Speed(s)	 40 km/h 169 Street, north of 100 Avenue is 50 km/h See Map 12. Mobility Network - Transit

User Experience

Driving

- Wide roads with plenty of on-street parking
- Convenient alley and private driveway accesses
- Low profile rolled face curbs provides convenient opportunities for private driveways and parking pads

Walking

- Few trees for shade and weather protection
- Narrow 1.5 metre curbside sidewalks make it difficult for two people to walk side-by-side or for two people in wheelchairs, pushing strollers or walkers to pass each other
- The cleared sidewalk width during winter may be further reduced due to adjacent snowbanks
- There is little separation between the 1.5 metre curbside sidewalks and onstreet parking/traffic
- Some streets are missing sidewalks at key locations (e.g. bus stops) and destinations (e.g. Jack Horan Park)
- Local roads in the commercial area have several missing sidewalks and where sidewalks are existing, several interruptions to accommodate accesses to parking lots



Discontinued sidewalk on 165 Street



99 Avenue at 165 Street in West Glenwood

Biking

- No bike facilities exist on local roads
- Bikes share the low traffic local roads with vehicles
- Low traffic volumes and speeds of vehicles may increase the comfort of people who bike
- The user experience during winter might be considered unsatisfactory
- 165 Street and 96A Avenue are designated on-street bike routes by the City of Edmonton but there is no signage or pavement markings to indicate this

Transit

- Community Route bus stops are available in convenient locations on 165 Street (i.e. adjacent to seniors housing, Glenwood Park, and near St. Thomas More Catholic Junior High)
- Bus stops serve Route 924 which provides service to Jasper Place Transit Centre to the northeast as well as the Meadowlark Transit Centre and the Rio Terrace neighbourhood to the southeast
- One stop next to seniors housing includes a shelter and a bench
- There is a missing sidewalk linkage to the bus stop north of St. Thomas More Catholic Junior High on the west side of 165 Street
- There are no bus stops on local roads in the commercial area north of 100 Avenue
- See 3.7.2 Transit and Map 12. Mobility Network Transit for more information on transit service in and around West Glenwood

Nearby Land Uses and Frontages

- Street oriented homes (single-detached housing) with front yards line both sides of most local residential roads
- Single detached housing is predominantly accessed via alleys off local roads
- Internally focused multi-unit housing (duplexes, row houses, and apartment buildings) with accesses crossing the sidewalk to parking lots and parkades line large portions of 165 Street
- Multi-family home developments contain private internal pathways and roads that connect to public local roads
- Most of the commercial development north of 100 Avenue features parking lots between buildings and the sidewalk on local roads
- St. Thomas More Catholic Junior High fronts local roads (96 Avenue and 165 Street)
- Portions of Alex Janvier School fronts local roads (96 Avenue and 165 Street)
- Jack Horan Park and Glenwood Park front local roads on three sides
Local Road Opportunities

- Street oriented homes (single-detached housing) with front yards line both sides of most local residential roads
- Single detached housing is predominantly accessed via alleys off local roads
- Internally focused multi-unit housing (duplexes, row houses, and apartment buildings) with accesses crossing the sidewalk to parking lots and parkades line large portions of 165 Street
- Multi-family home developments contain private internal pathways and roads that connect to public local roads
- Most of the commercial development north of 100 Avenue features parking lots between buildings and the sidewalk on local roads
- St. Thomas More Catholic Junior High fronts local roads (96 Avenue and 165 Street)
- Portions of Alex Janvier School fronts local roads (96 Avenue and 165 Street)
- Jack Horan Park and Glenwood Park front local roads on three sides

3.6.2 Collector Roads

Collector roads are shown on **Map 10. Complete Streets Analysis**. The various elements and amenities available to serve different user groups (walkers and rollers, transit riders, people who bike, and drivers) are shown in the maps in **3.7 Mobility Networks**.

Note that 95 Avenue is a collector road on the south edge of West Glenwood and is being addressed through a separate project.

Example of Collector Road Cross-Section (167 Street)

Figure 12: 167 Street, looking north (Collector) | 22.6m width, 11.6m road width

Table 2. Collector Roads Summary

Presence / absence of sidewalks or shared pathways	 Sidewalks present on most collector roads Approximately 400 metres of missing sidewalks on roads north of 100 Avenue (see Map 11. Mobility Network – Walking and Rolling)
Presence / absence of boulevards separating sidewalks from roads	 Approximately 180 metres of boulevard on 167 Street in front of Alex Janvier School (east side of street, north of 95 Avenue)
Presence / absence of biking infrastructure (i.e. bike route signage, on-street markings, an/or separated bike lanes)	 None 95 Avenue service road may be used to provide some separation from vehicle traffic
Transit routes	 Frequent Route 7 – West Edmonton Mall to Downtown travels along 95 Avenue Crosstown Route 52 – West Edmonton Mall to Northgate travels along 95 Avenue (no stops adjacent to project area) Local Route 908 – Jasper Place to Westmount travels along 167 Street, north of 100 Avenue Local Route 914 – West Edmonton Mall to Jasper Place travels along 166 Street (no stops within project area) Local Route 915 – West Edmonton Mall to Jasper Place travels along 95 Avenue Community Route 924 – Jasper Place to Rio Terrace travels along 167 Street, north of 100 Avenue See Map 12. Mobility Network – Transit for details
Number of bus stops with benches and shelters	 Two on north side of 95 Avenue The bus stop on 167 Street south of Stony Plain Road has a bus shelter but no bench See Map 12. Mobility Network – Transit for details
Presence / absence of street lighting	 All collector roads have street lighting except: 166 Street, north of 100 Avenue 168 Street, north of 100 Avenue
Presence / absence of on-street parking	 On-street parking available on most collector roads (see Map 14. Mobility Network Parking and Traffic Controls for details)
Number of front driveways or parking lot accesses interrupting the sidewalk (does not include alley accesses)	 25 front driveways in primarily residential area south of 100 Avenue (see Map 4. Built Form and Character Areas) Six parking lot accesses on 167 Street, south of 100 Avenue Approximately 22 in primarily commercial area north of 100 Avenue
Roadway Speed(s)	 40 km/h, south of 100 Avenue 50 km/h, north of 100 Avenue See Map 15. Speed Zones

User Experience

Driving

- Wide roads with plenty of on-street parking
- On-street parking is limited on portions of 167 Street
- Private driveway accesses for single-detached houses that do not back onto alleys along 167 Street
- Most commercial sites have prominent parking lots fronting collector roads north of 100 Avenue
- Lack of traffic calming features with the exception of on-street parking opportunities (see Map 14. Mobility Network Parking and Traffic Controls)
- Right-in/right-out access from/to 100 Avenue provides convenient access to the arterial road for the neighbourhood

Walking

- Few trees for shade and weather protection
- Narrow 1.5 metre curbside sidewalks make it difficult for two people to walk side-by-side or for two people in wheelchairs, pushing strollers or walkers to pass each other
- The cleared sidewalk width during winter may be further reduced due to adjacent snowbanks
- There is little separation between the 1.5 metre curbside sidewalks and on-street parking/traffic
- Some streets are missing sidewalks at key locations (e.g. bus stops) and destinations (e.g. Jack Horan Park)
- Rectangular rapid flashing beacons are located at two marked pedestrian crossings along 167 Street
- A zebra marked crosswalk is located on 167 Street south of the breezeway just north of 99 Avenue
- Collector roads in the commercial area north of 100 Avenue have several missing sidewalks and where sidewalks are existing, there are several interruptions to accommodate accesses to parking lots

Biking

- No bike facilities exist on collector roads
- People biking share the road with vehicles and people may bike on sidewalks because no safe legal place to ride exists
- High traffic volumes and speeds of vehicles may decrease the comfort of people who bike

Transit – Unsatisfactory

- Seven bus stops are located on collector roads (see Map 12.
 Mobility Network Transit)
- There is a bus stop on 167 Street south of Stony Plain Road that includes a shelter but no bench
- See 3.7.2 Transit and Map 12. Mobility Network Transit for more information on transit service in and around West Glenwood



167 Street Collector Road in West Glenwood

Nearby Land Uses and Frontages

- Street oriented homes (single-detached housing) with front yards line both sides of the majority of the collector residential road
- Single detached housing is predominantly accessed via alleys off local roads
- Single-detached houses north of 99 Avenue on 167 Street as well as those on the east side of 167 Street feature driveways crossing the sidewalk to garages
- Most of the commercial development north of 100 Avenue features parking lots between buildings and the sidewalk on collector roads
- The west side of Alex Janvier School fronts a collector road (167 Street)



Utility line

Utilities

- Some streetlights along collector residential roads are installed on top of boxes that contain power and telecommunications utilities. These utilities may pose challenges for relocating streetlights, planting new trees, or widening sidewalks.
- There are overhead power lines along 166 Street north of 100 Avenue that may pose challenges for certain improvements such as planting new trees and adding/widening sidewalks.

Collector Road Opportunities

- Improvements to enhance all user experiences during all seasons
- Explore the feasibility of implementing measures to address possible speeding and shortcutting
- Add amenities to the bus stop in the commercial area north of 100 Avenue
- Explore opportunities to provide space for bus stop amenities on 167 Street south of 100 Avenue in the event that transit service is provided on this road in the future
- Create bike facilities to encourage people to bike
- Explore opportunities to provide end of trip amenities such as bike racks at destinations on local roads
- Provide enhancements to 167 Street to improve experience and comfort for people who walk, roll, or bike, as well as reduce speeding / shortcutting through measures such as sidewalk widening, introduction of street trees or boulevard walks, separated bike facilities, curb extensions, pedestrian crossings, raised crossings, etc.
- Explore enhancements to the collector roads in the commercial area to make it more walkable (e.g. widen sidewalks, provide missing sidewalks in locations where they are missing, provide street trees)
- Explore opportunities to provide alternative accesses and/or consolidate accesses to properties where mid-block accesses exist to limit conflicts with vehicles and to minimize interruptions in walking and biking paths

3.6.3 Arterial Roads

The 100 Avenue arterial road is shown on **Map 10. Complete Streets Analysis**. 170 Street, Stony Plain Road, and 163 Street are arterials on the edges of West Glenwood. Service roads on Stony Plain Road and 163 Street are within the scope of this project. The various elements and amenities available to serve different user groups (walkers and rollers, transit riders, people who bike, and drivers) are shown in the maps in **3.7 Mobility Networks**.



Example of Arterial Road Cross-Section (100 Avenue)

Figure 13: 100 Avenue, looking east (Arterial) | 21.5m total width, 15m road width

Table 3. Arterial Roads Summary

Presence / absence of sidewalks or shared pathways	 Sidewalks on all arterials (or service roads) except: 170 Street, south of 100 Avenue (approximately 800 metres of missing sidewalk) A portion of Stony Plain Road, west of 169 Street) (approximately 74 metres of missing sidewalk)
Presence / absence of boulevards separating sidewalks from roads	 None 163 Street service road provides some separation from vehicle traffic
Presence / absence of biking infrastructure (i.e. bike	 None
route signage, on-street markings, an/or separated bike lanes)	163 Street service road may be used to provide some separation from vehicle traffic
Transit routes	 Crosstown Route 52 – West Edmonton Mall to Northgate travels along 163 Street Local Route 908 – Jasper Place to Westmount travels along Stony Plain Road, and 100 Avenue (no stops on 100 Avenue adjacent to project area) Local Route 909 – Jasper Place to Westmount travels along 163 Street Local Route 912 – Lewis Farms to Jasper Place travels along Stony Plain Road and 100 Avenue (no stops on 100 Avenue adjacent to project area) Local Route 914 – West Edmonton Mall to Jasper Place travels along Stony Plain Road and 100 Avenue Local Route 915 – West Edmonton Mall to Jasper travels along 163 Street Community Route 924 – Jasper Place to Rio Terrace travels along 163 Street, 100 Avenue, and Stony Plain Road (no stops on 100 Avenue adjacent to project area) See Map 12. Mobility Network – Transit for details
Number of bus stops with benches and shelters	 Five Three on Stony Plain Road One on 100 Avenue One on 163 Street See Map 12. Mobility Network – Transit for details

Table 3. Arterial Roads Summary (continued)

Presence / absence of street lighting	 All streets have street lighting
Presence / absence of on-street parking	 On-street parking only available within 163 Street service road and a small segment of the Stony Plain Road service road between 166 Street and 167 Street (see Map 14. Mobility Network – Parking and Traffic Controls for details)
Number of front driveways or parking lot accesses interrupting the sidewalk (does not include alley accesses)	 Nine site or parking lot accesses on Stony Plain Road Approximately 13 parking lot accesses on 100 Avenue (site accesses on may have changed with development of the parcel on the northwest corner of 169 Street and 100 Avenue) Five parking lot accesses on 170 Street (all immediately north and south of 100 Avenue) 11 front driveways on 163 Street service road Seven parking lot accesses on 163 Street
Roadway Speed(s)	 40 km/h on service roads 50 km/h on a small segment of the Stony Plain Road service road between 166 Street and 167 Street (see Map 15. Speed Zones for details) 50 km/h on 163 Street 60 km/h on Stony Plain Road and 170 Street

User Experience

Driving

- 100 Avenue in West Glenwood is a wide road accommodating one-way, eastbound traffic. East of 163 Street, 100 Avenue allows two-way traffic.
- Drivers can access 100 Avenue via local roads, collectors, and alleys in the neighbourhood or 170 Street to the west.
- Further west, 100 Avenue begins at Highway 16A and Anthony Henday Drive and extends to 149 Street to the east where drivers can either continue east onto a local road in the Crestwood neighbourhood or travel north or south on the 149 Street arterial.
- The street does not accommodate on-street parking Properties can be accessed via local roads, collectors, alleys and private parking lot accesses for businesses and multiunit housing that front onto or flank 100 Avenue
- Only three traffic lights along the 100 Avenue corridor in West Glenwood: 170 Street, 167 Street, and 163 Street.
- Right-in/right-out access to/from 167 Street provides convenient access to the collector road for the neighbourhood
- Unsignalized intersection at 165 Street which provides access to the local road through the residential area south of 100 Avenue as well as a private commercial access north of 100 Avenue

- Frequent intersections on 100 Avenue to the commercial area to the north may create congestion issues at peak hours in the left travel lanes
- With the exception of two strip malls north and south of 100 Avenue, most of West Glenwood backs on the northbound lanes of 170 Street (three northbound lanes plus turning lanes at intersections)
- 170 Street is a component of Edmonton's inner ring road connecting to Yellowhead Trail to the north and Whitemud Drive to the south
- Stony Plain Road accommodates four westbound lanes plus turning lanes to the west of 166 Street. To the east of 166 Street, two-way traffic is accommodated in four travel lanes plus turning lanes.
- West of 166 Street, Stony Plain Road also contains a series of service roads on the south side. The service road merges into east bound traffic on Stony Plain Road at 167 Street.
- As a result of the roadway configuration at this location, a signalized intersection is provided.
 163 Street accommodates two-way traffic in four travel lanes.
- A service road is located on the west side of 163 Street between 96A Avenue and 100 Avenue, adjacent to low density housing.

Walking

- Few trees for shade and weather protection.
- Narrow 1.5 metre curbside sidewalks make it difficult for two people to walk side-by-side or for two people in wheelchairs, pushing strollers or walkers to pass each other.
- The cleared sidewalk width during winter may be further reduced due to adjacent snowbanks.
- There is little separation between the 1.5 metre curbside sidewalks and on-street parking/traffic.
 Some streets are missing sidewalks at key locations (e.g. bus stops) and destinations (e.g. Jack Horan Park).
- Rectangular rapid flashing beacons are located at two marked pedestrian crossings along 167 Street.
- A zebra marked crosswalk is located on 167 Street south of the breezeway just north of 99 Avenue.
- Collector roads in the commercial area north of 100 Avenue have several missing sidewalks and where sidewalks are existing, there are several interruptions to accommodate accesses to parking lots.

Biking

- No bike facilities exist on arterial roads.
- Bikes share the road with vehicles and people may bike on sidewalks because no safe legal place to ride exists.
- High traffic volumes and speeds of vehicles may decrease the comfort of people who bike on arterials.
- 163 Street provides some separation from traffic via the service road.
- A shared use path begins on the south side of 100 Avenue east of 163 Street just outside of the project boundary.

Transit

- Fourteen bus stops on arterials adjacent to or within the project area (none on 170 Street).
- Due to lack of separation between sidewalk and roadway, bus stops lacking benches and shelters are may be uncomfortable for transit users.
- See 3.7.2 Transit and Map 12. Mobility Network Transit for more information on transit service in and around West Glenwood.

Nearby Land Uses and Frontages

- A mix of commercial, multi–unit, and civic development fronts onto and flanks 170 Street, Stony Plain Road, 100 Avenue, and the very north and south ends of 163 Street.
- Between 96A Avenue and 100A Avenue low density housing fronts onto 163 Street.
- South of 99 Avenue, houses back onto 170 Street and are separated by a lane, berm, and noise wall.
- There are three vacant properties lining 100 Avenue: one near 169 Street, one west of 167 Street, and one east of 165 Street.
- Some commercial properties are developed up to the property line on 100 Avenue and therefore, feature no landscaping adjacent to the sidewalk.
- Other commercial properties feature some landscaping between the sidewalk and parking areas.
- Properties are predominantly accessed via local roads, collector roads, alleys, service roads, and mid-block accesses to private parking lots.

Arterial Road Opportunities

- Improvements to enhance all user experiences during all seasons
- Explore the feasibility of implementing measures to address possible speeding
- Explore opportunities to provide enhanced walking / biking facilities that connect to the shared use path on the south side of 100 Avenue, east of 163 Street
- Provide enhancements to 100 Avenue, Stony Plain Road, and 163 Street to improve experience and comfort for people who walk, roll, or bike through measures such as sidewalk widening, introduction of street trees or boulevard walks, separated bike facilities, curb extensions, pedestrian crossings, etc.
- Explore opportunities to provide improved crossings for 100 Avenue to improve safety and increase foot traffic to commercial areas
- Explore opportunities to provide improved crossings for 163 Street to improve safety and enhance connections between East and West Glenwood
- Explore opportunities to provide enhanced walking and biking facilities and landscaping on 163 Street within service road
- Relocate traffic signage and fire hydrants where possible to eliminate barriers on sidewalks
- Explore opportunities to improve the configuration of the Stony Plain Road service roads to improve access to commercial areas and to provide safe facilities for people walking and biking
- Explore opportunities to provide alternative accesses and/or consolidate accesses to properties where mid-block accesses exist to limit conflicts with vehicles and to minimize interruptions in walking and biking paths

3.6.4 Alleys

Alleys are shown on **Map 10. Complete Streets Analysis**. Alley Renewal will be included as part of the West Glenwood renewal project. Alleys will be reconstructed and see improvements to drainage. Residential alleys typically provide a 4.0 metres drive aisle with 1.0 metre of grass / permeable surface on each side for a total cross-section of 6.0 metres. Alleys serving commercial areas and sites typically provide 6.0 metres of paved surface in a 6.0 metre right-of-way.

While statutory plans such as the Jasper Place ARP only address potential utility upgrades in alley for the project area, there may be opportunities to provide walking and biking improvements or amenities in alleys that provide key walking or biking connections such as to the breezeways west of 167 Street and 170 Street. Such improvements may include separated paths and wayfinding.

Table 4. Alleys Summary

Presence / absence of sidewalks or shared pathways	 None Breezeways west of 167 Street and 169 Street direct people who walk onto the paved surface of the alley
Presence / absence of biking infrastructure (i.e. bike route signage, on-street markings, an/or separated bike lanes)	 None Breezeways west of 167 Street and 169 Street direct people who walk onto the paved surface of the alley
Presence / absence of alley lighting	No pedestrian lighting
Presence / absence of on-street parking	None
Roadway Speed(s)	■ 20 km/h

User Experience

Driving

- South of 100 Avenue, alleys provide convenient access to garages and parking pads at the rear of low density housing areas in West Glenwood. Parking and waste collection areas for multi–unit housing northwest of 95 Avenue/163 Street is also accessed via an alley.
- North of 100 Avenue, alleys provide some access to parking for commercial sites but are primarily accessed for waste collection as the commercial uses and largest parking areas front the streets. Parking and waste collection for multi–unit housing and low density housing east of 164 Street is also accessed from the alley.
- As shown on Map 17. Green Infrastructure, some significant ponding occurs after rain events and during thawing periods particularly in the alleys in the west and southwest portions of West Glenwood

Walking

- Given the convenient and direct connections to other streets and destinations in West Glenwood and the surrounding areas, including commercial areas to the north and 170 Street to the west, the alleys provide a convenient transportation option for people who walk
- Breezeways west of 167 Street and 169 Street connect walkers to alleys, encouraging their use as walking connections
- The breezeway west of 169 Street provides a direct east-west connection to 170 Street and the commercial areas to the west. Therefore, the north-south alley to the west of 169 Street is likely highly used as a walking route. This alley also connects to the service road on 95 Avenue.
- Due to significant ponding shown on Map 17. Green Infrastructure, walking is likely difficult or impossible in some locations after rain events and during thawing periods – particularly for children, seniors, and people with reduced mobility
- A lack of pedestrian scale alley lighting likely presents safety and comfort concerns after dark for some people who walk



Alley in West Glenwood



Alley connecting to 170 Street

Biking

- Given the convenient and direct connections to other streets and destinations in West Glenwood and the surrounding areas, including commercial areas to the north and 170 Street to the west, the alleys provide a convenient transportation option for people who bike
- Breezeways west of 167 Street and 169 Street connect people who bike to alleys, encouraging their use as biking connections
- The breezeway west of 169 Street provides a direct east-west connection to 170 Street and the commercial areas to the west. Therefore, the north-south alley to the west of 169 Street is likely highly used as a biking route. This alley also connects to the service road on 95 Avenue.
- The configuration and width of the breezeways may present some barriers to people who bike
- Due to significant ponding shown on Map 17. Green Infrastructure, biking is likely difficult or impossible in some locations after rain events and during thawing periods – particularly for children, seniors, and people with reduced mobility
- A lack of pedestrian scale alley lighting likely presents safety and comfort concerns after dark for some people who bike

Transit

While alleys are not in direct proximity to transit stops in or adjacent to West Glenwood, alleys may nonetheless provide shortcutting routes for people who walk or bike to transit

Nearby Land Uses and Frontages

- Alleys provide the back-of-house frontage for commercial and multi-unit residential sites, including waste collection. Surface parking areas for multiunit housing is also a predominant frontage for alleys in the area.
- For low density housing, alleys provide the primary access to rear detached garages. In the future, if garage or garden suites are built in the neighbourhood, they would also be accessed via alleys, where available.
- The Glenwood neighbourhood is within the Mature Neighbourhood Overlay (MNO) of the Edmonton Zoning Bylaw. The MNO applies to sites zoned RF1, RF2, RF3, RF4 and RF5. Where any of these sites back onto an alley, vehicular access must be from the alley. This means that if a site is redeveloped (i.e. infill development), garages or parking pads must take their access off of the alley even if there is an existing front driveway. Where a front driveway exists, it must be removed as a condition of a future development permit.



Alley with fencing in West Glenwood

Alley Opportunities

- Improvements to enhance all user experiences during all seasons
- Explore opportunities for wayfinding within alleys for people walking and biking
- Add lighting in alleys on key walking and biking routes to improve safety
- Explore opportunities to provide amenities within breezeways such as bollard lighting
- Explore opportunities to consolidate accesses and waste collection areas for commercial and multi-unit residential properties
- Address drainage and ponding issues in alleys for improved experience for all users
- Consider providing a sidewalk or shared pathway adjacent to the north-south alley west of 169 Street

3.7 Mobility Networks

Road patterns and development within the West Glenwood neighbourhood is reflective of subdivision planning typical of the 1950s and 1960s. The modified grid street pattern creates long blocks of houses. The following sections address how people in West Glenwood are able to move around the area and to destinations by walking and rolling (**3.7.1 Walking & Rolling, Map 11. Mobility Network – Walking and Rolling**), taking transit (**3.7.2 Transit, Map 12. Mobility Network – Transit**), biking (**3.7.3 Biking, Map 13. Mobility Network – Biking**), and driving (**3.7.4 Driving & Traffic Safety**). Components of the mobility network often serve more than one purpose in West Glenwood. For example, alleys, shared pathways, and breezeways are located throughout the area and provide opportunities for shortcutting on foot or bicycle to access local destinations and bus stops.

3.7.1 Walking & Rolling

Sidewalks

- Most roads in West Glenwood have curbside sidewalks along both sides
- Local residential roads have 1.5 m wide curbside sidewalks with rolled face curbs
- Local commercial roads have 1.5 m wide curbside sidewalks with straight face curbs
- Collector roads have 1.5 m wide curbside separate sidewalks with straight face curbs
- The arterial road has 1.5 m wide sidewalks with straight face curbs

Missing Sidewalks

- South of 100 Avenue: There are four missing sidewalk links on local roads in the residential areas of West Glenwood.
 Notably, there are missing links near Jack Horan Park on 99 Avenue, 168 Street, 98A Avenue, and 169 Street. There is also missing sidewalk on 165 Street that impacts walking and rolling access to a bus stop
- North of 100 Avenue: There are seven roads that are missing sidewalks (refer to Map 11. Mobility Network Walking and Rolling for the locations of missing sidewalks)



Cracked sidewalk along 165 Street



Missing sidewalk at Jack Horan Park

Shared Pathways

- There are two shared pathways in West Glenwood that provide circulation options within Glenwood Park, Jack Horan Park, and the stormwater facility north of Jack Horan Park.
- Immediately east of 163 Street on the south side of 100 Avenue, there is a shared pathway that provides accessibility to 149 Street and MacKinnon Ravine in the Crestwood Neighbourhood.
- Walkway surface material is concrete in some locations and asphalt in others.

Breezeways

Breezeways are connections within or between neighbourhoods available for active modes (walking, rolling, or biking). Breezeways are designed to connect to local parks, schools, and other amenities. Some breezeways are used for utilities and emergency access.

Refer to **Map 11. Mobility Network – Walking and Rolling** for the location of breezeways in West Glenwood.

- There are three breezeway locations in West Glenwood
 One creates a through-block connection between 165 Street and 167 Streets south of the EPS Station
 - One creates a through-block connection from the alley west of 167 Street to 167 Street across from Alex Janvier Park
 - One creates a connection from the north-south alley west of 169 Street to 170 Street on the other side of the berm and noise attenuation fence on the west boundary of the project area
- Breezeways widths are approximately 3 m with a 1.5 m concrete sidewalk and grass on either side
- The breezeways at 167 Street and 170 Street are fenced on both sides
- The breezeway between 165 Street and 167 Street has fencing on the north side and landscaping on the south side



Breezeway south of EPS Station

Informal Pathways/Worn Paths in Grass

- Popular walking routes through grassed open spaces are shown on Map 11. Mobility Network Walking and Rolling through the stormwater facility land south and west of the strip mall on the southeast corner of 170 Street and 100 Avenue
- The need for proper pathways or sidewalks and safely connecting to other paths, sidewalks, and destinations is identified by the worn footpaths in the grass (see image below)



Worn footpath in grass at Jack Horan Park leading towards commercial area

Roadway Crossings

The following crosswalk types and control devices are in West Glenwood (refer to **Map 11. Mobility Network – Walking and Rolling** for locations):

- Marked crosswalk
- Zebra marked crosswalks
- Pedestrian-activated amber flashers
- Pedestrian-activated rapid flashing beacons
- Traffic signal-controlled intersections at the arterial roads

There are no marked or controlled crossings to Glenwood Park.



Marked crosswalk with amber flashers above



Zebra crossing and rapid flashing beacon

Alleys

- Alleys can serve as a walking or rolling route because the vehicle traffic is typically low in volume and speed. They can also be a desirable route to connect to pathways and other destinations. Two breezeways connect to the alley network in the west side of the project area.
- It should be noted that the City of Edmonton does not currently consider alleys as all-weather facilities for all users such as people walking and biking. Therefore, the City only conducts occasional snow clearing for vehicular traffic.



Alley in West Glenwood

Mobility Network Opportunities

- Improve connectivity to and through Glenwood Park and Jack Horan Park and the adjacent stormwater facility for walking and rolling through wider and continuous sidewalk connections
- Explore opportunities to enhance existing sidewalk connections and add new sidewalks at missing locations
- Explore opportunities to convert curbside sidewalks to boulevard sidewalks along key walking routes
- Add curb extensions to new or existing crosswalks to improve visibility for people walking
- Explore providing raised crosswalks in key locations to improve visibility for people walking and provide traffic calming
- Relocate catch basins away from sidewalk crossings to reduce pooled water and ice build-up
- Explore opportunities to extend shared pathway east of 163 Street on 100 Avenue to improve walking and rolling conditions on the 100 Avenue arterial
- Explore opportunities to provide amenities within breezeways such as bollard lighting
- Review the creation of shared alley spaces that connect destinations or create direct routes
- Examine the functionality of existing crosswalk locations
- Improve connectivity for people who walk, roll, or bike between West Glenwood and surrounding destinations
- Explore opportunities to add wayfinding signage at key pathway junctions
- Add amenities such as benches and additional lighting that support people who walk, roll and bike

Map 11. Mobility Network – Walking and Rolling

West Glenwood Neighbourhood Boundary

NODES AND COMMUNITY DESTINATIONS

Commercial

School/Library

Place of Worship

Senior's Housing

Emergency Service Building

Community Building

Parks and Open Spaces

MOBILITY NETWORK

- Sidewalk
- ····· Missing Sidewalk
- Alley
- Shared Use Path

— Shared Roadway

- Breezeway
- Informal Paths
- IIII Zebra Crossing
- Marked Crosswalk
- Amber Flashing Beacon
- Rapid Flashing Beacon
- Signal Controlled Crosswalk



3.7.2 Transit

West Glenwood is serviced by Edmonton Transit Service (ETS) in the form of bus service. The bus network redesign was implemented in spring 2021. Four of the five new route types provide service to West Glenwood and abutting roads (Stony Plain Road, 163 Street, 95 Avenue, 170 Street):

- Frequent routes, which arrive every 15 minutes or better at most times of the day and most days of the week
- Crosstown routes, which directly connect key suburban destinations without going through downtown
- Local routes, which connect neighbourhoods to local destinations and other routes
- Community routes, which connect seniors housing with nearby services

Existing bus routes and stops in West Glenwood are identified on Map 12. Mobility Network – Transit.

The Jasper Place Transit Centre, located on 100 Avenue east of 158 Street, approximately 700 metres away from the edge of the project boundary. Future LRT stops on the Valley Line West extension will be available north of 100A Avenue on 156 Street and at 95 Avenue and 156 Street, approximately 800 metres from the east edge of the project boundary.



Bus stop signage along 165 Street



924 Bus travelling along 165 Street

Routes Serving Area (within boundary and on edges of West Glenwood)

7 - West Edmonton Mall to Downtown (Frequent route)

- Connects residents to West Edmonton Mall Transit Centre and the Downtown including the LRT network Travels along 95 Avenue
- Destinations: West Edmonton Mall, Jasper Gates Square, Brewery District, Unity Square, MacEwan University, Rogers Place, and Royal Alberta Museum
- Walkway surface material is concrete in some locations and asphalt in others.

52 - West Edmonton Mall to Northgate (Crosstown route)

- Connects residents to West Edmonton Mall Transit Centre and the Northgate Transit Centre
- Travels along 95 Avenue and 163 Street
- Destinations: West Edmonton Mall, Jasper Place Transit Centre, Telus World of Science, Westmount Mall and Transit Centre, Skyview Power Centre, Kensington Crossing, and Northgate Mall and Transit Centre

908 - Jasper Place to Westmount (Local route)

- Connects residents to Jasper Place Transit Centre and Westmount Transit Centre
- Travels along Stony Plain Road, 167 Street, and 100 Avenue
- Destinations: Jasper Place Transit Centre, RioCan Mayfield, Telus World of Science, and Westmount Mall and Transit Centre



909 - Jasper Place to Westmount (Local route)

- Connects residents to Jasper Place Transit Centre and Westmount Transit Centre
- Travels along 163 Street
- Destinations: Jasper Place Transit Centre and Westmount Mall and Transit Centre

912 – Lewis Farms to Jasper Place (Local route)

- Connects residents to Lewis Farms Transit Centre and Jasper Place Transit Centre
- Travels along Stony Plain Road, 167 Street, and 100 Avenue
- Destinations: Lewis Farms Transit Station, SmartCentres
 West in Place LaRue, and Jasper Place Transit Centre

914 - West Edmonton Mall to Jasper Place (Local route)

- Connects residents to West Edmonton Mall Transit Centre and Jasper Place Transit Centre
- Travels along Stony Plain Road, 166 Street, and 100 Avenue
- Destinations: West Edmonton Mall Transit Centre, RioCan Mayfield, and Jasper Place Transit Centre

915 - West Edmonton Mall to Jasper Place (Local route)

- Connects residents to West Edmonton Mall Transit Centre and Jasper Place Transit Centre
- Travels along 163 Street
- Destinations: West Edmonton Mall Transit Centre and Jasper Place Transit Centre



Bus stop without sidewalk access



Bus stop #5614 with shelter and bench on 165 Street, looking southwest



Bus stop without sidewalk access

924 – Jasper Place to Rio Terrace (Community route)

- Connects residents to Jasper Place Transit Centre and Rio Terrace
- Travels along 163 Street, 96A Avenue, 165 Street, 100 Avenue, 167 Street, and Stony Plain Road
- Destinations: Rio Terrace Park, Meadowlark Health and Shopping Centre, Meadowlark Transit Centre, Jasper Place Public Library, and West Edmonton Mall Transit Centre, Misericordia Community Hospital, Jasper Place Fitness and Leisure Centre, Johnny Bright Sports Park, Jasper Place High School, St. Francis Xavier High School, St. Thomas More Catholic Junior High, Glendale Park, and Jasper Place Transit Centre

DATS

DATS is a door-to-door public transportation service for Edmontonians who cannot use regular transit for some or all of their travel needs, due to a physical or cognitive impairment. From 2018–2022, there were 36,906 service calls for DATS pick-up and drop-off in the project area (data as of October 14, 2022). The Villa Marguerite Seniors Community and Benevolence Care Centre have had the most calls for service (11,520) during that time period – this is over 2.5 times more service calls than any other location in the project area. Other popular pick-up and drop-off locations since 2018 include:

- Westlawn Courts Seniors Housing: 3,801 service calls
- The Vanier (55+ apartment condominiums): 1,498 service calls
- Former Westlawn School (site of Alex Janvier School): 338 service calls
- St. Thomas More Junior High: 321 service calls

The various businesses north of 100 Avenue also account for over 4,500 DATS service calls since 2018.

Bus Stop Conditions

- Six bus stops are within the project scope located along 165 Street and 167 Street
- There may be an opportunity to explore improvements to other bus stops including amenities and connections to bus stops on surrounding arterials that are out of scope for this project such as 100 Avenue, Stony Plain Road, and 163 Street
- Amenities such as shelters, benches, waste receptacles and concrete pads vary at bus stop locations
- Four bus stops within the project scope do not have shelters and five do not have benches (see Map 12. Mobility Network – Transit for locations)

Future LRT Stops

As noted in 3.3 Commercial Nodes & Community Destinations, two future LRT on the Valley Line West LRT extension will be available approximately 800 metres east of West Glenwood. These stops will be located on 156 Street, with one located north of 100A Avenue and one located on 95 Avenue.



Image source: City of Edmonton

Transit Network Opportunities

- Enhance connections to bus stops and routes, including providing missing sidewalks where there are bus stops
- Identify priority bus stops for additional bus stop amenities that improve user experience, such as winter weather protection and benches
- Evaluate how the Bus Network Redesign is changing how people walk, roll, and bike through the neighbourhood to access bus stops
- Evaluate locations that are frequently used for DATS pick-up and drop-off for opportunities to improve DATS vehicle access, user accessibility, and other amenities to improve user experience such as highly visible designated pick-up and drop-off locations, benches, and sidewalk widening.

Map 12. Mobility Network – Transit





3.7.3 Biking

The bike network within and surrounding West Glenwood is identified on Map 13. Mobility Network - Biking.

Edmonton Bike Plan

The City of Edmonton's Bike Plan establishes a high-level strategic plan to guide the continued improvement and growth of the bike network and supporting programs. The following are highlights of the Bike Plan in relation to West Glenwood and the surrounding bike network.

- There are two types of routes within or near West Glenwood:
 - District connector routes which serve as cycling arteries extending across multiple neighbourhoods, connecting districts and prioritize directness
 - Neighbourhood routes provide local access, opportunities for recreational bike riding and connections to destinations outside of the district connector network
- 95 Avenue and 163 Street are identified as future bike routes (district connector routes)
- 165 Street and 96A Avenue are identified as existing shared roadways (neighbourhood routes)
- The shared use path on the south side of 100 Avenue east of 163 Street is identified as a neighbourhood route
- Recommended bike facilities and infrastructure varies depending on the type of route and local context
- When a project is planned or located close to a future district connector route, it should confirm the exact location of the bike route and complete the infrastructure changes as required



Image source: City of Edmonton



Image source: City of Edmonton

Existing Biking Infrastructure

- No dedicated bike facilities, signage, or markings to indicate existing routes
- Breezeways in West Glenwood provide through-block connections for people who walk and bike
- Nearby shared pathways:
 - South side of 100 Avenue east of 163 Street
 - West side of 170 Street south of 95 Avenue
- Nearby bike routes connect West Glenwood residents to destinations such as West Edmonton Mall, Jasper Place Fitness and Leisure Centre, Johnny Bright Sports Park, Jasper Place High School, St. Francis Xavier High School, Alex Janvier School, St. Thomas More Catholic Junior High, Jasper Gates Square, and MacKinnon Ravine Park

Opportunities

- Enhance bike connectivity to the overall network
- Explore new bike routes and different bike facility types to destinations within West Glenwood to enhance user safety and comfort in all seasons
- Examine the current and potential use of bike facilities to ensure that current and future demands are supported
- Explore opportunities to add end of trip amenities such as secure bike racks at destinations
- Explore opportunities to improve the Neighbourhood Routes along 165 Street and 96A Avenue
- Explore opportunities to implement the District Connector Routes along 95 Avenue and 163 Street
- Explore opportunities to extend the shared pathway on the south side of 100 Avenue east of 163 Street to and through the neighbourhood
- Explore opportunities to connect residents and nearby neighbourhoods to destinations such as West Edmonton Mall, Jasper Place Fitness and Leisure Centre, and MacKinnon Ravine Park


Map 13. Mobility Network – Biking



3.7.4 Driving & Traffic Safety

There are 11 vehicle access points into West Glenwood from the surrounding roads. Northern access into the commercial area is provided by six roads off Stony Plain Road. One-way eastbound arterial access is provided on 100 Avenue at 170 Street. Access to the residential areas is provided via two accesses on 163 Street and two accesses on 95 Avenue. The road network, parking and existing traffic controls in West Glenwood are shown on **Map 14. Mobility Network – Parking and Traffic Controls**. Roadway speed limits are shown on **Map 15. Speed Zones**.



Eastern edge of West Glenwood at 163 Street

Parking

On-street parking

- On-street parking is provided within the road right-of-way which is public property
- On-street parking is allowed along both sides of most local roads

Time-restricted parking

On-street parking is restricted to a maximum of 1 to 2 hours in four locations in the commercial area north of 100 Avenue (see Map 14. Mobility Network – Parking and Traffic Controls for locations)

On-street parking restrictions

- Parts of some streets in West Glenwood feature seasonal parking bans to allow activities such as snow removal and street cleaning (see Map 14. Mobility Network – Parking and Traffic Controls for locations)
- School drop-off zones are designated along 167 Street, 96 Avenue, and 165 Street near Alex Janvier School and St. Thomas More Catholic Junior High
- There are a number of no parking zones throughout West Glenwood these are primarily located on arterials 100 Avenue and Stony Plain Road (see Map 14. Mobility Network Parking and Traffic Controls for all locations)

Accessible Parking

- Two single-detached houses have accessible parking/loading zones
- Accessible parking/passenger loading zones exist on-site for other properties in the neighbourhood such as Alex Janvier School, St. Thomas More School and seniors / assisted living housing developments
- Accessible parking zones are typically 7.5 m to 10 m long, which accommodates one vehicle Residents can request the City of Edmonton to install parking/passenger loading zones on public property in front of residences and businesses



Seasonal and accessible parking signage along 167 Street



Playground zone signage

Playground Zones

- Playground zones are marked by signage indicating a reduction in speed to 30 km/h is required between 7:30 a.m. and 9:00 p.m. At other times, the maximum speed is 40 km/h.
- Traffic increases around Alex Janvier School and St. Thomas More School at certain times of the day such as drop-off and pick-up times, typically between 8:15 - 8:45 a.m. and 3:00 - 3:45 p.m. except Thursdays when school dismissal is just after 12:00 p.m.
- The playground zones in West Glenwood include a zebra marked crosswalk, and rectangular rapid flashing beacons at 167 Street and unsignalized crosswalks at 165 Street which provide a direct connection Alex Janvier School and St. Thomas More School respectively
- There are no marked crossings to Glenwood Park

Traffic Safety

Collisions

Between 2017 and 2021, 1,272 crashes have occurred in the Glenwood neighbourhood (includes both East and West Glenwood as well as peripheral roads: 170 Street, Stony Plain Road, 163 Street, and 95 Avenue). Severity has ranged from property damage only to serious injury and death based on collision reports from the City of Edmonton. The top three collision causes for the Glenwood neighbourhood were rear-end (43%), improper lane change (12%), and red light running (9%).

Map 16. Injury Crashes (2017 – 2022) shows crashes leading to injury between 2017 and 2021 within and surrounding West Glenwood. Most collisions have occurred on the outer edges of the community and along streets that are not within the scope of West Glenwood Neighbourhood Renewal.

- The top injury collision locations for West Glenwood are 95 Avenue and 170 Street (14 collisions) and 100 Avenue and 170 Street (eight collisions)
- **16 injury collisions** have involved people walking or biking
- Three injury collisions involving people walking occurred at 100 Avenue and 163 Street
- 66 injury collisions have involved people driving motor vehicles
- All reported injury collisions have occurred on arterial roads within and surrounding the community
- **One fatality** was reported, due to a one-way violation on 100 Avenue west of 167 Street

In addition to the crashes shown on **Map 16. Injury Crashes (2017 – 2022)**, there was one noninjury crash (i.e. "Property Damage Only" crash) at the intersection of 100 Avenue and 170 Street involving a bicycle. No other details are available such as what type of property damage occurred.



Parking restriction signage

Driving and Traffic Safety Opportunities

- Identify if traffic calming measures are needed to address speeding and shortcutting concerns identified through stakeholder engagement, 311 inquiries, speed surveys, School safety assessments, traffic volume data, collision data and High Injury Network Maps
- Use evidence-based industry design best practices aligned with Edmonton's Vision Zero policy and Safe Mobility Strategy to develop street and intersection designs that improve safety for West Glenwood residents
- Consider proven methods to slow traffic and increase safety and livability near schools and seniors housing
- Evaluate traffic safety around important destinations (schools, parks, etc.) and along key routes to destinations for people who walk and bike
- Evaluate effectiveness of existing street markings and traffic control signage and add or update markings, crossings, and traffic controls where necessary
- Reviewing existing on-street parking locations will help identify trade-offs when exploring options and tradeoffs for walking, rolling, and biking improvements as well as traffic calming measures within the neighbourhood
- Review the limits of existing caution/playground zones and determine, along with stakeholder engagement, if design changes would be beneficial
- Though locations of injury collisions have primarily occurred on roads that are out of scope of Neighbourhood Renewal, crossing saftey and improvements can be evaluated and implemented

Map 14. Mobility Network – Parking and Traffic Controls

West Glenwood Neighbourhood Boundary

NODES AND COMMUNITY DESTINATIONS

Commercial

School/Library

Place of Worship

Senior's Housing

- Emergency Service Building
- Community Building

Parks and Open Spaces

PARKING AND MOBILITY

- Amber Flashing Beacon
- Rapid Flashing Beacon
- Signal Controlled Crosswalk
- Stop Sign
- Vield Sign
- 🚯 Accessible Parking
- On Street Parking (no restrictions)
- •••• Time Restricted Parking (1 to 2 hrs)
- Drop Off Zone
- On Street Seasonal Parking
- No Parking Zone
- Playground Zone (30 km/h)
- Breezeway
- IIII Zebra Crossing
- Marked Crosswalk







3.8 Infrastructure

There are many existing utilities in the neighbourhood that provide essential services to everyone in the community. Careful review of these utilities during design and construction will minimize the impacts of implementing any design changes or new infrastructure. Some utilities that are reviewed during Neighbourhood and Alley Renewal include:

Shallow Utilities	Deep Utilities
 ATCO Gas Power Telecommunication (Telus, Shaw) 	 Water (EPCOR) Drainage (EPCOR) Storm and Sewer ATCO Pipelines

3.8.1 Utilities

Utility Considerations

Some utilities have visible elements on the surface including manholes, vaults, catch basins, valves, hydrants, street lights, pedestals and traffic controls. When designing sidewalks and paths near a vertical element (such as streetlights and pedestals) appropriate offsets should be maintained to maximize the usable space. For people walking, rolling, or biking the offset should be a minimum of 0.5 metres.



Drainage swale along fence located east of Jack Horan Park



Manhole in West Glenwood

Other utility considerations are listed in the table below:

Table 5. Utilities Considerations

Infrastructure	Considerations	Mitigation
All Underground Utlities	 To reduce surface restoration costs, it is best not to align concrete infrastructure over underground utilities that are likely to require maintenance through surface trenching Coordination of existing infrastructure and planned infrastructure 	Use hydrovac to locate the utility and align infrastructure to avoid it, unless there are no other alignment alternatives
	 Coordination of existing infrastructure and planned infrastructure 	Communication began in June of 2022 and will continue throughout the project
Shallow Utilities	 Conflicts with reconstruction of the pavement structure 	 Hydrovac shallow utilities in all alleys and in proposed reconstructed road sections
Fibre Optic	 Vaults can be difficult to relocate due to the congestion of existing utilities in the road right of way Residential connection points are typically easy to relocate 	 Notify Shaw / Telus at least one year in advance to explore relocating If not feasible, design to accommodate the existing location of the vault
Street Lights	 May require relocating to accommodate realigned sidewalks or curbs Street lights with utility pedestals may only have limited flexibility with respect to relocation 	 Design to minimize the need to relocate Typical renewal includes new poles and LED fixtures on the original base
Drainage	 Additional hard surfacing increases runoff capture which could impact the overall system 	 Design to decrease hard surfacing and increase permeable surfaces, on balance, throughout the neighbourhood If necessary, consult with EPCOR on system modeling
	Catch basin relocation may be required for new curb alignments and some measures to slow traffic	Design to minimize the need for relocation

Crossing Agreements

Crossing agreements are required to work above underground infrastructure that has an established right of way on the surface.

- No utility right-of-ways, high pressure gas lines, pipelines or high voltage power lines have been identified that would require an agreement for the scope of work proposed in the West Glenwood renewal project
- Should an application be needed, it should be made during the detailed design phase, several months prior to the anticipated construction.
- Crossing agreements are typically valid for one year

Encroachment Agreements/Licenses of Occupation

An encroachment agreement/Licence of Occupation is a written confirmation between the City and an owner of a property that allows for the private use of the public right–of–way. Often, encroachment agreements/Licences of Occupation within residential areas are used to extend private yards onto public rights–of–way. Encroachment agreements can also exist for City infrastructure on school board land.

Consideration should be taken if there is any potential impact to an existing encroachment agreement/Licence of Occupation. This information will be reviewed as received and inform design decisions

Land Acquisition

During Neighbourhood and Alley Renewal, the City may need to acquire portions of private land to accommodate any proposed improvements.

- Small land acquisitions are occasionally needed for new signal placements, installation of measures to slow traffic and new sidewalks within narrow public right-of-ways. While this is typically rare, it will be reviewed during the concept phase
- Land acquisitions and related requirements will be identified at a later stage

3.8.2 Green Infrastructure

City Trees

In addition to aesthetic value, street trees provide multiple benefits including stormwater management, wildlife habitat or stepping stones, temperature regulation, and noise attenuation. The West Glenwood neighbourhood is lacking in street trees. This is a result of the dedication of much of the road right-of-way to vehicle space. The City Plan sets an aspirational target of two million urban trees planted. In addition, the Urban Forest Management Plan has a short-term goal of establishing a 20% tree canopy coverage in the city.

- Large impermeable surfaces like concrete and asphalt and lack of street trees can strain the stormwater collection system and hinder the natural infiltration of water.
- Urban trees help to reduce urban heat island effect. Shading in combination with transpiration (the movement of water through the bodies of vegetation) can help reduce peak summer temperatures by 1–5°C.
 - Research by King's University students in 2022 indicates that Glenwood is a hot spot in Edmonton. While the average temperature in the City on June 24, 2021 was 24 degrees Celsius at 3 PM, the temperature measured in Glenwood was between 25.7–27.9 degrees Celsius which was in the highest range calculated in the research. The research also indicated that the density of trees per kilometre was on the lowest end of the range, calculated at 1–683 trees per kilometre.
- Shading of buildings by trees and vegetation can reduce energy use in summer months.
- City trees can provide valuable habitat for smaller animals and important stepping stones between urban areas and larger natural areas like the river valley for other animals.



Permeable and impermeable surfaces



Signage at Jack Horan Park

Green Stormwater Infrastructure and Low Impact Development

Green stormwater infrastructure, or low impact development (LID), provides natural systems to replace traditional drainage infrastructure. Examples may include:

- Bioretention
- Bioswales
- Soil cells
- Box planters
- Naturalized storm ponds

LID systems capture water from minor storm events and allow that water to be reused for irrigation or to infiltrate back into the water table, thus replenishing the natural water system and protecting water quality. Some LID systems also filter pollutants, such as sediment, salts, and hydrocarbons, that get flushed into our natural waterways through drainage outfalls. In some cases, water can be seen flowing in drainage channels, but in most cases, water is stored below the surface in soil or rock reservoirs. This allows the water to be used by the landscaping and any remaining water will be slowly released into the major drainage system.

- West Glenwood has a combined storm and sanitary system.
- A combined sewer system is a single pipe that moves both stormwater and snowmelt from city streets and wastewater from businesses and residences to the wastewater treatment plant. The combined sewer system was developed prior to 1960 and at the time was considered to be more economical than building two separate sewer systems. Constructing two sewer systems (stormwater and sanitary) is the current practice for new development in Edmonton.
- Redirecting stormwater from the combined system into LID infrastructure is an important element to decreasing the volume of overflow from the combined system into the ravine and river valley system.

Overall Infrastructure Opportunities

- Assess utility impacts and potential relocations in conjunction with options development
- Explore ways to include street trees as part of green infrastructure implementation
- Evaluate neighbourhood topography, open spaces and areas prone to localized flooding to determine areas that would benefit from LID facilities
- Explore opportunities to replace hardscaping with landscaping and other permeable surfaces
- Create LID educational materials and discuss LID during engagement to provide information and gather feedback
- Evaluate lighting levels at crossing locations, major intersections and in open spaces to determine the need for upgrades to the existing overhead lighting
- Investigate feasibility of burying overhead power lines on 166 Street
- Consider infrastructure and utility upgrades needed to support the commercial area north of 100 Avenue which is identified as a priority growth area in City Plan



GLENWOOD (163 Street West) Neighbourhood and Alley Renewal

Edmonton