Designing New Neighbourhoods

Edmonton

Guidelines For Edmonton's Future Residential Communities

Revised October 31, 2022

### Document Overview

#### About the Document

This performance-based guidelines document establishes a collective vision for Edmonton's future residential communities. This vision is comprised of twelve desired outcomes, each of which is accompanied by a set of principles that are intended to be applied with flexibility to the planning and design of new neighbourhoods. Samples of design ideas and approaches are illustrated in the document to offer some practical examples of how principles could be realized. Outcomes, principles and design ideas are captured in Section 3 Neighbourhood Outcomes and Principles.

#### Using the Document

All principles are to be addressed in the planning and design of a new neighbourhood in Edmonton. New Neighbourhood Structure Plans must demonstrate how this has been accomplished using planning and design policies specific to the neighbourhood. See Sections 2 and 4, Where and How the Guidelines Apply and Communicating Plan Performance for more information on how to use the document.

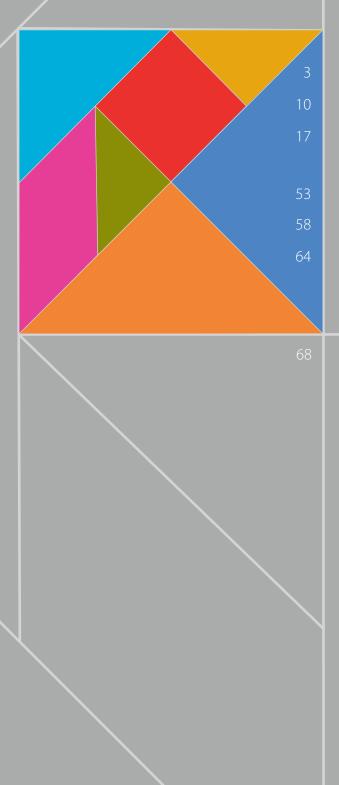
#### Beyond the Document – A Collaborative City-Building Approach

Planning new development through Area Structure Plans and Neighbourhood Structure Plans is a collaborative process that requires ongoing collaboration, partnership and innovation among city-builders in order to realize the unique and adaptable neighbourhoods that the guidelines seek to achieve.

#### 2022 Update

The Designing New Neighbourhoods guidelines document was prepared in 2013 and supported by Edmonton City Council on May 22, 2013, in tandem with the approval of the Designing New Neighbourhoods Policy C572. The outcomes, principles and design ideas and approaches are still relevant today and align well with ConnectEdmonton, The City Plan and the general policy direction of District Plans currently in development. This 2022 update includes minor revisions to ensure this alignment.

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Edmonton is a young, growing and diverse city. Great new neighbourhoods

contribute to its vibrancy and prosperity. They provide an exceptional quality of life for residents, offering a diversity of housing and local amenities, good access to transportation options and a strong sense of place and belonging. Building upon our legacy of providing livable, sustainable, innovative and integrated neighbourhoods demonstrates leadership in planning and design and will ensure that our city is well positioned to attract new residents and new talent and sustain economic growth and competitiveness over the coming decades.



#### Guiding Neighbourhood Development and Change

This document helps position Edmonton for continued creativity, responsiveness and adaptability. It has been developed to both shape and respond to neighbourhood change and innovation. It outlines a shared vision for our new neighbourhoods and provides a flexible planning approach that can readily respond to demographic, economic, social and environmental change over time. It also reflects many existing practices in new neighbourhood design in Edmonton and pushes us to continue to innovate and collaborate to build an even better city.





#### Building Great New Neighbourhoods

New neighbourhoods come in all shapes and sizes. Some of the factors that impact the configuration of a new neighbourhood include: natural topography and geographic features; land ownership patterns; existing land use; proximity to and relationship with major infrastructure; market demand; and the location and function of a new neighbourhood within its larger planning area.

Any new neighbourhood can be a great neighbourhood and there are many ways to achieve success. At the foundation of this document is a clear understanding that no two neighbourhoods are alike, nor should they seek to be. Demand for new housing, services and amenities, and the particular neighbourhood forms designed to meet the needs of our growing population are as varied as our residents.

As new communities grow, neighbourhood populations rapidly increase and then may slow, decrease or even rise again over the decades. Lifestyles and public priorities also change over time, as do markets, economies and technologies. All of these changes influence the way we strategically build, and re-build, our neighbourhoods. Meeting the needs of residents in the near term, addressing the changing life cycle needs of communities in the medium term, and thinking ahead about neighbourhood transformation and adaptation over the long term is critical to planning great new neighbourhoods that are welcoming, long-lived and resilient.





#### Supporting Edmonton's Vision – ConnectEdmonton

The spirit and content of this guidelines document is well aligned with the four strategic goals of ConnectEdmonton, Edmonton's Strategic Plan 2019-2028:

#### **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 design guidelines are also aligned with the values, city building outcomes and Big City Moves of the City's Municipal Development Plan and Transportation Master Plan (*The City Plan*).





#### About this Document: A Performance-Based Approach to Neighbourhood Design

By guiding the preparation of new Neighbourhood Structure Plans, this guidelines document applies a performance-based approach to new neighbourhood design in Edmonton.

A performance-based approach at this conceptual stage of neighbourhood planning:

- Focuses on outcomes instead of prescriptive standards;
- Promotes innovation, not status quo, by providing a sampling of design ideas for discussion and consideration without precluding ways in which desired outcomes are achieved; and
- Provides flexibility by enabling a variety of design responses to differing conditions, priorities, markets, and changes in planning best practice and technology over time.

By communicating expectations without predetermining how a new neighbourhood will be planned in detail, this approach provides clarity around desired results without assuming in advance how they will be translated on the ground.





The following 12 outcomes are detailed in Section 3 of this document, along with principles that support them. Together these will guide the planning and design of great new neighbourhoods in our city.

Outcome 1 Neighbourhoods are connected.

Outcome 2 Neighbourhoods are unique and inviting.

Outcome 3 **Neighbourhoods are inclusive.** 

#### Outcome 4

Neighbourhoods provide residents with convenient access to a full range of transportation options.

#### Outcome 5

Neighbourhoods support viable uses, services and facilities.

#### Outcome 6

Neighbourhoods are cost effective.

#### Outcome 7

Neighbourhoods conserve and enhance ecosystems and biodiversity.

#### Outcome 8

Neighbourhood amenities and facilities support the social and recreational needs of residents.

Outcome 9 Neighbourhoods embrace all seasons.

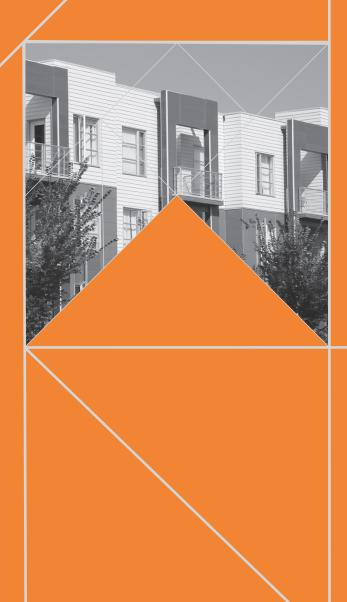
Outcome 10 Neighbourhoods are safe and secure.

Outcome 11 Neighbourhoods are flexible and adaptable.

Outcome 12

Resources are used efficiently and responsibly in neighbourhoods.

"Building upon our legacy of providing livable, sustainable, innovative and integrated neighbourhoods demonstrates leadership in planning and design and will ensure that our city is well positioned to attract new residents and new talent and sustain economic growth and competitiveness over the coming decades."



Designing New Neighbourhoods



#### This document is used to inform the preparation of new

Neighbourhood Structure Plans (NSPs). NSPs provide neighbourhood-level planning and design direction in alignment with a parent Area Structure Plan (ASP). ASPs and NSPs are approved as statutory bylaws by City Council. For more information on NSPs and the sequence of neighbourhood planning and development in Edmonton, see pages 14 and 15.



Applying a performance-based approach to the planning and design of new neighbourhoods requires the City, Development Industry and other stakeholders to work closely together to prepare plans. These city-builders are encouraged to take advantage of the flexibility that this approach affords to achieve desired neighbourhood outcomes and respond to the unique context of and vision for a new neighbourhood.

#### Where the Guidelines Apply

This document applies to the preparation of new Neighbourhood Structure Plans (NSPs). Before NSPs are prepared for new communities, the general pattern of future development in each area will be outlined at a high level in an Area Structure Plan. ASPs provide planning direction for groups of neighbourhoods and are themselves informed by policies of *The City Plan* and the City's other strategic plans.

#### How To Use the Guidelines - at a Glance

1. Consult Neighbourhood Outcomes and Principles to inform the collaborative planning and design of a new neighbourhood. (See Section 3)

2. Clearly demonstrate in the content of the Neighbourhood Structure Plan how outcomes will be achieved and how principles have been addressed, using planning and design policies specific to the neighbourhood. (See Section 4)





#### Using the Guidelines to Inform Neighbourhood Structure Plans

When a new NSP is being prepared, plan proponents and the City will work together to ensure that the principles outlined in this document are addressed through planning and design policies specific to the new neighbourhood. This is to ensure that desired outcomes are realized within the context of the unique vision for the community.

#### **Addressing Principles**

A new NSP must address each principle established in this document. All subsequent amendments to an NSP must do the same. The NSP will describe (using text and images as appropriate) how this has been accomplished through neighbourhood planning and design policies. Section 4 of this document (*Communicating Plan Performance*) and the City's <u>Terms of Reference for Plans and</u> <u>Amendments</u> outline how this is to be described in the content of a plan in greater detail.

It is critical that all principles are addressed for two key reasons – 1) each uniquely contributes to and supports one of the twelve neighbourhood outcomes and 2) many principles are mutually dependent. Because of this interdependence it is possible that key strategic design elements could support multiple principles and outcomes in a neighbourhood at once. However, it is also possible that in some circumstances the unique context and characteristics of a future neighbourhood will make it unfeasible to respond to all principles. In this event, the NSP must describe why a principle could not be met and outline any steps taken to mitigate the impact of its omission on the achievement of the relevant neighbourhood outcome.

## Working Together to Identify Design Features and Approaches for the New Neighbourhood

This guidelines document does not prescribe any single way of reflecting the principles in a new neighbourhood. Instead it illustrates a sampling of design ideas and approaches to offer some practical and tangible examples of how principles could be addressed. These are intended to serve as a starting point and to generate discussion as plans are developed. The City and plan proponent(s) will work together to determine what specific design features and approaches are most desirable and appropriate for a new neighbourhood.

Detailed information on the process, information and format requirements of NSPs are outlined in the City's <u>Terms of</u> <u>Reference for</u> <u>Plans and Amendments.</u>





#### Reinforcing the New Neighbourhood's Vision

While it is expected that new neighbourhoods achieve all outcomes by addressing each principle, having more emphasis placed on certain principles is one way to ensure that neighbourhoods are unique and are able to effectively respond to market demand and public priorities. An emphasis on a particular collection of principles may be a keystone of the neighbourhood's vision and placemaking approach.

#### Aligning with Existing Neighbourhood Planning Requirements and Policies

This document does not remove requirements to adhere to existing relevant municipal, provincial and federal requirements and statutes as outlined in the City's <u>Terms of Reference for Plans and Amendments</u>.





#### The Purpose of a Neighbourhood Structure Plan

The purpose of a Neighbourhood Structure Plan (NSP) is to describe the general pattern of development and subdivision in a new neighbourhood by: defining a design vision; designating the type and location of land uses; establishing a roadway and transit network; identifying the pedestrian network and top-of-bank walk/roadways (if applicable); identifying schools, parks, open space systems and natural areas; providing general servicing schemes and a staging pattern for development; identifying the location and size of neighbourhood facilities; and addressing any other matters that City Council deems necessary. The policies of these plans guide subsequent stages of neighbourhood development such as zoning, subdivision, infrastructure design and construction. Figure 1 illustrates the place of NSPs within the broad sequence of neighbourhood planning and development in our city.

#### Who prepares a new NSP?

New neighbourhood plans are initiated by the private sector and prepared in cooperation with the City's Administration and other agencies and serviceproviders. The Development Services Branch of Urban Planning and Economy takes a leadership role on behalf of Edmonton's Administration to coordinate and facilitate the preparation of new NSPs. The Branch also enables coordinated and consistent decision-making within the Corporation and advances plans for Council approval.

Planning a great new neighbourhood requires the collaboration and investment of many organizations and agencies (city-builders) including:

- The City
- Development Industry and Home Builders
- Utility Providers
- School Boards
- The Province
- Community Agencies



#### Figure 1: The Sequence of Neighbourhood Planning and Development



- Strategic plans are high level goals and objectives to guide physical, economic, social growth and development of entire city.
- The City Plan, District Plans and District General Policy provide detailed direction about how specific strategic goals and objectives will be achieved.
- May apply to all or specific areas of the city.
- High level outline of how an area / group of neighbourhoods will develop.
- Locate major facilities, arterial roads and land uses by general category.
- Detail size, configuration, location of future land use and densities, roads, municipal services, and staging for a neighbourhood.
- Policies guide planning and design of buildings, streets, parks, community facilities, transit service and other infrastructure as neighbourhoods develop.
- Zoning establishes development rights for a parcel or area of land including permitted land uses, building heights, forms, densities, site layout, landscape and parking.
- Must be consistent with Municipal Development Plan policies.
- Subdivision divides land into smaller parcels.
- Guided by zoning, policies of NSPs and City engineering standards.
- Sets pattern of development by determining location, size, shape of lots and roads.
- Servicing Agreements identify municipal improvements (sewers, water, roads, etc) to be built by the developer and responsibilities for them once complete.

 Allow construction and operation of new homes, buildings, parks and facilities according to the Edmonton Zoning Bylaw and Alberta Building Code. "This document establishes a planning framework that helps position Edmonton for continued creativity, responsiveness and adaptability. It has been developed to both shape and respond to neighbourhood change and innovation. It outlines a shared vision for our new neighbourhoods and provides a flexible planning approach that can readily respond to demographic, economic, social and environmental change over time."





#### Twelve sets of outcomes and principles provide a vision

for the planning and design of Edmonton's future neighbourhoods and define the results that they will achieve. Together they foster the creation of integrated and diverse new communities. They also support long term sustainability and design innovation, and lay the basis for new neighbourhoods that are designed for life in all seasons. The realization of this vision will result in a city whose varied communities stand the test of time, provide a high quality of life and attract new residents for years to come.



#### This section includes:

#### Outcomes

Outcomes are statements that define and describe desired end results. Twelve outcomes for Edmonton's new neighbourhoods are confirmed on the following pages. They provide a comprehensive and coordinated vision of what we can collectively expect new neighbourhoods to deliver for individual residents and families, local communities, home builders, developers and the City. Each outcome is supported by a set of neighbourhood design principles.

#### Principles

Principles are performance criteria that provide clarity around and guide the achievement of outcomes. To achieve all 12 outcomes, each principle must be addressed in the design of a new neighbourhood and this must be reflected in the content of the Neighbourhood Structure Plan (NSP). The way these principles are brought to life on the ground will be flexible and adaptive. Plan proponents and the City are encouraged to be creative in how the principles are addressed and to come up with alternative design solutions that will enable the development of tomorrow's great new neighbourhoods.

#### **Design Ideas**

A sampling of design ideas and corresponding images and illustrations are provided for each principle to kick-start discussions and creativity, and for consideration as neighbourhood plans are prepared. The use of these ideas in a plan is not mandatory; they are merely illustrative of some of the many ways in which principles could be addressed in a new neighbourhood.





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## 3. Neighbourhood Outcomes and Principles

Outcome	N	eighbourhoods are connected.
	r c a p	I new neighbourhoods should contribute to and be part of a larger integrated etwork of streets, paths and transit routes that link people, destinations and ommunities. Good connections make our neighbourhoods and our city ccessible, easy to navigate and efficient. Strong multi-modal linkages should be rovided between the places that people want to travel to and accommodate the fferent transportation modes they want to use to get there.
Principles	1.	1 Create neighbourhoods that are easy to move within and navigate using all modes of transportation.
	1.	<b>2</b> Provide efficient multi-modal transportation linkages between residential development and destinations within and outside the neighbourhood.

**1.3** Connect roads, paths and trails with those in adjacent neighbourhoods.

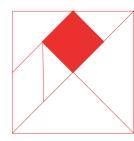
#### Outcome

#### Neighbourhoods are unique and inviting.

Each new neighbourhood should be distinct, convey a sense of place and provide a welcoming human-scaled environment. Distinct communities and niche neighbourhoods add interest to our city and provide variety and choice for home buyers and residents. Their identities should be built around the special context of and vision for a neighbourhood, and should be reflected in appropriate and innovative infrastructure, community amenities, design and landscape features.

- Principles
- **2.1** Provide for and/or build attractive and inviting streets, buildings, parks and open spaces.
- **2.2** Create a special character and connection to place by respecting, and where possible, using the historical, natural and cultural context of an area.
- **2.3** Provide for and/or build infrastructure and amenities that support the unique identity and context of a neighbourhood.





Outcome
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#### Neighbourhoods are inclusive.

Inclusive neighbourhoods are diverse and strong communities where people of a wide variety of backgrounds, ages and abilities can live and access basic daily needs. Strong communities are essential to a livable and sustainable city. New neighbourhoods should provide a range of housing and access to a mix of services and amenities to support a diverse population. Infrastructure should be designed to be universally accessible and age-friendly to accommodate a wide range of user needs and abilities.

#### Principles

- **3.1** Provide for a wide variety and choice of housing within the neighbourhood.
- **3.2** Provide for affordable housing opportunities.
- **3.3** Plan for a mix of land uses and amenities within walking distance of neighbourhood residents.
- **3.4** Design neighbourhood infrastructure, parks and civic facilities to accommodate people of all ages and abilities.

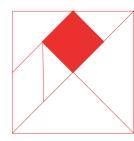
Outcome

# Neighbourhoods provide residents with convenient access to a full range of transportation options.

Designing to accommodate all forms of transportation in new neighbourhoods provides residents with mobility and lifestyle choice, and enables the use of alternative and active modes. Walking, cycling and transit should be practical transportation options in all neighbourhoods and encouraged through neighbourhood design. Streets should be designed to reflect their neighbourhood context, surrounding land use and intended users.

- **4.1** Create a walkable neighbourhood.
  - **4.2** Accommodate accessible and effective transit service for the neighbourhood and beyond.
  - **4.3** Provide for cycling opportunities within the neighbourhood with connections to existing and future networks.
  - **4.4** Apply *Complete Streets Principles* within the neighbourhood.





#### Outcome

#### Neighbourhoods support viable uses, services and facilities.

Housing, commercial development, employment areas, parks and community facilities best serve new neighbourhoods and our city when they are sited to reflect user needs and market viability, and to provide convenient access. Uses should be located where they are supported by and accessible to consumers and residents through multiple transportation modes. They should be integrated with compatible development, services and transit to create synergies and focal points for public life and activity. Transitions should be provided between different uses and activity areas to support cohesive and coordinated development.

#### Principles

- **5.1** Coordinate the location of commercial and employment areas, parks, natural areas and civic facilities to provide convenient access for residents by multiple modes of transportation.
- **5.2** Cluster compatible and complementary services, housing types and amenities to create activity centres or neighbourhood hubs that serve the greatest number of residents and can be supported by consumers within and between neighbourhoods.
- **5.3** Locate school sites to facilitate pedestrian, bus and vehicular access for neighbourhood residents and/or residents of adjacent neighbourhoods.

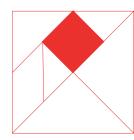
#### Outcome

#### Neighbourhoods are cost effective.

Cost effective neighbourhoods are critical to the overall economic well-being of our city. New neighbourhoods should enable short and long-term affordability for those who build, service, maintain, renew and live in them. The services that are provided to residents in a neighbourhood, and the infrastructure that supports them, should efficiently serve the community and be built to last, reducing overall life cycle costs.

- **6.1** Consider the costs and benefits for building all types of neighbourhood infrastructure, including the optimal timing of delivery of infrastructure as the neighbourhood builds out.
  - **6.2** Create neighbourhoods that are affordable for residents and citizens by partnering to deliver amenities effectively and manage risk.
  - **6.3** Plan for infrastructure that is cost efficient to build, operate, maintain and renew over the life cycle of the neighbourhood.



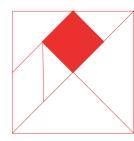


Outcome	Neighbourhoods conserve and enhance ecosystems and biodiversity.
	Our city has a rich natural heritage. Conserving and enhancing ecosystems and biodiversity in new neighbourhoods stewards and builds on this legacy, and provides residents with access to nature close to home. Natural areas and features should be accommodated and connected, and urban biodiversity in new neighbourhoods should be supported and enhanced to benefit plant, animal and human communities alike.
Principles	<b>7.1</b> Plan to conserve natural areas and features, landscapes and views within the neighbourhood.
	<b>7.2</b> Plan to conserve and enhance ecological networks and connectivity within and between neighbourhoods.
	<b>7.3</b> Foster opportunities for habitat and naturalized spaces that encourage urban biodiversity.
Outcome	Neighbourhood amenities and facilities support the social
	and recreational needs of residents.

Recreational, social and cultural amenities encourage vibrant and healthy neighbourhoods. They foster a sense of community, support educational opportunities and enable active living. Amenities and facilities should successfully serve residents as their needs change over time. Parks and open spaces should provide for active and passive recreation, and be accessible, adaptable and functionally designed. Places for public gathering and community engagement should beavailable for residents, as should opportunities for local food production and access.

- **8.1** Plan for flexible, visible, accessible and functional parks and open spaces to meet life cycle needs of residents.
  - 8.2 Plan for community gathering places and neighbourhood focal points.
  - **8.3** Plan for local food production and access opportunities within the neighbourhood.





# OutcomeNeighbourhoods embrace all seasons.Edmonton is a winter city. New neighbourhoods should embrace this special<br/>season and be designed with the rewards and challenges of our winter climate<br/>in mind. Public spaces, buildings and streets should encourage year-round use,<br/>enjoyment, comfort, safety, fun and interest. They should also ensure that municipal<br/>services can be provided effectively in winter, spring, summer and fall.Principles9.1 Plan for weather and all seasonal conditions through street, building and open<br/>space design.9.2 Plan for parks and open spaces that can be used and enjoyed year-round.9.3 Ensure that municipal services, including the maintenance and operation of<br/>infrastructure, can be effectively provided in all seasons.

#### Outcome

#### Neighbourhoods are safe and secure.

All neighbourhoods should be safe and secure. A sense of personal and social wellbeing is a key contributor to quality of life. To provide this, new neighbourhoods should enable effective protective services, safe coexistence with energy facilities, and include streets, buildings and public spaces that are designed to promote individual and public safety. Residents should not only be safe in their neighbourhoods, they should feel safe as well.

- **10.1** Design streets, buildings and public and private spaces to promote safety and security, and to mitigate risk.
  - **10.2** Plan for emergency and protective services.
  - **10.3** Provide for the safe coexistence of new development with energy facilities in alignment with municipal, provincial and federal requirements.





Outcome	Neighbourhoods are flexible and adaptable.
	Neighbourhoods are evolutionary. Community needs change over time and through the neighbourhood's life cycle. To enable their evolution, neighbourhoods should be planned and developed in innovative ways that make them flexible and adaptable to shifts in public priorities and needs, demographics, markets, economics, technologies and climatic conditions. Innovative and alternative technologies and infrastructure standards should be embraced.
Principles	<b>11.1</b> Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.
	<b>11.2</b> Pursue innovative approaches and embrace the best available standards for community and infrastructure design.
Outcome	Resources are used efficiently and responsibly in neighbourhoods.
	Efficient and responsible use of our collective resources in developing and maintaining new neighbourhoods is critical to their long term success and to the long term sustainability of our city. New development and infrastructure should achieve multiple objectives, be cutting edge and low impact. Design should minimize water, land and energy requirements of neighbourhoods today and into the future to mitigate the impacts of development, reduce our carbon footprint, and contribute to the creation of a compact city.
Principles	<b>12.1</b> Explore opportunities to capitalize on the joint use of space and other land use efficiencies without compromising the intended use or maintenance and operations needs of the site.
	<b>12.2</b> Minimize energy use and energy requirements of buildings and

**12.3** Encourage Low Impact Development Best Management Practices to manage stormwater runoff and improve water quality.

infrastructure.





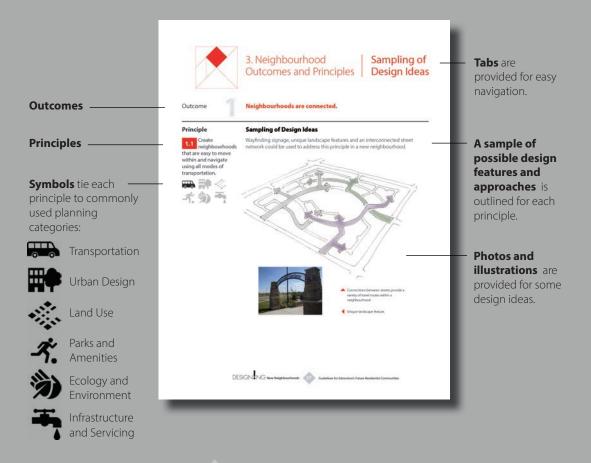
# Sampling of Design Ideas

#### Sampling of Design Ideas

The following pages present a sampling of design ideas which illustrate some of the many ways in which the principles could be addressed in a new neighbourhood. These design ideas are not required neighbourhood features. They are intended instead to kick-start discussions and creativity as Neighbourhood Structure Plans are prepared.

#### **Understanding the Design Ideas**

Design ideas are associated with particular principles. As an additional aid to the user, principles are linked through the use of symbols to commonly understood planning categories: Transportation; Land Use; Urban Design; Parks and Amenities; Ecology and Environment; Infrastructure and Servicing. These symbols and other wayfinding features found on the following pages are illustrated in Figure 3. Appendix A provides a quick reference of principles by planning category.



#### Figure 3: Key Elements of 'Sampling of Design Ideas' Pages



# Sampling of

Outcome

#### Neighbourhoods are connected.

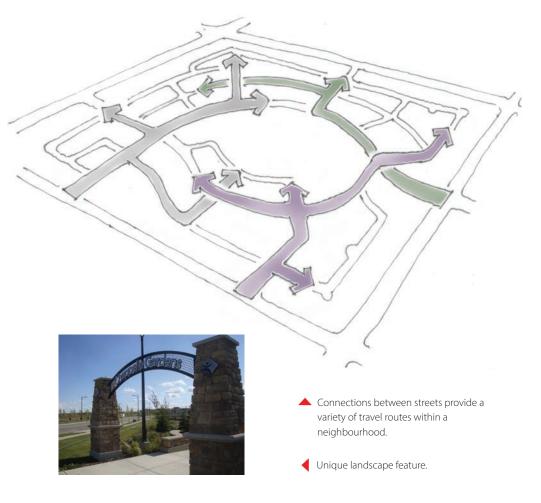
#### **Principle**

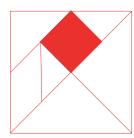
#### **Sampling of Design Ideas**

Wayfinding signage, unique landscape features and an interconnected street network could be used to address this principle in a new neighbourhood.

Create 1.1 neighbourhoods that are easy to move within and navigate using all modes of transportation.







# Sampling of

Outcome

#### Neighbourhoods are connected.

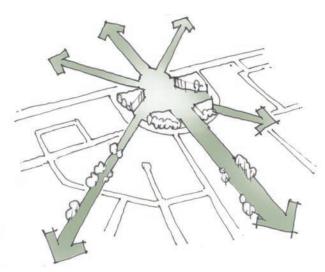
#### Principle

Provide efficient multi-modal transportation linkages between residential development and destinations within and outside the neighbourhood.



#### Sampling of Design Ideas

Direct pathway and roadway connections to neighbourhood facilities and commercial areas, an integrated and dedicated active transportation network, and the alignment of different transportation modes could be used to address this principle in a new neighbourhood.





#### Loading a bike onto a transit bus. Connections to neighbourhood facilities.

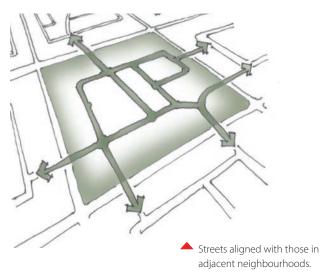
#### **Principle**

Connect roads, paths and trails with those in adjacent neighbourhoods.

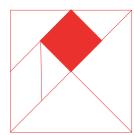


#### **Sampling of Design Ideas**

Aligning streets, paths and trails with those in existing adjacent neighbourhoods, extending them to the boundaries of future neighbourhoods, and planning different types of transportation routes to connect efficiently with citywide networks are some of the many ways this principle could be addressed in a new neighbourhood.







# Sampling of Design Ideas

Outcome

#### Neighbourhoods are unique and inviting.

#### Principle

**2.1** Provide for and/or build attractive and inviting streets, buildings, parks and open spaces.



#### Sampling of Design Ideas

The integration of different scales and forms of housing throughout a new neighbourhood, the orientation of buildings and open spaces towards streets, and the creation of new views and vistas could be used to address this principle in a new neighbourhood.



Buildings oriented to the street.

 Street layout and building placement to enhance views to neighbourhood landmarks.



A variety of housing forms integrated along a street.





# Sampling of

Outcome

#### Neighbourhoods are unique and inviting.

#### Principle

Create a special character and connection to place by respecting, and where possible, using the historical, natural and cultural context of an area.



Using natural topography and natural features to guide the layout of streets and blocks, integrating existing historic resources and cultural features into the neighbourhood, and designing public spaces and streets to reflect these features could be used to address this principle in a new neighbourhood.

Streets laid out to align with topography.

Sampling of Design Ideas

Historic building and landscape integrated with new development.

#### **Principle**

Provide for and/or build infrastructure and amenities that support the unique identity and context of a neiahbourhood.



#### **Sampling of Design Ideas**

Parks designed to reflect a neighbourhood's character, public art, community focal points, and new landmark buildings and features could be used to address this principle in a new neighbourhood.



Park as community focal point.

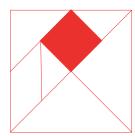


Landmark building.



Neighbourhood art reflects local character.





# Sampling of

Outcome



#### Neighbourhoods are inclusive.

#### **Principle**

#### **Sampling of Design Ideas**

Provide for a 3.1 wide variety and choice of housing within the neighbourhood.



A range of housing types and densities, opportunities for live-work uses, and housing forms that meet the needs of different demographic groups could be used to address this principle in a new neighbourhood.



Variety of lot type, housing form and density.

Range of housing forms to accommodate different residents.





# Sampling of

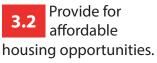
Outcome



#### Neighbourhoods are inclusive.

**Sampling of Design Ideas** 

#### Principle





Providing opportunities for rental housing, secondary suites and other dwellings that support options for housing affordability could address this principle in a new neighbourhood.

**Principle** 

Plan for a mix 3.3 of land uses and amenities within walking distance of neighbourhood residents.



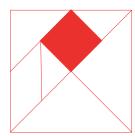
#### **Sampling of Design Ideas**

Secondary suites in lanes above a garage.

**Opportunities** for commercial development near residential development, locating parks and institutional uses and services close to home, facilitating multi-modal connections to employment uses in nearby neighbourhoods, and creating mixeduse neighbourhood centres could address this principle in a new neighbourhood.

Mixed use neighbourhood development close to housing





# Sampling of

Outcome



#### Neighbourhoods are inclusive.

#### Principle

Design 3.4 neighbourhood infrastructure, parks and civic facilities to accommodate people of all ages and abilities.



#### **Sampling of Design Ideas**

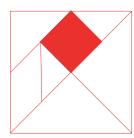
Universally designed parks and public spaces, streets and pedestrian paths designed to accommodate people with limited mobility, and the location of amenities in proximity to intended users could be used to address this principle in a new neighbourhood.

> Neighbourhood park and playground featuring universally accessible amenities.

Rest area along a walking path.







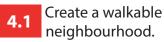
**Sampling of Design Ideas** 

# Sampling of

#### Outcome

#### Neighbourhoods provide residents with convenient access to a full range of transportation options.

#### Principle



Direct pedestrian connections between housing and local destinations, an integrated transportation network, and pedestrian friendly building and streetscape design could be used to address this principle in a new neighbourhood.

Pedestrian friendly streetscape.

Pedestrian connection to school and park.





# Sampling of

#### Outcome

#### Neighbourhoods provide residents with convenient access to a full range of transportation options.

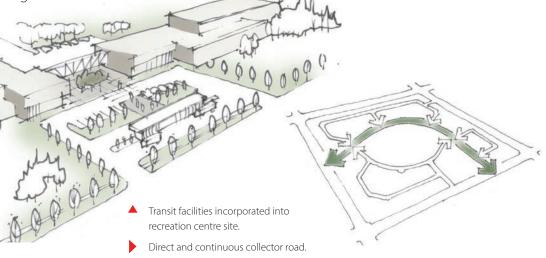
#### Principle





**Sampling of Design Ideas** 

Integrating transit facilities with neighbourhood amenities, development densities that support transit service, and the provision of direct and continuous collector roadways for bus access could be used to address this principle in a new neighbourhood.



#### **Principle**

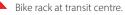




#### Sampling of Design Ideas

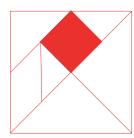
Dedicated bike lanes and paths, end-of-trip facilities, and direct collector roads through a new neighbourhood could be used to address this principle.





Bike network comprised of off- and on-street pathways and lanes.





# Sampling of

#### Outcome

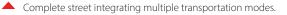
#### Neighbourhoods provide residents with convenient access to a full range of transportation options.

#### **Principle**

Apply Complete Streets Principles within the neighbourhood.



**Sampling of Design Ideas** A complete street is designed for safe travel by a variety of modes; it reflects the needs of all users, the context of the surrounding land use, and provides continuity within the larger multi-modal street network as a whole. Please refer to the City of Edmonton's Complete Streets Principles for more direction on ways to address this principle and for more ideas on how to tailor street design to meet unique needs in a new neighbourhood.









# Sampling of

Outcome

## Neighbourhoods support viable uses, services and facilities.

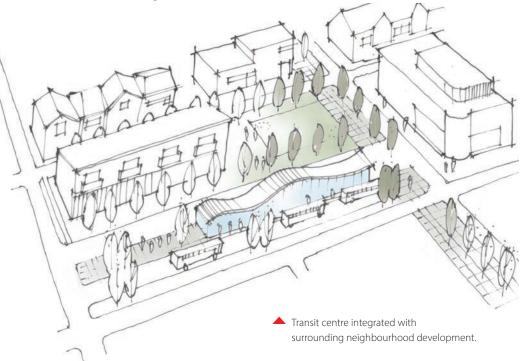
## **Principle**

Coordinate the location of commercial and employment areas, parks, natural areas and civic facilities to provide convenient access for residents by multiple modes of transportation.



# **Sampling of Design Ideas**

Locating amenities on key transportation corridors, direct pedestrian connections to residential areas, the integration of transit facilities and commercial development, and commercial sites with multiple frontages and access points are some ways this principle could be addressed in a new neighbourhood.







# 3. Neighbourhood Outcomes and Principles

# Sampling of Design Ideas

Outcome

# Neighbourhoods support viable uses, services and facilities.

## Principle

**5.2** Cluster compatible and complimentary services, housing types and amenities to create activity centres or neighbourhood hubs that serve the greatest number of residents and can be supported by consumers within and between neighbourhoods.

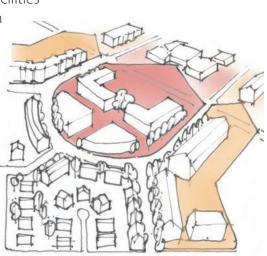


# Sampling of Design Ideas

Higher residential densities near services and amenities, the co-location of community facilities and institutional uses, and the coordination of land uses with those in adjacent communities could be used to address this principle in a new neighbourhood.



School and recreation facility adjacent to one another.



Coordination of land uses with those in adjacent neighbourhoods.

# Principle

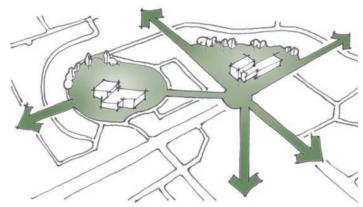
**5.3** Locate school sites to facilitate pedestrian, bus and vehicular access for neighbourhood residents and/or residents of adjacent neighbourhoods.



# **Sampling of Design Ideas**

School sites with street frontage, sites located on collector roads and at key intersections, and the provision of safe and direct walking routes between schools and housing are some ways this principle could be addressed in a new neighbourhood.

School sites with street frontages and connections to the neighbourhood and beyond by direct walking routes.



Guidelines for Edmonton's Future Residential Communities



# 3. Neighbourhood Outcomes and Principles

# Sampling of Design Ideas

Outcome

# Neighbourhoods are cost effective.

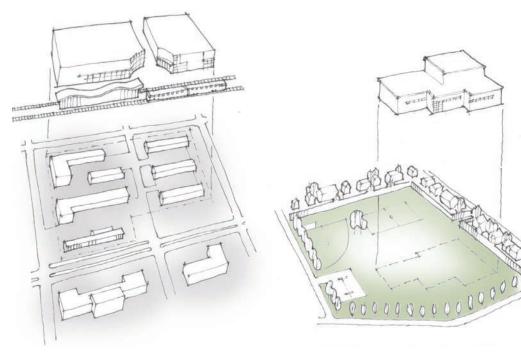
# Principle

# **Sampling of Design Ideas**

6.1 Consider the costs and benefits for building all types of neighbourhood infrastructure, including the optimal timing of delivery of infrastructure as the neighbourhood builds out.



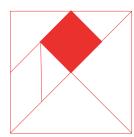
The logical extension of servicing from adjacent neighbourhoods, identification of interim uses for sites likely to build-out at a later stage of development, and the application of alternative infrastructure standards could be used to address this principle in a new neighbourhood.



 Interim low-density use around future LRT station and later densification.

 Early site use and later build-out on school site.





# Sampling of

Outcome

# Neighbourhoods are cost effective.

# Principle

# Sampling of Design Ideas

Create neighbourhoods that are affordable for residents and citizens by partnering to deliver amenities effectively and manage risk.



Exploring creative partnership opportunities, collaborating to assume risks associated with innovation and creativity, and co-locating complementary uses to share parking and and other amenities over the course of the day are a few of the ways this principle could be addressed in a new neighbourhood.

Transit centre integrated with commercial development to share parking facilities.

**Sampling of Design Ideas** 

# Principle

Plan for infrastructure that is cost efficient to build, operate, maintain and renew over the life cycle of the neighbourhood.



Minimizing hard infrastructure requirements, optimizing the use of infrastructure by providing / planning for multi-purposes facilities, and ensuring that infrastructure is not duplicative are just a few of the ways this principle could be addressed in a new neighbourhood.







# Sampling of

## Outcome

## Neighbourhoods conserve and enhance ecosystems and biodiversity.

## **Principle**

## **Sampling of Design Ideas**

Plan to conserve natural areas and features, landscapes and views within the neighbourhood.



Integrating priority tree stands and wetlands into parks and open space, retaining an area's natural topography, and creating view corridors into natural areas are some ways that this principle could be addressed in a new neighbourhood.



Preservation of native tree stand.



# 3. Neighbourhood Outcomes and Principles

# Sampling of **Design Ideas**

## Outcome

## Neighbourhoods conserve and enhance ecosystems and biodiversity.

# Principle

# **Sampling of Design Ideas**

Plan to conserve and enhance ecological networks and connectivity within and between neighbourhoods.



Linking natural areas to allow for wildlife movement, minimizing interruptions (such as roads) to the ecological network, and using existing natural areas as the backbone of a new neighbourhood's open space system are just some of the many ways that this principle could be addressed.

Creating and enhancing existing plant and wildlife habitat using

Network of natural areas and corridors within the neighbourhood.

J. Knill

# **Principle**

Foster opportunities for habitat and naturalized spaces that encourage urban biodiversity.



# **Sampling of Design Ideas**

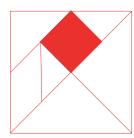
naturalized storm water management facilities, open spaces and low impact development features on public and private lands are just some of the many ways that this principle could be addressed in a new neighbourhood.

Lighting that directs light downwards is sensitive to wildlife.



Stormwater management facility with naturalized landscape.





# Sampling of

Outcome

# Neighbourhood amenities and facilities support the social and recreational needs of residents.

## Principle

## **Sampling of Design Ideas**

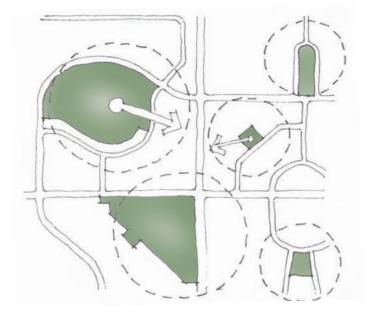
Plan for flexible, 8.1 visible, accessible and functional parks and open spaces to meet life cycle needs of residents.



Distributing parks throughout a neighbourhood, locating them where they can best serve their intended users, and providing a variety of park sizes, amenity and programming levels to meet the particular needs of the community are just some of the ways this principle could be addressed in a new neighbourhood.







Parks within walking distance of neighbourhood residents.





# Sampling of

## Outcome

## Neighbourhood amenities and facilities support the social and recreational needs of residents.

## Principle





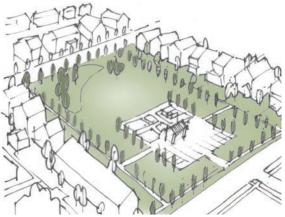
# **Sampling of Design Ideas**

Organizing residential development around neighbourhood parks and amenities, planning for unique forms of housing that provide communal areas for residents, and identifying space for community facilities are just some of many ways this principle could be addressed in a new neighbourhood.



Common area in multi-family site.

Park incorporated into residential area.



# **Principle**

Plan for 8.3 local food production and access opportunities within the neighbourhood.



# Sampling of Design Ideas

Please refer to a new neighbourhood's governing Area Structure Plan and *fresh*: Edmonton's Food and Urban Agriculture Strategy for further direction and ideas on how to address this principle.

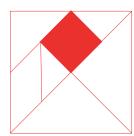


Neighbourhood fruit orchard.



Community garden.





# Sampling of

Outcome

## Neighbourhoods embrace all seasons.

**Sampling of Design Ideas** 

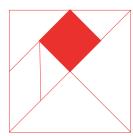
# Principle

Plan for weather 9.1 and all seasonal conditions through street, building and open space design.



A street pattern that impedes prevailing winds, public spaces framed and sheltered by surrounding development, and blocks oriented to optimize solar access for future buildings are some of the ways this principle could be addressed in a





# Sampling of

Outcome



## Neighbourhoods embrace all seasons.

## Principle

# Sampling of Design Ideas

Plan for parks and open spaces that can be used and enjoyed year-round.

A multi-use trail or greenway system that accommodates active transportation year round (walking, cycling, cross-country skiing) and infrastructure / amenities in parks that encourage winter use could be used to address this principle in a new neighbourhood.



# **Principle**

Ensure that municipal services, including the maintenance and operation of infrastructure, can be effectively provided in all seasons.



## **Sampling of Design Ideas**

The identification of snow storage facilities, streets laid-out and designed to accommodate operating equipment, and naturalization through the introduction of drought tolerant and low maintenance native vegetation are some of many ways this principle could be addressed in a new neighbourhood.



Waste collection.

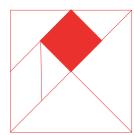




Residential blading.

Snow storage on residential boulevards.





# Sampling of

Outcome



## Neighbourhoods are safe and secure.

## Principle

Design streets, 10.1 buildings and public and private spaces to promote safety and security, and to mitigate risk.

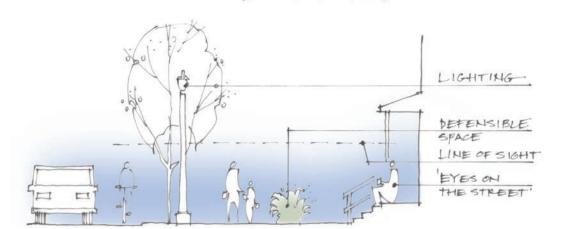


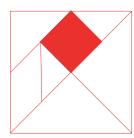
# **Sampling of Design Ideas**

Using traffic calming measures on neighbourhood roads, the application of Crime Prevention Through Environmental Design (CPTED) principles to the planning and design of public and private spaces, and using an area's natural drainage pattern to minimize the risk of flooding are just some of the ways this principle could be addressed in a new neighbourhood.

Bulb-out at intersection to calm traffic, improve pedestrian safety and shorten crossing distance.

Creation of safe streetscapes by providing lighting, creating defensible space, preserving sightlines and encouraging 'eyes on the street'.





# Sampling of

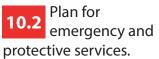
Outcome



## Neighbourhoods are safe and secure.

Sampling of Design Ideas

## Principle



Multiple vehicular entry and exit points into a neighbourhood, sites identified for protective services, and direct and continuous roadways are some of the ways this principle could be addressed in a new neighbourhood.



Multiple neighbourhood access points.

# Principle

**10.3** Plan for the safe coexistence of new development with energy facilities in alignment with municipal, provincial and federal requirements.



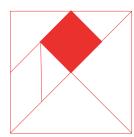
# Sampling of Design Ideas

Setbacks and buffers between development and energy facilities are typical ways to address this issue. Please refer to relevant municipal, provincial and federal guidelines and requirements for more direction on how to address this principle in a new neighbourhood.

> Utility right-of-way with multi-use trail.







# 3. Neighbourhood Outcomes and Principles

# Sampling of Design Ideas

Outcome

# Neighbourhoods are flexible and adaptable.

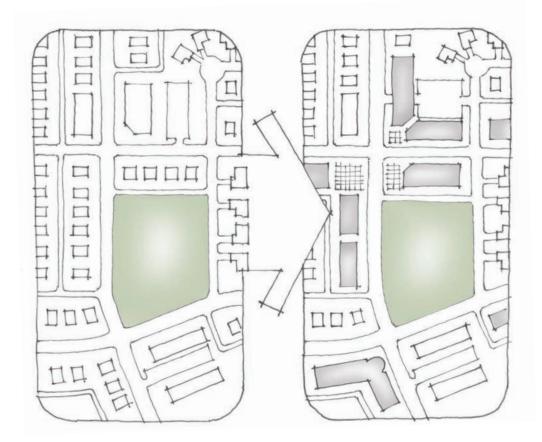
## Principle

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.



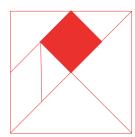
# Sampling of Design Ideas

Designating land for alternative or interim uses, organizing roads and blocks to readily accommodate future redevelopment opportunities, and providing infrastructure that can be easily adapted to alternative energy sources and servicing are some of the ways this principle could be addressed in a new neighbourhood.



Street and block pattern enables future neighbourhood growth and transformation.





# Sampling of

Outcome

# Neighbourhoods are flexible and adaptable.

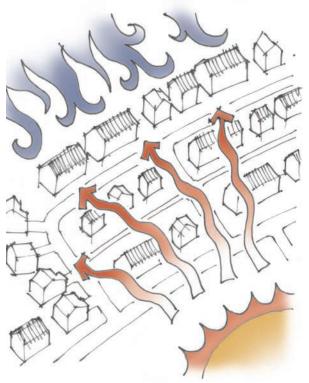
## **Principle**

## **Sampling of Design Ideas**

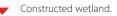
Pursue innovative approaches and 11.2 embrace best available standards for community and infrastructure design.



Ways to address this principle will necessarily evolve over time. Consider creative and forward-thinking planning and design approaches for all elements of a new neighbourhood to raise the bar on design in our city.



Street pattern oriented to block northwest winds (blue) and enhance solar access (red).







# Sampling of

Outcome

## **Resources are used efficiently and responsibly** in neighbourhoods.

## Principle

Explore 12.1 opportunities to capitalize on the joint use of space and other land use efficiencies without compromising the intended use or maintenance and operations needs of the site.



# **Sampling of Design Ideas**

Planning for multi-purpose open space and public facilities, mixed-use development, and higher land use densities are some of the many ways this principle could be addressed in a new neighbourhood.

- Narrow lots encourage more compact development.
- Pathway along stormwater management facility.
- Mixed use neighbourhood development with residential, commercial and office uses, and public open space.











# 3. Neighbourhood Outcomes and Principles

# Sampling of Design Ideas

Outcome

# Resources are used efficiently and responsibly in neighbourhoods.

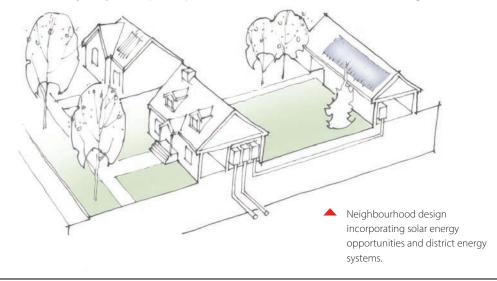
# Principle

# **Sampling of Design Ideas**

**12.2** Minimize energy use and energy requirements of buildings and infrastructure.



Exploring opportunities for district energy and geothermal heating, infrastructure that can accommodate or be adapted to alternative energy sources, and the placement of tall buildings to minimize shade impacts on surrounding areas are some of the many ways this principle could be addressed in a new neighbourhood.



# Principle

**12.3** Encourage Low Impact Development Best Management Practices to manage stormwater runoff and improve water quality.



Naturalized drainage ways, bioswales, bioretention areas and permeable pavement practices are some of the many ways this principle could be addressed in a new neighbourhood.



Bioswale in roadway median to collect stormwater.

**Sampling of Design Ideas** 



"Taken together, the twelve sets of outcomes and principles foster the creation of integrated and diverse suburban neighbourhoods where a mix of people, uses, services and amenities co-exist and support one another to create and sustain local life and vibrancy."

11 10 10 10 1

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# Communicating Plan Performance





# 4. Communicating Plan Performance

Planning a great new neighbourhood is both an art and a science; achieving the right balance relies upon the creativity, innovation, technical expertise and the forward-thinking aspirations and unique implementation strategies of city-builders. The fundamental building blocks provided at the very beginning of a neighbourhood's life – the Neighbourhood Structure Plan (NSP) stage – create a shared understanding of desired neighbourhood results and the means through which they will be achieved. The NSP establishes a strong foundation for the realization of effective implementation in subsequent and more detailed design stages of neighbourhood planning and development.



A collaborative process to prepare new plans and communication of key directions is central to this task. These enable all city-builders to effectively advance new approaches and to take calculated risks together to continually raise the bar.

One of an NSP's primary functions is to clearly communicate the intent of subsequent planning stages and to set the stage for implementation by:

- 1. Building a shared understanding of how a neighbourhood responds to planning policy;
- 2. Providing a focus for discussions between city-builders during plan preparation and review;
- 3. Providing a strong basis to effectively champion new approaches together;
- 4. Helping city-builders to monitor neighbourhood development trends, understand the demographic and land use implications of an NSP, and make informed decisions related to future public investments; and
- 5. Guiding neighbourhood development after the adoption of an NSP. (See Figure 1).





# 4. Communicating Plan Performance

# Communicating How an NSP Aligns with Neighbourhood Design Principles

It is critical for a new NSP to communicate to all stakeholders that it addresses neighbourhood principles and supports neighbourhood outcomes. It is also essential for it to communicate how it does so. Those preparing and reviewing plans will ensure that a new NSP demonstrates alignment with this guidelines document and clearly communicates the vision for the new neighbourhood by including the following elements:

### 1. Images, Photos and Maps

A plan will use images, photographs and maps to help communicate the proposed character of the neighbourhood and illustrate key design features and concepts. This will build a shared understanding of how principles may be translated on the ground through the implementation of plan policies and directions.

### 2. Descriptions of How Principles are Addressed

An NSP will describe how each principle has been addressed through relevant plan policies, design elements and approaches, and implementation actions. It will also flag innovative features and explain why they have been used. If one design element or a collection of design elements address a number of principles at once, these may be described together. In the event that the specific context of a new neighbourhood does not permit every principle to be addressed, an explanation will be provided to justify the omission of related design elements and to outline how the impacts of their omission will be mitigated.

### 3. Identification of Key Statistics

A statistical summary of key land use and population statistics will be provided in an NSP, along with a brief written analysis of the data it contains. The purpose of the summary is to provide critical at-a-glance information about a new neighbourhood; the written analysis facilitates a deeper understanding of this raw data. Some of the neighbourhood plan statistics that can be realistically calculated and reported at the NSP stage – and which are meaningfully aligned with neighbourhood principles outlined in this document – include: projected development densities; land use mix; housing mix; amount of natural area conserved; and percentage of the neighbourhood's population in proximity to a variety of destinations and amenities.

The required content and structure of an NSP, including the statistical summary, is outlined in more detail in the City's *Terms of Reference for Plans and Amendments*.





# 4. Communicating Plan Performance

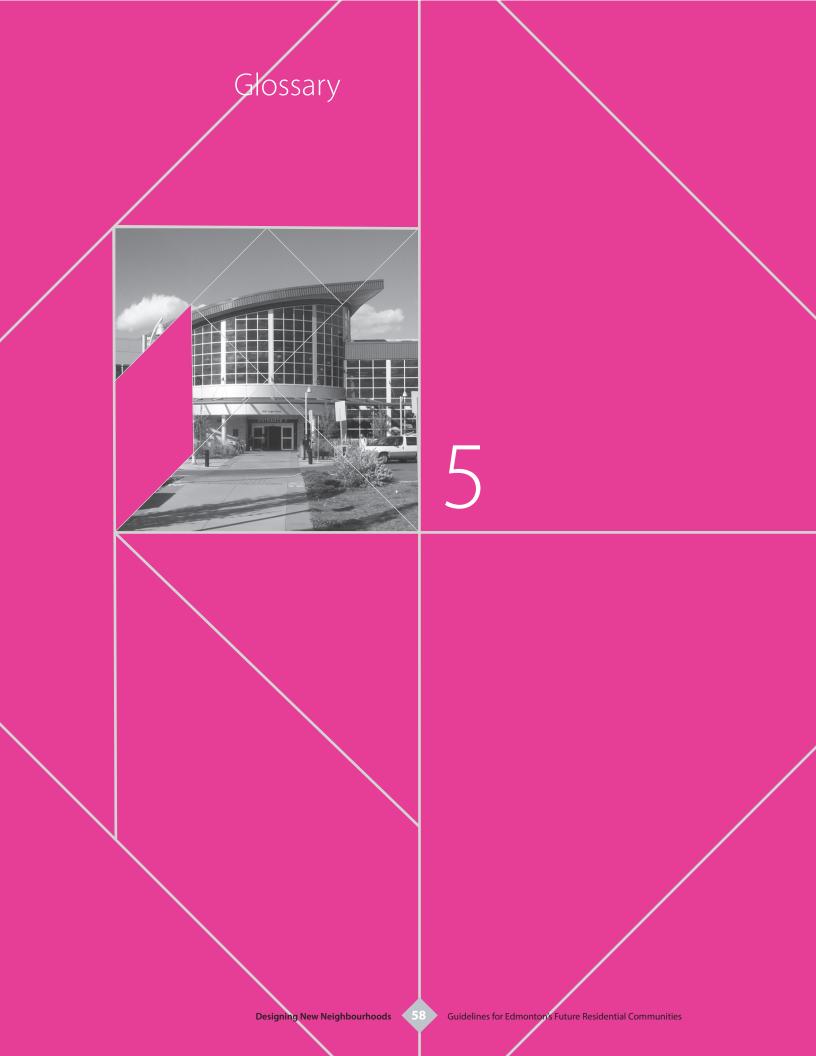
## A Touchstone for Plan Implementation

Achievement of the desired outcomes for new neighbourhoods depends on the clarity of policy direction in the NSP and the plan's ability to effectively inform detailed design work through subsequent stages of the planning and development process. It also depends on the collaboration of stakeholders through each stage of neighbourhood development, as well as new processes and standards that facilitate the flexible, adaptive and unique communities that are envisioned in this guidelines document. This document and new NSPs will together guide the collaborative planning and development process and provide a platform for enabling regulatory change going forward.

### A Place for Regulations and Standards

A performance-based approach to the preparation of a new NSP does not mean a regulation or standard-free approach to new neighbourhood design. It means a commitment to plan preparation that is focused on the achievement of outcomes through the application of principles in support of the unique vision of the neighbourhood. It also means exploring innovative approaches to the existing standards and regulations that govern how an NSP is translated on the ground by opening the door to further detailed discussions as new plans are prepared. As a starting place, preliminary recommendations on some key areas for revisions and updates to existing processes and practices are provided in the following section.

It should also be noted that changes to current City servicing standards and alternate forms of servicing new neighbourhoods are beyond the scope of this document. While they may be encouraged, this work needs to be reviewed and accepted by the responsible departments and agencies. "A performance-based approach provides design flexibility and pushes city-builders to raise the bar on creativity and best practice. It recognizes that there are many routes to design excellence and provides a high level roadmap for the design of tomorrow's great new neighbourhoods."





This glossary defines some words and phrases found in the Neighbourhood Outcomes and Principles section to establish a common understanding of certain concepts and terms. Most definitions have been drawn from existing City of Edmonton strategic planning documents (and cited where appropriate)

#### Accessible

See: Accessibility.

#### Accessible, Accessibility

The absence of barriers that prevent individuals and/or groups from fully participating, contributing to and benefitting from all social, economic, cultural, spiritual and political aspects of society. The term also refers to rights to access, and to universal design characteristics of products, devices, information, programs, services, infrastructure that enables independent use, or support when required, and access by people with a variety of disabilities (The City Plan).

#### **Active and Passive Recreation**

Active recreation activities are those which require physical exertion (e.g. jogging, bicycling, rowing, skating, etc.), and passive recreation activities are those which require limited physical exertion (e.g. bird watching, walking, photography, etc.).

#### **Active Living**

A way of life in which physical, social, mental, emotional and spiritual activities are valued and are integrated into daily living.

#### **Active Transportation**

Any mode of transportation by which people use their own energy to power their motion, including walking, rolling, running, cycling, cross-country skiing, skateboarding, snowshoeing, roller blading and use of a wheelchair (The City Plan).

#### **Affordable Housing**

Housing that is priced below the average market cost as a result of receiving government subsidies, so as to be affordable for people with below-median household income (The City Plan).

#### **Age Friendly Design**

Fostering inclusive places where age is not a barrier accessing services, programs, businesses or facilities. An age-friendly place values, respects and actively supports the well-being of people of all ages (The City Plan).

#### Amenities

Neighbourhood features that contribute to residents' quality of life, such as parks and natural areas, recreational facilities, schools, shopping opportunities and services.

#### **Area Structure Plan**

Mandated by Alberta's Municipal Government Act s.633, a statutory document that lays out an area's long-term development, and provides a land use framework for the development of several neighbourhoods at a time and specifies how essential municipal services will be provided (District General Policy).

#### **Biodiversity**

The number and variety of living organisms in an area. This includes diversity within species, between species and of ecosystems (The City Plan).

#### **Bioretention Areas**

Bioretention areas (also referred to as rain gardens) are stormwater management and treatment facilities, within a shallow depression, using vegetation and amended topsoil. They provide water quality treatment, reduce runoff and allow for infiltration near where runoff originates, such as roofs, driveways and sidewalks.

#### **Bioswale**

Gently sloped, vegetated channel engineered primarily for stormwater retention and filtration. Bioswales are commonly associated with Low Impact Development, and sometimes complete streets (Breathe).

#### **Carbon Footprint**

A measure of the greenhouse gas emissions produced by human activities.

#### **Civic Facility**

Fire station, police station, recreation facility, library, ambulance station, district park, playground, light rail transit station and/or transit centre.



#### **Community Gardening**

The practice of growing and raising food, either as a group or as an individual, in a shared garden space. Community gardens are often located on public lands or undeveloped private land and are the result of a group of people coming together to make land available for gardening. Community gardens often contain raised bed allotment plots, tool sheds, water access, public art and educational signage, among other features (Fresh).

#### **Complete Streets Principles**

- 1. A network of streets, transitways, and off-street pathways together accommodate all users and allow for efficient and high quality travel experiences.
- 2. 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).
- 3. Streets are adaptable by accommodating the needs of the present and future.
- 4. Streets contribute to the environmental sustainability and resiliency of the city.
- 5. Consider both direct and indirect costs, as well as the value of the public right of way and the adjacent real estate.
- 6. Streets are vibrant and attractive people places in all seasons to contribute to an improved quality of life.

(Complete Streets Design and Construction Standards, Appendix A)

#### **Crime Prevention Through Environmental Design**

A multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments. CPTED strategies aim to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime (International CPTED Association).

#### **District Energy**

Centralised electricity, heating, hot water and cooling for multiple buildings in a neighbourhood. District energy services eliminate the need for individual building systems. It often includes low or net zero carbon energy sources to reduce the use of fossil fuels for enhanced greenhouse gas reductions and improved energy resilience (District General Policy).

#### **Ecological Network**

A coherent system of natural and/or semi-natural landscape elements. Its basic structure is core areas, linkages and a matrix (The City Plan).

#### **End-of-Trip Facilities**

Infrastructure and amenities for bicycles and bicyclists that enable and encourage cycling as a viable mode of transportation, including short- and long-term secure bicycle parking, lockers, showers, and change rooms.

#### **Energy Facilities**

Infrastructure used to extract or distribute electricity, oil and gas such as wells, transmission lines and pipelines.

#### **Focal Point**

A grouping of facilities and infrastructure within a common geographic location which acts as a destination point for a variety of purposes to serve a neighbourhood or community.

#### Greenway

Linear, publicly accessible open spaces that are large enough to operate as parkland, providing opportunities for active transportation, recreation or social encounters in addition to their role as connectors (Breathe).

The City Plan defines two twopes of greenways - Habitat Greenways and Urban Greenways.

#### Healthy (Neighbourhood) Community

A community that is continuously creating and improving those physical and social environments and expanding those community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential.

#### **Historic Resources**

Structures, manmade or natural sites and areas of historical, cultural and/or architectural significance to the history of Edmonton that contribute to our unique sense of time and place (The City Plan).



#### Infrastructure (Municipal)

The physical assets developed and used by a municipality to support its social and economic activities. The City of Edmonton's infrastructure inventory includes such diverse assets as drainage, roads and right-of-way infrastructure, parks and green spaces, buildings, fleet vehicles, LRT and transit facilities, buildings, traffic control infrastructure, recreation facilities, computer networks, affordable housing and library resources.

#### Life Cycle of the Neighbourhood

See: Neighbourhood Life Cycle.

#### Life Cycle Costing

The total cost of ownership of an asset over its life. Lifecycle cost takes into account all costs of acquiring, owning, operating, maintaining and disposing of an asset in order to maximize return on investment and achieve the highest, most cost effective performance (The City Plan).

Livable

See: Livability.

#### Livability

The sum of the factors that add up to a community's quality of life, including the built and natural environment, economic prosperity, social stability and equity, educational opportunity, and cultural, entertainment and recreation possibilities (Fresh).

#### Low Impact Development Best Management Practices

A land development and stormwater management approach that works with nature to manage stormwater as close to the source as possible. Low Impact Development (LID) focuses on maintaining and restoring the natural hydrological processes of a site. LID examples include rain gardens, green roofs and rainwater harvesting for reuse (District General Policy).

#### Maintain

See: Maintenance.

#### Maintenance

The set of activities required to keep a component, system, infrastructure asset or facility functioning as it was originally designed and constructed. Maintenance refers to all actions necessary for retaining an asset as near as possible to it original condition, including repair but excluding renewal (rehabilitation or replacement).

#### **Manage Risk**

See: Risk Assessment and Risk Management.

#### **Mixed-Use Development**

Development that includes a combination of different land uses such as residential, commercial, institutional, recreational and public spaces. It generally refers to development where different uses are not only combined on the same site but also within buildings themselves. An example might include residential apartments located above commercial space on the lower floors of a building (The City Plan).

#### **Municipal Development Plan (MDP)**

A statutory plan which guides the future growth and development of a municipality.

#### **Municipal Services**

All manner of services provided by the municipality for residents and visitors including water and drainage, transportation infrastructure development and maintenance (roads, paths, transit, etc.), protective services (fire, police, etc.), waste removal and disposal, snow clearing and cleaning, parks and facilities maintenance, recreational centres, attractions and community amenities, etc.

#### **Native Vegetation**

Plant species that are indigenous to Edmonton's natural region.

#### **Natural Areas**

Areas of land or water that is dominated by native vegetation in naturally occurring patterns. Such areas could include grasslands, forests, wetlands, peatlands or riparian areas. Tableland natural areas are natural areas that exist outside of the river valley. Areas such as groomed parks, sports fields and schoolyards are not natural areas (District General Policy).

#### **Naturalized Spaces**

See: Naturalization

#### **Naturalized Spaces, Naturalization**

An alternate landscape management technique to conventional high maintenance landscapes. Natural processes of growth and change are less restricted and areas are allowed to return to a natural state. Naturalization projects utilize native plant materials requiring low or no maintenance along roadway boulevards of major arterials (Urban Parks Management Plan).



#### Naturalized Drainage Ways

Surface stormwater conveyance features that use wetland zones, drop structures and natural materials and vegetation to replace storm sewer mains or prevent erosion of existing drainage ways.

#### Neighbourhood

A residential area with an appropriate mix of housing types with convenience-type commercial facilities and where appropriate, schools or park facilities.

#### Neighbourhood Life Cycle

Neighbourhoods go through population, socio-economic and demographic cycles. The nature of the change over time depends upon the neighbourhood's characteristics and location. In general, neighbourhoods go through four major cycles:

- New development the population of the neighbourhood is increasing through the development of vacant lands. New housing generally attracts young families with children.
- 2. Growth after the neighbourhood has been fully built out, additional growth occurs as families grow and the number of individuals per dwelling unit increases.
- 3. Decline generally, the families who moved into the neighbourhood continue to live in the neighbourhood and the neighbourhood's composition is fairly stable; however there is a general decline in the population as the children in the area mature and move out of the family home and the prevalence of "empty nesters" in smaller households increases.
- 4. Mature generally, the population is stable, but net migration may impact whether the population declines, stays the same, or grows. Growth can be encouraged through redevelopment, especially if densities increase.

#### Operate

See: Operations.

#### **Operations**

The set of on-going activities and expenses that allow the use of an asset for its intended function. Operations refer to the use of an asset that consumes resources such as manpower, energy, chemicals and materials.

#### **Operations** (Asset)

The set of on-going activities that allow the use of the asset for its intended function.

#### **Operations (Service delivery)**

The set of activities and resources required to deliver the service or program related to the use of the infrastructure asset.

#### **Open Space**

An area of outdoor land or water that is publicly owned or publicly accessible, including municipal parks, civic spaces, provincial or federal parkland, institutional campuses and other public spaces (The City Plan).

#### **Pedestrian Friendly**

See: Walkable.

#### **Pedestrian Oriented** See: Walkable.

See: walkable.

#### Permeable Pavement

Paving treatments that reduce the effective impervious area of a development. Examples include porous asphalt, porous concrete, permeable unit pavers and open grid pavers.

#### **Public Art**

Art that is created for the public realm and accessible to the general public. While it is recognized that architecture, interior design, and landscaping are artistic in nature and have artistic components that may be integrated into a building project, this policy defines Public Art as a distinct process and product created by an Artist (Procedure to Policy C458D Public Art to Enhance Edmonton's Public Realm).

#### **Public Space**

Space that is part of an establishment that is open to the public and not restricted to only employees. Public Space includes any private non-sale hospitality area where products manufactured within the premises are provided to private groups for tasting and sampling. This definition does not include kitchens, administration offices, bathrooms, food or drink preparation areas (Zoning Bylaw).

#### **Renewal (Renew)**

Investment in existing infrastructure to restore to its former condition and may extend its service life, which may include replacement of individual components as they age or become obsolete. Capital investment in renewal extends the period of service potential but does not change the replacement value, and so does not increase the size of the infrastructure asset portfolio.



#### **Risk Assessment**

The evaluation of the likelihood of undesired events and damage being caused together with the significance of the events.

#### **Risk Management**

A framework that uses an integrated approach for assessing whether a risk is acceptable. It considers the risk and benefits of the development and requires the agreement of stakeholders on the acceptability of the risk involved.

#### Services

See: Municipal Services.

#### Streetscape

All the elements that make up the physical environment of a street and define its character, including: the road, boulevard, sidewalk, and building interface with the road right-of-way. e. It also includes paving treatments, trees, lighting, pedestrian amenities and street furniture.

#### **Sustainable**

See: Sustainability.

#### **Sustainability**

A way of living which meets the needs of the present and does not compromise the ability of future generations to meet their own needs. Urban planning takes an integrated, holistic view of urban environments and defines sustainability in the context of interrelated ecosystems encompassing economic, social, environmental and cultural sustainability. The principle of sustainability also includes financial sustainability, ensuring urban planning recognizes and addresses resource constraints and capacities.

#### **Universally Accessible Design**

See: Accessibility.

#### **Urban Agriculture**

The practice of cultivating, processing, and distributing food in and around towns and cities. It involves applying intensive production methods and (re)using natural resources and urban wastes to yield a diversity of crops and livestock. Urban agriculture could be undertaken in backyard gardens, rooftop gardens, community gardens and urban farms (Fresh).

#### Utilities

includes storm and sanitary sewer, water and other utilities that are essential for providing urban services. Their presence and capacity influence the development potential of sites. The City will coordinate site servicing with civic departments and partners (District General Policy).

#### **View Corridor**

A three dimensional area extending out from a viewpoint, encompassing one or more scenic resources which may have many environmental, cultural, agricultural, historic, recreational or economic resources and themes of significance to the city or community.

#### Walkable

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

#### Wayfinding

Signage, cartographic materials and design techniques that provide information about location, orientation and surroundings in order to support navigation around the city (District General Policy).

#### Wetland

Land having water at, near or above the surface, or which is saturated with water long enough to promote wetland or aquatic processes, as indicated by poorly drained (hydric) soils, hydrophytic vegetation, and various kinds of biological activity that are adapted to the wet environment.

#### Winter City

A concept for communities in northern latitudes that encourages them to plan their transportation systems, buildings and recreation projects around the idea of using their infrastructure during all four seasons, rather than just two seasons (summer and autumn).

# Acknowledgements



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Designing New Neighbourhoods

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# 7. Acknowledgements

**This project was led** by the City of Edmonton's Urban Planning and Economy Department (formerly Sustainable Development).



The guidelines were developed collaboratively and grounded in a commitment to work together effectively both now and in the future. This document was prepared by a multi-disciplinary public/private Design Team who collectively developed new neighbourhood outcomes, principles, potential design ideas and the implementation recommendations for the plan. The Design Team was comprised of 2 co-chairs and 30 members of Edmonton's Administration, local businesses and key organizations (see below for a full list of members).

Support for the Design Team's work was provided by the City's Project Team with external consulting resources in the areas of facilitation and consultation, communications and design, and scenario development and modeling. Public consultation and stakeholder feedback was sought over the course of the guidelines development process, and incorporated into this document by the Design Team.

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# 7. Acknowledgements

### Design Team Membership (listed alphabetically by first name)

(instead alphabetically by institualle)
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Urban Planning & Environment, Sustainable Development (City of Edmonton)
Select Engineering Ltd.
Canadian Homebuilders Association – Edmonton Region
Drainage Services, Financial Services & Utilities (City of Edmonton)
Urban Planning & Environment, Sustainable Development (City of Edmonton)
Sherrick Management Ltd.
Transportation Planning, Transportation Services (City of Edmonton)
Edmonton Public Schools and Joint Use Committee
Edmonton Transit, Transportation Services (City of Edmonton)
Current Planning, Sustainable Development (City of Edmonton)
Client Financial Services, Financial Services & Utilities (City of Edmonton)
Stantec Inc.
REALTORS Association of Edmonton
Urban Development Institute, Greater Edmonton Chapter
Brookfield Communities
ISL Engineering
Urban Planning & Environment, Sustainable Development (City of Edmonton)
Corporate Accounting and Treasury, Financial Services & Utilities (City of Edmonton)
Current Planning, Sustainable Development (City of Edmonton)
G3 Development Services, Inc.
Urban Development Institute, Greater Edmonton Chapter
University of Alberta, City-Region Studies Centre
Edmonton Fire Rescue, Community Services (City of Edmonton)
Rohit Homes and Communities
Beaverbrook Communities for Living
Homes by Avi
Strategy & Development, Community Services (City of Edmonton)
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# 7. Acknowledgements

### **Project Team Membership**

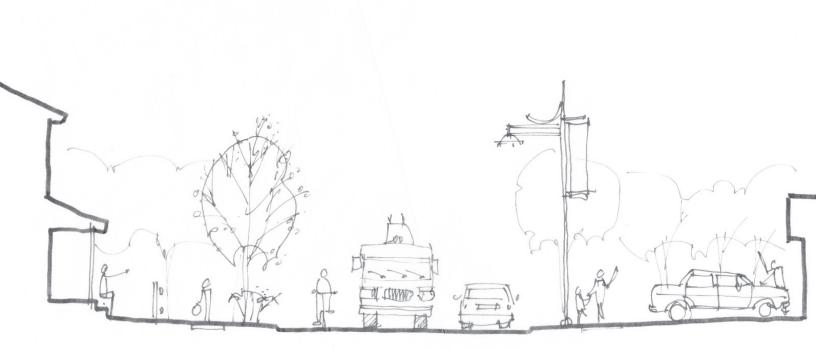
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EIDOS Consultants with PICEA Landscape Architecture Inc. and Bob Robertson – Visual Communication Design + Consulting (Design Support)
O2 Planning & Design with UrbsWorks (Scenario Development and Modeling)

### Support Team Membership (Internal)

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All principles generally fall into six broad categories. These include transportation, land use, urban design, parks and amenities, ecology and environment, and infrastructure and servicing. Some principles fall into more than one of these categories. They are grouped into these categories below for easy reference.



### Transportation

**1.1** Create neighbourhoods that are easy to move within and navigate using all modes of transportation.

**1.2** Provide efficient multi-modal transportation linkages between residential development and destinations within and outside the neighbourhood.

**1.3** Connect roads, paths and trails with those in adjacent neighbourhoods.

4.1 Create a walkable neighbourhood.

**4.2** Accommodate accessible and effective transit service for the neighbourhood and beyond.

**4.3** Provide for cycling opportunities within the neighbourhood with connections to existing and future networks.

4.4 Apply Complete Streets Principles within the neighbourhood.

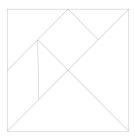
**5.1** Coordinate the location of commercial and employment areas, parks, natural areas and civic facilities to provide convenient access for residents by multiple modes of transportation.

**5.3** Locate school sites to facilitate pedestrian bus and vehicular access for neighbourhood residents and/or residents of adjacent neighbourhoods.

**10.2** Plan for emergency and protective services.

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.

**11.2** Pursue innovative approaches and embrace the best available standards for community and infrastructure design.





## Land Use

- **3.1** Provide for a wide variety and choice of housing within the neighbourhood.
- **3.2** Provide for affordable housing opportunities.

**3.3** Plan for a mix of land uses and amenities within walking distance of neighbourhood residents.

4.1 Create a walkable neighbourhood.

**5.1** Coordinate the location of commercial and employment areas, parks, natural areas and civic facilities to provide convenient access for residents by multiple modes of transportation.

**5.2** Cluster compatible and complementary services, housing types and amenities to create activity centres or neighbourhood hubs that serve the greatest number of residents and can be supported by consumers within and between neighbourhoods

**5.3** Locate school sites to facilitate pedestrian, bus and vehicular access for neighbourhood residents and/or residents of adjacent neighbourhoods.

**7.1** Plan to conserve natural areas and features, landscapes and views within the neighbourhood.

**7.2** Plan to conserve and enhance ecological networks and connectivity within and between neighbourhoods.

**7.3** Foster opportunities for habitat and naturalized spaces that encourage urban biodiversity.

**8.3** Plan for local food production and access opportunities within the neighbourhood.

**10.3** Plan for the safe coexistence of new development with energy facilities in alignment with municipal, provincial and federal requirements.

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.

**11.2** Pursue innovative approaches and embrace the best available standards for community and infrastructure design.

**12.1** Explore opportunities to capitalize on the joint use of space and other land use efficiencies without compromising the intended use or maintenance and operations needs of the site.







### Urban Design

**2.1** Provide for and/or build attractive and inviting streets, buildings, parks and open spaces.

**2.2** Create a special character and connection to place by respecting, and where possible, using the historical, natural and cultural context of an area.

**2.3** Provide for and/or build infrastructure and amenities that support the unique identity and context of a neighbourhood.

**3.4** Design neighbourhood infrastructure, parks and civic facilities to accommodate people of all ages and abilities.

**4.1** Create a walkable neighbourhood.

**4.4** Apply *Complete Streets Principles* within the neighbourhood.

8.2 Plan for community gathering places and neighbourhood focal points.

**9.1** Plan for weather and all seasonal conditions through street, building and open space design.

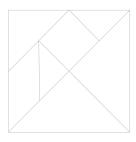
9.2 Plan for parks and open spaces that can be used and enjoyed year-round.

**10.1** Design streets, buildings and public and private spaces to promote safety, security, and to mitigate risk.

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.

**11.2** Pursue innovative approaches and embrace the best available standards for community and infrastructure design.







### **Parks and Amenities**

**3.4** Design neighbourhood infrastructure, parks and civic facilities to accommodate people of all ages and abilities.

**5.2** Cluster compatible and complementary services, housing types and amenities to create activity centres or neighbourhood hubs that serve the greatest number of residents and can be supported by consumers within and between neighbourhoods

**8.1** Plan for flexible, visible, accessible and functional parks and open spaces to meet life cycle needs of residents.

**8.2** Plan for community gathering places and neighbourhood focal points.

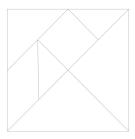
**8.3** Plan for local food production and access opportunities within the neighbourhood.

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**12.1** Explore opportunities to capitalize on the joint use of space and other land use efficiencies without compromising the intended use or maintenance and operations needs of the site.





### **Ecology and Environment**

**7.1** Plan to conserve natural areas and features, landscapes and views within the neighbourhood.

**7.2** Plan to conserve and enhance ecological networks and connectivity within and between neighbourhoods.

**7.3** Foster opportunities for habitat and naturalized spaces that encourage urban biodiversity.

**8.3** Plan for local food production and access opportunities within the neighbourhood.

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.

**11.2** Pursue innovative approaches and embrace the best available standards for community and infrastructure design.

**12.2** Minimize energy use and energy requirements of buildings and infrastructure.

**12.3** Encourage Low Impact Development Best Management Practices to manage stormwater runoff and improve water quality.







### Infrastructure and Servicing

**2.3** Provide for and/or build infrastructure and amenities that support the unique identity and context of a neighbourhood.

**6.1** Consider the costs and benefits for building all types of neighbourhood infrastructure, including the optimal timing of delivery of infrastructure as the neighbourhood builds out.

**6.2** Create neighbourhoods that are affordable for residents and citizens by partnering to deliver amenities effectively and manage risk.

**6.3** Plan for infrastructure that is cost efficient to build, operate, maintain and renew over the life cycle of the neighbourhood.

**9.3** Ensure that municipal services, including the maintenance and operation of infrastructure, can be effectively provided in all seasons.

**10.2** Plan for emergency and protective services.

**10.3** Plan for the safe coexistence of new development with energy facilities in alignment with municipal, provincial and federal requirements.

**11.1** Provide opportunities to address changes in land use, infrastructure, demographics, market conditions, emerging technologies and the climate over time.

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