

# Downtown **Public Places Plan**

**BEST PRACTICES RESEARCH**

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**Edmonton**

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This Best Practices Review shares the best practices and policies from around the globe that will inform Edmonton's **Downtown Public Places Plan** (EDPPP) at its earliest stages.

The following questions were considered when searching for best practices:

- How do comparable cities approach design for successful public places?
- What policies contribute to a comfortable downtown green network?
- What factors are considered when planning innovative and inclusive public places in an urban downtown?
- How do cities incorporate mental and physical health into public spaces?



# CONNECTIONS



# OPEN-SPACE NETWORK CONNECTIVITY

## INTRODUCTION

To connect Edmontonians to each other, open spaces and urban amenities, the amount, function and configuration of public spaces must be considered. Connecting open spaces to the surrounding environment increases access to parks and green spaces in dense neighborhoods.

### Sources:

1. City of Surrey, *Placemaking and Public Space Guidelines*
2. Hong Kong, *Green and Blue Space Conceptual Framework*
3. Baltimore, *Open Space Plan*
4. Durham, *Urban Open Space Plan*
5. City of Brampton, *Parks and Recreation Master Plan, Jun 2017*
6. City of Toronto, *Downtown Parks & Public Realm*

## CONCEPTS/CONSIDERATIONS

*Connector Spaces* are the networks intended to link destinations and accommodate movement through and between neighbourhoods. Public-space networks can be connected through *connector spaces*. Creating new connections between existing parks is one way to increase access to parks in denser areas. Well-designed connections can increase the reach of parks, extend the park experience and encourage walking and cycling through green routes. Spaces that are connected by green pedestrian and cycling routes provide opportunities for people to lead healthier lifestyles and improve the vibrancy and environmental quality of city life. Dense, mixed-use neighbourhoods with a connected network of streets are primary determinants of walkability.

## KEY POINTS

- ▶ Placement
  - ▶ Place parks in close proximity to community groups and institutions to facilitates connections and partnerships
  - ▶ Place parks at regular intervals to allow for easy access
  - ▶ Plan central green spaces at the heart of networks to connect open-space
  - ▶ Strategically coordinate a system of wayfinding signage, lighting and street furniture to contribute to a sense of continuity and comfort in the public realm
- ▶ Types of Connectors
  - ▶ Green and linear connectors facilitate active transportation and can become places themselves and act as links between larger parks and open space
  - ▶ Multi-use pathways within parks connect to complete streets

## APPLICATION TO EDMONTON

- ▶ Public spaces in Downtown Edmonton can be connected through pathways, green connectors, linear connectors and complete streets
- ▶ Identify potential streets to be improved to better connect pedestrians and cyclists to their daily destinations



Rose F. Kennedy Greenway, Boston

# INTEGRATION WITH STREETS AND THE MOBILITY NETWORK

## INTRODUCTION

*Successful community gathering places connect to streets and sidewalks and out into surrounding neighborhoods. Integrating streets into the design of public spaces reduces movement barriers through and into public spaces. A complete street concept ensures safe circulation of all users including pedestrians, cyclists, drivers and users of public transport. Streets can be places too!*

### Sources:

1. City of Surrey, *Placemaking and Public Space Guidelines*
2. UN Habitat, *Global Public Space Toolkit*
3. Tauranga, *Best Practice Guide for Open Space*



The 606, Chicago

## CONCEPTS/CONSIDERATIONS

Streets are critical in ensuring neighborhoods are interconnected. To make streets accessible, safe and comfortable for all people, it is important to consider how new streets relate to existing roadways and the role they play in the larger context.

## KEY POINTS

- ▶ Pedestrian and Bicycle Connections
  - ▶ Establish pedestrian and cycling connections between public spaces and major downtown amenities (residential, commercial, office, schools, civic spaces, natural areas, streets)
  - ▶ Provide the necessary amenities within the park to ease use of active transportation (bike racks)
  - ▶ Parks that are accessible within 5 minutes ensure walkability
  - ▶ Provide shortcuts through public spaces into complementary land uses for pedestrians and cyclists
  - ▶ Plan for emergency and service vehicles
- ▶ Accessibility
  - ▶ All spaces should be easily accessible by pedestrians, wheelchairs, scooters, bicycles, and cars on the perimeter – from all directions and at multiple points
  - ▶ Include maps and signage to make way finding clear
- ▶ Street Design
  - ▶ Pedestrian-scale street lights and other amenities such as seating and waste receptacles should be provided to further encourage walking in the area
  - ▶ Crosswalks leading to parks and squares should all be well marked to ensure that pedestrians have the right of way
  - ▶ The use of curb extensions and special pavement treatments is encouraged
- ▶ Transit Stations
  - ▶ Give stations and the connection to stations a strong presence by design consideration to pedestrian routes to and from a station
  - ▶ Maintain direct sight lines to stations and accommodate direct pedestrian access

## APPLICATION TO EDMONTON

- ▶ Prioritize parks adjacent to complete streets that are well connected to major destinations
- ▶ Consider principles of active transportations to ensure ease of access for pedestrians and cyclists
- ▶ Ensure easy accessibility for all

# DESIGN



# HUMAN COMFORT

## INTRODUCTION

*The physical environment has an impact on the micro-climate, which in turn determines human comfort. A comfortable physical environment with amenities attracts and retains people in public spaces.*

### Sources:

1. *Australia, Open Space and Design Guide*

## CONCEPTS/CONSIDERATIONS

### Thermal Comfort

Studies indicate the solar radiation, infrared radiation and wind are important factors for human thermal comfort in outdoor spaces. Intelligent site design can control these factors.

### Micro-Climates

Public spaces can be designed to accommodate flexible and year-round uses. Vegetation is one of the main strategies to regulate the urban microclimate and provide shade during hot periods to reduce heat.

## KEY POINTS

- ▶ Shaded areas provide respite from warm weather and protect from cold weather and wind. With the rising urban air temperatures and climate change, shaded areas are highly valued.
- ▶ Warm, direct solar radiation for the greater part of the day in the colder months and vegetation or built forms that cast shadows in the warmer months
- ▶ Consider shadows cast by tall buildings and wind turbulence
- ▶ Create slopes that are 1:6 (16%) for informal spaces, including mowed areas, and 1:50 (2%) for active open spaces

## APPLICATION TO EDMONTON

- ▶ Conduct shadow and wind studies to determine suitable areas in parks
- ▶ Incorporate policy direction that considers human comfort



Arizona

# ACTIVATING EDGE CONDITIONS

## INTRODUCTION

*The streets, sidewalks and buildings surrounding public spaces directly affect their accessibility and use. Activating public space-edge conditions increases surveillance and contributes to the perception of safety.*

### Sources:

1. City of Surrey, *Placemaking and Public Space Guidelines*

## CONCEPTS/CONSIDERATIONS

**Active Ground Floor Experiences** ensure the enjoyment of both pedestrians and motorists. Human-scaled building bases allow for interaction between inside and outside.

Maximizing road frontages to open spaces provides opportunities for enhanced community access and open-space surveillance. The majority of open-space sites require road frontages for access and connectivity.

## KEY POINTS

- ▶ Broaden parks to include space beyond edges, so that green spaces spill onto streets and sidewalks
- ▶ Public spaces should be visible from a distance
- ▶ Buildings across the street should have visual surveillance of the park or square. These buildings should provide ample windows to provide eyes on the street/park/square
- ▶ Retail and social uses should be located along park edges
- ▶ Fences are discouraged; however, where unavoidable, they should be open-style and not exceed 4' in height
- ▶ Buildings located on a civic square should have active ground floor uses versus blank walls or offices
- ▶ Encourage outdoor extensions of cafes, restaurants and retail establishments facing public spaces to blur inside/ outside boundaries
- ▶ Road frontage to all boundaries (i.e. 100%) of open space provides the optimum level of community access and is often highly desirable

## APPLICATION TO EDMONTON

- ▶ Specific locations where there is ample road frontage should be considered for new public spaces
- ▶ Prioritize parks and park improvements near concentrations of residences that face onto the space
- ▶ Design park edges and adjacent spaces to be conducive to the functionality and attractiveness of the park



Plaza de Cesar Chavez, San Jose

# SUSTAINABILITY

## INTRODUCTION

*As the population continues to grow and environmental concerns move increasingly to the forefront of public knowledge, more communities are looking for beautiful and sustainable outdoor spaces. A sustainable park is designed to preserve natural resources and promote quality of life for residents.*

### Sources:

1. *City of Surrey, Placemaking and Public Space Guidelines*
2. *Hong Kong, Green and Blue Space Conceptual Framework*
3. *Baltimore, Downtown Open Space Plan*
4. *Durham County, Urban Open Space Plan*
5. *City of Brampton, Parks and Recreation Master Plan*
6. *Tanner Springs Park, Portland*

## CONCEPTS/CONSIDERATIONS

### Eco-Friendly Spaces

Qualities that define eco-friendly outdoor spaces include energy-efficient buildings; long-lasting materials; conserved and restored natural areas; easy-to-maintain plants and landscaping; organic mulch, fertilizers and compost; stormwater capturing; wetlands for increased flood control; recycling bins for park patrons; and on-site composting among others.

## KEY POINTS

- ▶ Use of renewable energy sources (e.g. wind, solar, hydro, geothermal) and recycled materials for the construction and improvements of new places
- ▶ Educate the public about sustainable practices
- ▶ Consider use of solar structures to generate power for water features and lighting within spaces
- ▶ Minimize non-porous surfaces and replace with porous pavements
- ▶ Strengthen dialogue between park designers and park maintenance staff to generate sustainable solutions
- ▶ Maintain high-quality soils that hold water and supply plants with proper nutrients
- ▶ Use integrated pest management (IPM) strategies to minimize the use of chemical pesticides to control plant and insect pests. IPM is an ecologically based approach that helps maintain strong and healthy plants
- ▶ Create natural stormwater management systems and other green infrastructure, such as rain gardens and swales with native grasses
- ▶ Use of landscaping, vegetation and grading to control/prevent erosion

## EXAMPLE

### Tanner Springs Park

Portland's Pearl District is a 0.93 acre natural oasis in the city. The central feature, a wetland, collects rain water that falls within the park boundaries. The park is planted with native trees and grasses representing local native landscapes. A variety of seating options include stepped seating edges and benches distributed throughout the park that provide public observation areas and intimate gathering places. A floating boardwalk crossing the wetland brings visitors alongside a public art piece that incorporates salvaged railroad tracks, referencing the former uses of the site. The park was constructed for \$3.6 mil. and was opened in 2002.

## APPLICATION TO DOWNTOWN

- ▶ Create a sustainable landscape design checklist
- ▶ Encourage the development of a digital reference library cataloging sustainable park design elements

- ▶ Suggest the use of sustainable materials in the construction of parks
- ▶ Use reusable energy to run spaces
- ▶ Educate park users about sustainability through programs and interpretive signage
- ▶ Reuse waste materials from the city to create park structures



Tanner Springs Park, Portland

# SAFE DESIGN STANDARDS

## INTRODUCTION

*Crime prevention through environmental design (CPTED) is an interdisciplinary approach to deterring criminal behavior through environmental design. CPTED strategies rely on the ability to influence offender decisions that precede criminal acts.*

### Sources:

1. City of Richmond, Parks & Open Space Strategy 2012 – 2022
2. UN Habitat, Women's Safety Audits
3. BC Housing, CPTED Design and Construction Standards
4. International CPTED Association
5. CPTED Ontario
6. Quartz, Anti-Terror Architecture

## CONCEPTS/CONSIDERATIONS

### Natural Surveillance

A design concept directed primarily at observing intruders. Provision of natural surveillance helps create environments where there is sufficient opportunity for people to observe the space around them. Areas can be designed so they are more easily observed.

### Activity Support

The presence of activity that is planned for the space becomes part of the natural surveillance system. A standard of maintenance document will describe proper maintenance of the property, fixtures, buildings and other features required to support the principles of CPTED.

## KEY POINTS

- ▶ Ensure visibility onto public spaces is high by considering factors such as lighting, edges, landscaping and access points
- ▶ Increase passive surveillance through road and residential frontages and seating opportunities
- ▶ Strategic viewpoints also enable informal surveillance by local residents, workers and passersbys across private, semi-private, semipublic and public spaces
- ▶ Landscaping
  - ▶ Landscaping should not impede natural surveillance and must not create blind spots or potential hiding places for intruders
  - ▶ The location and species of trees should not allow them to obscure lighting or CCTV or to become climbing aids

## EXAMPLE

### New York's Financial District

To improve security around New York's Financial District, New York City planners replaced the "menacing metal barriers" with custom-designed faceted bronze bollards called "No Gos." Described by the Chicago Tribune as "a sparkling example of humanistic, multidimensional security planning," the large sculptural objects became a friendly place for Manhattan co-workers to gather outdoors.

## APPLICATION TO EDMONTON

- ▶ Use CPTED strategies to ensure the design of safe spaces
- ▶ Encourage double duty structures for anti-terror architecture styles
- ▶ Suggest on-park design features and architectural interventions that secure against terror in subtle ways



New York Financial District

# WINTER DESIGN

## INTRODUCTION

*The Winter City concept encourages communities in northern latitudes to plan their transportation systems, buildings and recreation projects around year-round use of infrastructure, rather than during only two seasons (summer and autumn).*

### Sources:

1. *Edmonton, Winter City Design Guidelines*



The Great Waterway, Kingston, ON (Winter)



The Great Waterway, Kingston, ON (Summer)

## THEORETICAL FRAMEWORK

### Flexible Utilization

Flexible utilization of the public realm, in different seasons, ensures improved livability for all users, regardless of inclination or interest throughout the year.

### KEY POINTS

- Encourage decorative seasonal lighting and illumination to celebrate festivities and create a sense of safety
- Develop multiple uses of the public space that ensure greater activity over varying times of the day (or night), week and year
- Alternative micro-climates should be possible in the same space (some areas in shade, others exposed to sun – with varying degrees of protection from the wind)
- Heat spots or sheltered zones should be provided for every outdoor area
- Constructed materials and structures should maximize insulating qualities and protect from prevailing winds
- Careful decisions must be taken regarding the types and location of vegetation and planting for modifying climatic conditions
- Accommodate a convenient water source to flood areas for skating, creating slides or making ice sculpture
- Provide opportunities for snow conditions to facilitate snow play while integrating existing structures into the winter playground

## APPLICATION TO EDMONTON

- Apply Edmonton's winter design guidelines and principles throughout all parks
- Ensure the potential use and function of parks through all four seasons for the general public, regardless of their interests in winter sports
- To attract people into Downtown during the winter months and after hours, consider winter/all-season events and programming

# PARK ACTIVATION

## INTRODUCTION

*Studies have found that a good place provides a range of things to do that are accessible and connected to the surrounding community. The space should feel safe, clean, comfortable and pleasant. People activate spaces.*

### Sources:

1. *City of Richmond, Parks & Open Space Strategy 2012 – 2022*
2. *Western Australia, Guidelines for Community Infrastructure*
3. *Park People, Thriving Places*
4. *City of Brampton*
5. *Project for Public Spaces*
6. *Australia, Open Space Planning and Design Guide*

## CONCEPTS/CONSIDERATIONS

### Multifunctionality

Open spaces that offer multiple recreation opportunities, or are co-located with or adjacent to other compatible community services, generally encourage greater use from a wider cross-section of the community. Multifunctional open space has greater capacity to offer diverse opportunities and experiences, therefore maximizing community use of available land.

### Triangulation of Activities

Triangulation refers to the practice of clustering features in close proximity to one another so they generate more activity than if they were isolated. For example, a seating area can become a pleasant meeting spot if combined with waste receptacles, flower beds and a small fountain, all arranged to allow for people-watching.

### Tactical Urbanism

The concept of tactical urbanism has been around for several years under the terms "guerrilla urbanism", "city repair" or "do-it-yourself (DIY) urbanism". Typically, a series of small-scale interventions alter the public realm, making it (at least to its advocates) more user-friendly.

### Lighter Quicker Cheaper (LQC)

LQC is the ability to create and prototype alterations to the public space quickly, inexpensively and with direct community involvement.

### Placemaking

Placemaking inspires people to collectively reimagine and reinvent public spaces by strengthening the connection between people and the places they share. Placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural and social identities that define a place and support its ongoing evolution.

## KEY POINTS

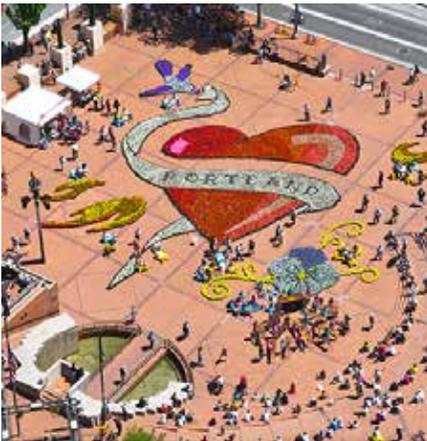
- ▶ Provide focal point(s), around which activity can be centered
- ▶ Provide flexible open space to accommodate large neighbourhood events and gatherings. This space should include small, intimate areas that allow for smaller, informal activities. Such areas may have flexible furniture
- ▶ Provision active open space to achieve sharing of space between sports and other institutions, allowing for cross-programming
- ▶ Incorporate heritage structures into parks (placemaking opportunities)
- ▶ Create comfortable activity areas that do not impede the space's flexibility through landscaping

- ▶ Orient signage to pedestrians and relate to the scale and character of the neighborhood. Signage should signal different attractions and amenities within the space, as well as other nearby destinations and upcoming community events
- ▶ Public art that evokes or recalls the history, heritage and character of the area and that is interactive, child-friendly and created to encourage sitting, climbing and touching
- ▶ Provide restrooms in conjunction with buildings such as a café or a community centre
- ▶ Develop the design in conjunction with the required management program
- ▶ Ensure connectivity within the public space and surrounding uses
- ▶ Experiment and be nimble by employing quick designs to test ideas and gather feedback

## EXAMPLE

### Portland's Pioneer Courthouse Square

An urban plaza that is also connected to a major transit hub. The plaza is heavily programmed but also functions as the central downtown gathering place. Complementing the public programming are commercial activities including food services and other types of retail businesses that activate the public space.



The Pioneer Courthouse Square, Portland

## APPLICATION TO EDMONTON

- ▶ Suggest physical and operational requirements to encourage multifunctionality and the accommodation of various uses and experiences
- ▶ Provide concepts of physical infrastructure that can accommodate a variety of different activities
- ▶ Consider management programs that facilitate programming
- ▶ Create appropriate access points to different activity areas and surrounding uses
- ▶ Consider the changing landscape of Downtown Edmonton and incorporate flexible uses of the space that can be reconfigured to adapt to other uses over time
- ▶ Locate spaces that have opportunities for pop-up, inexpensive quick parks
- ▶ Identify optimum locations for accessibility, clustering of activities and connectivity



The Flying Grass Carpet, International

# DESIGN FOR UNIVERSAL ACCESS

## INTRODUCTION

*Universal access is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible, by all people regardless of their age, size or ability. An environment (or any building, product or service in that environment) should be designed to meet the needs of all people who wish to use it.*

### Sources:

1. *CEOs for Cities, University Design: Why Public Spaces Must Be Accessible For All*
2. *City of Mississauga, Accessibility Design Handbook*
3. *City of Calgary, Universal Design Checklist*

## CONCEPTS/CONSIDERATIONS

### Diversity of Needs and Abilities

Accessible, usable and convenient environments benefit everyone. Considering the diverse needs and abilities of residents throughout the design process will help ensure that products, services and environments meet peoples' needs.

## KEY POINTS

- ▶ Develop accessible picnic areas that are barrier free and able to accommodate people of all mobility abilities and vehicles
- ▶ Accessible paths connect to other accessible site features with appropriate signage to indicate the levels of accessibility of the designated paths
- ▶ Benches and street furniture, such as waste receptacles, mail boxes and light standards, should be cane detectable, colour contrasted to their surroundings, located to one side of an accessible route and not encroach on the clear width of the route
- ▶ Ensure appropriate measures of site furnishings that are able to accommodate a range of abilities
- ▶ Use landscaping with a variety of colours and fragrances to provide interest for individuals with low or no vision. Plantings with thorns or heavy berries present a potential hazard and should be pruned back along barrier-free routes or surrounding accessible site features

## APPLICATION TO EDMONTON

- ▶ Apply universal design standards for a diversity of needs and abilities to all parks



The Rotary Club of Ann Arbor Centennial Playground, Ann Arbor

# DIVERSITY



# INDIGENOUS PLACEMAKING

## INTRODUCTION

*Indigenous Peoples were the first stewards of the green network; their historic and ongoing relationship with the lands of Edmonton is unique.*

*More than 76,000 people in the Edmonton region identify as First Nations, Inuit or Métis. Between 2006 and 2016, metro Edmonton's Indigenous population rose to 76,205 people from 52,000. Around six per cent of the Edmonton area's population claimed an Indigenous identity in 2016.*

### Sources:

1. Gulamhusein, Amenah, *Aboriginal, Inclusion and Public Space in the City of Edmonton*
2. *New Zealand, Urban Design Protocol*
3. *Edmonton Journal*



Spirit Garden, Thunder Bay

## CONCEPTS/CONSIDERATIONS

### Reconciliation

The green network offers many opportunities for reconciliation through Indigenous ceremonies and traditional practices and outdoor festivals and events that help build community across cultures and generations.

### KEY POINTS

- ▶ Partnerships
  - ▶ Recognize and respect Indigenous protocols and processes during engagement. Honour the contributions, values, wisdom and traditional knowledge of Indigenous Peoples and empower engagement participants to collaborate and co-create solutions and opportunities
  - ▶ Commit to growing relationships between the City and Indigenous Peoples and celebrate our successes and achievements
  - ▶ Protect and enhance distinctive landforms, water bodies and Indigenous plants and animals
  - ▶ Use correct ancestral names to inform features
  - ▶ Plant appropriate Indigenous flora in public places and employ strategies to encourage native planting in private spaces
  - ▶ Create civic/shared landscapes to reflect Indigenous identity and contribute to sense of place
  - ▶ Reinscribe Indigenous narratives in the environment through public art and design
  - ▶ Ensure meaningful opportunities for engagement when projects intersect with Indigenous interests and concerns

## APPLICATION TO EDMONTON

- ▶ Acknowledge that many Indigenous Peoples call Edmonton home, that Edmonton is situated within Treaty 6 territory, within the Métis Nation of Alberta Zone 4, among the traditional territories of many First Nations and an important homeland of the Métis Nation
- ▶ Recognize traditional place names through signage and wayfinding
- ▶ Engage Indigenous Peoples in the planning and design of public spaces
- ▶ Encourage Indigenous programming, events and rituals in public spaces

# CHILD FRIENDLY PLACES

## INTRODUCTION

*Play is essential to healthy childhood development. Unstructured play is important for brain development and optimal physical and emotional functioning. Children are smarter, more cooperative, happier and healthier when they have frequent and varied opportunities for unstructured play in the outdoors.*

### Sources:

1. Victoria, *The Good Play Space Guide: "I can play too"*
2. Rick Hansen, *Creating Accessible Play Spaces: A Toolkit for School-Based Groups*

## CONCEPTS/CONSIDERATIONS

### Unstructured Play

Children do not only play on equipment; they play everywhere. Unstructured free play is an important part of childhood. As children get older, open spaces within walking distance of their homes provide freedom from relying on their parents to drive them. Today, children spend less time outdoors in unstructured play than any other time in history. It is important, when planning neighbourhoods, that opportunities for outdoor unstructured play are given priority.

## KEY POINTS

- ▶ Create places for physical play that include all kinds of physical movement and motion. Allow for a combination of built and natural elements (e.g. cubbies among vegetation, sand, logs), spatial qualities that enhance activities (i.e. partial enclosure or a sense of elevation), loose materials and fixed equipment, and texture
- ▶ Ensure physical play is not only equipment based and allows for solo play and group play
- ▶ Create attractive, playful and engaging environments that stimulate the imagination. Use colour, ground coverings furniture, and lighting to make the place inviting
- ▶ Consult with young people to glean fresh ideas for the park
- ▶ Offer a multifunctional range of opportunities and experiences
- ▶ Create spaces that are social, wild, inclusive, educational and well connected

## APPLICATION TO EDMONTON

- ▶ Locate key public spaces in close proximity to residential buildings
- ▶ Consult with the youth of Downtown Edmonton to understand their needs and wants
- ▶ Consider the safety and accessibility of children of all ages into public spaces without the accompaniment of parents



GreenUp Ecology park, Peterborough

# SENIOR FRIENDLY PLACES

## INTRODUCTION

*Parks provide recreational opportunities, serve as places for social interaction and offer a natural respite to urban dwellers. Parks can be beneficial to older adults who may be at risk for social isolation.*

### Sources:

1. UCLA, *Placemaking for an Aging Popula*
2. Stevenson, Sarah, *How to Make Senior Friendly Public Spaces*
3. *A Place for Mom*

## CONCEPTS/CONSIDERATIONS

### Stress and Public Spaces

Connection between people and nature is associated with healing processes. The healing power of nature extends to both physical and mental health. Hospitals have found that people with less stress heal faster. Exposure to nature can reduce stress, improving cognitive function and performance. Since older adults are the most at risk for such ailments, it is important to have green spaces that promote relaxation and stress reduction.

## KEY POINTS

- ▶ Ensure the safety and accessibility of public spaces through good lighting, non-slip walking surfaces, entry ramps for wheelchairs and walkers, and safe pedestrian crossings for navigating traffic
- ▶ Create a sense of security through lighting and seating placements where individuals are able to see each other
- ▶ Provide amenities such as seating, water fountains or more senior-specific recreation that encourages social contact
- ▶ Design natural attributes for aesthetics, social and therapeutic activities as well as opportunities for gardening
- ▶ Maintain and up-keep a clean public space
- ▶ Consider spaces for information exchange such as bulletin boards and newsstands providing local news in different languages and outdoor reading areas or lecture rooms

## APPLICATION TO EDMONTON

- ▶ Focus on permanent environments designed to support social interaction
- ▶ Consider the proximity of spaces to residential buildings and cultural hubs
- ▶ Consult with senior citizens to gain an understanding of their needs and desires



Hyde Park Senior Playground, London

# SOCIALLY INCLUSIVE DESIGN

## INTRODUCTION

*Concentrated poverty, segregation and other geographic inequalities mean that the potential benefits of public space are not shared equally by everyone. Placemaking can encourage diverse social interaction in safe spaces where groups can celebrate and seek out their cultural peers and break down barriers.*

### Sources:

1. *Australia, Open Space Planning and Design Guide*
2. *Greater Golden Horsedhoe, Park People, Thriving Places*
3. *Project for Public Spaces*

## CONCEPTS/CONSIDERATIONS

Social issues such as affordability, cultural representation, safety and understanding can inhibit or encourage the use of public spaces.

## KEY POINTS

- ▶ Design spaces to accommodate community events and cultural development such as walking and discussion groups, carols by candlelight and local arts and festivals
- ▶ Represent various cultural symbols, values and preferences in public spaces
- ▶ Engage extensive and ongoing community participation
- ▶ Integrate varying uses and elements that bring people together
- ▶ Increase social diversity by locating public spaces in areas where they can serve multiple communities
- ▶ Maintain good access and linkages

## APPLICATION TO EDMONTON

- ▶ Understand the unique identities of neighbourhoods within the study area and incorporate them into design features of parks
- ▶ Make room for cultural programming opportunities
- ▶ Engage with ethnically diverse groups to gather feedback on their needs and desires



Global Village, Dubai

# DESIGNING FOR PEOPLE EXPERIENCING HOMELESSNESS

## INTRODUCTION

*Individuals experiencing homelessness frequently encamp public parklands. Since these are public lands, they are resources available for the enjoyment of all the community's members.*

### Sources:

1. 2016 Edmonton Point in Time Homeless Count Final Report

## CONCEPTS/CONSIDERATIONS

### Lived Experience in Public Places

Individuals experiencing homelessness often live first hand in public spaces and streets and can contribute valuable insight into public space design.

### KEY POINTS

- ▶ People experiencing homelessness have the right to basic amenities
- ▶ Public places can provide ideal venues for 24-hour washrooms, benches, places to clean up, all-season drinking fountains, trash bins, storage lockers, sink facilities, and increased security and maintenance needs
- ▶ Consult with people experiencing homelessness on where these amenities are most needed
- ▶ Understand the many points of view of homeless individuals relative to shelter, safety and use of public space through consultation
- ▶ Defensive architecture, such as bars across benches which disallow individuals to lie down, aims to displace and exclude certain members of society
- ▶ As people experiencing homelessness are driven from public places, they often relocate to less populated and less safe areas, making them more vulnerable to crime and more difficult for service providers to reach
- ▶ Create forums for homeless individuals to advocate for public spaces design
- ▶ People experiencing homelessness face many unique challenges daily. Recognize the value of their experiences and resulting insights
- ▶ Work to dilute fear by accommodating people experiencing absolute homelessness, or those at risk of homelessness in addition to marginal populations in public places. Create an atmosphere to overcome prejudice
- ▶ Work with community policing programs in local jurisdictions to understand specific site and project-context challenges
- ▶ Consider applying some of the principles of Crime Prevention Through Environmental Design (CPTED). Consider measures of safety in public spaces that may benefit homeless individuals who are commonly victims of theft, harassment and violence
- ▶ If people experiencing homelessness are not visible, it creates the illusion among the general population that there is no homelessness, and so homelessness is not an urgent problem that needs solving
- ▶ People experiencing homelessness may have anxiety around social interaction, and in public places should be able to choose to what extent they interact with greater society

## APPLICATION TO EDMONTON

- ▶ Engage with people experiencing homelessness and poverty organizations to understand their needs and desires
- ▶ Understand that best practices of city design and landscape architecture area often design against the homeless. Consider how good city design may conflict with their needs.
- ▶ Work with the City's End Poverty Initiative to complemet it's approaches



Needle Disposal Boxes behind trash cans, Portland



Homeless Benches, Vancouver

# IMPLEMENTATION



# ACQUISITION OF OPEN SPACE

## INTRODUCTION

*To increase the quantity of public spaces within Edmonton's Downtown, the City must acquire additional lands for parks and open spaces. However, there is limited land availability and high costs.*

### Sources:

1. Oakville, Policy Discussion Paper Technical Implementation: Part F Policies

## CONCEPTS/CONSIDERATIONS

### Density Bonusing

Consider increasing project height and/or density limits in exchange for identified community benefits such as open spaces.

### Special Purpose Vehicle

Consider alternative mechanisms where private owners participate in open-space projects. This implies that landowners become minority shareholders.

### Trading Land

Consider trading City-owned public lands outside of the Downtown region with landowners for park and open space within Downtown.

## KEY POINTS

- ▶ Consider mechanisms such as density bonusing, trading of public lands outside of Downtown for park space within the Downtown area, long-term leasing of land from private owners and use of building rights transfers
- ▶ Seek opportunities for open space to be permanently protected through the city's planning and development review processes
- ▶ Review development permits to ensure that applications include plans for green space
- ▶ Temporarily develop public spaces in currently underdeveloped areas that do not have plans in the near future for development. Find spaces that are overlooked and unexpected
- ▶ When considering the re-zoning of land, seek opportunities to maintain the continuity of the public-space network and seek opportunities to provide additional spaces for the community
- ▶ Maximize the capacity of existing open spaces and improve them by making them multifunctional, larger and by developing strategic partnerships

## APPLICATION TO EDMONTON

- ▶ Develop an implementation plan to gain more open spaces in Downtown Edmonton
- ▶ Identify mechanisms and processes for acquiring more public spaces and indicate accountable stakeholders
- ▶ Identify potential partnerships with private organizations for the development of additional publically accessible privately owned public spaces.

# STRATEGIC COMMUNITY PARTNERSHIPS

## INTRODUCTION

*Seek opportunities to creatively design and acquire land by developing and strengthening partnerships with community members, organizations, landowners and developers.*

### Sources:

- .....
1. *Oakville, Policy Discussion Paper Technical Implementation: Part F Policies*
  2. *UN Habitat, Global Public Space Toolkit*

## CONCEPTS/CONSIDERATIONS

Develop strategic partnerships to acquire, maintain, build and design open spaces in collaboration with key institutions.

## KEY POINTS

- ▶ Develop partnerships with private entities to support the maintenance of open space as part of the acquisition process
- ▶ Continue to nurture partnerships with property owners, Downtown institutions and foundations
- ▶ Use partnerships and agreements with other public agencies and the private sector to develop or enhance the contribution of their lands
- ▶ Use partnerships and agreements with other public agencies and the private sector to give priority to locations for partnership projects, such as stewardship projects or new capital projects, undertaken with community groups, sports clubs, the business community and other stakeholders

## APPLICATION TO EDMONTON

- ▶ Identify potential partnerships within Edmonton's Downtown
- ▶ Identify stakeholders with which land may be shared through collaboration

# ECONOMIC BENEFITS OF PUBLIC SPACES

## INTRODUCTION

*High quality public environment can have a significant impact on the economic status of cities.*

Sources:

1. *Cabe Space, The Value of Public Space*

## CONCEPTS/CONSIDERATIONS

As cities increasingly compete with one another to attract investments and businesses, the presence of good parks and public spaces become a factor in the marketing tool.

## KEY POINTS

- ▶ There is a strong correlation between the presence of people in public places and foottraffic in the area is an indicator of customers that utilize the businesses surrounding the places.
- ▶ Small businesses that chose new business locations consider proximity to good public spaces as a priority.
- ▶ Cities have been experiencing an increase of commercial property prices and nearby residential in locations with high-quality public spaces
- ▶ Increasing the value of homes and businesses can increase tax revenue.

## APPLICATION TO EDMONTON

- ▶ Strategically locate new parks near businesses.
- ▶ Prioritize enhancing parks that are located in close proximity to businesses, retail and restaurants.
- ▶ Encourage building parks close to residential buildings.



# PUBLIC HEALTH



# SOCIAL ISOLATION

## INTRODUCTION

*Originally, cities developed to maximize social and economic connections and minimize travel. Twentieth century development patterns have shifted away from this original intent and, as a result, urban dwellers experience greater feelings of social isolation. Stress and living alone can further contribute to feelings of social isolation. In particular, seniors and people with different abilities often experience social isolation in greater amounts. To help combat social isolation, municipalities can create spaces and circumstances for people to interact.*

### Sources:

1. Visit Berlin, *Accessible Berlin: A Berlin guide for all visitors*



Tactile model of Berlin's Museum for the visually impaired, Berlin

## CONCEPTS/CONSIDERATIONS

### Happy City

The New Zealand urbanism blog, Case Basket, asserts that "Making a happy city is not rocket science though, it is choreographic. Think about what people like, what makes good places. People like to be part of a community." Public places (including pedestrian zones, parks and markets) contribute to happy cities by functioning as locations for celebration, socialization, connection, exercise, relaxation and reflection.

### The Disabling City

Disabling cities restrict, ignore and exclude people with disabilities from regular participation and interaction with the urban environment. Cities need to design for the needs of people with different abilities to create inclusive communities and reduce social isolation. The World Bank estimates that 15% of the world's population experiences some form of disability; this further emphasizes the need for considering, engaging and understanding the needs of people with different abilities.

### Dispersed Greenery Versus Concentrated Greenery

For social, psychological and environmental reasons, distributing greenery and greenspaces has greater benefits than concentrating space and greenery in a large park. In other words, "the addition of 50 trees on 50 streets may be more effective for more people than one new park with 50 trees". Environmentally, improvements to air quality and the urban heat island effect are more pronounced when green spaces are interwoven throughout the urban landscape.

## KEY POINTS

### AUCKLAND, NEW ZEALAND

Auckland, through various plans and approaches, acknowledges and addresses social inclusion by the following actions:

- ▶ Emphasize the link between the urban realm and inclusiveness by creating environments that facilitate social and community connections
- ▶ Decrease the distance to useable green space and increase the proportion of green space within neighbourhoods
- ▶ Provide opportunities for people to view green space from buildings
- ▶ Expand greenery throughout communities via small improvements rather than concentrating green spaces in large parks
- ▶ Write the Thriving Communities: Community and Social Development Action Plan, April 2014, which includes the following goals:

- › Facilitate grassroots action and provide opportunities for communities to drive their own development
- › Strengthen support to the voluntary and community sector
- › Enable social innovation and social enterprise
- › Maximize positive socio-economic impacts
- › Work in a holistic and integrated way
- › Support staff to be community-centric

## **APPLICATION TO EDMONTON**

- › Think beyond universal accessibility to more integrative measures that include people of all ages and abilities
- › Prioritize public spaces in areas with the highest concentration of residents, especially locations with a high number of seniors and people with different abilities
- › Design and program spaces that attract people; specifically consider a number of different attractors for each public place
- › Write policies that incorporate social inclusion objectives in future parks planning processes (e.g. identify barriers to participation, engage with diverse communities)
- › Disperse green space throughout Downtown Edmonton and the Quarters to maximize opportunities for residents, workers and visitors to use and view these spaces

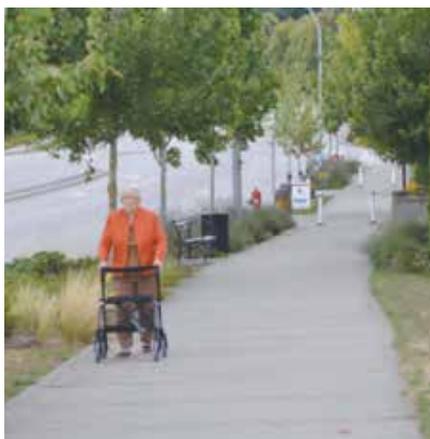
# AGING IN PLACE

## INTRODUCTION

*Typically, seniors tend to prefer natural environments over built environments. Their level of familiarity with a particular environment also correlates with positive health outcomes. Seniors who live in neighbourhoods with lower crime, more parks, fewer vacant lots, recreational opportunities and opportunities for interaction typically have larger social networks, exercise more and have a positive outlook on life.*

### Sources:

1. World Health Organization, *Checklist of Essential Features of Age-friendly Cities*
2. City of Vancouver, *The Age Friendly Action Plan 2013 – 2015*



Age friendly walking route

## CONCEPTS/CONSIDERATIONS

### Aging in Place

Aging in Place refers to the concept of an individual remaining in the same neighbourhood as they grow older, even if they relocate to a different home. According to the Canadian Mortgage Housing Corporation (CMHC), 85% of adults over the age of 55 plan to live in their current home as long as possible. This reinforces the importance of considering the needs of seniors when redesigning communities. Specifically, the proximity to public parks and tree-lined streets have a significant impact on the length of senior's lives.

### Active Aging

Active aging is the process of optimizing opportunities for health, participation and security for seniors as they age. Parks and open spaces play an important role in supporting active aging.

## KEY POINTS

### The World Health Organization (WHO) Checklist

The WHO developed a checklist of essential features of age-friendly cities through consultation with 33 cities in 22 countries. To help municipalities self-assess their age-friendly designs and practices, checklist items relevant to open spaces include:

- ▶ Keep public areas clean and pleasant
- ▶ Ensure green spaces and outdoor seating are sufficient in number, well-maintained and safe
- ▶ Ensure pavements are well-maintained, free of obstructions, reserved for pedestrians, non-slip, wide enough for wheelchairs and have dropped curbs to road level
- ▶ Create pedestrian crossings that are sufficient in number and safe for people with different levels and types of disability, with non-slip markings, visual and audio cues and adequate crossing times
- ▶ Create cycle paths that are separate from pavements and other pedestrian walkways
- ▶ Promote outdoor safety through good street lighting, police patrols and community education
- ▶ Situate services together and ensure they are accessible
- ▶ Provide special customer service arrangements
- ▶ Ensure public toilets, both outdoors and indoors, are sufficient in number, clean, well-maintained and accessible
- ▶ Use seniors in promotional materials
- ▶ Accommodate age-specific needs and preferences in community-wide settings, activities and events

- ▶ Consider seniors in community activities meant for families

#### **Vancouver Age Friendly Action Plan:**

This plan helps encourage active aging and enhances the quality of life for seniors by optimizing opportunities for health, participation and security.

Specific actions include:

- ▶ Create community gardens on accessible City property
- ▶ Maintain and improve streets and sidewalks to increase accessibility
- ▶ Consider the legibility of public spaces and building accessibility (ease of navigation and presence of easily recognizable features)
- ▶ Review transportation infrastructure in areas where seniors live or congregate
- ▶ Focus benches in areas to address gaps

#### **APPLICATION TO EDMONTON**

- ▶ Elaborate on the general guidance provided by the WHO checklist and Vancouver Age Friendly Action Plan, where appropriate
- ▶ Incorporate guidance on how to reach out to seniors through promotional, educational and engagement material
- ▶ Provide guidance about how to improve the legibility of public spaces
- ▶ Prioritize public place improvements in locations with high seniors' population
- ▶ Provide direction to integrate senior-friendly amenities throughout the Downtown and Quarters (e.g. washrooms, seating)

# SOCIAL COHESION AND SENSE OF COMMUNITY

## INTRODUCTION

*A diversity of people live and congregate in city centres. To welcome and accommodate the needs of a diverse population and facilitate a sense of community, flexible spaces are required. Studies show that neighbourhoods with more greenery and public spaces have a greater sense of community and stronger social ties than neighbourhoods dominated by hard, impermeable and unnatural surfaces.*

### Sources:

1. "Social Cohesion" Becomes an official part of Durban City Policy, Greg Arde, Resilient Cities, March 25, 2014

2. Assisted Housing Insider, Take 10 Steps to Create Successful Community Gardens for Residents

## CONCEPTS/CONSIDERATIONS

### Activity Preferences

Different activities appeal to different cultural groups. Some activities, like walking and family gathering, have high participation rates across cultural groups, while the appeal of some activities is limited. For this reason, public spaces need to accommodate multiple activity categories. Activity categories to consider within public places include:

- ▶ Facility-based recreation (e.g. basketball courts, community centres)
- ▶ Wilderness recreation (e.g. wooded areas, naturalized spaces)
- ▶ Cultural facilities (e.g. performance space, temporary art display)
- ▶ Active pursuits (e.g. running, jogging)
- ▶ Passive activities (e.g. sitting, reading)
- ▶ Social activities (e.g. picnicking, playing games)

### Social Amenities/Facilities

Some features/amenities reinforce connections, facilitate social cohesion and help create a sense of community. Examples include dog parks, community gardens, playgrounds and sports and game facilities.

### Deterrents

Traffic volumes decrease sense of community, dividing neighbourhoods, inhibiting walking and deterring children from playing outside. The presence of crime, vandalism, litter and graffiti also decrease social cohesion and community pride.

### Social Urbanism

Involves investing in public infrastructure and institution/community building to improve the quality of life for people in underserved neighbourhoods. Social Urbanism is about integrating public spaces and facilities with social programs at project outset in collaboration with the local community.

## KEY POINTS

### Community Gardens

Community gardens facilitate a sense of community, provide a central gathering place, reduce crime and build community leaders. A St. Louis study found that community gardens help stabilize neighbourhoods; specifically, neighbourhoods with community gardens only lost 6% of their population, compared to 13% in the city as a whole. Successful community garden initiatives:

- ▶ Empower community groups to design the space
- ▶ Ensure there is resident interest and local leadership



Community Gardening for people with reduced mobility, Montreal

- ▶ Identify community partners (e.g. homeless organizations, immigrant services)
- ▶ Select an appropriate site that allows for six hours of sunlight per day, ensuring there is room for planting beds, a shed, composting, seating, etc.
- ▶ Provide good water access
- ▶ Ensure there is good soil drainage
- ▶ Create a sustainable management and maintenance program with the community

### **Durban, South Africa | Integrated Development Plan**

To build social cohesion, this plan focuses on institutions and activities that bring people together. Interventions in the fields of arts, culture, sports, recreation and heritage seek to encourage broad community participation to lead to individual and community growth. Specifically, this plan:

- ▶ Identifies social cohesion as a goal
- ▶ Allocates 5% of the City's annual budget to "soft urbanism projects" including libraries, museums and parks as well as community programs, such as free outdoor fitness classes
- ▶ Helps stimulate human interaction and develop communal bonds while helping to counteract urban decay, inequality and crime
- ▶ Cultivates a sense of citizenship by ensuring that existing infrastructure is used for the benefit of all and developing arts and sporting infrastructure close to where people live. Raise awareness of the arts (especially through festivals) and provide more work opportunities for artists
- ▶ Promotes healthy lifestyles by increasing active recreation opportunities
- ▶ Ensures effective management of environmental goods and services by improving the sustainability of the public realm through innovation in urban design responses and an integrated approach to aesthetics, operations, management and maintenance of public spaces

### **Toronto, Canada | Sparking Change: Catalyzing the Social Impacts of Parks in Underserved Neighbourhoods, Park People**

This report highlights multiple strategies to maximize the benefits of parks in underserved neighbourhoods to generate positive community outcomes. Specifically, it emphasizes creating a sense of change and shared ownership through the following strategies:

- ▶ Pair park improvements with conversations about ongoing community involvement
- ▶ Make small, strategic investments
- ▶ Build confidence and inspire civic leaders
- ▶ Focus on capacity building and ensuring groups are community-led
- ▶ Plan for group sustainability by focusing on structure and leadership
- ▶ Reduce social isolation and create inclusive communities
- ▶ Design fun, meaningful and targeted programming
- ▶ Create opportunities for people to connect over food



Community Art at Soundview Park, New York City

- ▶ Provide a place for diverse people to gather
- ▶ Recognize multiple histories through active engagement
- ▶ Create partnerships that leverage unique strengths
- ▶ Recognize and address barriers to participation
- ▶ Support local economic development
- ▶ Use the park as a “start-up” space for local entrepreneurs

### **APPLICATION TO EDMONTON**

- ▶ Focus public places along streets with lower traffic volumes, when possible
- ▶ Provide policy that adapts and adds specificity to the direction in the Sparking Change document
- ▶ Incorporate community garden direction, tailored to the Downtown context
- ▶ Look for opportunities to reduce the visual width and increase the comfort of pedestrians on streets with high-traffic volumes
- ▶ Ensure public places offer a diversity of experiences to appeal to a broad cross-section of society
- ▶ Ensure a sustainable maintenance program to minimize the effect of graffiti and vandalism
- ▶ Apply a Social Urbanism lens to parks planning, design, programming, management and maintenance

# PHYSICAL HEALTH

## INTRODUCTION

*Studies link proximity to parks as a key factor in reducing the likelihood and impact of chronic illnesses and obesity.*

*Neighbourhoods with high access to public spaces have more people meeting their recommended daily physical activity requirements.*

*Furthermore, exercise in an outdoor setting has a more restorative effect and is more beneficial than indoor exercise.*

### Sources:

1. <https://swtxapa.files.wordpress.com/2013/08/apa-active-living-plan-presentation-final.pdf>
2. Active Canada 20/20 A physical Activity Strategy and Change Agenda for Canada Creating a Culture of an Active Nation, May 2012 <https://docs.google.com/a/activecanada2020.ca/>



Outdoor Gym, Pretoria

## CONCEPTS/CONSIDERATIONS

### Urban conditions that support physical activity

There are specific features, landscape patterns and amenities that stimulate greater physical activity, these include:

- ▶ Proximity to parks
- ▶ Accessibility of parks
- ▶ Good lighting
- ▶ Availability of toilets
- ▶ Availability of drinking water
- ▶ Well-designed and maintained paths
- ▶ Attractive scenery (e.g. features, landscaping, balance of sun and shade, water)
- ▶ Facilities (e.g. playgrounds, sports facilities, bike racks, trails)

The more facilities within a park, the higher the likelihood people will exercise there. Trails, in particular, have the strongest correlation with increased park use.

The elderly and youth benefit more from the presence of green areas than other age groups. The following spatial characteristics increase the likelihood of children using a park:

- ▶ Easy to walk to
- ▶ Lower traffic speeds and volumes
- ▶ Access and proximity to recreation facilities
- ▶ High land-use mix
- ▶ High residential density

Increasing physical activity relies on a blend of informational and environmental approaches. These approaches can include:

- ▶ Campaigns
- ▶ Community events
- ▶ Point-of-decision prompts to encourage facility use
- ▶ Proximity and density of facilities
- ▶ Increased trails
- ▶ Programs to train and encourage people to use equipment

### Green Exercise

Simply put, green exercise refers to physical exercise undertaken in natural environments, which is shown to have greater physical and mental health benefits. For example, runners show a greater preference for a park environment than an urban environment.

# MENTAL HEALTH

## INTRODUCTION

Numerous studies link open spaces to positive mental health outcomes. Specifically, open spaces can help depression and anxiety, reduce stress, improve productivity and promote relaxation. In contrast, poorly planned, unsafe and improperly maintained parks can exacerbate mental health outcomes. Open spaces also support cognitive, emotional and behavioural development in children and encourage imagination, creativity, intellectual development and socialization.

### Sources:

1. <http://wsud-denmark.com/odinparken-a-pocket-park-in-copenhagen/about-the-idea/34780,2>

2. <https://www.slideshare.net/ClaireHBrunner1/micro-parks-how-to-guide>

3. <http://www.shinrin-yoku.org/shinrin-yoku.html>

4. <https://www.citylab.com/design/2016/12/how-to-support-mental-health-through-urban-planning/510833/>

5. <http://www.scmp.com/lifestyle/article/2114910/micro-park-ideas-hong-kong-gardens-refuse-skips-pop-chinese-pavilions-and>

6.

7. <http://www.abc.net.au/news/2017-08-24/canberra-spends-big-on-tiny-micro-parks/8835630>

8. <https://www.citylab.com/solutions/2017/08/designing-a-megacity-for-mental-health/537423/>

9. <https://www.slideshare.net/ClaireHBrunner1/micro-parks-how-to-guide>

## CONCEPTS/CONSIDERATIONS

### Overload

In comparison to rural Canadian residents, urban dwellers have a 40% increased risk of depression, over 20% increased risk of anxiety and double the risk of schizophrenia. Multiple factors contribute to these risks, including overstimulation. Cities have an overwhelming amount of stimulation (e.g. density, crowding, noise, smells, sights, disarray, pollution), this can result in stress and cause people to retreat to their private spaces which, in turn, cause people to reject the social connection of open spaces that can promote good mental health.

### Mind the GAPS Framework

Urban planners and designers can help improve community mental health outcomes by considering, planning and designing spaces that achieve the following outcomes:

- ▶ Green Places – allow people to appreciate beauty while providing distance from daily tasks
- ▶ Active Places – facilitate exercise through amenities and safe and connected pedestrian and bicycle paths
- ▶ Pro-Social Places – facilitate positive, safe and natural interactions amongst people to create a sense of community, integration and belonging
- ▶ Safe Places – use the design of roads, lighting, landmarks and wayfinding to increase comfort and improve safety

### Biophilia

The natural tendency for humans to seek connections with other living things.

### Attention Restoration Theory

Natural settings capture individual's attention without requiring concentration; in contrast, non-natural settings capture attention and require concentration. As a result, natural settings can restore voluntary and directed attention by providing individuals with the opportunity to take a break from routine activities and thoughts by effortlessly holding attention.

### Stress Reduction Theory

Natural environments promote recovery from stress while built environments hinder recovery.

### Environmental Self-Regulation Hypothesis

Individuals can achieve positive emotional states while viewing or connecting with natural settings. Furthermore, physical activity in a natural setting greatly improves positive emotions, self-esteem and healthy behaviours.

## The Relaxation Response

Relaxation often requires a quiet environment, something to focus attention on and comfort – open spaces provide this function.

## Shinrin-Yoku

Medical professionals developed the concept of forest bathing (taking in the forest atmosphere) in Japan, in the 1980s. Essentially, forest bathing involves leisurely walks on gentle paths under a forest canopy. Today, forest bathing is a common recommendation in preventative health care and healing.

## KEY POINTS

### Therapeutic Landscapes

The current definition of therapeutic landscapes is broad in that therapeutic landscapes promote physical, mental and spiritual healing. Despite that broad definition, there are some typical features and types of places that qualify as therapeutic landscapes; specifically, these are places that:

- ▶ Provide the opportunity to notice and observe nature
- ▶ Include parks, botanical gardens, community gardens, allotments and woodlands
- ▶ Include healing gardens in health care and residential care facilities
- ▶ Incorporate features and amenities that create a quiet refuge, such as abundant plants and flowers, art, benches and water features
- ▶ Relate to multiple therapeutic practices (e.g. Ecotherapy, Adventure therapy, Wilderness therapy, Horticulture therapy and Therapeutic gardening)

### Micro Parks

Micro-parks are small outdoor public places designed for the enjoyment of local residents, workers and visitors. They can be permanent or temporary and often include art, seating, landscaping and other amenities, depending on location and need. Cities around the world are using this open-space form to increase the amount and benefits of open spaces, including:

- ▶ Tokyo has micro parks throughout the urban area to create opportunities for quiet refuges. These spaces:
  - ▶ Focus on walkability, greenery and beauty
  - ▶ Empower citizens to create their own small green spaces on public land through workshops and tax incentives
  - ▶ Pair residents with design professionals to plan and tend micro-parks
- ▶ Hong Kong is soliciting ideas on micro-parks through workshops and calls. Some initial ideas include:
  - ▶ Convert skips into mobile parks
  - ▶ Add fold-down seating to railings
  - ▶ Create a web-based platform for community members to design their own parks and submit them to the city for delivery and installation
- ▶ Canberra is currently planning 20 micro-parks to enliven underused urban spaces (total budget: \$700,000). Specifically, Canberra is:



Canadian National Institute for the Blind Headquarters, Toronto

- Building off of a successful pilot micro-park at Garema Place that included decorative pavement, art and seating and resulted in a 190% increase in visitors while installed
- Planning micro-parks that will be about 30 square metres in size
- Allowing Canberrans to vote for their favourite designs from a shortlist
- Incorporating mini-amphitheatres, picnic tables, pianos, umbrellas, plantings and platforms
- Copenhagen's micro-parks, or Odinparken, provide an important urban function within the city. The strategy:
  - Makes a concerted effort to create more small parks to stimulate the senses, surprise people, encourage physical activities and support varied recreational opportunities
  - Creates spaces that are smaller than half a football pitch and often a hybrid square/park design
- Fort Worth, Texas, approaches micro-parks as a tactic to repurpose remnant pieces of land to increase their functionality. These spaces:
  - Convert underutilized strips of land into inviting, pedestrian friendly pocket parks
  - Include artwork, casual seating, pocket gardens and landscaping
  - Cost approximately \$20,000 and are located on public land or sponsored by private landowners

## APPLICATION TO EDMONTON

- Include ideas about how to test, pilot and prototype interventions to increase the number of public places Downtown and in the Quarters
- Advise the integration of quiet refuges in the Downtown and Quarters
- Define the purpose and role of micro-parks within the Downtown and Quarters
- Support volunteer organizations and tie park development projects with community engagement and partnerships to ensure sustainable maintenance and programming
- Direct small wins that can be implemented quickly and that can improve mental health outcomes (e.g. clean-ups, tree planting, community BBQs)



Magnolia Micropark, Fort Worth

# THE ENVIRONMENT

## INTRODUCTION

*Open spaces help improve the environment. Specifically, open spaces help improve local air quality, dampen urban noise, cool ambient air temperature and manage stormwater.*

### Sources:

1. *Soundscapes of the Kehä Vihreä Urban Park, Viivi Kuusialho, 2016*
2. *Portland River District Park System Urban Design Framework Study, Portland Parks and Recreation 2001*

## CONCEPTS/CONSIDERATIONS

### Air Pollution

Urban areas have high concentrations of pollutants related to traffic, boilers, generators, etc. Trees will do a lot to improve air quality. As an example, The Urban Ecosystem Analysis conducted by American Forests revealed that, in Atlanta, trees remove 19 million pounds of pollutants each year, providing a service valued at \$47 million.

### Noise

Noise exposure is associated with negative health effects. It can lead to sleep disturbances, disrupt daily activities, interfere with performance and contribute to tinnitus, hypertension, ischemic heart disease, cardiovascular disease, depression, anger, etc.

### Acoustic Refuge

People prefer natural sounds over human or mechanical sounds. The presence of human or mechanical sounds inhibit relaxation. To create restorative parks, natural sounds should predominate or, at a minimum, human and mechanical sounds should be dampened to create an acoustic refuge.

### Sound Categories

- ▶ Biophony – biological organisms (e.g. birds, insects, amphibians, mammals). These sounds are enhanced by increasing the density and diversity of plants and trees to attract a wide range of animals
- ▶ Geophony – geophysics (e.g. wind, running streams, rain, thunder, waves)
- ▶ Anthrophony – humans and machines (e.g. vehicles, bells, sirens, traffic, music, language). In this category, human sounds (e.g. talking, walking, cycling) are preferable to mechanical sounds. It is important to note that anthrophony sounds mask biophony and geophony sounds

## KEY POINTS

### Kehä Vihreä Park, Jyväskylä, Finland Sound Research

The Kehä Vihreä Park is a network of urban parks, green areas and public spaces around the city centre of Jyväskylä, Finland. Researchers conducted a study in this park network to understand the perception and impact of sound on the park experience. Their key findings include:

- ▶ Considering sound primarily by noise level and addressing it primarily through abatement alone does not improve quality of life
- ▶ Applying a comprehensive approach to acoustics that examines all present sounds will result in a better understanding and improve interventions



Fairmont Hotel Park, Waterfront Vancouver

- ▶ Relaxing and observing nature are the two primary reasons people visit parks and sound plays an important role
- ▶ Minimizing high volume sounds, like traffic, will improve the functionality of spaces because these sounds mask other, often more pleasant sounds
- ▶ Reducing hard surfaces, such as asphalt and buildings, will improve a park's soundscape because hard surfaces amplify and echo sound
- ▶ Creating a relaxing, quiet and pleasant soundscape, in which natural sounds mask most of the disturbing sounds of a city, will facilitate relaxation and encourage greater use
- ▶ Assessing sounds the "sound walk technique" can provide the baseline sound information to inform the location of parks and their design. This technique involves listening to the environment and paying attention to the perceptions and multiplicity of sound sources while identifying the visual, geographic, social and cultural features that place the sound in context

### **Portland River District Park System Urban Design Framework Study**

This framework study approaches urban park planning comprehensively and examines each park's role within the large neighbourhood park system. It does this by:

- ▶ Defining the location, goals and program for each park in the open-space network within the Pearl District
- ▶ Incorporating sustainable design that emphasizes the importance of natural processes, stormwater management and trees
- ▶ Ensuring each park serves a different overall purpose within the larger system and has a distinct identity:
  - ▶ The Spring – provides a venue for celebrations and performances and, when not in use as a venue, provides an attractive gathering place with a fountain
  - ▶ The Wetlands – provides a contemplative and quiet space with natural elements, including extensive landscaping and a constructed wetland
  - ▶ The Fields – provides an active recreation location for the local community with a large multi-purpose field and pathways
- ▶ Designing the parks first as neighbourhood parks, rather than regional attractions, to facilitate community identify, support local retail, provide arts venues and create flexible spaces
- ▶ Tying all the parks together through sustainable design, a boardwalk, a pedestrian gallery and consistent design elements

### **APPLICATION TO EDMONTON**

- ▶ Provide direction about how and where to decrease the impact of anthropophony sound while increasing geophony and biophony sound techniques and providing recommendations to mitigate the sound of traffic
- ▶ Develop a strategy to add greenery and trees throughout the Downtown and Quarters

- ▶ Consider dispersing open space throughout the Downtown and Quarters to maximize environmental outcomes
- ▶ Define the high-level role of all public spaces within the larger Downtown and Quarters public-place network
- ▶ Outline common environmental features that each public place must consider and integrate, when possible
- ▶ Locate and focus contemplative spaces in the quieter areas of Downtown