



# Public Open Space Design

Learnings from Canada's most liveable cities

An International Specialised Skills Institute Fellowship

**REBECCA INGLETON**

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# Table of Contents

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|  |           |
|--|-----------|
| <b>1. Acknowledgements</b>                           | <b>1</b>  |
| <b>2. Executive Summary</b>                          | <b>3</b>  |
| <b>3. Fellowship Background</b>                      | <b>4</b>  |
| <b>4. Fellowship Learnings</b>                       | <b>8</b>  |
| <b>5. Recommendations &amp; considerations</b>       | <b>18</b> |
| <b>6. Personal, Professional and Sectoral Impact</b> | <b>19</b> |
| <b>7. References</b>                                 | <b>20</b> |
| <b>8. Appendices</b>                                 | <b>22</b> |

# 1. Acknowledgements

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## Fellowship Sponsor - Italian Australian Foundation

The Fellow sincerely thanks the Italian Australian Foundation (previously known as the Italian Services Institute) for providing funding support for this Fellowship and to the ISS Institute. The Italian Australian Foundation was established, inter alia, to advance the education of Australian residents who are of Italian descent. The Fellowship provides the opportunity for successful Fellows to advance their skills and knowledge. The Italian Australian Foundation and ISS Institute work with the successful recipients upon their return to share and publicise the learnings and recommendations from their Fellowship investigation.

## Supporters

- » Thomas Daley - The City of Vancouver - Places for People Program;
- » The team at PFS Studio; including Principle Marta Farevaag, Director/Principle Christopher Phillips and Principle Nastaran Moradeinejad;
- » Peter Fianu – Montreal based architect and urban designer, previously having owned his architecture firm for 20 years and worked as a professor at The University of Montreal.
- » Dr Sarah Moser - Director of the Urban Studies Program and Assistant Professor in the Department of Geography at McGill University.
- » The many contributors who organised and presented at the EcoCity World Summit.

## Employer support

Ingleton extends her sincerest thanks to the Team at Human Habitats for their ongoing support and guidance through her Fellowship journey. The Fellow wishes to specifically highlight the support from the Director Group and express her gratitude.

## Organisations impacted by the Fellowship

- » Urban designers
- » Urban planners
- » Landscape architects
- » Place makers
- » Strategic planners
- » Local government organisations throughout Australia
- » Transport planners and consultants
- » Traffic engineers
- » Architects
- » Project managers
- » Property developers
- » Real Estate agents
- » Real Estate marketing managers
- » Landowner groups
- » University lecturers

## 2. Executive Summary

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With the assistance and support of the International Specialised Skills Institute and the Italian Australia Foundation, Urban Designer Rebecca Ingleton had the opportunity to travel to Canada for a three-week period over October of 2019. This report reflects the learnings obtained as the Fellow travelled to the cities of Vancouver, Montreal, Toronto and Calgary; cities internationally recognised for their liveability. The key objective of Rebecca's journey to Canada was to learn the design elements that support successful Public Open Space (POS) outcomes. Rebecca acquired her knowledge through a variety of methods including attendance to the Ecocity World Summit, meetings with Canadian urban development industry leaders and relevant authorities, as well as visiting and analysing Canada's award-winning and internationally recognised Public Open Spaces.

These learnings enabled Rebecca to create a Public Open Space design checklist that acts as a tool for urban design, planning and landscape consultants to achieve the highest quality outcomes in Australia's public open spaces. Public Open Space outcomes impact upon Australia and its people in four key ways, which this report will discuss in detail. Physical and Mental health, social isolation and environmental implications are all impacted upon by the design of Australia's Public Open Spaces. With climate change, increasing burden of disease and poor mental and social health on the rise in Australia, achieving high quality built from outcomes in our urban environments should be a priority for all of those in the development industry.

# 3. Fellowship Background

## Fellow biography

Rebecca Ingleton is a Melbourne-based urban design consultant at an urban planning, landscape and urban design studio called Human Habitats. Ingleton works as a consultant for both private and public clients across Australia. Ingleton has experience in both greenfield development sites, as well as inner-city development sites.

### Education

Bachelor of Environments (Urban Planning and Design) - The University of Melbourne (2017); and

Deans Honours List and Melbourne Global Scholars Award recipient;

### Employment

Urban Design Consultant at Human Habitats, Melbourne, Australia.

### Notable projects

- » Tarneit Towers, Tarneit;
- » Verdant Hill, Tarneit;
- » Provenance Estate, Huntly;
- » Arcadia, Officer;
- » The Sinclair Heights, Plumpton;
- » Deanside Village, Deanside;
- » Estadio Estate, Tarneit;
- » 8 Dowson Drive, Wonthaggi;
- » Alexanders Road, Morwell;
- » 101 Tait Street, Sebastopol; and
- » Shakespeare Grove Main Drain Renewal, St Kilda.

## Fellowship context

The aim of this Fellowship was to visit and analyse celebrated Canadian Public Open Space's to gain knowledge of the design elements that create successful Public Open Space outcomes throughout Canada. For the purpose of this report, the Fellow defines a "successful" public open space outcome as a highly utilised, safe space that is accessed by a diversity of people with varied ages, abilities, ethnicities, genders; undertaking a multitude of activities. The Fellow will use knowledge gained throughout her Fellowship journey to design improved public open space's throughout Australia that are healthier, more socially engaging, sustainable and accessible.

As a young and passionate designer, it is essential to draw inspiration and learnings from a variety of sources. By receiving the Fellowship, the Fellow had the opportunity to draw inspiration from 15 Public Open Spaces, meet with leading urban design firms, scholars and council staff and attend the 2019 Ecocity World Summit. This presented the Fellow with the opportunity to create her own checklist of the design elements that are essential to a successful Public Open Space outcome, providing her with enhanced urban design skills.

## Why Canada?

The cities that the Fellow travelled to include Vancouver, Montreal, Calgary and Toronto in Canada. Vancouver, Calgary and Toronto have been ranked as some of the most liveable cities in the world by the Economist Intelligence Unit's annual Global Liveability Index, with Calgary in 5th, and Vancouver and Toronto in 6th and 7th respectively (The Economist Intelligence Unit, 2019). The liveability ratings are determined by receiving scores in the following categories; stability, healthcare, culture environment, education and infrastructure.

In addition to Canada having several of the world's highest rated cities in terms of liveability, Canada and Australia share a number socio-cultural, historical and environmental similarities that make the lessons learned in Canada highly transferable to an Australian context. Canada, like Australia, has a long indigenous history; Canada's indigenous peoples being First Nations, Inuit and Metis. Canada was also colonised by the English (and French) and remains a member of the Commonwealth. Again, there are similarities in the Countries' economies with the major industries being energy, agriculture and tourism. Both, Australia and Canada are extremely large countries; with a high proportion of land that is not suitable for human settlement, with the larger cities being primarily located along coastlines.

It is essential for the Australian development community to gain knowledge and guidance from thriving countries such as Canada, as Australia seeks to respond to significant health and development challenges. Melbourne and Sydney are experiencing population booms that are putting significant strain on existing infrastructure, affordable housing and public open space networks; putting at risk Australia's internationally recognised liveability and high quality of life. The major cities are undergoing urban development projects to accommodate this growth, primarily located in the urban-fringe areas and underutilised/ brownfield development sites. Many of these urban-fringe communities and/or new towns are heavily criticised for their social isolation, poor landscaping outcomes and lack of walkable access to retail/commercial centres, employment opportunities and quality public open space areas. It is essential that these developments incorporate quality Public Open Spaces to enhance physical health, mental wellbeing, social inclusion and sustainability, improving the overall liveability of the area.

The consequences of a lack of access to and the overall quality of Public Open Spaces are numerous and four important issues are explored below:

### **1. Physical activity**

Physical activity levels can be significantly impacted as a result of the design of the urban environment. Factors including the size, quality and distribution of Public Open Spaces, inadequate landscaping outcomes, climate and suburbanisation contribute to poor walkability and automobile reliance. Physical inactivity is a risk factor for several diseases in Australia, including diabetes, coronary heart disease and dementia, and was responsible for almost 3% of the country's total burden of disease (Australian Institute of Health and Welfare, 2017). Public Open Spaces can promote physical activity through design features, including infrastructure/ amenities, provision of interconnected pathways and the quality of the materials. Two studies conducted in Perth, Western Australia, researched the size, design and distribution of Public Open Spaces and how that impacts upon physical activity (Giles-Corti et al., 2005). The results of the 2005 study concluded that access to attractive, large Public Open Spaces is associated with higher levels of walking (Giles-Corti et al., 2005).

### **2. Mental health**

In addition to impacting on physical health, Public Open Space has mental health implications. Access to green spaces helps remedy mild depression, foster social connection and reduce stress (Black, 2019; Australian Institute of Health and Welfare, 2019; Jennings and Bamkole, 2019). There are reports throughout Australia that anxiety related conditions including depression are on the rise, with 20% of the population experiencing mental health issues each year (Australian Institute of Health and Welfare, 2019). As mental health issues continue to grow in prevalence, the importance of designing accessible and high quality Public Open Spaces also grows.

### 3. Social isolation

Within the context of Australia's urban fabric, low-density suburban sprawl is exacerbating social isolation, as drivers spend significant amounts of time commuting to employment opportunities. This leads to reduced time that could be spent with family and friends and fostering new social connections (Frumkin, 2002). Additionally, one in four Australian households are lone-person households; a figure that is continuing to increase at a sharp rate (de Vaus and Qu, 2015). Living alone and suburban sprawl are contributing factors to the growing epidemic of social isolation and loneliness (Jennings-Edquist, 2019). Convivial Public Open Space design facilitates chance social interactions between community members and contributes to community sentiment, and therefore can mitigate increasing social isolation (Aelbrecht, 2016). Furthermore, some literature suggests that urban areas where people feel safe and comfortable to walk promotes positive perceptions of social cohesion, fostering feelings of trust, belonging and inclusion (Jennings and Bamkole, 2019).

### 4. Environmental implications

How Public Open Spaces are designed can have significant environmental implications. The diversity of plant species and amount of landscaping within Public Open Spaces can have a widespread effect on the urban environment. Cities have significant amounts of hardscaped materials including concrete, asphalt and other building materials which absorb heat and create stormwater runoff. The absorption of heat in such materials makes cities hotter, this is called the Urban Heat Island Effect (Frumkin, 2002). Landscaping in Public Open Spaces contributes to the mitigation of the Urban Heat Island Effect; cooling down urban environments. Landscape plantings also contribute positively to air quality, reducing pollution levels through the absorption of carbon dioxide and other pollutants.

## Methodology

The Fellowship took place over a three-week period from early October 2019, with the Fellow undertaking the following:

- » attended the Ecocity World Summit 2019;
- » completed a meeting and guided tour of select Public Open Spaces throughout the City of Vancouver with Thomas Daley, planner - Places for People, City of Vancouver;
- » meeting with University Professor and Academic Scholar, Dr Sarah Moser;
- » meeting with PFS Studio, a leading Canadian planning, Urban Design and landscape architecture firm;
- » meeting and guided tour of select Public Open Spaces with Montreal architect and urban designer, Peter Fianu; and
- » visited 15 celebrated Public Open Spaces across Vancouver, Calgary, Toronto and Montreal.

The primary focus of the Fellowship journey was to visit and analyse selected Public Open Spaces throughout the major Canadian cities. At each site visit, the Fellow spent a considerable amount of time within the space to assess how people were interacting with the space, as well as filling out a pre-prepared assessment table (See appendix for example).

The pre-prepared assessment table was broken down into various sub categories. These categories included:

- » urban context;
- » access;
- » perception of safety;
- » physical infrastructure;
- » landscaping;
- » uses/ activity.

The visit to each Public Open Space involved the following process:

#### **Pre-arrival**

- » researched the Public Open Spaces for which each city is known;
- » contacted relevant scholars/Council employees and/or industry professionals to obtain their recommendations as to which Public Open Spaces would be most suitable to visit; and
- » created and develop a comprehensive and structured assessment table whilst allowing for further comments and explanation where necessary.

#### **During public open space visit**

- » observed how people utilised and interacted with the Public Open Space;
- » completed the pre-prepared assessment table; and
- » took site photographs.

#### **Post visit**

- » entered observations into a combined file; and
- » completed further research into the history and design of the Public Open Space
- » see the appendix for detailed context maps for the 15 selected Public Open Spaces that the Fellow visited during the three-week period:
  - map 01 of Vancouver and the Public Open Spaces visited and analysed;
  - map 02 – Map of Calgary and the Public Open Spaces visited and analysed;
  - map 03 – Map of Toronto and the Public Open Spaces visited and analysed; and
  - map 04 - Map of Montreal and the Public Open Spaces visited and analysed.

It was essential for the Fellow to consider how the time of day; the day of the week and the weather may impact upon the use of the spaces by the public. One measurement of the success of a public space is by its use and the enjoyment it brings its visitors, as demonstrated by the volume of users over a prolonged observation period. However, due to the limited amount of time the Fellow could spend at each Public Open Space, this form of assessment criteria could not be utilised. Therefore the “success” of the public open space was determined by the following:

- » the receipt of urban and landscape design awards;
- » recommendations from locals, industry professionals and Council staff;
- » recommendations made via websites, blogs and social media; and
- » recommendation in travel guide books.

## Abbreviations/acronyms/definitions

Public Open Space (POS): For the purpose of the Fellowship report, the Fellow will adopt the definition as specified in *Healthy Active by Design* (Rozek et al, 2019):

“Public open space encompasses the variety of spaces within the urban environment that are readily and freely accessible to the wider community for recreation and enjoyment.”

## 4. Fellowship learnings

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The Fellow acquired knowledge and skills in three key ways:

- » gathering current best practice information at the Ecocity World Summit 2019 where industry leaders and thinkers presented the most up to date technologies and best practice design theory regarding the designing of cities; both within the private and public realm;
- » through interviews with the aforementioned industry members; and
- » through the collection of information and analysis of 15 Public Open Space case studies across the selected four Canadian cities; Vancouver, Calgary, Montreal and Toronto.

The Fellow recorded her observations within the pre-prepared assessment table.

The assessment table was broken down into various sub-categories, including:

- » urban Context
- » access
- » physical Infrastructure
- » landscaping

These sub-categories are discussed below:

### Urban context

The urban context of each POS case study that the Fellow visited were incredibly varied. Each Canadian city has a unique urban fabric due to historical patterns of development, demographics, climate, economies, colonial occupations and much more.

In Montreal, the designed environment is characterised by the combination of both French and British colonial landscape and architectural styles, suburbanisation and contemporary 21st century design, see Figure 1. Montreal's urban environment is one of diversity and vitality, the juxtaposition of old and new architecture and a rich art culture. Montreal's rich art culture is evident walking through both the suburban streets as well the expensive Place Des Arts complex in the city's downtown. Additionally, Montreal's downtown has a significant number of underground POS's and it is known as the "Underground City". The spaces include malls, metro stations, key passageways, office complexes and entries to residential towers. This is an adaptation to the harsh winters that the city experiences each year.



Figure 1: Montreal Urban Environment

The urban environments observed throughout Toronto was similarly eccentric; with colonial heritage precincts, buildings showcasing modernist architecture and multiple examples of Victorian Industrial urban renewal projects (see Figure 2). Like Melbourne, Toronto has a public transport system that includes railway, bus and tram networks, all of which have been influential in its development pattern.



Figure 2: Toronto Built Form

In the last 15 years the city of Calgary experienced a construction boom, which saw the city bring in internationally renowned architects and designers to construct landmark built forms, such as the Calgary City Library and National Music Centre,

as well as award-winning public realm projects such as the RiverWalk Master Plan (see Figure 3). Like Toronto and Montreal, Calgary's urban context is an eclectic mixture of contemporary designs, modernist high-rise buildings and heritage sandstone facades.

In contrast the urban environment of Vancouver is stylistically unique, see Figure 4. There is an internationally recognised term called "Vancouverism" which conveys the development principle of the city in a concise manner. The City of Vancouver (2019) defines Vancouverism as a "deep respect for nature with enthusiasm for busy, engaging, active streets and dynamic urban life. Vancouverism means tall slim towers for density, widely separated by low-rise buildings, for light, air, and views. It means many parks, walkable streets, and POS's, combined with an emphasis on sustainable forms of transit." This city living principle is evident in the physical urban environment and is achieved through extensive public consultation processes.



Figure 3: Calgary Urban Context, Calgary



Figure 4: Vancouverism on display – Vancouver Skyline. Image Source: Beasley, 2019.

The urban context of Vancouver is also one that celebrates the diversity of city dwellers, promotes collaboration with the local indigenous peoples of the Squamish, Tsleil-Waututh and Musqueam peoples of the Coast Salish group and participates in rigorous consultation processes for each and every development. The Fellow was fortunate to meet with the City of Vancouver's Places for People coordinator, Thomas Daley who graciously spent the afternoon with The Fellow. Thomas Daley described the detailed consultation process that is currently being undertaken to develop the City's Open Space strategy. At the time of visiting, the Places for People team were processing the findings of the recent Gehl's POS and Public Life Study, the largest study of its kind in both North and South America.

Although each POS sat within their own unique urban context some consistent themes were observable. These observations provide insight into contextual conditions that may support successful POS outcomes in an Australian context.

Each POS was located within a mid or high-density development area, that supported a mixture of uses and facilitates passive surveillance. The celebrated POS were predominantly located within the inner-urban areas with high pedestrian traffic. Most of the analysed POS were in mixed use areas with a range of co-located land uses including commercial, residential, public use zone, and more. This enables walkable access to a variety of facilities, goods and services, thus increasing the volume of users within the precinct. A mixture of uses also increases the diversity and vitality of the streetscape.

Walkable access by proximity was a recurring topic of presentations at the Ecocity World Summit 2019. James Bailey from the District of West Vancouver presented on the "Community Vision for Consolidating Development in a Compact Community: West Vancouver's Upper Lands Development Plan." This presentation highlighted an innovative urban planning and design strategy being led by the District of West Vancouver. This strategy attempts to consolidate private development in the Upper West Lands which currently holds a historic permit allowing for low density development, in return for the rezoning of land into mixed use areas, parks, community centres and more. Densifying this future development would have positive implications for sustainability, access by proximity to; goods, services, open space areas and employment opportunities, as well as a reduction in automobile reliance.

The Fellow reviewed the immediate streetscape context of each case study. Being predominantly located in inner urban areas, most of the celebrated POS were bordered by hardscaped verges of around 3-4m width, creating a defined edge. Most of these verges appeared to incorporate street trees in pits and were constructed from high quality pavers (varied sizes – mostly light coloured); the attractive materials increasing the perceived quality of the POS.

Place Vauquelin in Montreal's historic administrative district and Old Port is a newly designed and constructed (2018) POS by Landscape Architects, Lemay. The award-winning Open Space references the rich history of its surrounds through the restoration of the monument of Jean Vauquelin, a French Naval Officer, and a quadri-lobed fountain (Archello, 2019), see Figure 5. The grandeur and quality of the urban space is supported through the choice of materials throughout the POS. The hardscaped verges and plaza are constructed with smooth granite and limestone pavers of extremely high quality. As mentioned, perceived "quality" of open space areas may foster feelings of safety and may increase community pride and sentiment.



Figure 5: Place Vauquelin, Montreal.

### Access

The Fellow also analysed the accessibility of the celebrated POS's. The Fellow analysed the surrounding roads and observed that sites had automobile access by at least one road frontage with only 7 of the POS's having four direct road frontages. However, parking arrangements at each POS varied. Only two out of the 15 case studies had free on-street parking/ on-site parking; Nelson Park (Vancouver) and Joel Weeks Park (Toronto), both of which the Fellow classified as "Neighbourhood Open Spaces." See the below (see Figures 6 and 7 respectively). The two aforementioned sites, additionally, had three or four direct road frontages. This led the Fellow to a contention that Neighbourhood Open Spaces may require a higher level of affordable and convenient automobile accessibility, potentially due to the increased demographic of young families with children. Each POS had access to pay-parking, either on-street or within a walkable (400m) distance to a pay-parking lot.



Figure 6: Nelson Park, Vancouver



Figure 7: Joel Weeks Park, Toronto

Canada is renowned for its sustainable transport options within its urban centres. Each of the cities that the Fellow visited had mass-transport systems such as public railway lines, buses, light rail and ferries. Furthermore Vancouver, Toronto, Montreal and Calgary all boast interconnecting on-road and off-road cycle paths, public bike share systems and ample bike storage infrastructure within POS areas. It has been a development priority of the Canadian City Councils throughout these cities to create robust and interconnected cycle networks. Encouraging Active-transport and reducing automobile dependency was also a key theme of the papers presented at the 2019 Ecocity World Summit 2019. The Fellow attended presentations showcasing ground-breaking initiatives, such as the development of a Personal Carbon Trading App, as presented by Anna Huttuner (Finland) that encourages low-carbon emission, active-transport options in return for goods and services, as a substitute for money.

Active-transport infrastructure in each city improved access to each case study. All the case studies had walkable access to at least two forms of public transport and 11/15 of the POS's had direct access to on-road or off-road cycle paths that either dissected or were adjacent to the POS. Active-transport infrastructure encourages physical activity, reduces automobile reliance and fosters mental wellbeing. The Fellow believes that it should be a priority for POS in Australia to provide infrastructure to support bicycle and pedestrian access, through the provision of bike storage, interconnected shared paths within open space, and the connection to and expansion of existing pedestrian and cycle networks.

Hinge Park, Vancouver, is a community park designed by PWL Partnership and Pechet Studios that was developed in 2009, in conjunction with the surrounding neighbourhood as the 2010 Winter Olympics Athletes Village (see Figure 8). During the Ecocity World Summit 2019, the Fellow attended a guided field trip to Hinge Park and the Southeast False Creek Neighbourhood.

The Fellow learned that the precinct was developed as a LEED certified

neighbourhood that prioritises sustainability, which includes promoting active-transport and discouraging automobile use. The designers have facilitated this by creating interconnected on-road cycle networks and providing ample bike storage. Bicycle storage loops were located at all major entry points to the park.

Furthermore, the park connects directly into 28km of uninterrupted, shared pathway that runs along Vancouver's creek and ocean foreshores, called the Seawall. The Seawall is one of the most widely used POS's in Vancouver used by tourists and locals alike (see Figure 9).



Figure 8: Hinge Park, Vancouver



Figure 9: Hinge Park, Vancouver

The accessibility of a POS is also dependent on the provision of infrastructure that supports disability access and prams. All of the analysed POS' had a high level of accessibility to those with mobility impairments. This was observed through the physical infrastructure that was analysed including pram-way crossovers at intersections, ramps to navigate any changes in grading, hardscaped pathways and more. Place Vauquelin also has a notable forward-thinking access initiative; sloped accessway ramps that are heated during the winter months to melt snow, ensuring universal wheelchair/pram accessibility year-round (see Figure 10).



Figure 10: Place Vauquelin, Montreal

The Fellow visited the acclaimed English Bay Beach, Vancouver, which is widely recommended in travel blogs and guidebooks as a must-visit tourist destination (see Figure 11). This POS included a large sandy beach with adjacent hardscaped pathways and a sloped foreshore area with bars and restaurants along the interfacing street. The grass covered foreshore between the road to the beach had a steep gradient, requiring accessible ramps to be delivered as well as steps. Furthermore, a series of log seats were distributed along the sand for informal seating opportunities. In order to make the sandy beach universally accessible, an access mat path that extend out to these logs invites those with wheelchairs, prams or those with difficulty traversing uneven ground to utilise the space (see Figure 12).

There is an opportunity for POS in Australia to implement such considerate infrastructure, like the accessible mat, to make our spaces more inclusive and inviting for all.



Figure 11: English Bay Beach, Vancouver

### Physical infrastructure

The Fellow analysed the physical infrastructure of each POS to determine which items were found consistently in each successful design outcome. Consistent infrastructure items such as CCTV cameras and exclusion fencing (barriers, bollards and or fencing) were found in most case studies. In all 15 case studies, the Fellow observed dedicated outdoor lighting, in the form of lamps, wall-mounted lights, down lighting and feature lighting.



Figure 12: Accessible Beach Mat, English Bay Beach, Vancouver

These infrastructure items all combine to improve the safety of each open space area. Lighting is essential to discern obstacles and observe other pedestrians, whilst barrier fencing discourages vehicles from accessing POS.

A variety of seating options were observed in each case study, providing visitors choice on their preferred type of seat, outlook, solar exposure, the formality of the seating and the degree of social mixing. Literature suggests that public seating can be arranged to promote social interaction between people. As explored in an earlier chapter, promoting social interaction may foster social connections between residents and users of the space, potentially providing positive mental health benefits and limiting social isolation (Aelbrecht, 2016).

In Calgary's Olympic Plaza the abundance of seating options was evident. Formal bench seats were arranged in a semi-circular array; designed in such a fashion to support conversation and interaction between strangers. For those seeking solitude and quiet reflection, formal bench seats were located overlooking the public art installations and fountain, as well as under shaded trees. Informal seating was also in abundance, due to a stepped amphitheatre (see Figure 13).



Figure 13: Olympic Park, Calgary



Figure 14: Place Emilie Gamelin, Montreal

The Fellow was fortunate to undertake a field day with Montreal architect and urban designer, Peter Fianu whom provided both local and professional insight into Montreal's most successful POS and why they are successful. Together, the Fellow and Fianu visited Place Emilie Gamelin, where ample picnic tables had been designed into the space (see Figure 14). Fianu reflected "The picnic table is the most democratic and social type of public furniture that is possible". Picnic tables equalise people, bring together family/friends, as well as encourage strangers to enjoy a shared experience. Additionally, they are accessible for wheelchairs and prams due to their open ends.

During the Fellow's time in Vancouver, the Fellow was fortunate to meet with PFS Studio's Founding Principle Marta Farevaag and Principle Nastaran Moradinejad. Farevaag believes the most successful POS outcomes result from rigorous public consultation and research into the specific needs of potential users and community groups. Farevaag referenced the award-winning design for Lansdowne Park in Ottawa, Canada as an example. Lansdowne Park has been specifically designed to accommodate a variety of programmed events all year-round including markets, concerts, educational events and much more.

This principle was similarly observable in Montreal's Place Des Festivals, which has won eight Urban Design and architecture awards since its redevelopment in 2009 (Daoustlestage.com, 2019). The POS incorporates an expansive hardscaped plaza that is utilised year-round for a multitude of festivals, events and art installations. These uses are catered for by specific Design Elements including retractable bollards, grease/oil drains (for food stalls), in-ground power points, interactive fountains during the summer, ample lighting, seating and street trees. The high degree of flexibility enables expansive programming, making it one of Montreal's most lively spaces all year round (see Figures 15 and 16).



Figure 15: Place Des Festivals, Montreal. Image Source – (Montreal Travel Guide, 2020)

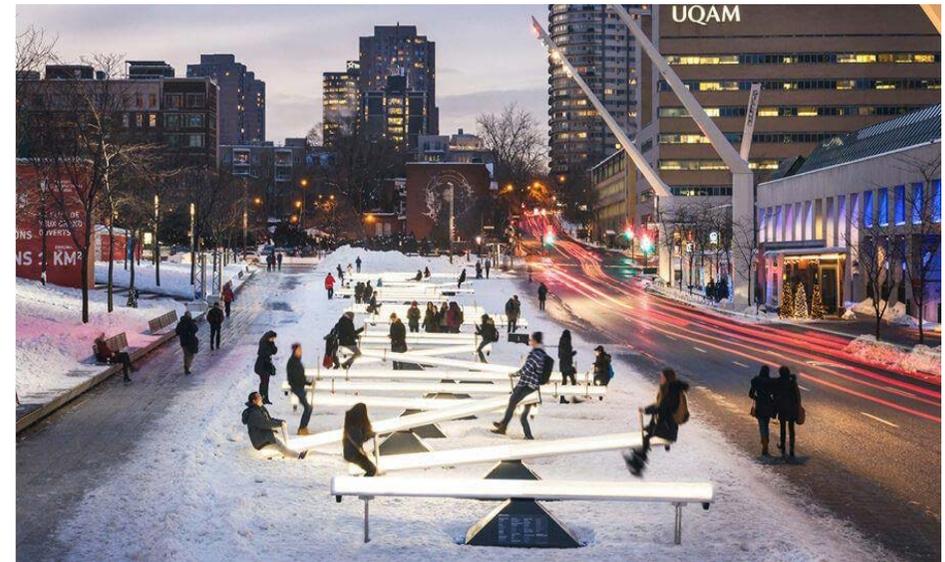


Figure 16: Place Des Festivals, Montreal. Image Source – (Dailyhive.com, 2017)



Figure 17: Calgary Public Library Plaza, Calgary

14 out of 15 of the case studies that the Fellow analysed had hardscaped open space areas or plazas. These plaza areas varied in size, but all demonstrated a design intent to act as a place of gathering. The Fellow met with McGill Professor and New Master Planned Cities Scholar, Dr Sarah Moser in Montreal. Dr Moser outlined the importance of the plaza at Place Emilie Gamelin as a democratic place to gather, to host programmed events, to protest and to come together to enjoy the plaza's art installations.

Public art was observed in 13 of the 15 selected case studies. In some of the case studies such as at Calgary Public Library and Robson Square, the public art was a salient, eye-catching feature of the space (see Figure 17). In other case studies, such as Joel Weeks Park and Place Du Canada, the art was distributed throughout the meandering pathways (see Figure 18). The different arrangements of the public art between the selected case studies suggested to the Fellow that there is not one single way to incorporate public art into a space.



Figure 18: Place Du Canada

In the case of Toronto's Distillery District, sculptures were subtly distributed throughout the public realm, and were a key feature of the central pedestrian plaza. The public art diversifies the public realm and creates visual focal points within a space. In the Distillery District, the art invited people to relax and enjoy the views from the various food and drink premises that were co-located (see Figure 19).



Figure 19: Distillery District, Toronto

Another physical infrastructure item that the Fellow sought to understand was the importance of shelter structures. As Canada experiences high rainfall and snowfall events, the Fellow predicted that shelters would be located in all POS's. Surprisingly, shelters were only located in 47% of the analysed spaces, indicating that shelter was not essential in achieving a successful POS outcome in Canada. However, since Australia experiences extremely hot days with high levels of sun exposure, the need for shelter structures may be greater. Nastaran, from PFS Studio, critiqued that some of Vancouver's most renowned POS's lacked the infrastructure to be utilised in wet weather, which in Vancouver is usually around 160 days of the year.

Active play Infrastructure, such as basketball rings, ice skating rinks and water parks were observed in seven of the 15 selected POS's. Similarly, about half of the identified POS's had children's play equipment. Community gardens were observed in around one third of the identified POS's, such as the garden located at Calgary's RiverWalk Open Space, see Figure 20. Such infrastructure and public amenities appeared to be effective placemaking tools, with a high degree of use throughout certain times of the year. Additionally, such tools are effective at ensuring POS's are inviting to community members of varied ages and abilities and are multi-use spaces. At least one of the placemaking tools listed above, including public art, was in each POS, indicating the value that Canadian designers see in such features.



Figure 20: Bike Storage, Community Garden and Children's Playground, Riverwalk Open Space, Calgary.

### Landscaping

PFS Studio's Nastaran stated that choosing specific plant species for Canadian POS's is often the last step in the design process, due to the fact that "most things will grow here." Unfortunately, the same cannot be said about Australian POS's, due to reality that Australia experiences comparatively low rainfall and periods of extreme drought. However, the Fellow made various landscaping observations that were consistent across most of the POS, that she believes are

transferrable to an Australian context. Most of the selected POS's incorporated both deciduous and evergreen trees within their landscaping responses. Eight of the selected POS's had areas of grassy lawn to accommodate either passive reflection, active recreation or both.

Due to the inner urban nature of many of the selected POS's, the green landscape provided a sense of reprieve and fresh air. Densely layered garden beds which transitioned from groundcover plants, to shrubs, with overhead canopy trees were consistently observed. The quantity and diversity of plantings was observed throughout each of the selected cities, providing mitigation of the urban heat island effect and stormwater runoff.

This was notably evident at Corktown Common, a constructed neighbourhood park designed by Michael Van Valkenburgh Associates. The site has been re-developed from a historic brownfield site. Pedestrian paths lined with richly planted garden beds connect the various sub precincts of the park (see Figure 21). The POS boasts kick-about lawns, prairie grass fields, woodlands and a large marshland that is a vital part of the precinct's stormwater management system. The drainage basin is celebrated with a boardwalk that promotes learning about the park's stormwater management systems and marsh plant specie (see Figure 22). The designers planted 700 new trees, which filter CO2 and air pollutants from nearby industrial sites and arterial road.



Figure 21: Corktown Common, Toronto

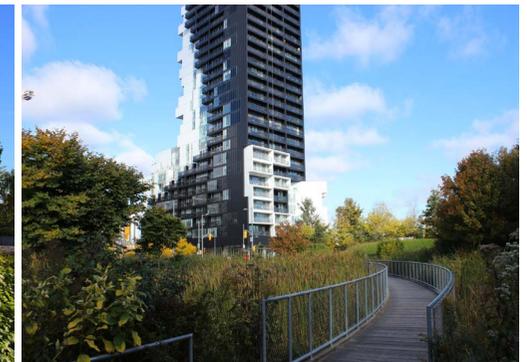


Figure 22: Corktown Common, Toronto

# 5. Recommendations and considerations

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**Recommendation 1:**

Ingleton has made a Design Elements checklist for those in the development industry to utilise as a criteria set/ tool to achieve successful POS outcomes. The Fellow recommends reviewing relevant projects against the 'Public Open Space Design Elements Checklist'. See the attached appendix for the checklist.

**Recommendation 2:**

Designers and Planners should survey and publicly consult with potential user groups to determine their highly specific infrastructure needs. By ensuring that all potential user groups can conveniently access and utilise POS's, the spaces can be programmed for use throughout the year.

**Recommendation 03:**

Public Open Spaces should not be designed in isolation from their wider context. It is necessary to analyse the wider context to appropriately distribute POS infrastructure, facilities and create networks of diverse landscape plantings.

## 6. Personal, professional and sectoral impact

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The International Experience and the overall Fellowship journey has empowered the Fellow with key Urban Design skills. These skills include the ability to critically analyse existing POS's, as well as implement observations and design theory learned from her professional contacts and exposure to the 15 selected case studies. By identifying the design elements that are critical to acclaimed international POS's, the Fellow can attempt to apply and share this learning to replicate the successes in Australia. The Fellow has gained firsthand knowledge of techniques and recommendations from some of Canada's industry leading firms and forward-thinking city councils.

The Fellow has also returned from the International experience with more self-confidence and passion to ensure that Public open Spaces are designed to maximise successful built form outcomes. As a young designer, benefitting from the learnings of her Fellowship will enable the Fellow to positively influence a significant number of urban spaces throughout Australia, which will ultimately benefit the future residents and users of the various spaces. Ingleton has already implemented her learnings in current projects, such as the Shakespeare Grove Main Drain Renewal, where she drew direct inspiration from Hinge Park, Vancouver.

The Fellow is eager to disseminate her learnings within the Australian development community in order to facilitate the development of successful Public Open Space projects across the entire country, not just the projects she is directly involved in. Ingleton will disseminate her learnings through her professional contacts through her work at Human Habitats, with the generous support from her employer. The Fellow also hopes to present the POS Design Checklist- Learning from Canada's most successful spaces" to Industry bodies such as the Planning Institute of Australia and the Urban Development Institute of Australia. The Australian development community has the privilege and responsibility to positively impact on physical activity, mental health, social isolation and the environment through design.

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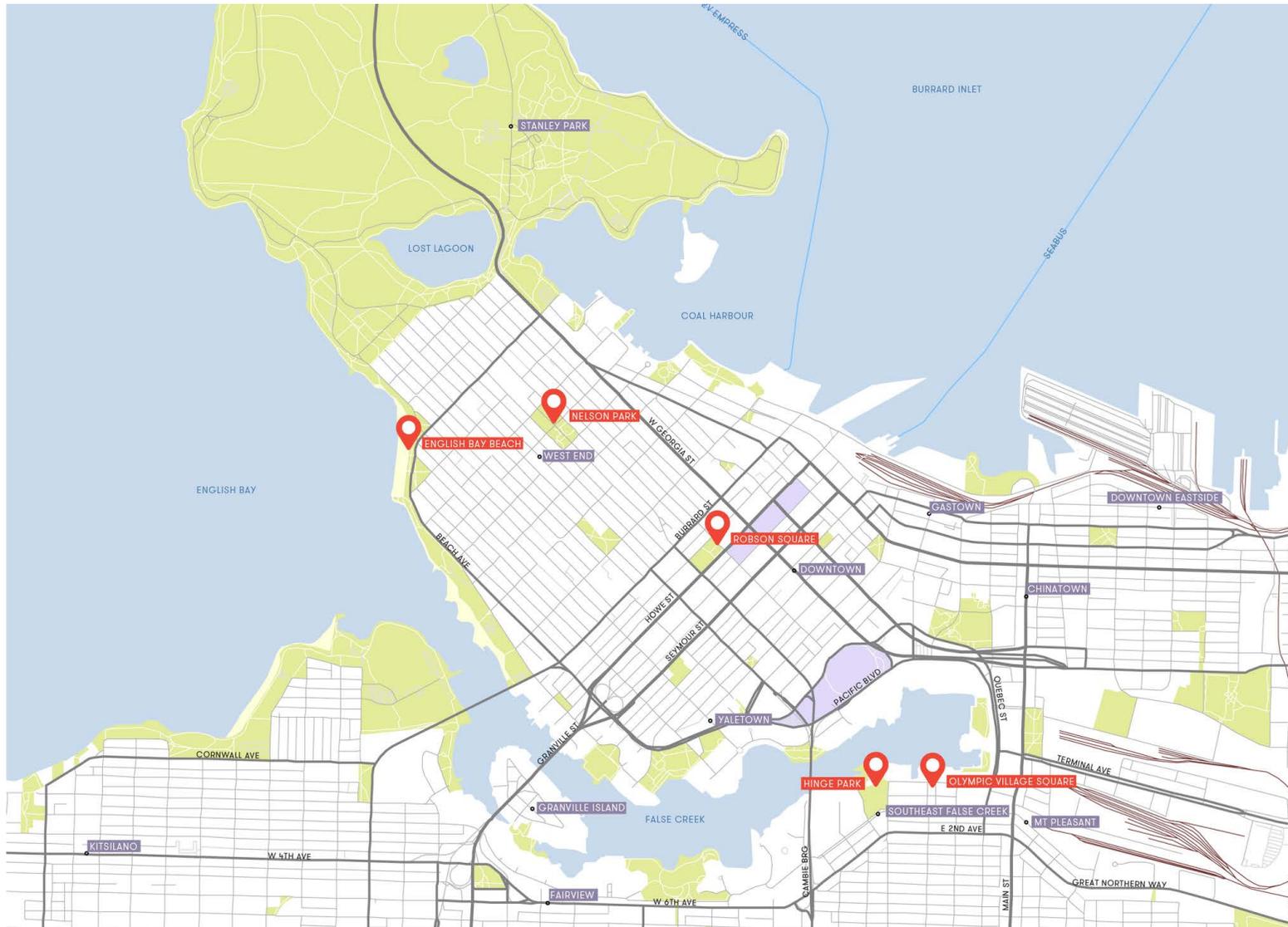
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# 8. Appendices



Map 01 of Vancouver and the Public Open Spaces visited and analysed



Map 02 of Calgary and the Public Open Spaces visited and analysed



Map 03 of Toronto and the Public Open Spaces visited and analysed



Map 04 of Montreal and the Public Open Spaces visited and analysed

**Public Open Space Design Elements Checklist – Learnings from Canadian Public Open Space Case Studies**

| Urban Context           |  |
|-------------------------|--|
| 1                       | Mixed land use component within walkable (400m) distance   |
| 2                       | Significant residential land use component within walkable (400m) distance (more than 35 dwellings per Net Developable Hectare)  |
| 3                       | Mid-high density development should be co-located with POS   |
| 4                       | Surrounding development should include diverse built form/architectural design responses   |
| 5                       | POS edges should be hardscaped verge (3-4m width)  |
| 6                       | All adjacent roads should have barrier kerbs   |
| Access                  |  |
| 7                       | Allow for at least one direct road frontage  |
| 8                       | Limit vehicular traffic speed (50km/hr or less)  |
| 9                       | Provide on-street parking (free or pay) within walkable distance (400m)  |
| 10                      | Ensure access to parking lot (free or pay) within 800m walk  |
| 11                      | Ensure at least one form of Public Transport within walkable (400m) distance   |
| 12                      | Provide wheelchair access ramps  |
| 13                      | Direct access to dedicated on-road or off-road cycle path  |
| 14                      | Provide dedicated cycle paths to be designed in accordance to the City of Melbourne Bike Lane Design Guidelines                  |
| 15                      | Provide bicycle storage infrastructure at key POS entry points   |
| Safety                  |  |
| 16                      | Provide audio tactiles at signalised intersections   |
| 17                      | Provide hazard and directional tactile ground surface indicators   |
| 18                      | Ensure that active frontages interface with POS (providing passive surveillance)   |
| 19                      | provide dedicated POS lighting   |
| 20                      | Provide external on-street lighting  |
| 21                      | Ensure that POS adjacent to road are protected with exclusion fences/ barrier bollards   |
| 22                      | Provide directional signage  |
| Physical Infrastructure |  |
| 23                      | Provide multiple waste disposal opportunities, co-located with major Infrastructure items and major entry/exit points to the POS |
| 24                      | Design formal internal pathways that interconnect with major entry/exit points and park facilities                               |
| 25                      | Provide a formal internal pathway that runs along the perimeter of the park  |
| Seating                 |  |
| 26                      | Provide multiple formal seating opportunities  |
| 27                      | Provide seating with varied vantage points/outlooks  |
| 28                      | Provide shared bench seating and/or picnic benches to promote social interaction   |
| 29                      | Include at least one place-making amenity/facility within the POS design:  |
|                         | Active play infrastructure - basketball court, futsal field, tennis court  |
|                         | Water play park/ splash pad  |
|                         | Exercise equipment   |
|                         | BBQ and Shelter  |
|                         | Children's playground (consider mobility-impaired accessible equipment. I.e. High backed swings)                                 |
|                         | Community garden   |
|                         | Feature Garden (i.e. nature play)  |
|                         | Off-leash dog run  |

| Hardscaped Plaza Area     |   |
|---------------------------|---|
| 30                        | Ensure hardscaped area is large enough to accommodate community gathering activities  |
| 31                        | Plan for programmed events: who will the users be and what are their specific requirements                                      |
| 32                        | Use high quality, level pavers  |
| 33                        | Enable vehicular access for programmed events   |
| Advised but not required: |   |
|                           | Public Toilets (inclusive and accessible)   |
|                           | Utilise responsibly and locally sourced, high quality, recycled materials   |
|                           | Shelter structures  |
| Landscaping               |   |
| 34                        | Separate areas for active play and passive recreation are encouraged  |
| 35                        | Diverse planting species are to be located within the POS   |
| 36                        | Provide softscaping areas that are porous (i.e. Garden beds, lawn)  |
| 37                        | Achieve a minimum canopy cover of 30%   |
| 38                        | Enable visitors to choose their solar exposure levels (i.e. choice of shade, dappled light, full sun exposure)                  |
| 39                        | Plant both deciduous and evergreen trees  |
| 40                        | Plant both indigenous and non indigenous species  |
| 41                        | Plant large canopy street trees   |
| 42                        | Ensure trees in pits are passively irrigated  |
| Questions to consider:    |   |
| 43                        | Is the POS welcoming to all ages, genders, ethnicities, physical abilities?   |
| 44                        | Will users feel safe in the POS?  |
| 45                        | Is the POS useable year round?  |
| 46                        | Is the POS catering to allowing for multiple uses of the space?   |
| 47                        | Is the POS flexible for programmed events?  |
| 48                        | Consider potential community groups who may wish to utilise the POS. Do they have the physical Infrastructure that is required? |
| 49                        | Are the plantings drought tolerant?   |
| 50                        | Does the landscape response contributing to the mitigation of the Urban Heat Island Effect?                                     |



**ISS Institute**  
Level 1, 189 Faraday Street  
Carlton VIC 3053

**T** 03 9347 4583  
**E** [info@issinstitute.org.au](mailto:info@issinstitute.org.au)  
**W** [www.issinstitute.org.au](http://www.issinstitute.org.au)

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