



THE CITY OF
CALGARY



THE CITY OF CALGARY
**SKATEBOARDING
AMENITIES STRATEGY 2011**

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ACKNOWLEDGEMENTS

Many thanks are extended to the dedicated people who have contributed to the creation of this document. First and foremost, thanks go to those members of the skateboarding community in Calgary that have worked tirelessly to bring skateboarding to the attention of decision-makers, and raise awareness amongst the general population. This thanks is directed particularly to the Calgary Association of Skateboarding Enthusiasts (CASE) who have organized the skateboarding community, held numerous events, contributed to policy discussions and continue to improve the profile of skateboarding.

Thank you to members of City Council and to senior staff within Community Services and Protective Services, Planning, and Engineering.

Recognition of the significance of skateboarding within the recreation spectrum of the city is the most important step towards accommodating current and future recreation needs of all citizens. Special thanks to the members of the Skateboarding Amenities Strategy steering committee:

Shelley Shea - Manager, Arenas/Athletic Parks and Sport Development

Ray Peltier - Superintendent Sport Development

Vivian Cantin - Project Coordinator, Arena/Athletic Parks & Sport Development Division

Devin Purdy - Recreation Program Specialist Skateparks and Sport

Georgina Stone - Business Market Research Assistant, Recreation

Hayden Kowell - Coordinator Sport Development Services

Jarret Hoebbers - Superintendent, Products & Services, VSLC

Judie Drucker - Manager, Neighbourhood Services (West)

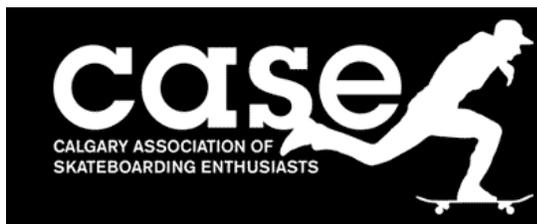
Ronald B. Smith – Social Research Planner, Strategic Planning and Policy, Recreation

Ron Buchan - Parks Liaison

Ron Neff - Community Recreation Coordinator

Tracy Luther - Marketing Advisor, Recreation

Zorian Klymochko - Representative, Calgary Association of Skateboarding Enthusiasts (CASE)



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Special thanks to Trevor Morgan of New Line Skateparks who provided on the ground data collection and general information for the preparation of this strategy.



Pro skater Anthony Hancock, 37, formerly of Calgary, hucks a 'boned-out frontside air' high over the hip in Millennium Skatepark's clover bowl. **Credit:** CASE

EXECUTIVE SUMMARY

Skateboarding and skateboarders are becoming ever more prevalent within The City of Calgary. For over 10 years, The City has been a leader amongst Canadian municipalities in accepting the importance of skateboarding within the recreation spectrum of urban life. Nowhere in Canada has skateboarding enjoyed such fertile ground through the support of a large, central urban skatepark, and mobile skate program. In recent years however, facilities have fallen behind the current demand. This report focuses on the growth of skateboarding in Alberta and Calgary in particular. It looks at the number of active skateboarders within the City of Calgary and offers options for the creation of skateboarding amenities throughout the city and within the existing parks network.

In 2010, decision-makers acknowledged a gap in services and commissioned a report. City of Calgary staff in collaboration with the Calgary Association of Skateboarding Enthusiasts (CASE) prepared report CPS2011-03 titled '***A Discussion Paper On Skateboard Amenities' (2011)*** that identified a number of guiding priorities for the development of a Skateboard Amenities Strategy. On January 24, 2011, Council approved recommendations contained in the CPS2011-03 in an omnibus motion and directed administration to engage with community stakeholders, develop a comprehensive Skateboard Amenities Strategy, and report back no later than December, 2011. The City of Calgary then commissioned van der Zalm + associates to develop the strategy document that would provide a guideline for Calgary's skateboarding community moving forward. The preparations were guided by a steering committee composed of recreational professionals and a member of CASE. The result is a strategy dubbed "The Calgary Skateboard Amenities Strategy" or "CSAS", which provides a strategy for meeting the needs of Calgary skateboarders; now and over the next 10 years.

Section 1 is an introduction to Skateboarding and a review of the history of Skateboarding in Calgary.

Section 2 reviews '***A Discussion Paper On Skateboard Amenities' (2011) (DPSA)***, which provided the priorities from which this strategy is based. It also examines the results of the recent '***Online Skatepark Survey' (2011)***. The survey, completed by 1080 respondents largely reinforced the priorities set out in the ***DPSA***, such as the need for varied skatepark sizes that are dispersed across the city and serve a variety of skill levels and user groups. The survey results also served to inform the CSAS.

Section 3 outlines the goals and objectives of the ***CSAS***, which are: 1. Review Existing Conditions; 2. Confirm and Quantify the need for facilities; 3. Design a Network Framework for Skatepark Development; and 4. Create a Toolbox for Staff Implementation.

Section 4 discusses the need for a greater allocation of resources for skateboard amenities. It begins by summarizing the qualitative benefits of skateboarding as it relates to health, wellness and personal development. This is followed with a review of national, provincial and municipal health and recreation policy. Lastly, a comparison is made between the existing skateboard amenities of Calgary and other Western Canadian cities.

Section 4 also outlines the methodology used to determine the skateboard terrain needed to provide safe opportunities for the current and future skateboarders in Calgary. Using a methodology developed by a Portland think-tank, Skateboarders for Public Skateparks (SPS) and through van der Zalm + associates' extensive experience, it is determined that the city should accommodate 2,150 concurrently active skateboarders. Based on the current number of skateboarders, and factoring in future population growth, it is estimated that an additional 25,791m² or 277,607ft² of skateboard terrain is required (see Figure 11 - Skatepark Terrain Calculation Diagram).

Section 5 introduces the rationale for the development of a skatepark network, explains the fundamentals of the network, and presents and evaluates four conceptual network options for The City of Calgary.

To provide skateboarding amenities in close proximity to the user group, a network of opportunities should be explored. This network should ideally address a range of abilities, ages, and terrain types that reflect the diversity of user groups. By locating the skateboarding amenities within the existing parks system, it provides available land linked by well connected pathway networks. Greater accessibility is a critical aspect that will facilitate a higher frequency of participation amongst youth, which will lead to more healthy youth and neighbourhoods.

In order to provide these amenities in a city-wide network, a variety of skatepark typologies is recommended. Five distinct typologies are offered for consideration within the city's park system. These typologies from smallest to largest include: skate spot, neighbourhood skatepark, community skatepark, quadrant/regional skatepark, and city-wide/destination park. Each one of these parks provides a different scale and opportunity for Calgary's skateboarders. Using these typologies, several options were presented to the steering committee including networks based on mass-transit lines, community level facilities, and neighbourhood pocket parks. Each network was reviewed using three main criteria: accessibility, inclusivity and feasibility.

These criteria are used in a rating system applied to all network options. Upon review of each network, **Option D: Combination Network** (see Figure 21 - Network Diagram - Option D) ranked highest, which was consistent with feedback from the steering committee and CASE and was therefore selected as the best option for The City of Calgary. For more information on this network and rating system see Section 5.

Section 6 begins by discussing potential funding options. It then presents alternative processes for site selection and provides a Skatepark Development Model, which is a four stage process that involves site selection, a participatory design process, preparation of technical drawings and construction.

Utilizing the concept of a city-wide skateboarding amenities network, a structure for implementation is necessary. To reinforce the notion of a 'network' it is important to consider development of several skateboard amenity typologies within the initial roll-out of the plan. The creation of 'skate spots', neighbourhood parks, and community parks should be constructed so as to develop the initial infrastructure of an amenities network.

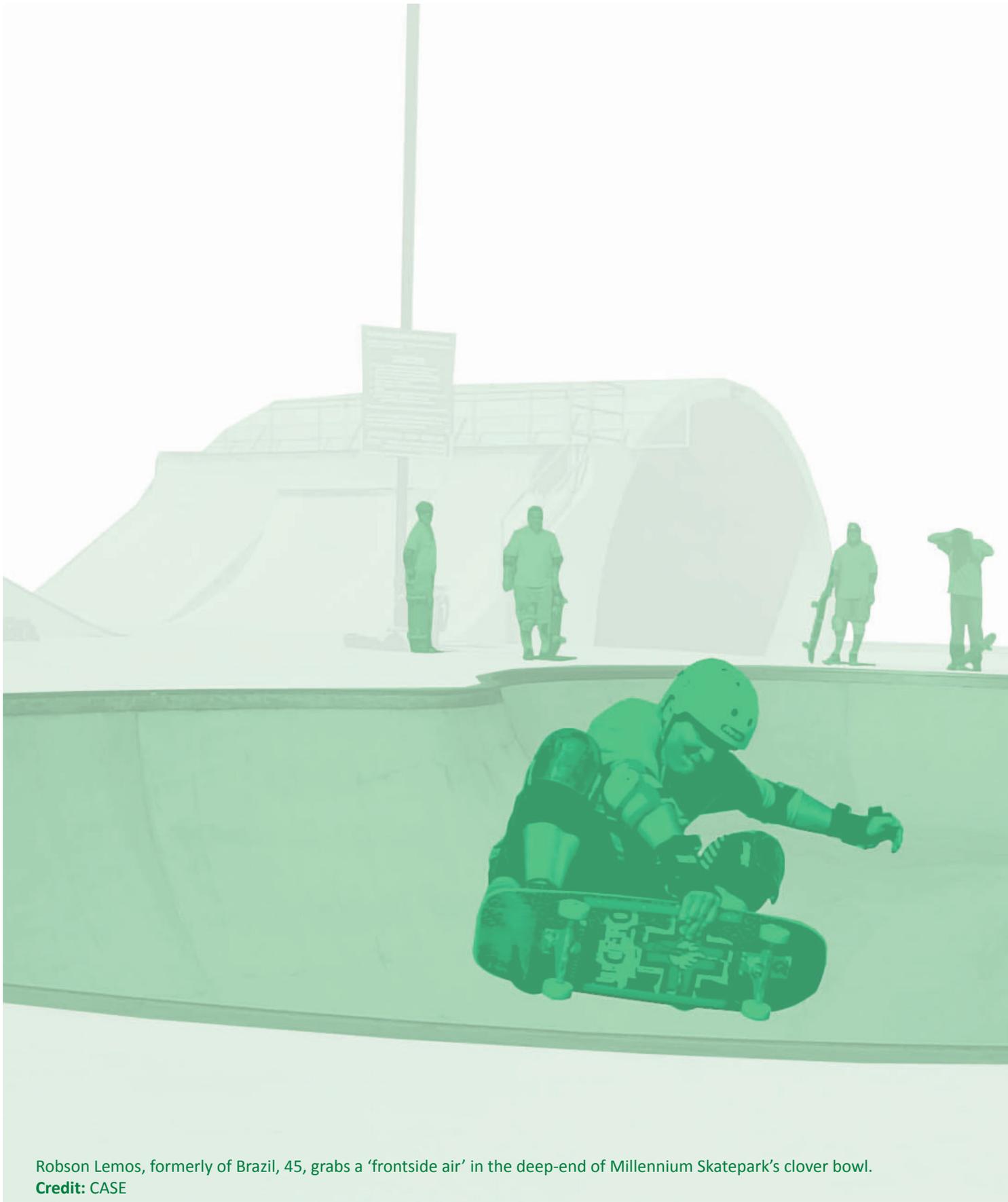
When choosing locations for the initial phase of this network, site criteria have been included to ensure that parks are located strategically. A more thorough discussion of site criteria is included for consideration in section 5. This criteria is offered as a guide. Opportunities for development in new Recreation complexes, parks, or other city-owned land, should be considered when opportunities arise.

In order for these parks to be developed, the funding for construction and design must be considered. Typically, skatepark developments are funded by the local municipality with supplemental grants from the provincial and federal governments. Other options for funding include corporate or foundation sponsorship, donations, and grass roots fundraising. It is important to note that skateparks can be funded from many different sources, and the funding models given are only general outlines for the City moving forward. Creative fund raising, cost sharing, and joint ventures may allow for more rapid and resilient development of the skateboarding amenities network.

Recommendations

The following is a list of recommendations brought forward by the Calgary Skateboard Amenities Strategy. It should be noted that the CSAS is a “living document” and that all recommendations stated herein are to be discussed and reviewed by city officials and throughout the public process. This document is intended to provide the framework for achieving an effective city-wide network for skateboarding amenities.

1. Currently, The City of Calgary is in need of additional skateboarding area to meet the needs of the skateboarding population. It is recommended that the City develop an additional **22,655m² (243,860 ft²)** to meet the needs of the current skateboarding population. To meet projected needs of the skateboarding population over the next 10 years, it is estimated that a total of **25,791m² (277,607ft²)** be constructed. See pages 32-33.
2. Develop a skateboard amenity network to complete the needed area. **Option D: ‘Combination Network’** as described in Section 5, is the system that meets the most requirements of the skateboarding community and steering committee, this option is recommended for the organization of skateboarding amenities in Calgary. See pages 58-59.
3. Permit other wheeled-sports in the skatepark venues and include these alternate user groups in the design process. Other wheeled-sport groups include but are not limited to bmx, inline skaters, scooters, roller skaters and longboarders. See Survey results on pages 20.
4. Find a suitable location for one or more indoor skateparks or wheeled sport facilities to comprise an area of at least 1,850 m² (20,000 ft²). An indoor facility may be located in an existing building or be a purpose built facility that is clustered with a recreation centre. Indoor facilities should serve both skateboarders, bmx, inline skaters and provide a fitness track for roller skaters. See page 50.
5. Funding options should be explored with the local, provincial, and national government, as well as, the private sector, non-profits or other community partners in the allocation of funds, grants, donations and partnerships. See page 66.
6. Further engagement and communications with community, stakeholders, and city departments including but not exclusively , planning and building, bylaws , police and risk management to ensure safe skate parks are built in cooperation with community and are compliant with planning and building , bylaws , and risk management procedures.



Robson Lemos, formerly of Brazil, 45, grabs a 'frontside air' in the deep-end of Millennium Skatepark's clover bowl.
Credit: CASE

OVERVIEW

1.1 Introduction

Skateboarding and skateboarders are becoming ever more prevalent within The City of Calgary. For over 10 years, the City has been a leader amongst Canadian municipalities in accepting the importance of skateboarding within the recreation spectrum of urban life. Nowhere in Canada has skateboarding enjoyed such fertile ground through the support of a large, central urban skatepark, and mobile skate program. In recent years however, the city has fallen behind the current demand for skateboarding amenities throughout the city and within the current parks network.

In 2010, decision makers acknowledged a gap in services and received a well researched discussion paper on the state of skateboarding and anticipated need amongst Calgary households. City of Calgary staff in collaboration with The Calgary Association of Skateboarding Enthusiasts (CASE) prepared the discussion paper, which eventually lead to a call for a more detailed analysis of skateboarding amenities within the city and a call for greater articulation of required amenities to meet current and future needs.

In 2011 The City of Calgary commissioned van der Zalm + associates to create a document that would provide a guideline for the city's skateboarding community moving forward. The Calgary Skateboard Amenities Strategy (CSAS) provides a framework for

the future of skateboarding amenities around Calgary.

Section 1 is an introduction to Skateboarding and a review of the history of Skateboarding in Calgary.

Section 2 reviews 'A Discussion Paper On Skateboard Amenities' (2011), as well as, the results of the recent 'Online Skatepark Survey' (2011).

Section 3 establishes the goals and objectives of the CSAS.

Section 4 establishes the need for a greater allocation of resources to skateboard amenities. This includes how skateboarding relates to health and wellness, a review of national and municipal policy, and the determination of a total skatepark terrain area needed for The City of Calgary. An inventory of existing skateparks leads to the total area for new skateboard amenities development.

Section 5 provides the reasons for developing a skatepark network, the fundamentals of that network, and it presents and evaluates four conceptual network options. This section goes further to discuss criteria for site selection and skateboarding amenities.

Section 6 provides a Skatepark Development Model, which is a four stage process that involves site selection, a participatory design process, construction drawings and procurement of a qualified contractor, and construction. This is followed by a discussion of funding options and overall report recommendations.

The Appendix provides information on 'Best Practices', Sustainable skatepark development and the benefits of concrete skateparks.

1.2 Introduction to Skateboarding

Since first emerging in the mid 1950's, skateboarding has evolved into an extremely diverse everyday recreation activity and high-profile professional sport with millions of participants across Canada and throughout the world (p. 12 , Brooke). Today, skateboarding is defined by a handful of distinct riding styles – characterized by types of manoeuvres that have evolved around specific forms of terrain. Below is listing and description of common 'styles' skateboarding and related skatepark terrain types.

Definition: skate•board noun (circa 1955)

A device for riding upon, usually while standing, consisting of a short, oblong piece of wood, plastic, or aluminum mounted on large roller-skate wheels, used on smooth surfaces and requiring better balance of the rider than the ordinary roller skate does.

Transition/Bowl

In the 1960s, skaters began to challenge their skills on the walls of empty swimming pools. This spawned a new style of skating (also called pool, or bowl skating) effectively introducing vertical frontiers to skateboarding. In its basic form, this style of skating mimics the back and forth carving of surfers on waves. The practice of pool skating evolved into sanctioned municipal skate parks. This style of skateboarding saw its popularity peak in the 1980s, eventually falling aside due to liability issues which lead to the closure of parks. Many of these skateboarders then turned to backyard vert ramps to continue the style of skateboarding they enjoyed. Today, most skateboarding that occurs on curved surfaces that approach vertical are known as transition style skateboarding.



Image 1 - Transition/Bowl

Freestyle

In the 1980s, a new style of skateboarding emerged that consisted of tricks on flat surfaces and was often choreographed to music. Closely preceding streetstyle skating, freestyle involved artistic and free movements on a smaller board. This style of skating was highly competitive through the 1980s, however larger boards and other changes in skateboard equipment gave way to the dominance of streetstyle skating.



Image 2 - Freestyle



Image 3 - Street



Image 4 - Park/Obstacle



Image 5 - Downhill



Image 6 - Longboarding

Street

Streetstyle is widely regarded as the most popular skateboarding style. It is typically practiced in public or semi-public spaces such as urban plazas. Street skating began as skaters took to the streets to challenge their skills with existing built forms.

Despite the construction of many backyard ramps that were built in response to the perception of danger that shut down skate parks in the USA in the 1980s, streetstyle skating took over as the dominant style of skateboarding. The features that are described as streetstyle typically exist in urban public spaces, such as ledges, stairs, handrails, banks, etc.

Park/Obstacle

The re-emergence of sanctioned facilities for skateboarding in the 1990s popularized a new style of skateboarding. ‘Park’ or ‘Obstacle’ skating is the common title given to the style of skating that occurs on terrain built specifically for skateboarding. The features included in park skating are not necessarily a replica of the urban form, but rather a variation thereof. Skate park designers have conjured a variety of features often inspired by opportunities in the public realm but are changed to offer an easier version, optimizing the skateability of the features. Commonly accepted skate park features include items such as fun-boxes, up-gaps, pump-bumps, and wall rides.

Downhill

(not typically reflected in a specific skatepark terrain type)
This style of skateboarding occurs on hills and other inclined surfaces. Downhill skating (also known as slopestyle), requires participants to stand (luge has riders lay on their backs) on their skateboards travelling at relatively high speeds downhill. Despite a consistent interest in this style of skateboarding, downhill has never been a dominant style. Typically a longer board is used, where varied terrain is preferred, in low-traffic areas with high gradient slopes.

Longboarding

(not typically reflected in a specific skatepark terrain type)
This style of skateboarding also occurs on a longer board, and is typified by wide turns, tight curves usually on flat surfaces, or low gradient slopes. The roots of this style of skating are also derived from the back and forth motion of surfers carving on waves. This is generally accepted as the smoothest style of skateboarding, and is common and most efficient for transportation purposes.

General Profile of the Skateboarding Community

Skateboarders are a passionate group that are internally driven to creatively express themselves and to experience built form. They typically hold their personal development in high regard, and adopt nomadic behaviors as they search for new terrain that will challenge and refine their skills.

Through their pursuit for improvement, participants often discover common ground amongst peers and build a sense of community. The perseverance acquired in developing proficiency on a skateboard often contributes to the development of other transferable skills, such as, personal responsibility, self-sufficiency, teamwork, and entrepreneurialism.

Skateboarding is many things to many people, including but not limited to: a vehicle for transportation and to experience built form; a sport in which to be competitive; a tool for creative expression; and, a tool for meditation to help find greater mental and physical health.

1.3 Background

Calgary has seen national and international recognition in the sport of skateboarding since 1976 with the opening of Canada’s first skateboard shop, Freewheelin’ Skateboards.

Soon thereafter, Calgary realized Canada’s first indoor concrete skatepark named Skatopia1. Skatopia1 was built in the Franklin Industrial Park in 1977, but unfortunately due to insurance costs, it closed its doors shortly after in 1979.

In 1977 Calgary hosted the Skatopia Pro Freestyle Invitational, an international skateboard competition, held at the Stampede Corral.

In 1982 Calgary was host to the International Canadian Nationals Skateboard Competition—dubbed The Great Canadian Open—which was covered in several International magazines, newspapers, and on television stations.

During the 1980’s Calgary became a hotspot for backyard halfpipe ramps—a phenomenon that once again returned Calgary to the media spotlight, locally, nationally and internationally. That all ended in 1986 when Calgary became the first city in Canada to implement a skateboard ramp bylaw that effectively banned backyard skateboard ramps.

Timeline

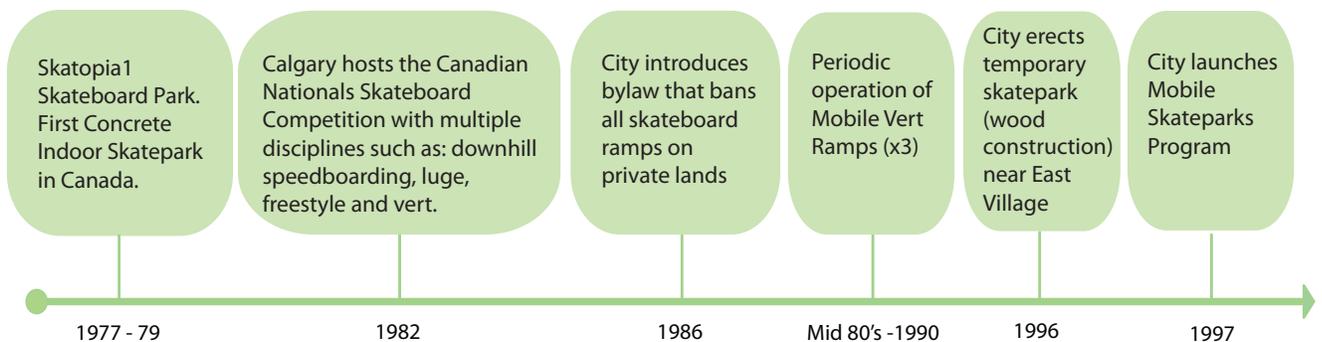


Figure 1 - Timeline - Brief History of Skateboarding

The 1996 Calgary Traffic Bylaw, still in effect, prohibited skateboarding in the Central Traffic Zone effectively making it illegal to skateboard in the downtown core.

In the mid to late 1990's Calgary was the first city in Canada to pilot a mobile outdoor skateboard program. The long-term existence of this program has demonstrated a continued interest in skateboarding amongst Calgary's youth and planted the seed for the construction of permanent concrete skateparks.

In 2000, the Shaw Millennium Park placed Calgary on the map for building what was at that time the largest skateboard park in the world. Millennium Park averages 37,693 participants from June to September, which amounts to 314 participants per day.

Since 2000 Calgary has continued to hold events. In 2006, Calgary hosted Canada's largest skateboard competition, Slam City Jam in the Saddledome.

From 2005 to 2009 Calgary also hosted the Paskapoo Downhill Rodeo, an annual longboard race held at Canada Olympic Park. The competition returned as a 3-day international racing event in 2011 under its new name, the Winsport Canada Cup.

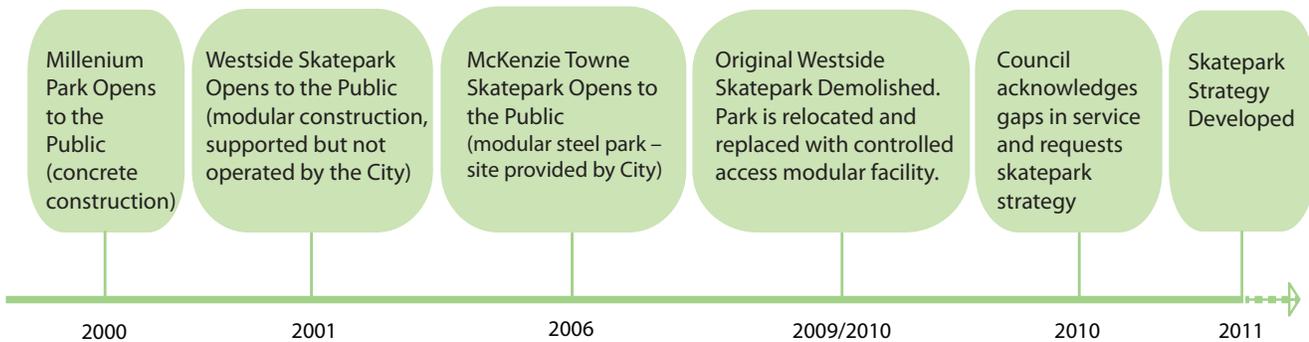
As a demonstration of the current popularity of skateboarding, a recent count found over 20 stores in Calgary exclusively selling skateboard products excluding large sport and clothing retailers that also carry skateboard gear.



Image 7 - Skatopia1: Legendary Calgary skater Mitch Bauman pulling a 'Frontside-Air' out of Skatopia1's massive keyhole pool. Credit: CASE

Name	Location	Year
Skatopia 1	Franklin Industrial Park NE	1977-1979
Rich Speed & Sport	Macleod Trail South, North of Heritage Drive. SW	1983-1984
Ramp-o-rama	Foothills Industrial Park. SE	1987-1989
Skate Jungle	Fairview Industrial park SE	1988 - 1991
Skateworld	Franklin Industrial Park NE	1986 - 1989
All Skool	Fairview Industrial park SE	2002
403	Fairview Industrial park SE	2004-2006
The Source	Currie Barracks SW	2005-2008

Figure 2 - Table of Calgary's Indoor Skateparks Credit: CASE





46 year-old Calgarian, Blair Watson, 'locks up' a high-speed 'carve grind' in the Airdrie Skatepark's new clover bowl. **Credit:** CASE



PAST INVESTIGATIONS IN SKATEBOARD AMENITIES

This section reviews 'A Discussion Paper On Skateboard Amenities' (2011) and how the discussion paper set priorities as a precursor to the CSAS. The second part is a discussion of the results of Calgary's Online Skatepark Survey (2011), including points of general consensus, survey limitations and a snap shot of additional comments offered by survey respondents.

2.1 Review of ‘A Discussion Paper On Skateboard Amenities’ (2010)

As a result of efforts by the Calgary Association of Skateboarding Enthusiasts (CASE), in summer 2010 Calgary City Council directed staff to develop a comprehensive strategy to address the needs of the city’s growing skateboarding community.

In January 2011, *A Discussion Paper on Skateboard Amenities (DPSA)* was presented to Council. This discussion paper was a clear and concise vision from the user group. It identified skatepark locational criteria, and guiding priorities for skatepark development. It also established the elements required by a Skateboard Amenities Strategy.

The paper brought The City of Calgary to the next step, which was a more focused approach to skateboard amenities. The Calgary Skateboard Amenities Strategy (CSAS) builds on this report by estimating the skateboarding population, providing a recommended area of terrain for development and options for network development and implementation.

2.2 Discussion of Online Survey Results

As a precursor to the *Calgary Skatepark Amenities Strategy (CSAS)*, an Online Skatepark Survey was developed by Recreation. Given the skateboarder culture, a convenience sampling design was adopted to ensure high levels of participation from the skateboarding community. Respondents were recruited through the CASE website and City of Calgary media relations. It was also promoted through handouts at the mobile skateparks and at other skateboarding events. The Survey was accessible online from May 28th until August 2nd and was completed by 1,080 respondents. Although it is not possible to know for sure whether the respondents to the survey are representative of the larger skateboarding population, the results do provide some valuable insights into the interest and immediate priorities of skateboarders in Calgary.

The survey asked 19 questions to gain an understanding of skateboarders reasons for skateboarding, existing conditions for skateboarders’ in Calgary, location, cost and accessibility.

Of the 1,080 respondents surveyed, 651 respondents (60.7 percent) identified themselves as skateboarders and 93 respondents (8.7 percent) indicated they had children who were skateboarders. The remaining respondents were skateboard enthusiasts or concerned citizens.

Respondents who identified themselves as a skateboarder were largely male (94.1 percent) and most indicated they skateboard because it is fun (93 percent) or for transportation to get around the city (38 percent).

The majority of skateboarders answering the survey indicate they skate the streets (76.3 percent) followed by Shaw Millennium Park (61.7 percent) and Pathways, Driveway/Backyard, Public Spaces and outside The City of Calgary each garnered greater than 40 percent. With 43.2 percent of respondents actually leaving The City to skateboard, a need for more local parks is suggested.

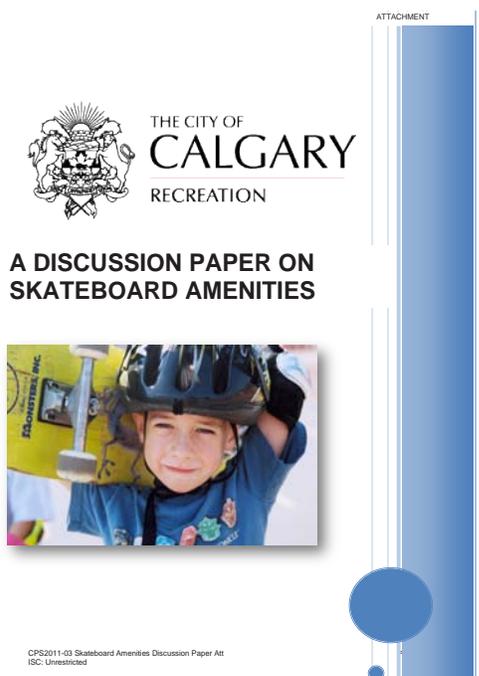


Image 8 -Discussion Paper on Skateboard Amenities (2011)

Regardless of whether or not they were skateboarders themselves, most respondents (95 percent) indicated more skateboarding opportunities are needed. When asked to choose their top priority, a solid majority (59.4 percent) indicated they would like to see more outdoor permanent skateparks, and almost one third (29.2 percent) voted for more indoor, pay for use facilities.

When asked to consider the size of skatepark space, a majority (57.6 percent) of respondents preferred ‘a variety of small and medium sized skateparks located to serve a wide region’, while a strong minority (24.2 percent) desired medium sized outdoor parks to serve a wide region. There is also general agreement that each park should serve all skill levels (78.2 percent).

When asked how accessible the network should be, 56.1 percent suggested they should be able to reach a skatepark in about 10 minutes, and another 41.0 percent suggested about 30 minutes is reasonable. Unfortunately, the survey didn’t ask how far respondents are willing to travel by a particular mode of travel. Whether it is 10 minutes on foot or 30 minutes by car is a significant discrepancy. This is especially important since the skateboard and car are the most typical means of travel to a skateboarding destination, each comprising nearly 40 percent of respondents. Transit as a means of transportation to skateparks is much lower at 16.9 percent. Low transit usage may also be a result of a lack of strong skateboarding destinations.

When considering fee for service, 53.8 percent of respondents agreed that an indoor park should have a daily drop-in fee of less than \$10, and 29.3 percent less than \$5, however, a majority 83.3 percent believe that outdoor parks should be free.

Given the sampling strategy and the broad-based focus of the study, detailed information on the geographical distribution of respondents across the city was not collected. However, a comparison of responses across the four quadrants, used to measure where the respondents lived at the time of the survey, reveals the proportion of responses per quadrant is consistent with the physical size of each part of the city.



Image 9 - 2011 Online Survey Promotional Card

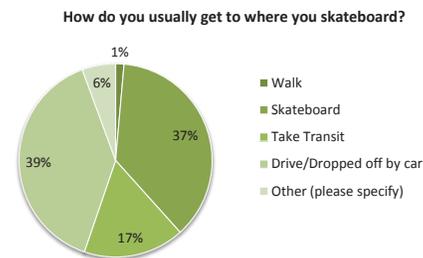


Figure 3 - Online Survey Question 5

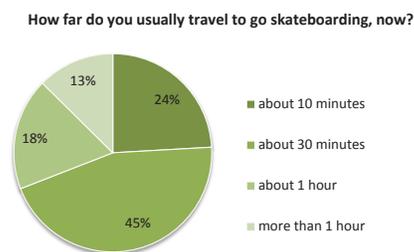


Figure 4 - Online Survey Question 6

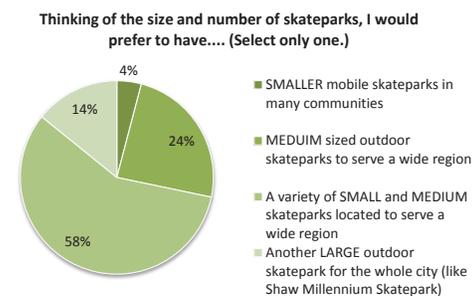


Figure 5 - Online Survey Question 9

The open comment section at the end of the survey provided respondents an opportunity to elaborate on their interests and concerns. This portion garnered an extensive number of responses, which fell into a number of common themes, including the need to include other sport groups, the need for more skateboarding facilities and especially an indoor facility, youth health and development, skateboarding as transportation, safety during skateboarding and at skateparks, and other general comments.

Other wheeled-sport groups were well represented in the comment section as over 40 respondents offered comments that preferred the inclusion of bmx and over 20 roller derby, and inline skating, scooters and 'rip-sticks' were also mentioned as alternate user groups of skatepark facilities. Promoters of these other wheeled-sport groups suggested that they should all be permitted to use the same facilities, while a small number of skateboarders expressed fear of riding in the same space with bmx. Some solutions to this apparent conflict were provided and include the development of proper skatepark etiquette or alternately to develop separate bmx parks or wheeled-sport specific areas along-side skateparks. Additional mitigation measures may include requiring brakes and peg covers on all bikes.

The need for an indoor skatepark resonated throughout the comments as 85 respondents or nearly 10 percent of respondents indicated their desire for an indoor skatepark or wheeled-sport facility. It was suggested more than once that a multi-roller sport facility would be the solution to keep Calgarians fit and competitive over the long winters. A sampling of comment excerpts is presented below.

QUOTES FROM SURVEY RESPONDENTS

Youth - Health and Development

"Having skate parks in the communities gives kids a hub for their social lives, a hang out spot, and encourages an active lifestyle."

"Skateparks are so important for the tween and teen sets. They are a place to be active, safe, and be part of a community without bothering people who don't appreciate the sport. I really feel for this set of kids, on one hand they are made out to be "bad kids" and are discouraged from riding around town, but then they are being told to be more active and have obesity facts thrown at them daily."

"Keep in mind that most people using these parks are youth (and skateboarders!) and therefore would like to skateboard to get to the skatepark!! Having more reasonably sized, local skateparks throughout the city would make them much more accessible and give our youth more opportunities to keep busy and active and out of trouble."

Inclusion of other wheeled-sport groups

"There seems to be lack of a multi-use facility for roller sports in this city. Not only roller sports, but many other sports have been left homeless with the closing of Legacy Sports Centre. Calgary needs something to ensure that ALL sports in this city can flourish. Not just hockey."

"BMX should be involved and recognized in the planning of future skatepark projects..."

"I would like to see some freestyle bmx specific facilities so that boarders and bmxers would not have to continue to run into conflict as regularly occurs at Millennium Park. Further some mountain bike and bmx skills parks would be a huge asset in developing cyclists for Olympic sports (bmx race and mountain bike) as is done extensively in the lower mainland of BC."

Indoor Facility

“With the variable weather conditions in the Calgary area, I feel an indoor skateboard facility is vital. Skateboarding keeps the teens physically active and compared with other major cities, Calgary is behind in addressing the needs of this sport.”

“Indoor skateparks is another thing we need,...[during] Winter we have no choice but to shovel outdoor parks ourselves when it isn’t snowing, drive 4 hours to Edmonton, or find indoor parking garages with things to skate. People need to realize skateboarding isn’t a crime, it is a fun activity that gets kids out and exercising as opposed to staying inside playing video games all day.”

“When we lived in Florida, there were a number of indoor parks operated by the various cities and not for profit organizations such as churches - the city would donate a building they owned and the church would operate it for free - the proceeds (usually about \$8/day) would go to maintaining the park (ramps, utility bills, etc). Volunteers ran it for the most part, but the church would pay for any shortfalls and for some full time staff to manage it.”

“It would be great if you could create a skatepark that is a combo indoor and outdoor. For example the structure could have garage doors that open up in the summer on all sides.”

More Skateparks Needed

“...more skateparks. I also think that there should be more spots to skate, like benches and ledges on bike paths or something like that.”

“Why is skateboarding prohibited in the downtown core? I would have no problem with the bylaw if there was one word added to it ‘... Operating a skateboard “DANGEROUSLY” in the central traffic zone..’”

“My children are not ‘avid’ skateboarders but would love a place to learn. Shaw Millennium is not convenient and not always the safest place(perception) to go. More community recreational space is needed for all youth.”

“Stop getting mad at Skateboarders for skating everywhere when they really have nowhere to go... On the flip side if skateboarders DO have places to go then they too should respect the spaces where skateboarding is not permitted... We have a million soccer fields where kids can just grab a ball and go play... Why not have some skateparks?!?”

“I am at a level where we need more space and more variety. There are so many huge unused parks all over the city and along the river, by the zoo, in the burbs, etc. Its time for Calgary to take after every other city in north America and build us some more parks. Thanks.”

Safety

“I skated as a kid and wished we had these types of facilities. I do worry about the congregation of scum drug dealers and predators of youth in these areas and so I support CASE as a group that is external to The City but could offer supervision or act as a type of regulatory body for the parks, instructors and mentors for young skaters.”

“I would like to see a facility that is geared towards the exploding sport of longboarding. A complex pathway system with banks and drops would be a sight for sore eyes. As it is we are forced onto the streets or busy pathways where we not only endanger ourselves physically but are also harassed by police who misunderstand our sport. I would like to see a safe environment for kids to learn the skills they need yet still entertain those of us who are more experienced. Please take longboarding into consideration when planning for the future.”

Transport

“Skateboarding is a great alternative transportation option for those who aren’t interested in cycling; it would be great to promote skateboarding as more than just a recreational activity.”



Calgary's Randy Holmes, 37, sails an 'over-vert frontside powerslide' in Millennium Skatepark's massive fullpipe.
Credit: CASE

GOALS AND OBJECTIVES OF THIS STRATEGY

The goals and objectives for the Skateboarding Amenities Strategy are laid out below. These goals are a result of direction from Council, *A Discussion Paper on Skateboard Amenities (2011)* and the steering committee.

3

1. Review Existing Conditions

- a) Assess Calgary's existing Skatepark Facilities.
- b) Review History of Skateboarding in Calgary

2. Confirm and Quantify Need for Facilities

- a) Establish number of Skateboarders in Calgary
- b) Establish skateboarding terrain area.

3. Design a Network Framework for Skatepark Development

- a) Establish Skatepark Typologies
- b) Provide Network Options
- c) Rate the Options based on Network Fundamentals
- d) Prioritize Initial Development Scheme

4. Create a Toolbox for Staff Implementation

- a) Skatepark Development Model Process
- b) Funding Ideas
- c) Site Specific Criteria
- d) Complimentary Site Amenities





ESTABLISHING THE NEED

This Section begins by discussing how skateboarding can positively affect the health and development of youth. This part includes a discussion of unstructured play, a national review of children's health, a review of Calgary's policy with regards to developing an inclusive and healthy city, and an estimate of city skateboarders.

After demonstrating the value of skateboarding in promoting the health of young people, this next part makes a brief comparison on how The City of Calgary's skateboard infrastructure compares with the skateboard infrastructure of other Western Canadian cities.

Finally, it establishes an optimal area of skateboarding terrain needed to serve Calgary's skateboarding population.

4.1: Importance of unstructured play

While structured individual and team sports are the traditional ways to facilitate youth fitness, these activities can be costly or limited in space. This is especially true for teens who are offered less organized after school programming (p. 10, AHKC). There is also a significant proportion of youth that aren't interested in this structured format of activity and need outlets within the city to explore their interests. City Council has recognized this cohort of young people and provided a mandate to create the CSAS.

Data from the National Longitudinal Survey of Children and Youth, demonstrates that children's participation in organized physical activity tends to peak at age 10 and drop off into adolescence, which also mirrors the overall physical activity trends (p.22, AHKC). By providing informal outdoor recreation opportunities, Calgary may be able to reverse this trend. The report for Active Healthy Kids Canada suggests "Unstructured physical activity and active play may be an equally good, if not better, way for children and youth to increase their physical activity." (p. 22, AHKC)

Skateboarding offers a number of physical benefits including cardiovascular endurance, strength and agility mixed with opportunities for socializing. While technically informal, groups inevitably form fostering a level of dedication to meet frequently and where peers learn by watching, challenging and supporting each other. Instead of being directed by a coach and running repetitive drills, skateboarders must determine their own training schedule in this self-directed activity.



Image 10 - Ben Renton, 15, takes a 5-0 from the hip of Airdrie's clover to the straight wall. Credit: CASE

4.2: Policy Review and Guiding Documents

Active Healthy Kids Canada

The *Active Healthy Kids Canada (2011) (AHKC)* report card, a national report, surveys and assesses children’s activity levels and makes recommendations for improvements. The document rates four areas of activity: Physical Activity Levels, Organized Sport and Physical Activity Participation, Active Play and Leisure, and Active Transportation. With an average national grade of a D minus, significant improvements must be made to foster a healthy future. There are two areas for improvement suggested in this report that may make great headway through the introduction of a skateboarding amenities network.

The first area for improvement relates to the importance of being active in the typically unstructured time after school between 3-6 pm. The report states that “...researchers are now calling the time after school a critical period. In fact, children and youth may get a large portion of their daily physical activity – as much as 30% – after school.” (p. 6, AHKC) The newly released Canadian Health Measures Survey findings from statistics Canada indicate that youth are sedentary 59% of the time between 3 and 6 p.m., getting only 14 minutes of moderate-to vigorous-intensity physical activity in this 3-hour period (p.7-8, AHKC). Furthermore, only 9% of boys and 4% of girls meet the new Canadian Physical Activity Guidelines (p. 17, AHKC).

The new recommendations encourage children and youth to play outdoors, and suggest children should be taking part in at least 60 minutes of moderate-to-vigorous physical activity (MVPA) at least 6 days a week (p.17, AHKC). Skateparks provide an activity centered place for youth to meet and socialize instead of simply returning home to watch television or play computer games.

The second area for improvement relates to increasing ‘active transportation’. In Canada an average of 62% of youth rely on motorized transportation to get to and from school (p.16, AHKC). By developing an accessible skateboarding network, each neighbourhood will have an additional destination. This should increase the incentive for active transportation whether skateboarding, biking, inline skating or riding a scooter. Active transportation is a cost-effective means of transportation and a lifestyle choice that should be ingrained at an early age. It has the potential to greatly impact overall cardiovascular health and will go a long way to meeting the 60 minutes per day MVPA.

Indicators	Grade
Physical Activity Levels	F
Organized Sport and Physical Activity Participation	C
Active Play and Leisure	F
Active Transportation	D

Figure 6 - National Grade Chart - AHKC



Image 11 - 5 year-old Maya Weatherstone rolls the pumps bumps in Canmore’s Skatepark. Credit: CASE



City of Calgary Policies

The City of Calgary planning policies are unified when it comes to the importance of an active lifestyle. The *Imagine Calgary for Long Range Sustainability Plan (2006)* has a number of goals for long term health and well-being of Calgarians. It provides targets and strategies for the improvement of active transportation, access to recreation and development of relationships. Imagine Calgary lays a broad base for all other shorter term plans, such as the *Recreation Master Plan 2010-2020' (2010)*. The Recreation Master Plan introduces the 'Recreation for Life Service Approach'. It lays out the steps for creating a healthy city by providing the City's commitment to the fundamentals of life-long recreation. The planning and implementation of a skateboarding network will serve to stimulate all of its objectives as shown in (Figure 7 - Recreation For Life Service Approach).

Recreation for Life Service Approach includes:

1. The first objective is to provide a framework for recreation service development across all ages and levels of ability, which is intended to facilitate active involvement in healthy recreation across one's life span. The creation of a Skatepark Amenities Strategy is the 'framework' for reaching out to a predominantly youth cohort. This strategy seeks to disperse opportunities across the city and reach out to all levels of wheeled-sport participants from beginner to advanced.
2. The second objective is to provide opportunities for physical, creative and social/cultural skill development, which will lead to the development of physical, creative and social/cultural literacy. The activity of skateboarding fulfills these aspects of personal development. Skateboarders often speak of their activity as an art form that allows them to explore and interact with the built environment. It is a social activity that requires time spent outdoors being physically active and honing technical skills of strength, agility and balance.
3. The third objective is to provide opportunities for active and passive, structured and unstructured, indoor and outdoor participation in recreation opportunities, which is intended to build active, creative, and vibrant communities. Skateboarding is an active and typically unstructured activity, however, there are opportunities for organized training, which serve to mainstream this sport and bring it closer to a structured activity. One of the greatest aspects of skateboarding is the amount of time participants spend outdoors getting sun and breathing fresh air. However, in a city like Calgary an indoor skatepark is much needed during the long winters.
4. The fourth objective is to support community festivals, multi-cultural activities and special events in order to foster community cohesion and cultural vitality. The skateboarding community has been very active in holding special events to celebrate and showcase the sport. New skateparks should serve as local hubs that host these special events and other outdoor community festivals.
5. The last objective is to provide leadership, volunteer and community partnership opportunities in order to build individual and community capacity to address community needs. This last objective suggests how the adoption of a Skatepark Amenities Strategy will provide political vision and leadership that through collaboration with community partners, whether for-profit or not-for-profit organizations, will make the best use of resources to help see this vision through to reality.

RECREATION FOR LIFE SERVICE APPROACH

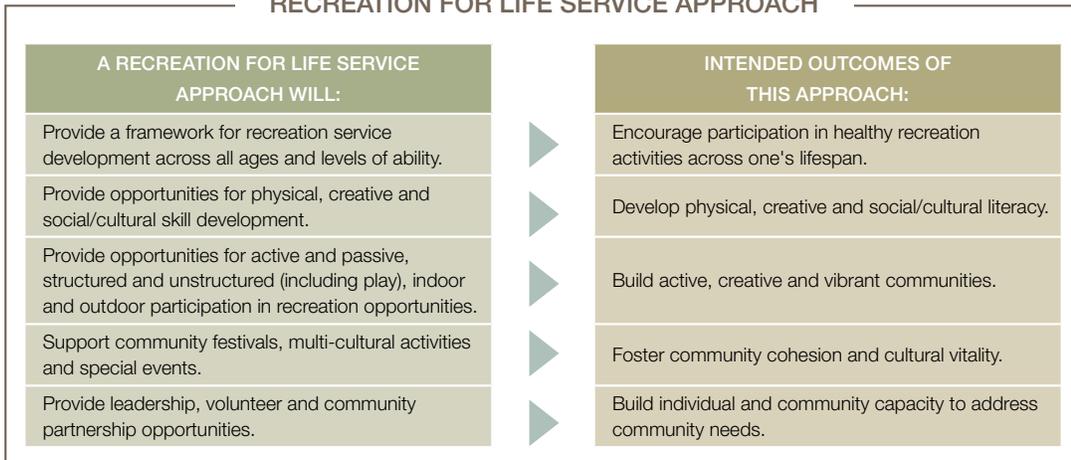


Figure 7 - Recreation For Life Service Approach

4.3 A Comparison of Calgary to other Western Canadian Cities



Outdoor Permanent Skateparks

In order to understand how Calgary's supply and allocation of skateparks relates to other Western Canadian cities, three cities have been selected for comparison: Edmonton, AB, Surrey, BC, which is a large metropolitan area in the Lower Mainland, and Winnipeg, MB.

Figure 8, displayed below, shows the population to skatepark area ratio for each city. Of the 3 comparison cities, Edmonton is providing its citizens approximately two times as much skatepark area per capita. Surrey and Winnipeg are providing their citizens approximately three times as much skatepark area per capita. While the scale of the skateparks differs between cities, each comparison city evenly distributes its skateparks, which has resulted in an increased variety of terrain and a high level of accessibility. The following page describes the distribution of skateparks in more detail.

City	Area of Outdoor Permanent Skateparks (m ²)	Population	People per square metre of skatepark
Calgary	7,311	1,090,936 (Civic Census 2011)	149
Edmonton	9,858	782,439 (Municipal Census 2009)	79
Surrey	8,733	462,345 (Census 2010)	53
Winnipeg	13935	684,100 (Winnipeg - (Office of CFO Esitmate 2011)	49

Figure 8 - Skatepark Area Comparison Table

Calgary has approximately 7,311 m² (78,694ft²) amongst 3 skateparks. The centrally located Shaw Millenium Park contains the vast majority of this area and two smaller modular but permanent parks make up the difference. For details see section 4.5. Based on the skatepark typologies that will be discussed in Section 4, Calgary has 1 City-Wide skatepark, 1 Neighbourhood skatepark and 1 Skate Spot.

Edmonton has approximately 9,858m² (106,110ft²) evenly divided across the city with 5 skateparks. Based on the skatepark typologies that will be discussed in Section 4, Edmonton has 5 Community skateparks. It is important to note that by definitions in this report, Edmonton’s 5 skateparks are near the top of the range of what is considered a Community scale skatepark, and they are essentially serving the function of the larger draw, ‘Quadrant’ level skateparks.

Surrey has approximately 8,733m² (94,000ft²) divided between 6 skateparks. Based on the skatepark typologies that will be discussed in Section 4, Surrey has 1 Quadrant skatepark and 5 Neighbourhood skateparks.

Winnipeg currently has approximately 13,935m² (150,000ft²) of skatepark area divided amongst 9 skateparks. Based on the skatepark typologies that will be discussed in Section 4, there is 1 City-Wide skatepark, 2 Quadrant skateparks, 2 Community skateparks, 3 Neighbourhood skateparks and 1 Skate Spot.

Park Type	Calgary	Edmonton	Surrey	Winnipeg
Number of parks	3 parks	5 parks	6 parks	9 parks
City-Wide	1			1
Quadrant			1	2
Community		5		2
Neighbourhood	1		5	3
Skatespot	1			1

Figure 9 - Skatepark Allocation Comparison Table

Modular and Indoor Parks

Similar to Calgary, Edmonton and Winnipeg have seasonal modular skateparks that are open during the summer months.

In addition to outdoor skateparks, indoor skateparks are common in the winter cities of Edmonton and Winnipeg. Winnipeg has a 2 indoor parks that are managed by non-profits. The YMCA skatepark at Win Gardner Place has an area of 232 m² (2,500 ft²) and an annual membership fee of \$5. The Edge Skatepark is the longest running indoor skatepark in Canada and is run by the non-profit Youth for Christ. It has an area of 817m² (8,800 ft²) and a daily drop-in rate of \$5. Youth for Christ is currently building a new 1,161m² (12,500 ft²) park to replace the existing facility.

Edmonton also has 2 free indoor skateparks one privately owned and the other run by a local non-profit. West49 is located in West Edmonton Mall and is 511 m² (5,500 ft²) . The Tegler Youth Centre Skatepark is run by Hope Mission and has an area of 709 m² (7,632 ft²).

Alberta Recreational Survey and Recreation Amenities and Gap Analysis I & II

In order to determine the skateboarding population of Calgary, two local surveys were referenced. The first survey was the *Alberta Recreation Survey, Calgary Summary (2008)* (ARS). This report suggests that 8.2% of households have at least one member that has skateboarded in the past 12 months. With only one skateboarder per ‘skateboarding’ household this equals 3.2% of the population, however, households often have more than one skateboarder and the ARS total equals 4.4% of the population.

The second reference document is the *Recreation Amenities Gap Analysis I & II (2010)* (RAGA). This is a City of Calgary study that looks extensively at sports and recreation opportunities in Calgary. In this study skateboarders, inline skaters and BMX were considered the target group for skatepark use since these groups are well represented at skateparks.

Unfortunately, this study lacks a direct link to population data as its age cohorts do not match those of Statistics Canada. As a result, the consultant teams’ best estimate based on the RAGA results is that these groups total about 3% of the population.

Since the RAGA could not be accurately quantified, the ARS was chosen as it could be attached to the Census Data set of ‘households’. To reduce the seeming gap between the results of the RAGA and the ARS, a decision was made to take a conservative read of the ARS of 1 person per ‘skateboarding’ household or 3.2% of the population. This number serves as a common ground between the surveys and allows a straightforward calculation.

As a result of this document review, the final calculation used to estimate the skateboarding population in Calgary is **8.2% of households** or 3.2% of the total population.

Physical Activities					
Activity	Participating Households		Participating Respondents		Participating Household Members
	Number	%	Number	%	Number
Aerobics/fitness/aquasize/yoga	327	51.7	280	44.2	574
Badminton	71	11.2	45	7.1	154
Bicycling	342	54.0	310	49.0	778
Figure skating	25	3.9	15	2.4	35
Gymnastics	44	7.0	15	2.4	65
Ice skating (not hockey)	164	25.9	141	22.3	415
In-line skating	92	14.5	51	8.1	146
Jogging/running	254	40.1	205	32.4	454
Martial arts (i.e., Judo, Karate)	36	5.7	22	3.5	45
Racquetball	13	2.1	10	1.6	20
Skateboarding	52	8.2	13	2.1	75
Squash	34	5.4	25	3.9	47
Swimming (e.g., in lakes, rivers, ponds)	280	44.2	259	40.9	724
Swimming (in pools)	329	52.0	277	43.8	780
Table tennis	59	9.3	48	7.6	131
Tennis	113	17.9	90	14.2	234
Track and field	44	7.0	16	2.5	71
Walking for pleasure	521	82.3	521	82.3	1155
Wall climbing	71	11.2	46	7.3	118
Weight training	249	39.3	205	32.4	397
Other physical activity	10	1.6	10	1.6	16

Figure 10 - Alberta Recreation Survey, 2008.



4.4: Calculating the Population and Terrain Needs of Skateboarders in Calgary

In order to calculate the City's skateboarder population the consultants engaged a six step process (see Figure 11 - Skatepark Terrain Calculation Diagram and Figure 12 - Skateboarder Space Need Calculation).

Step 1- Number of Households: Since the *Alberta Recreation Survey, Calgary Summary (2008)* was based on households, it required the calculation of the number of households in Calgary in 2011. Based on the last major census in 2006 there are 2.6 persons per household (Stats Can, 2006). Considering that household composition should remain relatively stable over a 5 year period, this average was applied to the current population in order to estimate the current number of households. The **2011 Civic Census** recorded a population of 1,090,936 and when this was divided by the 2.6 persons per household it resulted in 419,590 households (p.11, 2011 Civic Census).

Step 2 – Number of Skateboarders: The *Alberta Recreation Survey, Calgary Summary (2008)*, was referenced for basic skateboard participation rates. The survey recorded that 8.2percent of households had a family member that had skateboarded in the last year (p.6, ARS). Of those 8.2percent of households, there was an average of 1.4 skateboarders per household (p.6, ARS). However, in order to maintain a conservative estimate, of the 8.2percent of 'skateboarder' households, only one member was counted per household. Therefore, 8.2percent of 419,590 households resulted in at least 34,406 people that had skateboarded in the past 12 months.

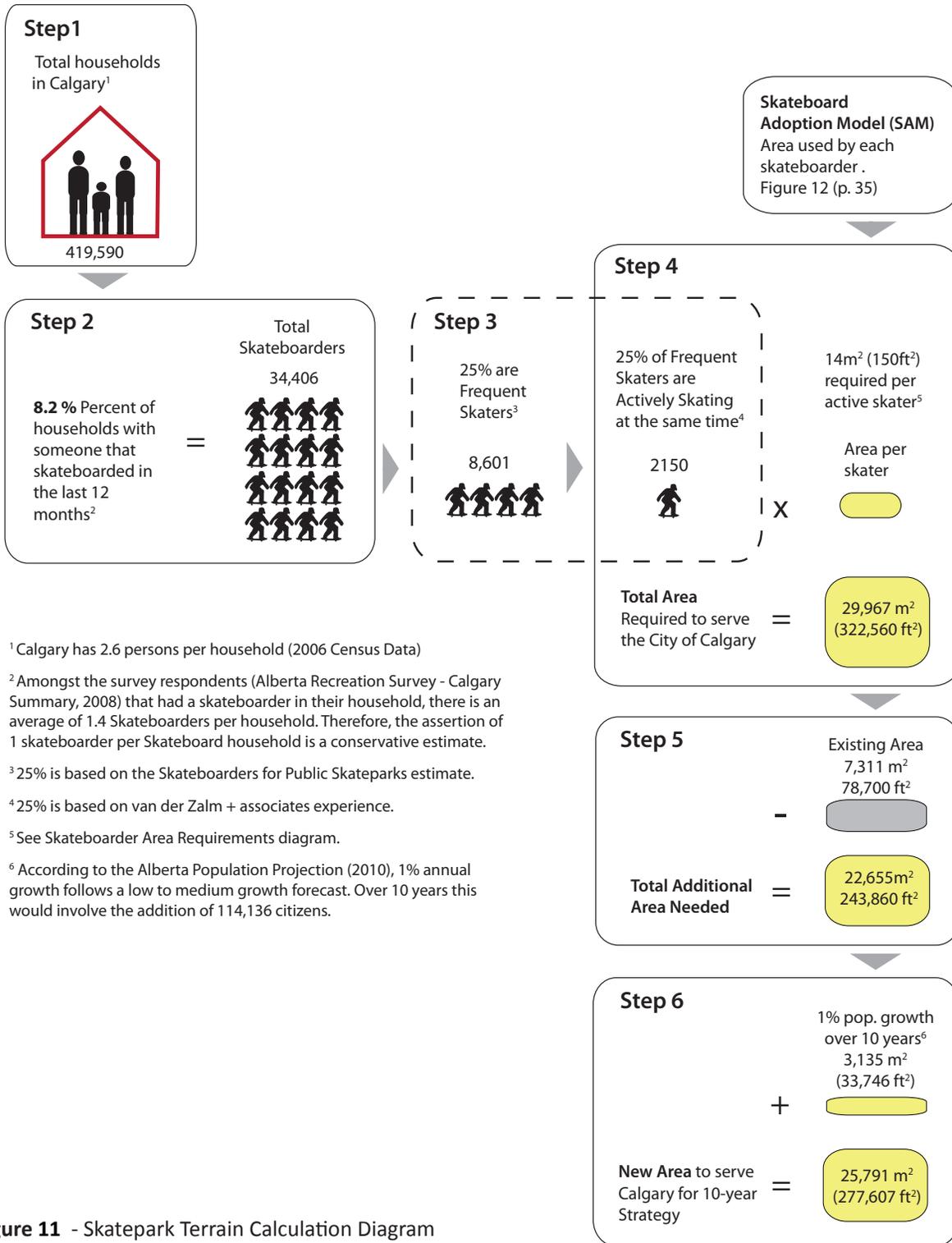
Step 3 – Concurrently active skateboarders: The Skateboarders for Public Skateparks (SPS), Skatepark Adoption Model (SAM) was used in conjunction with van der Zalm + associated experience to determine the number of concurrently active skateboarders. This model converts the number of casual skateboarders to the number of people that may be skateboarding at any one point in time. This model estimates that only 25 percent of skateboarding respondents, 8,601 skateboarders are 'frequent' skateboarders, skateboarding multiple times per week (Skatepark Adoption Model, 2004). Of the frequent skateboarders it is estimated that only 25 percent will be 'actively' skateboarding at the same time. This leaves The City of Calgary with approximately 2,150 skateboarders that may be interested in using skateboard facilities at the same time.

Step 4 – Total skateboard terrain required to adequately serve Calgary: For this calculation the space requirement for each skateboarder is multiplied by the number of concurrently active skateboarders. This spatial calculation is also based on the universally accepted SPS model and is demonstrated in Figure 12. This calculation demonstrates 10 skateboarders sharing one space. In order to execute a trick it takes approximately 23m (75ft). This includes pushing to gain speed, executing a trick and stopping. For ease of movement and safety a 6m (20ft) width is required for lateral movement. This results in a total of 140m² (1500ft²). This total is divided by the 10 skateboarders to reach 14m² (150ft²) per person. When this area is multiplied by 2,150 active skateboarders it results in 30,000m² (322,560ft²) needed to serve the existing population of skateboarders in Calgary.

Step 5 – Area of New Skateparks required to serve the current need: In order to determine the area needed for new skatepark development, Calgary's existing useful skatepark area is subtracted from the required total. The existing skatepark areas and conditions can be found in Section 4.5. Therefore, after subtracting 7,311m² (78,700ft²) from the required 29,967m² (322,560ft²), it results in the present need for an additional 22,655m² (243,860ft²).

Step 6 – Total area of New Skateparks required during a 10-year Strategy: To adjust this total for population growth over the 10-year implementation of this strategy, a conservative annual population growth rate of 1% is applied. According to the Alberta Population Projection (2010), 1% growth is a low-medium growth forecast. This results in the total additional Skatepark terrain need of 25,791 m² (277,607ft²).

Calculating Calgary's Skateboarder Population and Terrain Area Needs



¹ Calgary has 2.6 persons per household (2006 Census Data)
² Amongst the survey respondents (Alberta Recreation Survey - Calgary Summary, 2008) that had a skateboarder in their household, there is an average of 1.4 Skateboarders per household. Therefore, the assertion of 1 skateboarder per Skateboard household is a conservative estimate.
³ 25% is based on the Skateboarders for Public Skateparks estimate.
⁴ 25% is based on van der Zalm + associates experience.
⁵ See Skateboarder Area Requirements diagram.
⁶ According to the Alberta Population Projection (2010), 1% annual growth follows a low to medium growth forecast. Over 10 years this would involve the addition of 114,136 citizens.

Figure 11 - Skatepark Terrain Calculation Diagram

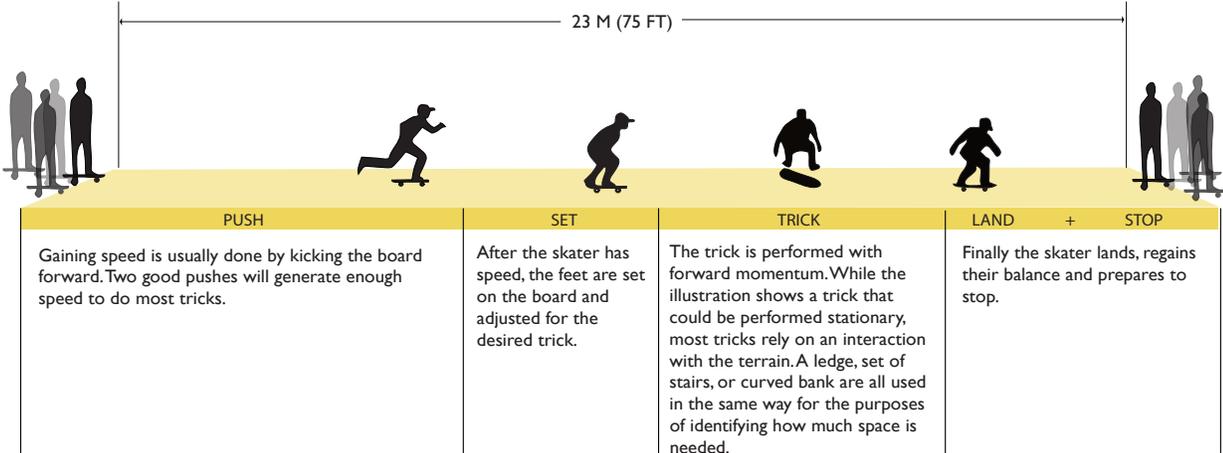


Conservative Estimation

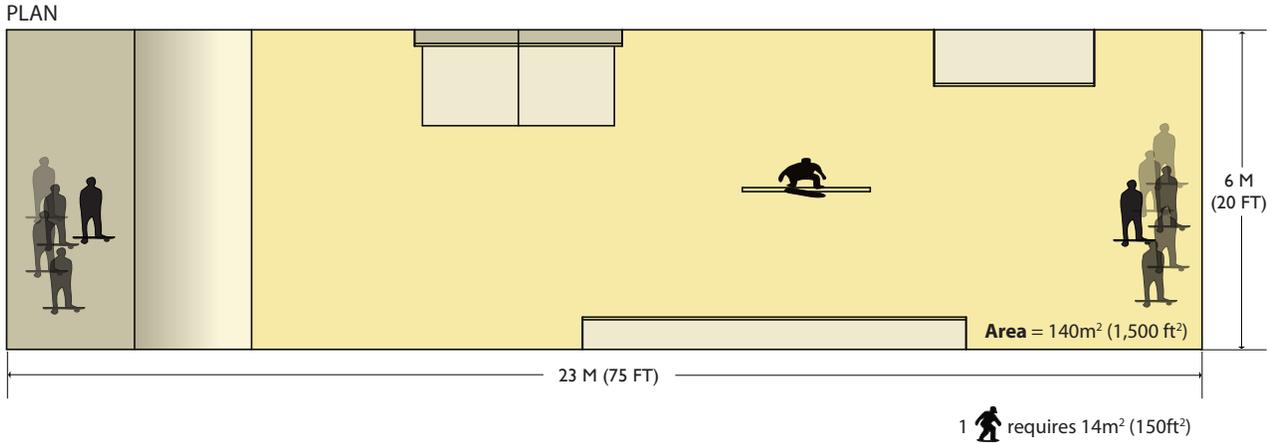
The area above only represents the demand from the skateboarding population, however, other activity groups also use 'skateparks', such as, inline skaters, scooters, 'ripsticks' and BMX. While these activities similarly use skateparks to practice tricks, their spatial requirements vary. For instance, a BMX biker moves much faster and generally takes more space to execute a trick. While these other groups may be politically under represented, they are well represented in skateparks and will certainly benefit from the development of a skatepark network.

Skateboarder Space Need Calculation

How much space does a skateboarder need?



Note: This Diagram has been adapted from Skaters for Public Skateparks Skatepark Adopton Model (SAM) at www.skatepark.org



The entire linear requirement is 23m (75 feet). Presuming that some lateral space is needed to allow others to safely pass the active skater—as well as space to turn when it’s required by the trick, (or to regain balance), 6 m (20 lateral feet) is sufficient.

As shown above, the total space for 10 concurrent users is 140m² (1,500 square feet) and 14m² (150 square feet) per person.

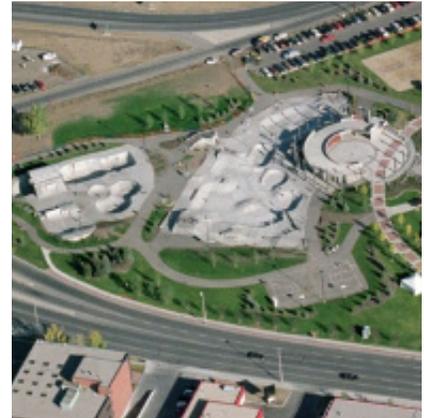
Skateboarders for Public Skateparks (SPS) are a Portland based think tank. They have developed the Skatepark Adoption Model (SAM) for determining how much space is required per skateboarder. The consulting team used SPS’ figure for area used per skateboarder and multiplied it by the number of ‘active’ skaters to arrive at a total area requirement.

Figure 12 - Skateboarder Space Need Calculation

4.5 Evaluation of Existing Skatepark Facilities

Shaw Millennium Park (1220 9 Ave SW)

Park Description: Officially opened to the public in September 2000, Shaw Millennium Park (SMP) is Calgary’s only permanent outdoor public concrete skatepark, and features approximately 6,967 m² (75,000 ft²) of skateable terrain within a prominent 7 hectare site just outside of the city’s downtown core. The skatepark offers all major public park amenities, such as, washrooms, drinking fountains, phone, lighting, formal viewing structures. It is surrounded by a number of complimentary activity areas, such as, basketball courts, amphitheatre and stage, water feature, Millennium Clock, and laser lights. Weather permitting, it is open year-round 24-hours a day, however, washrooms and water fountains are only open on a seasonal basis. At the time of its creation, the park was considered state-of-the-art and still remains as one of North America’s largest public concrete skatepark facilities.



General Evaluation: Despite SMP’s high profile, the skatepark has exhibited some design and construction limitations over the last decade that may arguably limit its intended effectiveness in serving Calgary’s skateboarding community. This is particularly so in comparison to an equally sized concrete municipal park developed to industry ‘best practices’ that have emerged within the last 5 years. It is very apparent that the park is experiencing limitations related to the declining condition of the concrete features. This is likely a result of the facility’s age and the construction technology and expertise available at the time of its creation. Specifically, isolated drainage issues, extensive areas of concrete chipping at exposed steel and cold joint interfaces, and expansive areas of rough flatwork and contoured panels, may deter a user from complete utilization of certain features as originally intended.



In conjunction with these issues, the last decade has seen considerable advances in the way a modern skatepark is designed, in terms of terrain styling and detailing, and overall facility configuration. With much of SMP’s existing terrain lacking some of the more contemporary skatepark design trends, it is likely that many users may be reducing their use of SMP and instead seeking-out more modern parks within surrounding municipalities or looking for non-sanctioned skateboarding opportunities within the city’s natural urban environment.



Accurately quantifying the exact level of SMP’s current effectiveness in serving the skateboarding community would be a difficult task and will likely always be open to some level of interpretation. Therefore, for the purposes of the CSAS, it is suggested that only a very conservative 5% reduction in effectiveness be applied to the facility’s total skateable area of 6967 m² when applied against the total user spatial requirement within The City of Calgary.

Westside Recreation Centre Skatepark (2000 - 69 Street SW)

Park Description: The Westside Recreation Centre Skatepark was constructed in 2010 and consists of a variety of modular steel ramps and low-level precast concrete skateboarding features within a 669 m² (7,200 ft²) fenced concrete pad adjacent to the Centre’s SW parking area. While open to all ages and abilities, the facility is geared towards novice and intermediate users under the age of 18 and is supervised by on-site staff during all hours of operation. It’s hours are 4pm – dusk on school days, 10am – dusk weekends and holidays , and closed from mid September – May. Westside Recreation Centre is independently managed and maintained by a registered not-for-profit society with support from The City of Calgary.



General Evaluation: While Westside’s limited assortment of modular features, restricted operating hours, and user orientation are a departure from the more typical unlimited-access site-built public concrete skatepark model (ie Shaw Millennium Park), the facility nonetheless maintains a fixed location, is generally well developed, and is in excellent condition with all features serving users as originally intended. Therefore, assuming the facility will remain permanently at the current location and receive the required regular equipment maintenance, credit will be given to the facility’s complete 669 m² when applied against the total user spatial requirement for The City of Calgary.



4

McKenzie Towne Skatepark (200 McKenzie Towne Gate SE)

Park Description: This park is owned and operated by the McKenzie Towne Residents Association with support of The City of Calgary (provision of site). The Mackenzie Towne Skatepark consists of a small modular steel ramp system located on an existing asphalt basketball court. While the park has been in operation for a number of years, the installation is considered temporary. As a result of LRT expansion plans it will be forced to relocate within the community in the coming years.



General Evaluation: Despite its equipment limitations and uncertainty in terms of exact placement within the community, the facility may still be considered a fixed skatepark installation that is open to the public and it continues to receive investment and care by the community. A credit of 372* m² (4,000 ft²) will be given for the modest facility when applied against the total user spatial requirement for The City of Calgary.



*Indicates basic footprint required to accommodate skatepark feature assortment

City of Calgary Mobile Parks

Facility Description: Rounding out Calgary’s public skatepark offerings, are The City of Calgary Mobile Skateparks. The Mobile Skateparks are supervised temporary modular skatepark installations that are placed in various communities across the City for a period of 2 – 4 weeks from late June to the end of August. On any given day during the summer months up to 4 parks may be in operation from 1pm – 8pm. Despite being limited in size and terrain diversity, the mobile parks remain popular for communities situated far from the City’s fixed locations.

General Evaluation: It is recognized that the Mobile Skateparks are valued by the communities they serve and do provide a limited but distinct level of service to the City’s skateboarding population. However, the parks do not occupy a predictable fixed location year by year and may be characterized as highly variable facilities that are designed to provide only short-term introductory skateboarding opportunities for specific communities. Therefore, for the purposes of this strategy and the long-term planning for the City, an area credit for Mobile Skateparks will not be applied against the total user spatial requirement for The City of Calgary. Rather, City of Calgary Mobile Skateparks will continue to be viewed as supplementary opportunities until the City’s primary skatepark network is further developed.





Skateboarders join forces to dig out Millenium Park and launch the new season. **Credit:** CASE



ESTABLISHING A NETWORK OF SKATEBOARDING AMENITIES

5

This Section begins by explaining the benefits of a pedestrian scale park system. It then introduces the fundamentals of a skatepark network, each skatepark typology that will be used to form the network, and finally, it proposes and evaluates four conceptual network options. Finally, it sets the stage to prioritize development.

5.1 Benefits of a Pedestrian Scale Park System

Human-scale development is a key element of the civic and social infrastructure that supports community. Jan Gehl – notable Scandinavian Architect, said “Life takes place on foot” (Schmitz and Scully, 2006). In contrast, in a majority of North American cities, the urban environment has been shaped by automobiles. As a result, a sense of walkability and social interaction on trails, sidewalks, and in parks has declined in favor of speedy transport to a dispersed set of destinations. The cumulative effect of this development pattern is reduced activity among all age demographics and an increasingly sedentary lifestyle for Canadian youth. This lack of physical activity is documented in the Annual Report Card published by Active Healthy Kids Canada where the nation’s children have received failing grades (see Section 3.2).

There are a number of methods for creating healthy and active communities. The Urban Land Institute suggests a four principles to make any community more walkable:

- a. Destinations for drawing people.
- b. Pedestrian scale – distances short enough to walk or ride a bike (or skateboard).
- c. Interconnected destinations for a continuous network of safe, convenient and comfortable trails and pathways.
- d. Achieving increased safety from crime, traffic and varied weather conditions.

In accord with the above principles, the CSAS attempts to encourage physical activity through the thoughtful linkage of skatepark destinations. The strategy for achieving a full network of skateparks is based upon walkability, and this requires reasonable distances to and from participants’ homes, schools, and places of work. While the design of Calgary has followed a car-oriented development pattern, the park system acts as a web that links the neighbourhoods through a well-developed trail system for walking, skateboarding and cycling. The location of skateparks along this pedestrian network should be supplemented by proximity to the public transportation system. What follows is an interconnected group of destinations for the skateboarding community, which should result in higher park and trail use and a safer park system for everyone. It is important to locate skateparks in visible areas and provide appropriate site amenities, such as, waterfountains, washrooms, and shelters. These considerations will lead to a comfortable and safe places for skateboarders and neighbours.

5.2 What are the Fundamentals of a Network?

A strong network design will be inclusive and accessible to a variety of participants and feasible for the City to develop. These three fundamentals are described below.

a. Inclusive

Inclusivity suggests the importance of including different user groups and functions. User groups vary by sport, skill level, and styles. Each group should be afforded space in the network.

In addition to skateboarders, there are a number of other activity groups, such as, bmx bikers, inline skaters, and scooters. All of these interest groups and their various skill levels should also be considered when implementing the skatepark network.

Every sport has participants from beginner through intermediate and advanced. A network should balance these interests in order to maintain appropriate spaces and graduated challenges for ongoing skill development.

There are a variety of popular skate park styles, such as, street, transition etc. (see pages 12-13). In order to maximize ongoing interest, a network should include these different types of terrain.

The size of the parks will also dictate the character and feel of the place. A mix of park sizes is important both for providing a varied landscape for skill development and to include different social experiences.

b. Accessible

Skateboard amenities should be accessible to the greatest number of skateboarders. This requires skateparks to be accessible in a safe, timely and affordable manner. The primary focus is to locate skateparks within walking or skateboarding range of home and school. Furthermore, linking to an existing trail and park network will help maximize the use of existing infrastructure. If this is not possible, efficient links to public transit are a secondary yet fundamental means of access.

c. Feasible

A feasible network concept can be articulated in a specific development plan and implemented. Key factors include capital cost, availability of space, suitable neighbouring land uses, available amenities, park programming and ongoing maintenance.

The cost of a network generally increases as the number of projects increase. Therefore, a network option that has a high number of small parks will have higher planning, design, mobilization and construction costs. It is important for The City to balance the efficiencies of large scale projects with meeting the needs of the target user groups who will benefit from a variety of park sizes.

The availability of space is a challenging issue in established urban areas. It may be hard to find available park space in the desired neighbourhood or park without displacing another existing activity. In the City's growth areas, skateparks may be more easily incorporated during the planning stages.

The suitability of a potential skatepark site is directly linked to Neighbouring land uses. While a smaller Skate Spot may be suitable in a residential park space, a larger skatepark, which brings increased traffic, noise, and longer hours of operation may need to be located in a larger park, at a public institution or at a commercial hub.

Each park type has its own set of amenity requirements (see figure 23). Some amenities are related to the use of the site, such as, shade and access to washrooms, and other amenities relate to broader issues, such as, access to transit or local food establishments. Small skateparks typically offer very basic amenities, such as, a garbage can or bench. As park types increase in size and draw significant numbers of users they require increased amenities including shelter, washrooms, water fountains etc. Ideally, to reduce capital costs, larger skateparks will be linked to existing facilities.

Maintenance requirements may vary significantly between skatepark network options. Smaller parks with limited amenities may require very low maintenance, but will be dispersed across the city, potentially requiring greater travel for maintenance crews. Larger parks with public washrooms and a higher volume of park users may be fewer in number, but individually require a more intense maintenance program. As stated earlier, linking to existing park amenities will reduce the maintenance costs associated with developing new skateboarding amenities.

5.3 Skatepark Typologies

In order to provide skateparks that suit a variety of locations and functions, the consultant team has established five skatepark typologies. These parks range from the smallest being a Skate Spot, and increase in size to a Neighbourhood, Community, Quadrant/Regional and to the largest park, a City-Wide/Destination park. The five typologies are described below including their estimated cost. The costing does not include site selection or design fees. The site selection may be undertaken by city staff or a private consultant.

a. Skate Spot 150 m² – 600 m² (1,500 ft² to 6,000 ft²)

A Skate Spot is a small-scale ‘skateable’ opportunity typically found in a neighbourhood park or along a paved pedestrian trail. Skate Spot sizes range from as little as 150 m² (1,500 ft²) through to approximately 600 m² (6,000 ft²). A ‘Spot’ may support users of all skill levels, however, will have a focus on features that have a relatively ‘low impact’ on the site area and are accessible by a minimum novice and intermediate level users.

Skate Spots are often located within residential settings or in urban spaces off-setting conflict zones where unsanctioned skateboarding exists on private or semi-public land. Skate Spots are also an effective means for ‘linking’ other skatepark opportunities within a larger geographic area – identifying a safe route of travel between larger skate destinations.

The estimated construction cost of a Skate Spot is \$ 484/m² (\$45 ft²). This results in a cost of between \$72,630-\$290,520 per skate spot.

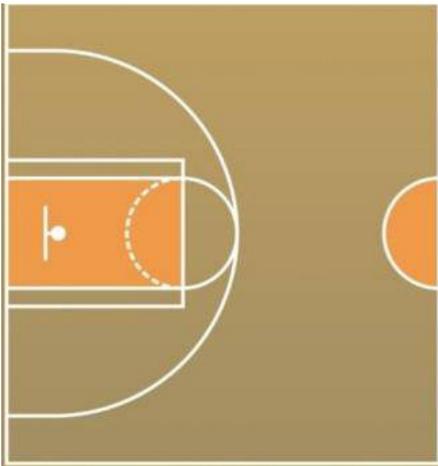


Figure 13 - Skate Spot
195 m² = ½ Basketball Court



Black Diamond Skate Spot - Black Diamond, AB



Representative example, park style and configuration will vary.

ESTABLISHING A NETWORK OF SKATEBOARD AMENITIES

Neighbourhood Skatepark 600 m²- 1,200 m² (6,000 ft² – 12,000 ft²)

A Neighbourhood Skatepark occupies a larger area of approximately 600 m²-1,200 m² (6,000 ft² – 12,000 ft²), and as the name implies, typically serves the needs of the immediate neighbourhood(s) that surround it. A Neighbourhood park will often include a wider variety of terrain types and support users of all skill levels, but should maintain a considerable number of features that are accessible by novice and intermediate skill levels. This type of opportunity is commonly located within existing neighbourhood parks or on highly visible land in relatively close proximity to residential development or a small commercial zone.

The estimated construction cost of a Neighbourhood park is \$ 452/m² (\$42 ft²). This results in a cost of between \$271,152-\$542,304 per Neighbourhood Skatepark.

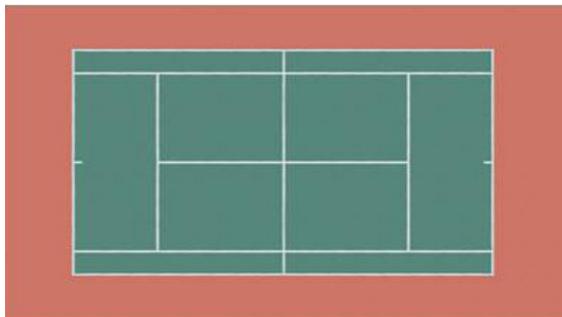
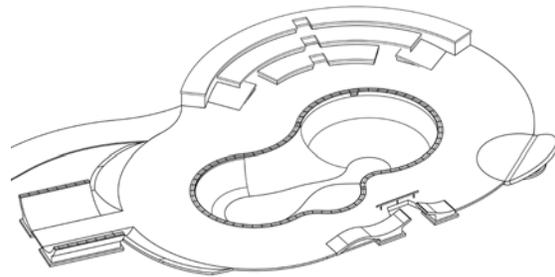


Figure 14 - Neighbourhood Skatepark
650m² = 1 Tennis Court



Kensington Skatepark - Vancouver , BC



Representative example, park style and configuration will vary.

Community Skatepark 1,200 m²- 2,500 m² (12,000 ft² – 25,000 ft²)

A Community Skatepark typically serves the needs a number of neighbourhoods and measures anywhere from approximately 1,200 m² - 2,500 m² (12,000 ft² – 25,000 ft²). Some level of parking and formal amenities are often associated with this scale of facility such as bathrooms, a water fountain, basic shelter, and lighting. Community facilities should accommodate all ability levels, and depending on the final scale of the facility, should provide a broad spectrum of terrain styles. Community-level skateparks are best suited in geographically central locations, and are best suited in a mixed zone of residential, commercial and institutional land uses.

The estimated construction cost of a Community park is \$ 452/m² (\$40 ft²). This results in a cost of between \$516,480-\$1,076,000 per Community Skatepark.

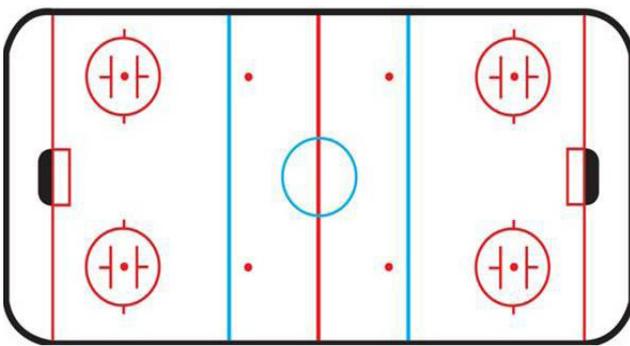


Figure 15 - Community Skatepark
1,580m² = 1 Outdoor Hockey Rink

Callingwood Skate Plaza - Edmonton , AB



Representative example, park style and configuration will vary.

ESTABLISHING A NETWORK OF SKATEBOARD AMENITIES

Regional/Quadrant Skatepark 2,500-4,000 m² (25,000 ft² – 40,000 ft²)

A Regional/Quadrant level skatepark is intended to serve an entire region/quadrant of the city and is best suited in a mixed-use zone of residential, commercial and institutional land uses. This scale of development will cater to all ability levels, all terrain styles and include a full range of amenities, such as, parking, formalized spectator seating zones, and access to fully-serviced washrooms. This is a sizable park ranging from 2,500 m² - 4,000 m².

The estimated construction cost of a Regional park is \$ 430/m² (\$40 ft²). This results in a cost of between \$1,076,000-\$1,721,600 per Regional/Quadrant Skatepark.

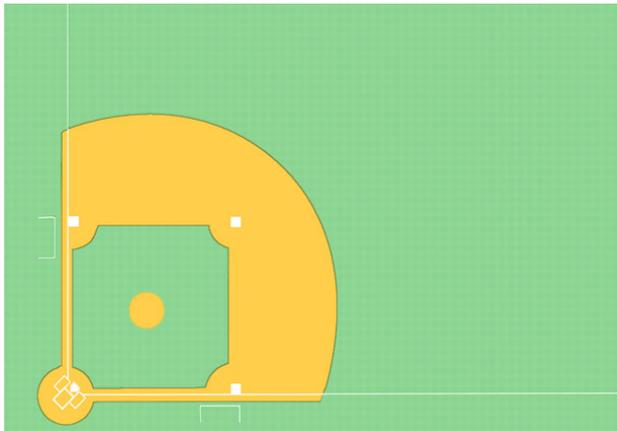


Figure 16 - Quadrant/Regional Skatepark
2,790 m² = Little League Baseball Field



Chinook Winds Skatepark - Airdrie, AB



Representative example, park style and configuration will vary.

City-Wide / Destination Skatepark 4,000 m²+ (40,000 ft² +)

A City-Wide / Destination skatepark is approximately 4,000 m² (40,000 ft²) or larger and is intended to serve the entire City. A facility of this nature will have all major amenities and a terrain selection catering from beginner to professional level users. This level of facility will also accommodate major demonstrations and competitive events.

The estimated construction cost of a City-Wide park is \$ 430/m² (\$40 ft²). This results in a cost of \$1,721,600 or more per City-Wide/Destination Skatepark. At this rate a new Millennium Park would cost \$2,997,212.

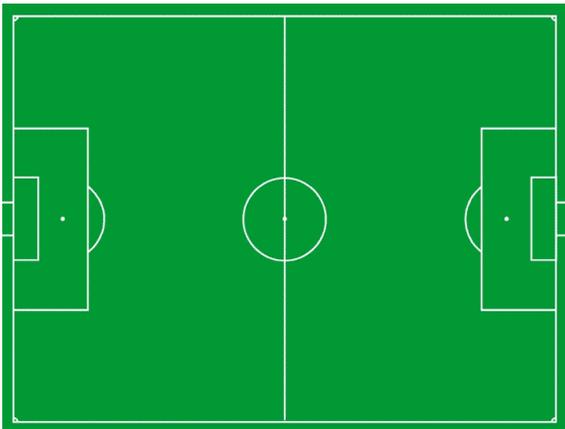


Figure 17 - City-Wide/Destination Skatepark
5,000 m² = Soccer Field



Shaw Millennium Park - Calgary, AB



Representative example, park style and configuration will vary.

Indoor Skatepark

An indoor skatepark is a collection of skateable elements within a building. This provides a consistent training ground despite inclement weather and throughout the winter months.

The size of an indoor park may vary based upon the user population targeted for service, availability of land/building space, and costs of operation (ie. security, staffing, utilities). Design features typically cater to all levels of ability and are most often constructed using a wood or steel frame construction system along with a limited selection of concrete features.

While the concept of an indoor park in Canada is very logical and widely endorsed by most skateboarders, there are few successful examples of this type of facility. Numerous for-profit privately-operated indoor parks have 'come and gone' in most larger Canadian cities, however, few have operated for more than a couple of years consecutively. The reasons for their demise are likely many, but most indications point to issues surrounding the financial viability of the business.

Of the small handful of long-standing successful indoor parks in Canada, most operate under a not-for-profit model and/or are supplemented with other streams of revenue, such as, skateboard retail or events. Two such examples are the Edge Skatepark in Winnipeg, MB and the Sk8 Regina Skatepark in Regina, SK. Both of these indoor facilities are run by not-for-profit organizations with the support of Federal, Provincial and Municipal funding.

Understanding that over the past 35 years Calgary has had over 8 privately operated indoor parks close their doors, it is likely that the not-for-profit approach would prove more feasible in Calgary. Ideally, the facility would be accessible within a short walk of an LRT station and have a minimum size of 1,850 m² (20,000 ft²) if serving as the only indoor location within the city.



Image 12 - The Edge Skatepark, Winnipeg

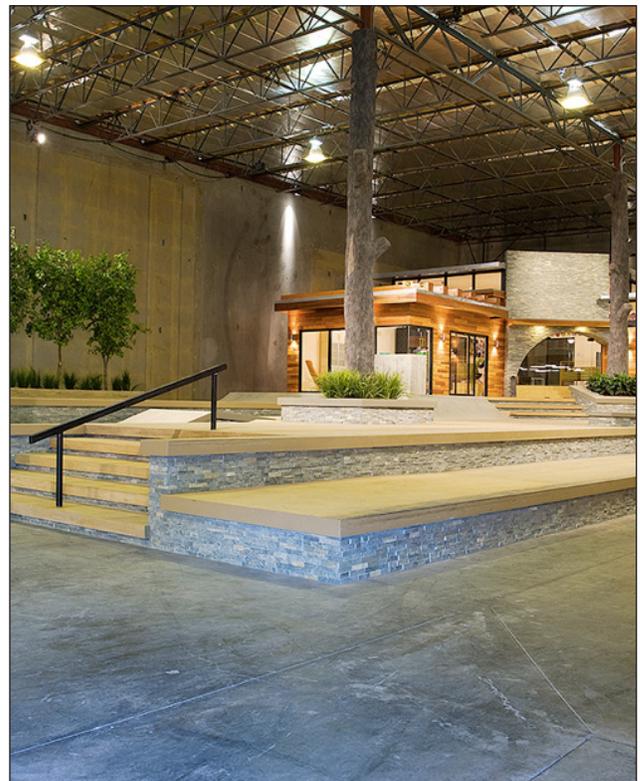


Image 13 - Fantasy Factory

5.4 Network Options

The following four spreads provide a description and analysis of the four conceptual network options generated by the consulting team. The options are meant to be conceptual in that they represent a broad framework that demonstrates the scale and distribution of skatepark sites across the city. However, at this time the specific location of individual sites is not being proposed. Based on the three fundamentals of network design introduced in subsection 5.2, the options are then rated in Figure 22 - Network Option Rating Chart.

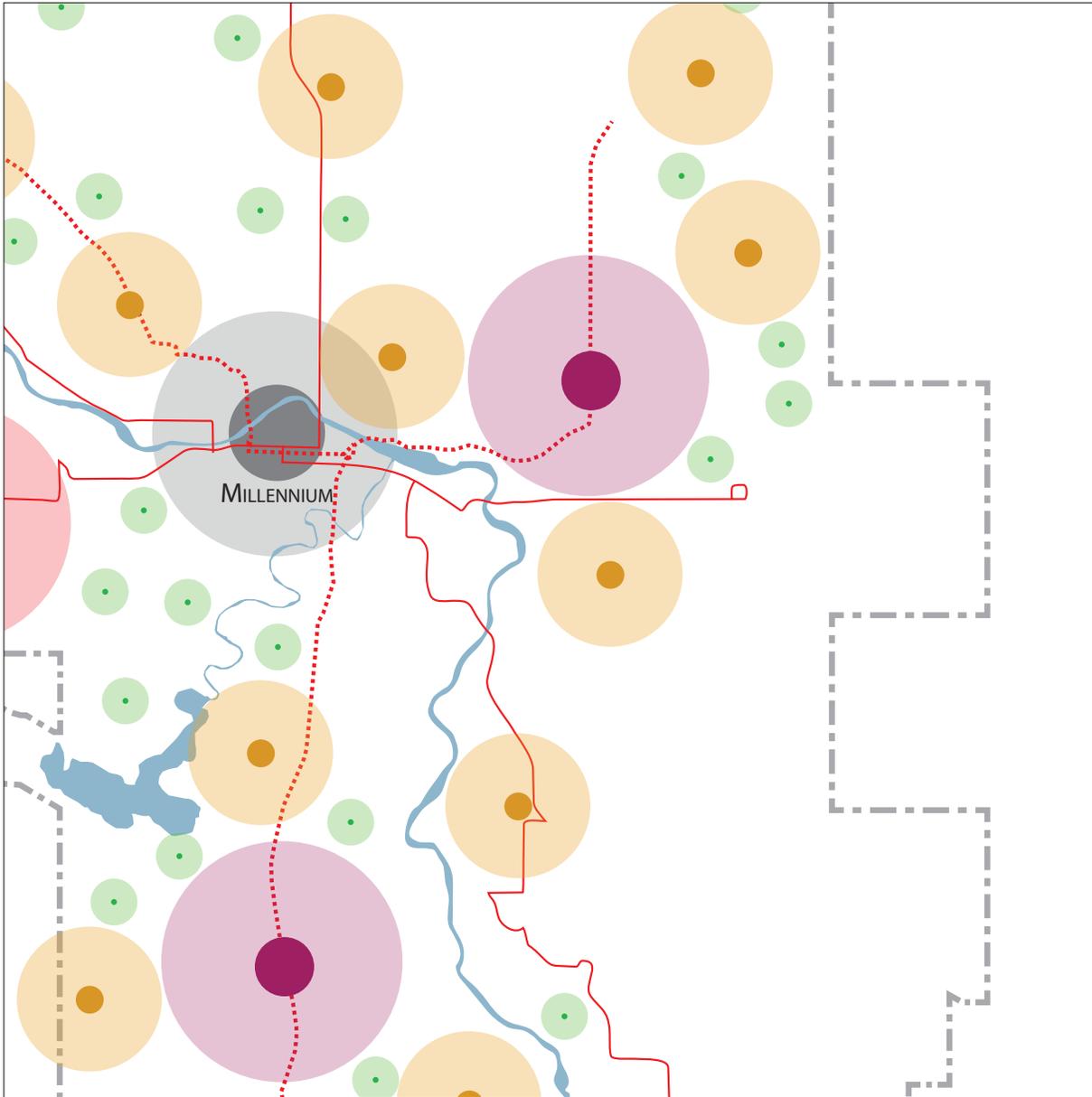


Image - A snapshot of Option D.

Option A – Neighbourhood Network Cluster (15 Clusters)

Option A is composed of 15 neighbourhood clusters. Each cluster has one Neighbourhood park of ~600m² and up to seven Skate Spots totaling 1,120m².

Accessible - Option A provides the most localized skateboarding opportunities by dividing the city into 15 neighbourhoods and providing the greatest number of skateparks. This option is best for increasing on-foot access to skateparks, which will keep kids fit and allow them to stay closer to home by skateboarding in their own neighbourhoods. This cluster format is largely suburban and local in its layout; however, some neighbourhood sized skateparks are located along major LRT and BRT lines. The objective of the cluster is to provide a noteworthy skatepark within each neighbourhood and to provide on-foot access to a skate opportunity in less than 10 minutes.

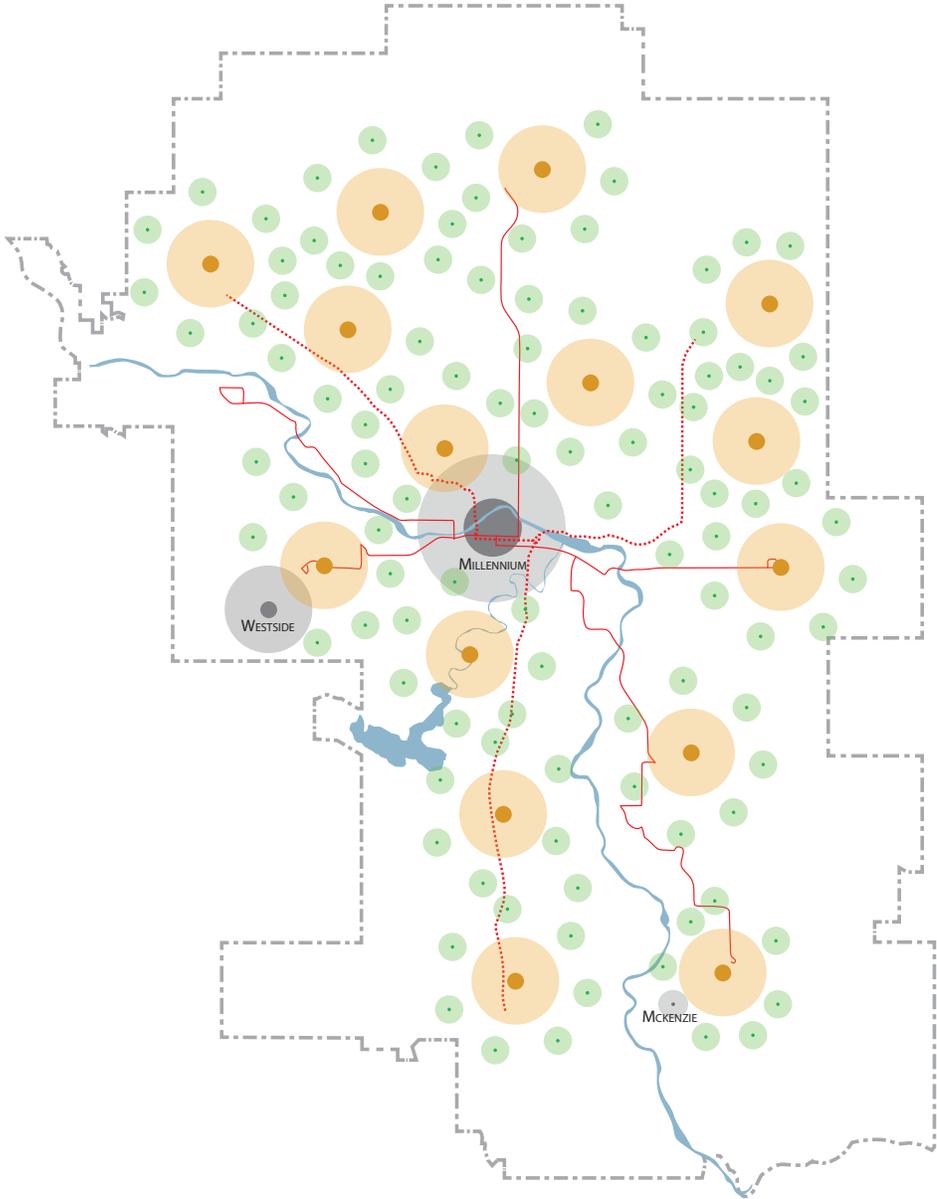
Inclusive - By providing only smaller parks that supply basic skatepark elements, this option sacrifices the development of major community skateparks, which often provide high skill elements, a different social atmosphere and afford a larger space for hosting events.

With the high number of skateparks in each cluster, this option presents a varied skate experience within each neighbourhood. The high frequency of parks may make it easier for different activity groups, such as, bmxer’s to find their own park space and eliminate the inevitable strain between user groups who have conflicting space needs.

Feasible – Since this is based on the two smallest park sizes it should be straightforward to find appropriate locations to site the skateparks. However, due to the high number of parks it may be challenging to find enough suitable locations in each neighbourhood. Current open space programming may also make it difficult to site a skatepark without compromising an existing service.

Advantages	Disadvantages
<ol style="list-style-type: none"> 1. Very accessible and well distributed. 2. Neighbourhood scale parks distributed across the city. 3. Skate spots within 1 km of most residents. 4. Smaller parks should be easier to site. 5. High number of parks may allow for different user groups, especially Bmxer’s to find their own park and thereby eliminate conflict that is common when sharing space with skateboarders. 	<ol style="list-style-type: none"> 1. Lacking large scale parks that would provide a greater variety of opportunities in one location 2. Highest number of parks to site, design, build, and maintain. This could prove challenging and increase cost per square metre. 3. Maintenance of skatepark infrastructure is dispersed.

Right - **Figure 18** - Network Diagram - Option A



5

A PARKS	105 @ 160m ²	15 @ 600m ²					
LEGEND	<p>1 km </p> <p>Spot 150 m² - 600m² (1,500 - 6,000 ft²)</p>	<p>3 km </p> <p>Neighbourhood 600 - 1,200 m² (6,000 - 12,000 ft²)</p>	<p>5 km </p> <p>Community 1,200 m² - 2,500 m² (12,000 - 25,000 ft²)</p>	<p></p> <p>Regional/Quadrant 2,500 - 4,000m² (25,000 - 40,000 ft²)</p>	<p></p> <p>City-Wide (Existing) 4,000m² + (40,000 + sq. ft.)</p>	<p></p> <p>City indoor 1,850 m² + (20,000 ft² +) To serve as winter skatepark.</p>	<p></p> <p>Existing Skatepark Grey dots represent existing parks and correspond in size to skatepark types.</p>

Option A - Neighbourhood Network Cluster

Option B – Community Hubs (9 Community Parks)

This option provides 11 considerably sized Community skateparks at major transit LRT and BRT hubs across the city.

Accessible - Option B presents the benefit of being directly linked to Calgary’s main transit spine, however, this comes at a cost of distance from many skateboarders homes and a financial cost of using the transit system to access skateparks. This option has the fewest number of parks and therefore requires the farthest travel with the goal of a skatepark being accessible on-foot or by transit in 30 minutes or less.

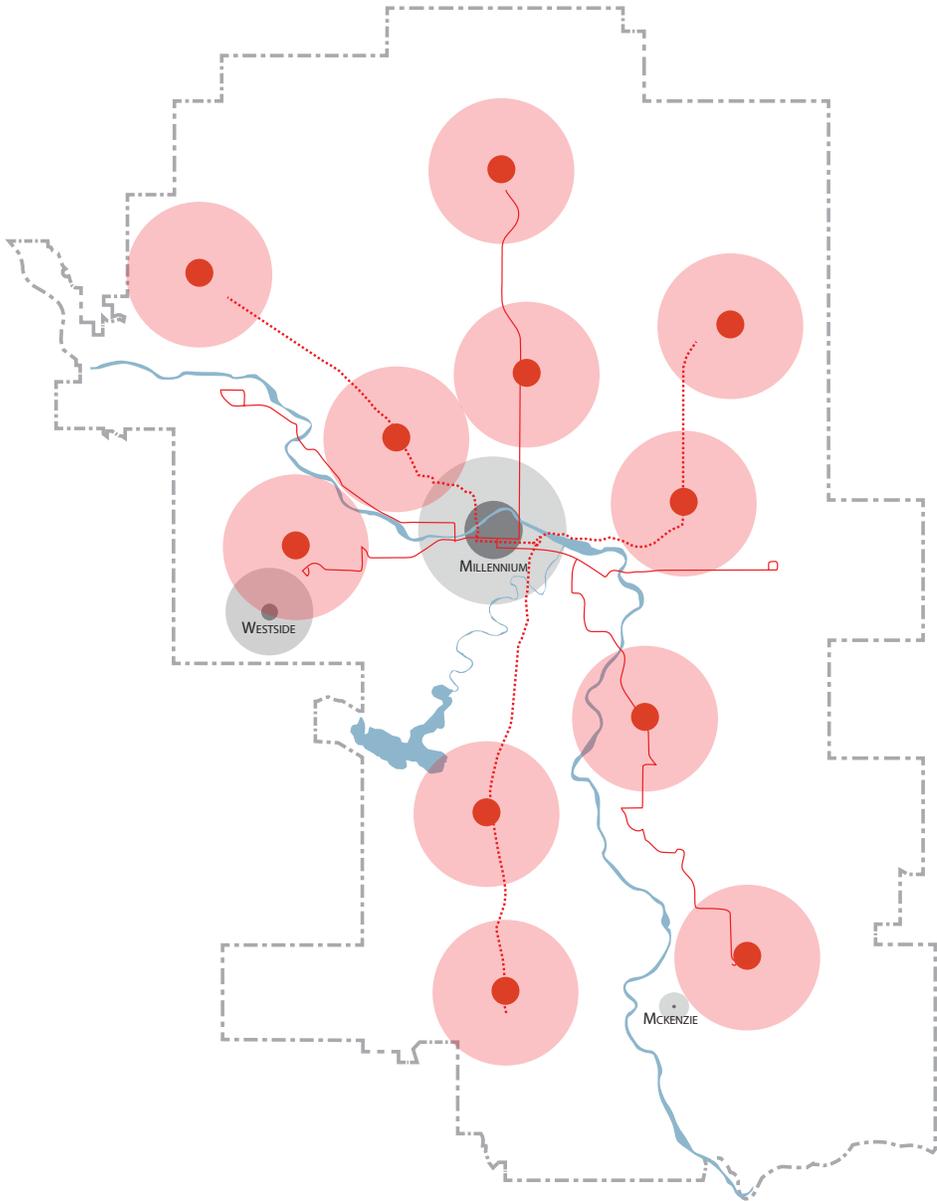
Inclusive - By developing large skateparks there is an opportunity to provide variety at each location and accommodate a greater diversity of skill levels. This allows skateboarders at the same level to congregate and learn by watching more advanced skaters. The small number of parks may lead to conflict over turf between skaters or other activity groups, such as, BMX. However, the larger parks may make it possible to create sport specific training areas. It is also important to note that survey responses suggest, beginners may find community scale skateparks intimidating. Also, the distance of travel required may exclude younger participants. Therefore, only providing large skateparks may serve as a barrier to participation from some interested groups.

While this may be an adequate option in smaller or higher density cities, this does not adequately meet the desires of the survey respondents, which preferred close proximity, small and medium sized parks.

Feasible – By locating along the LRT and BRT spine, it should be possible to find locations with appropriate amenities and surrounding land uses to accommodate these larger parks.

Advantages	Disadvantages
<ol style="list-style-type: none"> 1. Large scale parks distributed across the city. 2. Fewer parks to plan and build. 3. Maintenance is centralized. 4. Large parks should be easier to site near transit hubs. 	<ol style="list-style-type: none"> 1. Lacking local Neighbourhood scale parks and Skate Spots may serve as a barrier to participation. 2. The parks are larger and will require more amenities, resulting in increased maintenance needs.

Right - **Figure 19** - Network Diagram - Option B



5

B PARKS	11 @ 2,345m²						
LEGEND	<p>1 km </p> <p>Spot 150 m² - 600m² (1,500 - 6,000 ft²)</p>	<p>3 km </p> <p>Neighbourhood 600 -1,200 m² (6,000 - 12,000 ft²)</p>	<p>5 km </p> <p>Community 1,200 m² - 2,500 m² (12,000-25,000 ft²)</p>	<p>Regional/Quadrant 2,500 - 4,000m² (25,000-40,000 ft²)</p>	<p>City-Wide (Existing) 4,000m² + (40,000 + sq. ft.)</p>	<p>City indoor 1,850 m² + (20,000 ft² +) To serve as winter skatepark.</p>	<p>Existing Skatepark Grey dots represent existing parks and correspond in size to skatepark types.</p>

Option B - Community Hubs

Option C – Suburban Large Scale with Neighbourhood LRT Network

Option C provides a variety of Community and Neighbourhood parks interspersed with Skate Spots. There are 9 Community parks of 1,850m², 9 Neighbourhood parks of 780 m² and 14 Skate Spots of 150m².

Accessible - This option acknowledges the suburban nature of Calgary by placing large community parks in the centre of neighbourhoods, which results in most parks being separated from major transit lines. Smaller Neighbourhood scale parks are located along the LRT and BRT lines to provide transit accessible variety throughout the city, and Skate Spots are used to provide local service to neighbourhoods beyond the range of the larger parks.

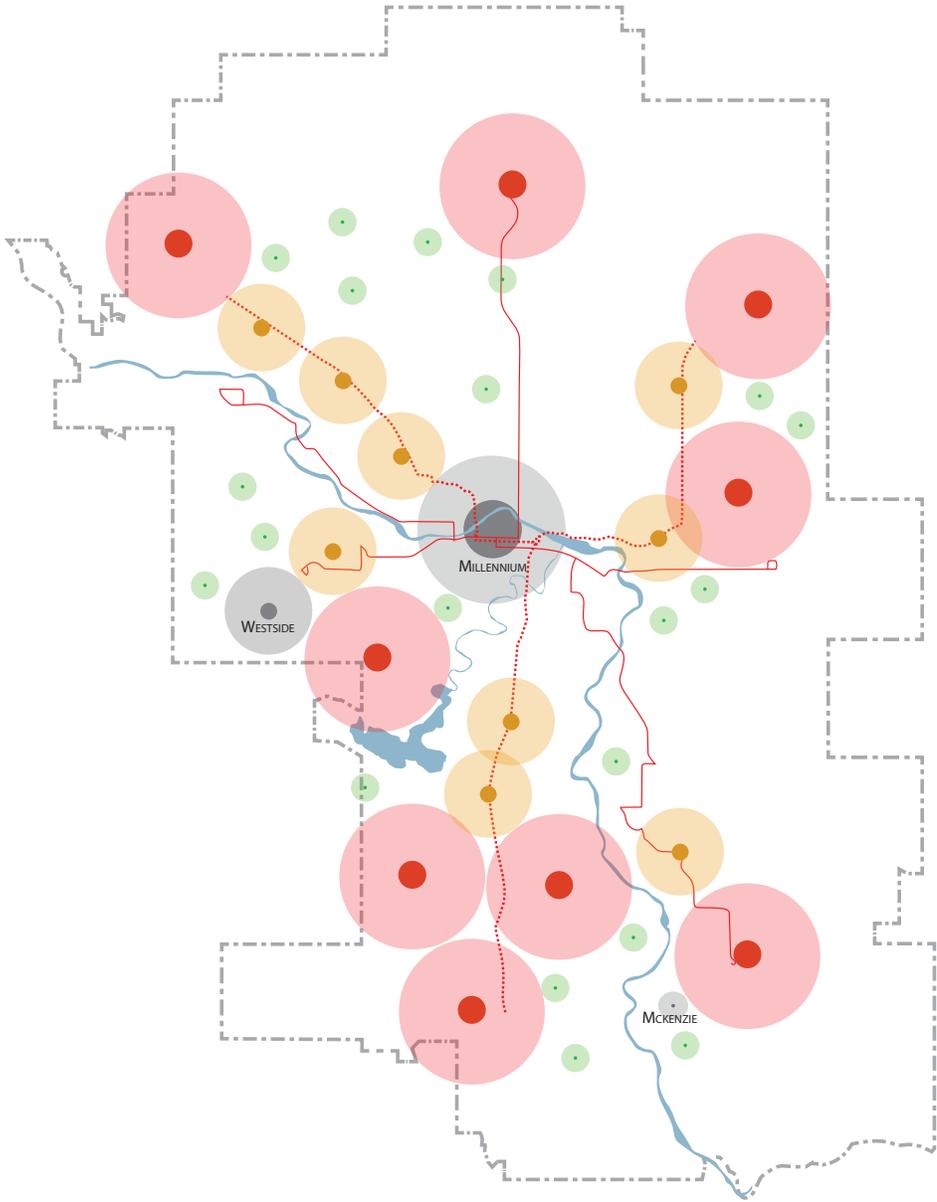
As in Option B, this plan provides 9 community parks, however at a smaller scale. The goal of this network is to make skateparks accessible on-foot or by transit to skateboarders in 20 minutes or less. As with Option B it requires a greater distance of travel, however, with added distance is payoff in the variety and scale offered by each park.

Inclusive – While this option provides a variety of park sizes from Skate Spots to Community parks, 2/3's of the park area is larger scale Community parks. The benefit of this is that significantly sized park spaces are spread across the city; however this may also be intimidating for young or new skateboarders. The distance to a park may also be out of range of the younger participants.

Feasible – The siting of Skate Spots and Neighbourhood parks should be relatively straightforward as they are of a smaller scale. However, the siting of Community scale parks in existing suburban neighbourhoods may prove challenging. Each Community park requires a significant space in either a neighbourhood centre or park. Local residents may be concerned by the number of youth gathering in local parks and potentially making noise well into the evening. While the siting of large parks in existing residential neighbourhoods may be contentious, there is opportunity in growth areas to appropriately site large scale Community parks.

Advantages	Disadvantages
<ol style="list-style-type: none"> 1. Community Parks well distributed across city. 2. Neighbourhood scale parks accessible to LRT/BRT lines. 3. Opportunities for new community parks in the expanding suburban areas. 	<ol style="list-style-type: none"> 1. Very few local Skate Spots. 2. Community parks may be difficult to site in existing residential neighbourhoods. 3. Longer travel and large parks may exclude young or new skateboarders.

Right - **Figure 20** - Network Diagram - Option C



5

C PARKS	14 @ 150m ²	9 @ 780m ²	9 @ 1,850m ²				
LEGEND	<p>Spot 150 m² - 600m² (1,500 - 6,000 ft²)</p>	<p>Neighbourhood 600 -1,200 m² (6,000 - 12,000 ft²)</p>	<p>Community 1,200 m² - 2,500 m² (12,000-25,000 ft²)</p>	<p>Regional/Quadrant 2,500 - 4,000m² (25,000-40,000 ft²)</p>	<p>City-Wide (Existing) 4,000m² + (40,000 + sq. ft.)</p>	<p>City indoor 1,850 m² + (20,000 ft² +) To serve as winter skatepark.</p>	<p>Existing Skatepark Grey dots represent existing parks and correspond in size to skatepark types.</p>

Option C - Suburban Community with Neighbourhood LRT

Option D – Combination Network

As suggested by the title, this option combines all skatepark types to provide variety of skatepark offerings. There are 3 Quadrant parks of 2,550m², 2 Community parks of 1,875m², 15 Neighbourhood parks of 660m², and 30 Skate Spots of 150m².

Accessible - This option provides effective on-foot and transit accessibility. With the existing Shaw Millennium park at the core, this network is regionally anchored by quadrant parks on each of the three arms of the LRT system located in the northwest, east and south. Moderately sized community parks anchor the north and west ends of the BRT line. In addition, the fifteen Neighbourhood parks are dispersed across the city in neighbourhood centres, and the 30 Skate Spots are used to fill in the gaps in order to maintain local access to a skatepark opportunity. The goal of this network is to make a skatepark accessible on foot in 15 minutes or less and a larger Community or Quadrant park accessible on-foot or by transit in 30 minutes or less.

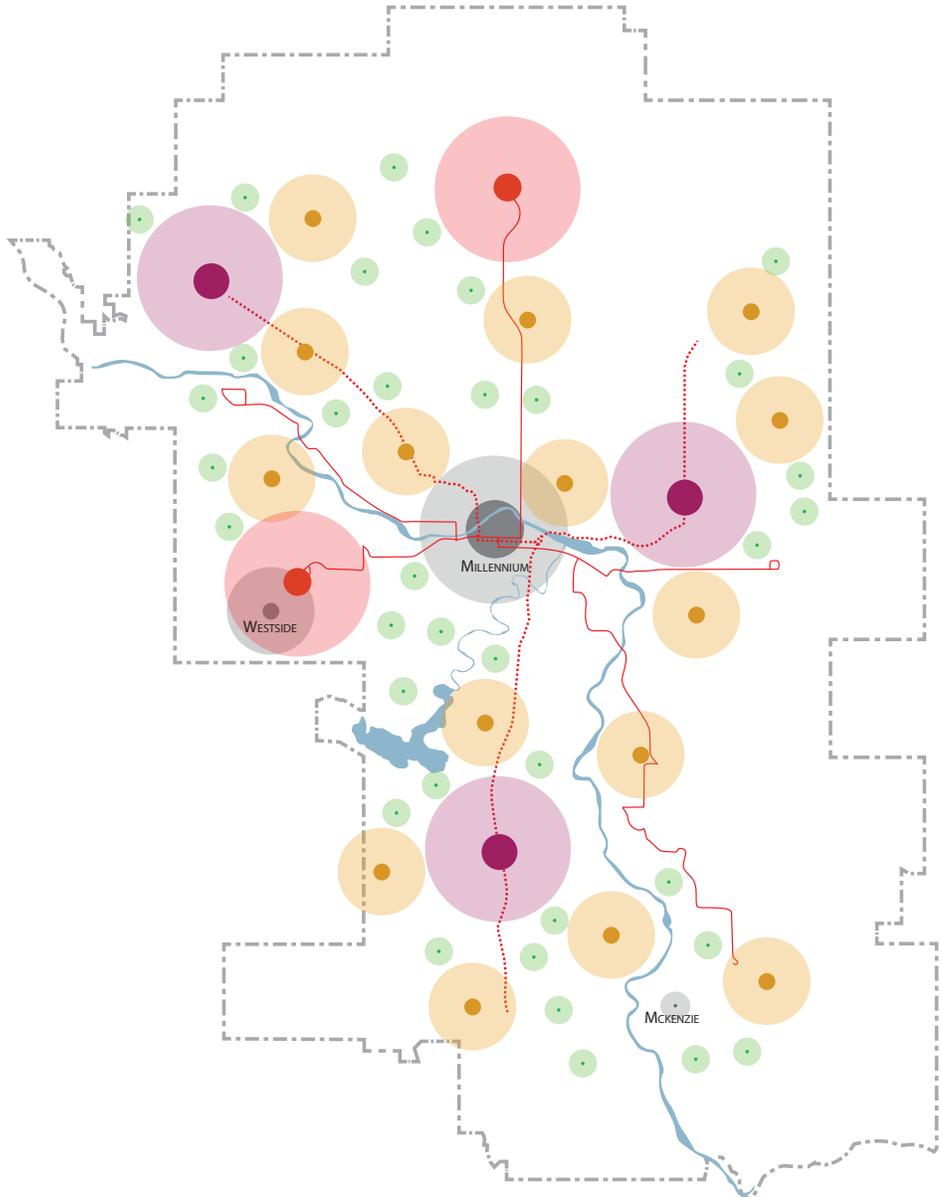
Inclusive - By providing different sizes of parks accessible on foot and by transit, this option will allow diversity in skill levels and park atmosphere. Neighbourhood parks and Skate Spots will generally be the most accessible by foot and therefore the most inviting to younger participants whose range and abilities may be limited. This smaller, local network will facilitate on foot transport which has the greatest potential for daily cardiovascular workout.

The larger community and quadrant parks will be less frequently located and likely appeal to an older adolescent and adult age group. Due to the scale of these larger parks, it will be possible to put investment into high skill level features such as large pools, banks and over ‘verts’. The larger parks will also have the potential to serve as a staging ground for events.

Feasible - By utilizing the four park types it should be easier to match skatepark size with the appropriate site whether in an urban park, residential or commercial centre.

Advantages	Disadvantages
<ol style="list-style-type: none"> 1. Effective on-foot and transit accessibility. 2. Quadrant and Community skateparks in each part of city and accessible to LRT/BRT. 3. Neighbourhood scale parks and Skate Spots are well distributed across the city. 4. Variety in scale and frequency of parks includes all age and skill levels. 5. Quadrant parks provide staging ground for special events and competitions. 6. A mix of park sizes provides flexibility in choosing size appropriate locations. 	<ol style="list-style-type: none"> 1. A higher number of parks to site, design, build, and maintain. Opportunity for grouping processes for the development of multiple parks.

Right - **Figure 21** - Network Diagram - Option D



5

D PARKS	30 @ 150M²	15 @ 660M²	2 @ 1,875M²	3 @ 2,550M²			
LEGEND	 Spot 150 m ² - 600m ² (1,500 - 6,000 ft ²)	 Neighbourhood 600 -1,200 m ² (6,000 - 12,000 ft ²)	 Community 1,200 m ² - 2,500 m ² (12,000-25,000 ft ²)	 Regional/Quadrant 2,500 - 4,000m ² (25,000-40,000 ft ²)	 City-Wide (Existing) 4,000m ² + (40,000 + sq. ft.)	 City indoor 1,850 m ² + (20,000 ft ² +) To serve as winter skatepark.	 Existing Skatepark Grey dots represent existing parks and correspond in size to skatepark types.

Option D - Combination Network

Discussion of Results

After reviewing the fundamentals of each option, Option D provides the most positive balance of attributes and therefore is recommended for adoption. In early discussions with City staff and CASE it was also the preferred option. Option D passes all criteria for accessibility, inclusivity and feasibility.

Option C was also a desirable selection but failed to meet all criteria of the feasibility test. The idea of locating larger parks within the existing suburban neighbourhoods of Calgary would prove difficult to find suitably sized and appropriately situated sites.

Option B ranked slightly lower than both Option D and C. It is possibly the most feasible option to implement since it proposes the fewest number of parks, but as a result is the least accessible network. The increased distance and required use of public transit may exclude participants based on age, gender or financial situation. It is also composed of only large parks which can be intimidating to younger or newer skateboarders.

Option A ranked last. It provides the most localized network, but as a result of the high number of parks it may be the most difficult to implement and costly to maintain. It also lacks any large scale parks, which would provide an important hub for the city’s skate population, a space for sizable high skill elements and significant social events.

Network Option Rating Chart

(% next to criteria represents percent support by respondents of the Skatepark 2011 Online Survey)

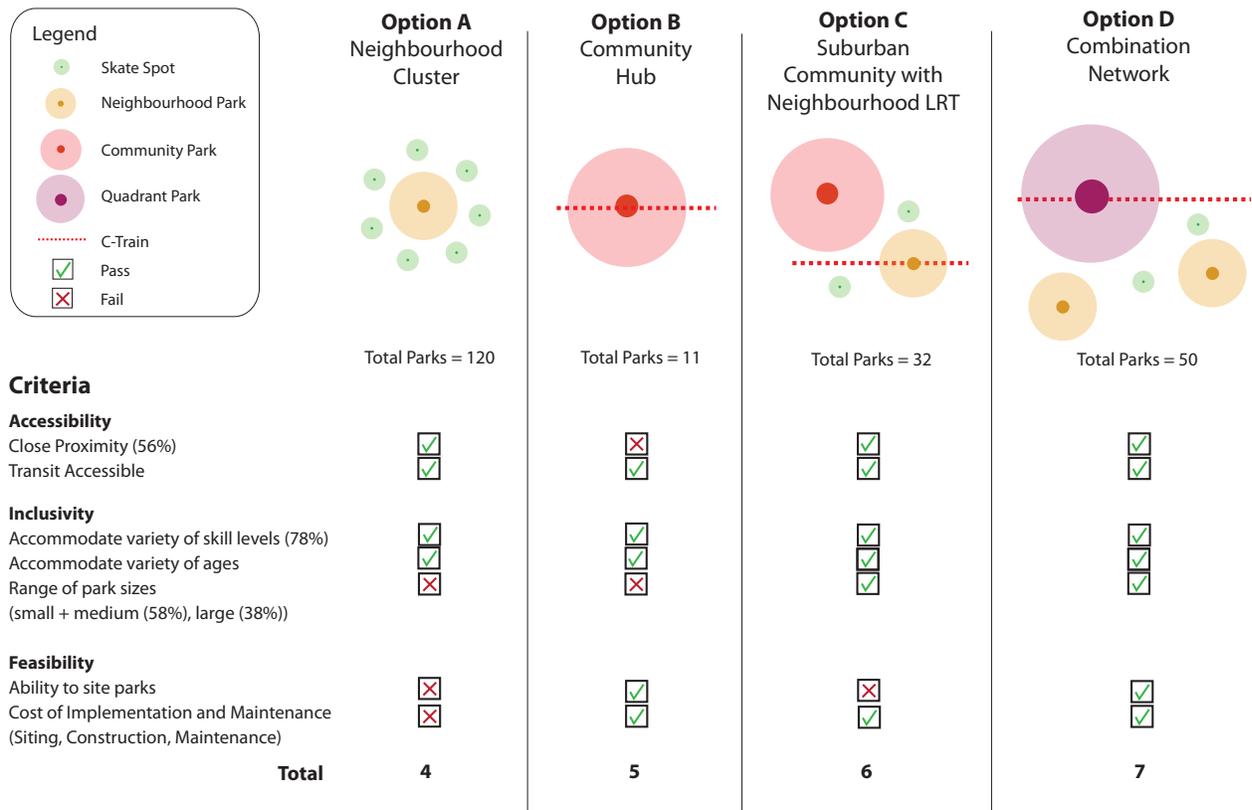


Figure 22 - Network Option Rating Chart

5.5 Site Selection Criteria

Once the strategy for development is approved individual site selection may begin. This document provides a general outline for criteria that should be considered prior to locating a skateboarding amenity.

Site Criteria for Individual Skateboarding Amenities

The following is a list of site criteria to be considered when locating skateparks within the overall network. These site criteria have been broken into three levels. The primary site criteria level is essential in the locating of a park within the city park system. These criteria ensure the park is accessible to the entire skateboard population. The secondary site criteria level provides recommendations for the location of a skatepark within an individual park. Tertiary site criteria are important criteria for larger parks, but are not deemed essential to the success of all skateparks.

Primary: Overall Network Location

Each park should be sited with consideration to its location within the network. Understanding the skill levels, features, and overall scale of surrounding skateparks will allow the new skatepark to compliment them and the network as a whole.

Primary: Connection to Trails

Park users should be able to use a trail system to access different skateparks within the network easily and safely. This is especially important for larger scale parks which draw skateboarders from a greater distance.

Primary: Access to Public Transportation

Each skatepark should be accessible by public transportation. Public transit offers a cost-effective, low-emission means of access to a large user group. It also provides choice as skateboarders may wish to skate a variety of parks for skill development or social reasons.

Secondary: Parking Availability

For Community, Regional/Quadrant and City-Wide/Destination skate facilities, parking can be an essential component for the success of these parks. Understanding current park needs along with estimated skate park usage will allow for the integration of this new park element. Drop-off areas are important for younger skateboarders that may be dropped off by parents or friends.

Secondary: Site Amenities

Certain site amenities are key to the success of a skate facility. Typically, the most important amenities are drinking fountains and washrooms. Providing these services allows users to take day trips to these facilities without having to leave the site. The average skateboarder uses a park for 1-5 hours during each visit. With this time frame, other amenities may be considered including vending machines, concession stands, and rental facilities. For a further breakdown of these amenities see Figure 23 - Site Amenities Table.

Secondary: Safe, Secure Site

Providing for a location with high visibility and a variety of activities and usage times, will keep the park busy throughout the day and into the evening. Appropriate attention to safety in the development of the first network parks is a vital to ensuring this user group is seen in a positive light throughout the community.

Tertiary: Lighting

Parks with a night usage must have adequate lighting for access to and usage of the skatepark. The existing lighting infrastructure may support the proposed skatepark, or it may require additional site specific lighting. This issue needs to be thoroughly explored to ensure both safety and security.

Tertiary: Park Compatibility

Ensuring park compatibility is an important aspect for locating specific skate park elements. This category is an umbrella for all structural and programming issues within a park including items, such as, adjacent land use conflicts, surrounding neighborhood issues, and site access. Typically, this category is not further explored until later in the design process, but for master planning purposes, proposed sites need to have a high level of feasibility.

5.7 Site Amenities

The following is a list of site amenities that are recommended for each skatepark typology. This table is only an outline for amenities typically offered. Other options may be pursued if necessary.

Feature	Skate Spot	Neighbourhood Skate Facility	Community Skate Facility	Quadrant/ Regional Skate Facility	City-Wide/ Destination Skate Facility
Trash Receptacles	x	x	x	x	x
Integrated or Stand Alone Benches	x	x	x	x	x
Drinking Fountains		x	x	x	x
Shade Structure/Trees	x	x	x	x	x
Picnic Table Area		x	x	x	x
Portable/Adjacent Washrooms			x	x	x
Vending Machine			x	x	x
On-Site Washrooms			x	x	x
Full Concessions				x	x
Skate Shop/Merchandise					x
On-Street Parking			x	x	x
Off-Street Parking			x	x	x
Separate Access w/ Drop-Off					x

Figure 23 - Site Amenities Table



Tyler Warren skateboarding around Calgary



IMPLEMENTATION

In this section the Skatepark Development Model process is introduced, Funding options are discussed and final recommendations are presented.

6

6.1 Funding

There are three stages of skatepark development: Site Selection, Design and Construction Administration, and Construction Services. The funding considerations for each of these stages is discussed below.

Site Selection

Costs associated with identifying and selecting the appropriate location for a municipal skatepark are very difficult to estimate. In many cases, the site selection process is undertaken by municipal staff without formal assistance from an outside consultant, while for more complex or potentially contentious locations, expertise from a qualified consultant is often pursued. In cases where outside expertise is sought, costs can range anywhere from a couple thousand dollars to much more. This variance in cost depends on the number of sites under consideration and the level of public outreach expected. For Calgary's skatepark network, it is anticipated that smaller-scale skatepark sites will be selected through a process led by internal staff, while larger developments, such as a Community or Quadrant parks, will require outside consultant expertise. Therefore, it is recommended that an allowance is carried for site selection when budgeting for all developments larger than a Neighborhood scale skatepark.

Design and Construction Administration

Design costs for municipal concrete skatepark facilities typically range from 8% - 12% of the estimated project construction budget. These fees will cover a full-service design program consisting of site evaluation, community design consultation, concept development, production of construction drawings, technical specifications, and a standard construction administration program.

Construction

A general survey of recent projects across Canada suggests the base construction costs for site-built concrete municipal skateparks typically range from \$430-\$540/m² (\$40 – \$50/ft²). These figures consider full construction services for the facility, hard surface and basic landscape remediation. Costs for optional amenities, such as, lighting, washroom facilities, water fountains, and elaborate landscaping schemes are often highly variable according to design parameters and would incur additional costs to those outlined above.

As with most construction projects, economies of scale are often realized as the project size increases. Therefore, larger developments, such as, Community, Quadrant and City-Wide skateparks will likely price closer to \$430/m² (\$40/ft²), while Neighbourhood skateparks and Skate Spots tend to occupy higher area cost ranges. For planning purposes, it is recommended that municipalities use an overall figure of \$484/m² (\$45/ft²) to account for skatepark facility construction costs.

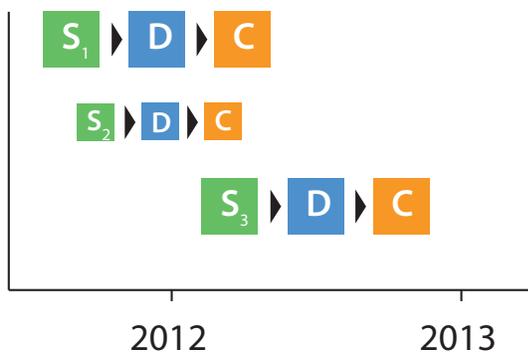
6.2 Implementation

Site Selection

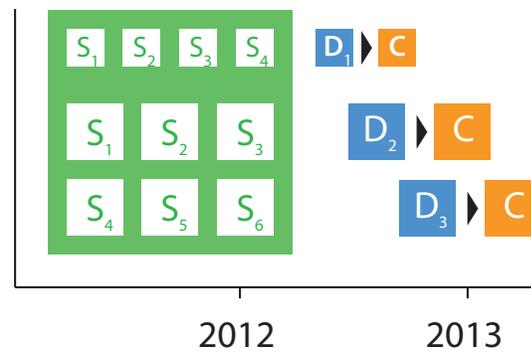
The tangible elements of the implementation process include site selection, park design, and construction. This may be undertaken in a two ways. The first option is to undertake site selection on a case-by-case basis as funding is made available. In this situation, each new site would be considered for its location and size within the network framework. Site selection may be undertaken by The City or by a design consultant and once a site is chosen the design process would immediately follow.

An alternative to a case-by-case site selection is to begin by undertaking a site selection process for the entire network. This may happen with or without funds already secured for the construction of the network. In order to maximize the use of resources, this may only include the more complex medium and large sites, such as, Neighbourhood, Community and Quadrant parks. In this situation a Network Sites document would be created that identifies the desirable sites and describes each site’s attributes. The Council adoption of a Network Sites document would clarify the scope of the network and facilitate the more efficient implementation of individual sites as funds are made available.

Case-by-Case Site Selection



Network Site Selection



S Site Selection **D** Design **C** Construction

Figure 24 - Site Selection Options

Design and Construction

The design and construction phases may be undertaken in two ways. The first option is a more traditional method and requires the hiring of a design consultant to undertake the public consultations and preparation of a technical drawing set, and then the tender of the project to procure a contractor to build the skatepark. The benefit of this option is that there are more design and construction firms available to bid on the design and construction RFP’s. The second option is to hire a design-build contractor that will see the process from design through construction. While this process limits the number of eligible bidders, it also offers the benefit of dealing with one company from concept through construction, and it facilitates a more thorough oversight of the construction process by the design team.

The following section describes a Skatepark Development Model for a case-by-case site selection process, participatory design, preparation of a technical drawing set and construction.

6.3 Skatepark Development Model

The development process explained below is the typical process used when planning a site-built concrete skatepark. The stages identified are a minimum for most skatepark construction and may need elaboration depending on the scale and location of the park. The timeline from site selection through finished construction is a multi-stage 16-month process. It requires a disciplined attention to deadlines to ensure that skateboarders will begin to enjoy the benefits of this strategy by 2013. The flowchart of this process is on the opposite page in Figure 25 - *Concept to Construction Flowchart*.

Stage 1 – Site Selection (4-5 months)

The site selection stage should take 4-5 months. This process is best organized by an independent consultant who will work with the City departments and CASE to identify the opportunities and determine the preferred location(s). Once a site or sites are selected, the public will be notified of a public meeting to discuss the options. The consultant will lead this public meeting and record feedback. As a result of the public input, the location and park type will be finalized and presented at a public meeting or through online means.

Stage 2 – Participatory Design Process (4-5 months)

Once a site is selected it is time to begin individual skatepark design. Notice of an information meeting and design workshop will be directed to stakeholders.

There are a variety of potential stakeholders including the park users, funders and operators, and park neighbours. Park users include all those individuals that intend to use the skatepark, such as, skateboarders, BMX, and inline skaters. Park user groups may also be represented by associations, such as, CASE. Funders and operators will generally include the City Council and various City departments involved in the planning, implementation and ongoing maintenance of the skateparks. However, depending on the funding model and maintenance agreement, it may also include private individuals, corporations or non-profit associations, such as, CASE who may take part in grass-roots fundraising or create an organized presence at the new parks. Park neighbours include the residents and businesses or business associations that reside in the surrounding neighbourhood.

The information meeting and design workshop will seek to inform citizens of the proposal and develop design ideas and priorities, which will be used by the consultant in the preparation of design concepts. A second workshop will be organized to present the design concepts and receive feedback from stakeholders. Based on stakeholder feedback, a concept will be chosen, revised and finalized.

Stage 3 – Construction Drawings and Procurement of Qualified Contractor (2-4 months)

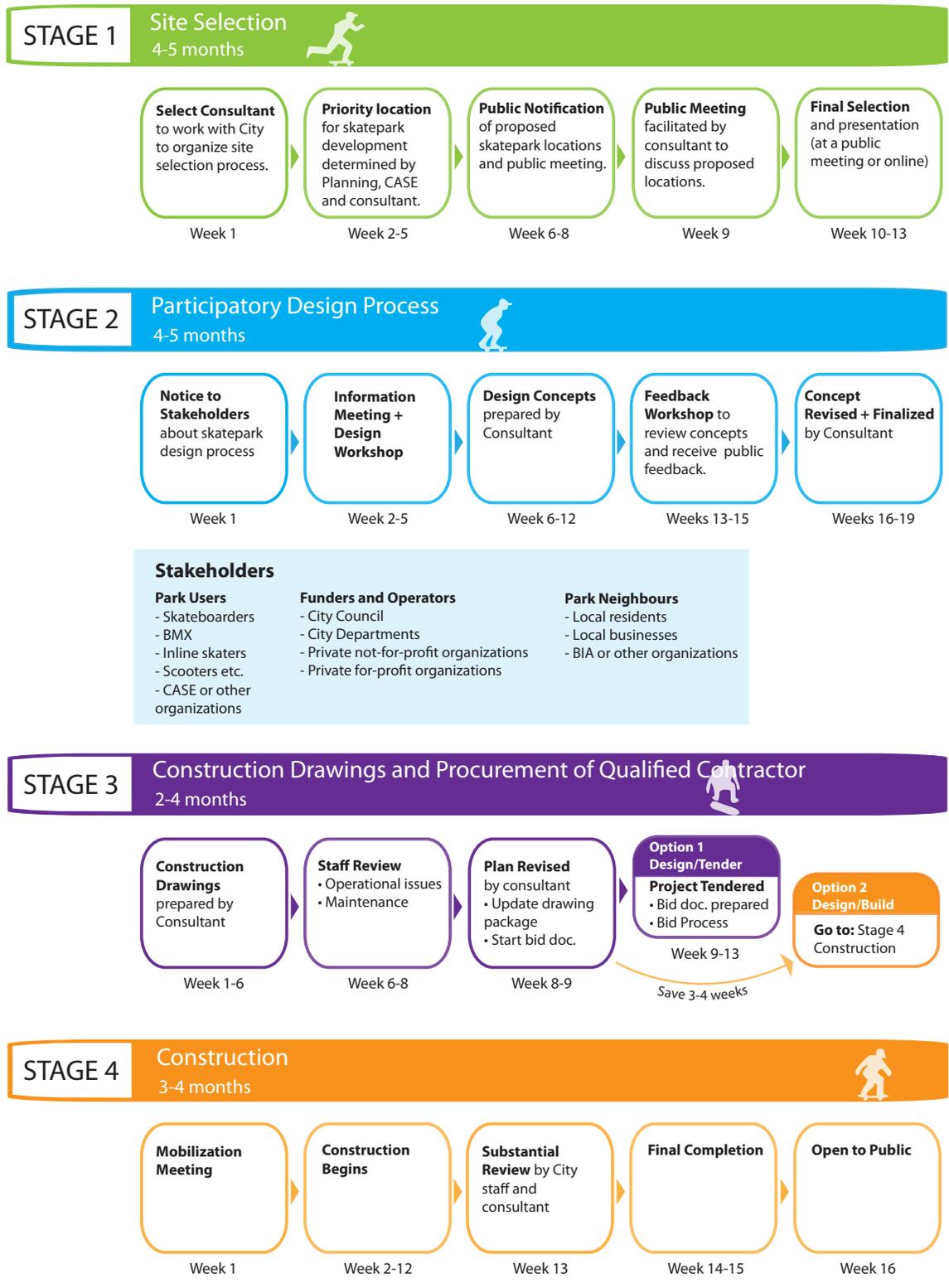
Once the design is finalized the consultant will prepare a construction drawing package. City staff will review the drawings with consideration of operation and maintenance issues. The consultant will then make any necessary revisions and begin the tender bid document. The bid document will detail specific requirements for qualified contractors and the project will be put to tender through an open bidding process.

Stage 4 – Construction (3-4 months)

Once a contractor has been selected there will be a mobilization meeting and construction will commence. At 80 percent completion there will be a substantial review by the City Staff and Consultant. The contractor will make any necessary changes and the project will be completed and opened to the public.



— Concept-To-Construction Flowchart —



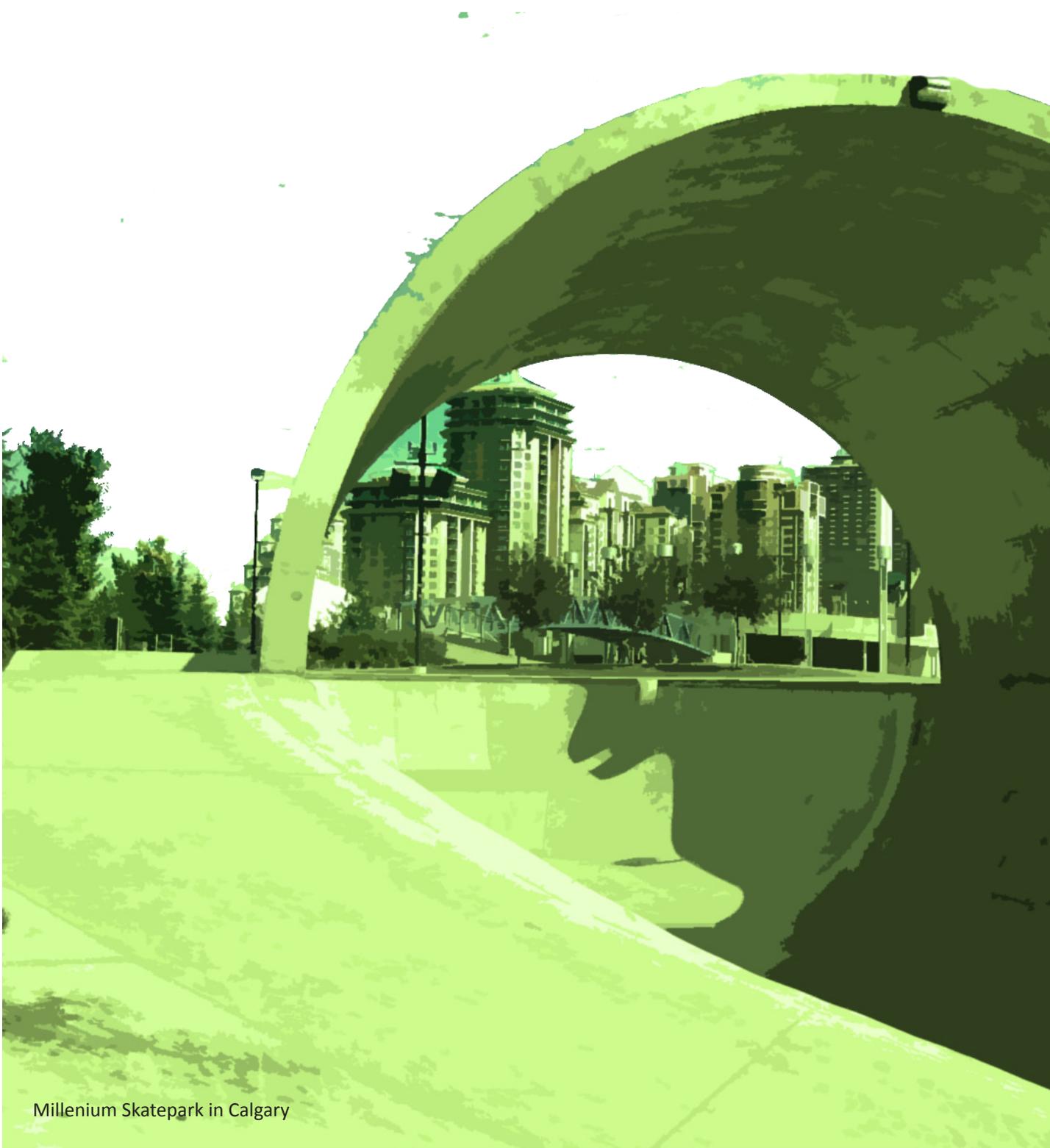
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Figure 25 - Concept-to-Construction Flowchart

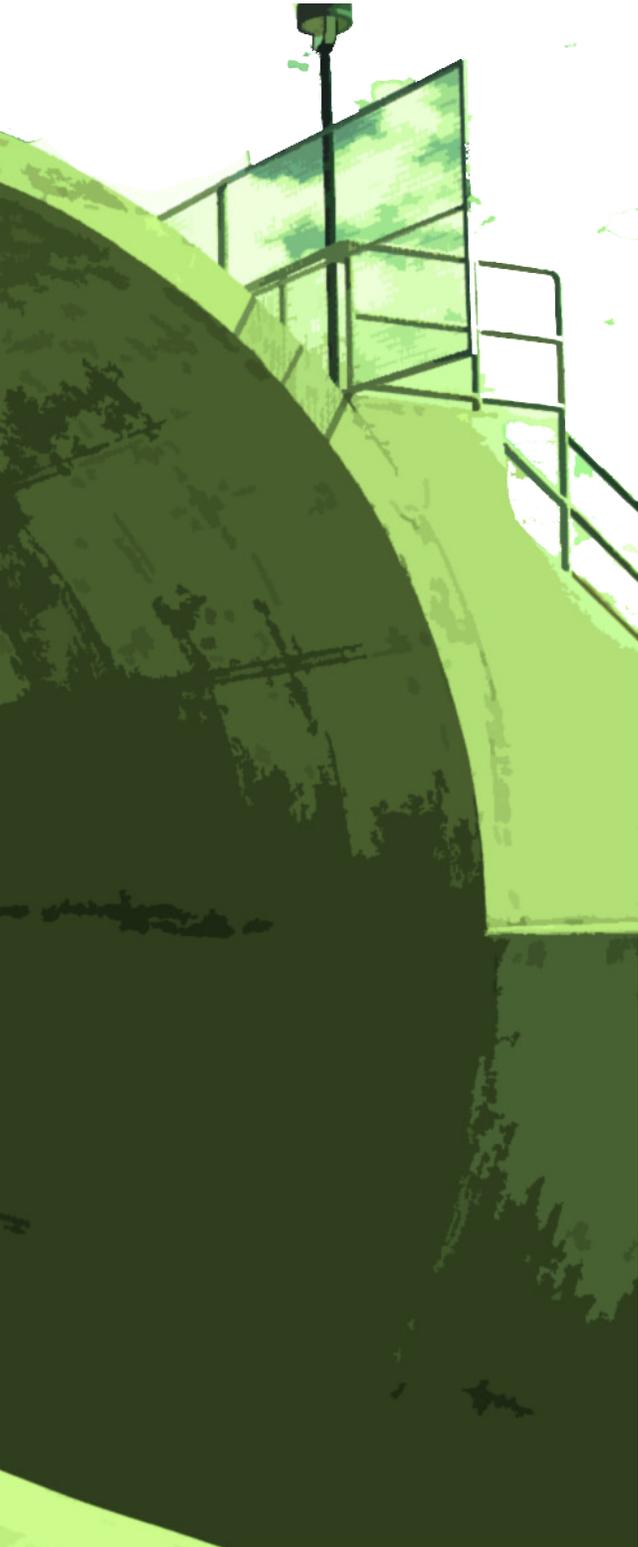
6.4 Recommendations

The following is a list of recommendations brought forward by the Calgary Skateboard Amenities Strategy. It should be noted that the CSAS is a “living document” and that all recommendations stated herein are to be discussed and reviewed by city officials and throughout the public process. This document should be used to provide the framework for achieving an effective city-wide network for skateboarding amenities.

1. Currently, The City of Calgary is in need of additional skateboarding area to meet the needs of the skateboarding population. It is recommended that the City develop an additional **22,655m² (243,860 ft²)** to meet the needs of the current skateboarding population. To meet projected needs of the skateboarding population over the next 10 years, it is estimated that a total of **25,791m² (277,607ft²)** be constructed. See pages 32-33.
2. Develop a skateboard amenity network to complete the needed area. **Option D: ‘Combination Network’** as described in Section 5, is the system that meets the most requirements of the skateboarding community and steering committee, this option is recommended for the organization of skateboarding amenities in Calgary. See pages 58-59.
3. Permit other wheeled-sports in the skatepark venues and include these alternate user groups in the design process. Other wheeled-sport groups include but are not limited to bmx, inline skaters, scooters, roller skaters and longboarders. See Survey results on pages 20.
4. Find a suitable location for one or more indoor skateparks or wheeled sport facilities to comprise an area of at least 1,850 m² (20,000 ft²). An indoor facility may be located in an existing building or be a purpose built facility that is clustered with a recreation centre. Indoor facilities should serve both skateboarders, bmx, inline skaters and provide a fitness track for roller skaters. See page 50.
5. Funding options should be explored with the local, provincial, and national government, as well as, the private sector, non-profits or other community partners in the allocation of funds, grants, donations and partnerships. See page 66.
6. Further engagement and communications with community, stakeholders, and city departments including but not exclusively , planning and building, bylaws , police and risk management to ensure safe skate parks are built in cooperation with community and are compliant with planning and building , bylaws , and risk management procedures.



Millenium Skatepark in Calgary



APPENDICES

The appendices section provides additional information that was used to create this document and supplement research. It contains examples of municipal 'Best Practices' for skatepark development, sustainable construction practices and a discussion of concrete versus modular skateparks.

7.1 Municipal Skatepark Development ‘Best Practices’

While no formal published ‘Standard’ exists for public skatepark development in North America, considerable advances in the field of municipal skatepark design and construction have resulted in skatepark facilities that are more durable and better integrated in the community. Largely gone are the stereotypical ‘concrete squares’ of the past as a new era of facility design and construction responds to far more than the immediate function of concrete surface. This means facilities that not only provide premium quality terrain for skateboarding, but integrated public landscapes that incorporate viewing and socializing areas, relevant art and sculpture, ‘green’ development principles, and strong connections to surrounding amenities. This integration of site, user, and surrounding community considerations is becoming the new definition of a modern municipal skatepark.



The strength of a master planning exercise allows for community development of a skatepark strategy that may provide varied terrain, in geographically dispersed areas of the city. The development of a ‘network’ of skate opportunities is emerging as a consistent and sound strategy for community development. Not unlike a sports field development strategy, it is useful to think about skateboarding, and skateparks as a legitimate extension of the recreational spectrum in any community. As such, the provision of a network of skatepark typologies, dispersed in a logical, and strategic fashion throughout the community is the best way to safely, and conveniently serve the whole community.

To build upon the notion of a skatepark network – it is useful to consider a progression of terrain options to create variety and contrast throughout the parks system. By carefully planning the network terrain, skateboarders may choose options for park/obstacle, street, or bowl/transition terrain in the various built parks around the city.

Within the following pages, we have compiled a number of skatepark developments from other cities in Alberta and throughout North America. These examples illustrate successful skatepark development principles or ‘best practices’ while also indicating how a variety of skatepark classifications from the Skatepark Typology can be successfully integrated into various sizes of existing municipal parks and downtown landscapes. The examples included indicate a variety of terrain options, as well as site selection options: mixed-use zoning in an urban context, suburban park locations, adjacency to schools, residential etc. Some of the examples also discuss methods for successfully including a broader cross-section of the population to develop a broader sense of community ownership for the facility.

The Plaza at the Forks, Winnipeg MB - City-Wide / Destination Park

Covering an area of over 4,100 m² (44,000 ft²), the Plaza at the Forks consists of a meticulously detailed skateable sculpture plaza and expansive modern bowl complex tied seamlessly into the heart of downtown Winnipeg’s urban fabric. The facility is the first of its kind in the world and has quickly become one of Winnipeg’s most celebrated public places and a destination for skateboarders and other urban explorers from around the globe.

The concept for the Plaza was unique from the onset. The Forks, aptly named due to its position marking the amalgamation of Assiniboine and Red rivers, serves as one of Winnipeg’s preeminent meeting places. The area is steeped in over 6000 years of cultural and historical significance and is visited by over 4 million people each year for a range of attractions and activities. Accordingly, the riverside setting is highly programmed with stringent development guidelines and a commitment to utmost site sensitivity. The design challenge was to preserve the essence of this beloved public space while introducing a thoroughly modern world-class skatepark.



The Plaza at the Forks, Winnipeg MB - continued...

The result is an urban landscape like no other. Far from the typical skatepark, the Plaza at the Forks is better described as a premier urban park/plaza and gathering place that is ‘perfect for skateboarding’. On any given day, one may see hundreds of visitors skateboarding, inline skating, biking, viewing art, strolling through, or simply sitting by to watch and socialize. It has truly become an enjoyable place for people of all ages, backgrounds, and interests.

Central Plaza 2,700 m² (29,000 ft²): Inspired by prized skate spots around the world and the rich history and culture of the Forks district, the main plaza area is made up of an endless combination of stair sets, banks, rails and ledges set within a host of custom sculptures and other art pieces - the majority of which may be ridden by skateboard, BMX or inline skates. Along with input from heritage and culture experts, our team undertook extensive consultation with leaders of the local skateboarding and art community to devise a final layout and detailing that would be optimal not only in skate function, but also true to the culture and feel of the Forks and The City of Winnipeg. Particular highlights include:

- ‘Spirit Fish’, a skateable sculpture designed to represent the nearby rivers and the mystical 6000 year old catfish that used to inhabit their waters - painted by local artist Pat Lazo.
- ‘Magic Carpet’, a super elevated and perfectly skateable concrete ribbon track referencing the railway lines that met at Winnipeg’s main terminal within the Forks until 1923.
- Numerous granite capped benches, ledges and blocks.
- Wire cut stone and acid etched concrete accents.
- Original Forks brick inlaid on pedestrian walkways.



The Plaza at the Forks, Winnipeg MB - continued...

Bowl Complex: Separate and adjacent to the Central Plaza, lies an 790 m² (8,500 ft²) bowl unit combining traditional pool and modern coping lines. Walls begin at 5 feet and progress through a series of hips, elevators, extensions, and a pump bump to a massive 17 foot cradle and 13 foot over-vert pocket. Ridden by beginners through to the likes of Tony Hawk, the bowl can often become the center of activity with hundreds of spectators in the surrounding informal viewing areas.

The park was completed with unique lighting, a network of 'safe' pedestrian walkways and viewing areas, and consultation on the creation of an 'Ambassadors' program designed to educate visitors on skateboarding etiquette and ensure an enjoyable experience for all.

The entire project is built on state of the art construction and engineering designed to withstand the difficult ground conditions and dramatic temperature fluctuations characteristic of the region. Proven cold weather skatepark construction techniques were matched with innovative void forming and reinforcement technology. Over 200 precast piles, highly specialized concrete mix designs, and an expansive grade beam system will ensure maximum surface integrity over many decades to come.

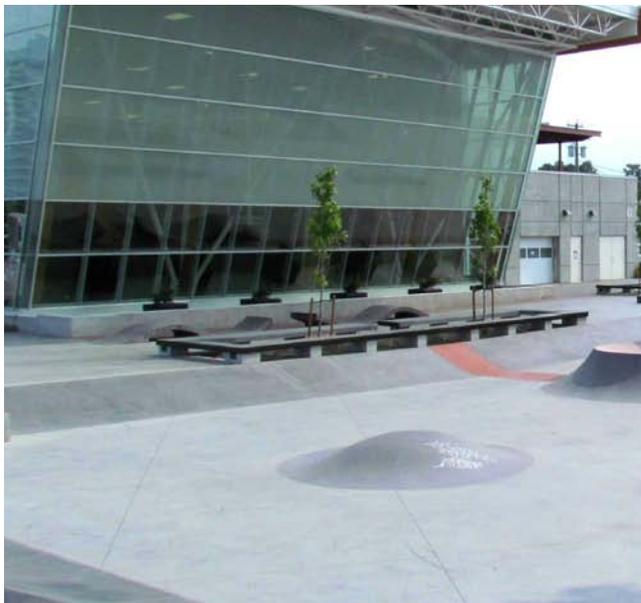


Chuck Bailey Youth Park, Surrey BC - Regional / Quadrant Park

The Chuck Bailey Youth Park (Surrey, BC) boasts Canada's first purpose-built partially covered outdoor skate plaza and bowl complex. Located directly adjacent to the acclaimed Chuck Bailey Recreation Centre, the landmark development covers just under 2,800 m² (30,000 ft²) of space, including a 600 m² (6,500 ft²) sport court, local art installations and an architecturally stunning roof structure that houses over 465 m² (5,000 ft²) of world-class skateable terrain.

Skateable features include a mix of detailed obstacles ranging from custom skateable boulder sculptures to transitioned vertical monoliths that also serve as signage installations for the park's main entry. However, the most sought after feature is undoubtedly the expansive covered bowl unit which flows directly from the central plaza and provides users with a dry location to skate during the region's many rainy periods.

The entry plaza and open space plan reflects the needs of a multi-purpose building and the additional requirement of formal public events. The site concept takes the idea of 'honing oneself as an athlete'. Various metaphors are used: rough granite, smooth granite, deliberate paving patterns, plant selection, lighting, and water features. The resulting design was used by VANOC through the Olympic lead-up and now functions as community meeting space, recreation centre, and public gallery. Various efforts were made to reduce the urban heat island effect, improve site permeability, and reduce water consumption. The project has become a 'beacon' for new development in the area - an inspiring expression of Surrey's future!



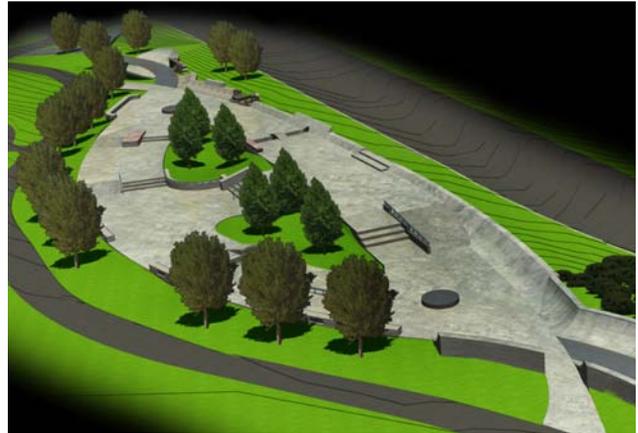
Thomas Haney Youth Action Park, Maple Ridge BC - Community Park

The Thomas Haney Youth Action Park features approximately 1,580 m² (17,000 ft²) of unique modern plaza and bowl terrain tied directly into a busy British Columbia public schoolyard. In addition to serving the local skateboarding and BMX community, the park also doubles as an outdoor ‘amphitheatre style’ performance space and casual socializing area. The project is the first active schoolyard skatepark development in Canada and has captured the attention of cities around the world attempting to incorporate progressive public space for youth in traditional settings.



Ed Benedict Skate Plaza , Portland OR - Community Park

This distinctly organic design features approximately 1,500 m² (16,000 ft²) of skateable terrain punctuated by a series green channels, sand filtration planters and two major biofiltration islands for natural on-site treatment of stormwater. The project serves as Portland’s first legitimate plaza based facility and one of the Pacific Northwest’s first ‘green’ skateparks. The design was developed in close collaboration with artists from Portland’s local skate community and features a number of custom sculptural elements, stamp patterns and diverse material combinations. In 2009, the project was profiled in the New York Times for its innovative sustainable design practices.



Olds Skate Plaza, Olds AB - Neighbourhood Park

Located in the Town's prized Centennial Park, the Olds Skate Plaza consists of approximately 880 m² (9,500 ft²) of 'railway history' inspired modern street and integrated transition terrain 'wrapped' around a large planted area and existing picnic bosque. The facility is complimented by nearby horseshoe pits, a gazebo, and expansive passive green area - resulting in a highly popular multi-generational recreation space within the community.



City of Vaughan Skate Spots, Vaughan, ON - Skate Spots

The City of Vaughan, ON has made significant progress on implementing a city-wide skatepark network. The communities of Hillside, Twelve Oaks, and Jack Pine now have their own neighbourhood Skate Spots, measuring between 275 - 375 m² (3,000 - 4,000 ft²) and costing less than \$150,000 each. Each custom design marries art and skateability within relatively small circular footprints. The result is a collection of compelling, low-impact skate environments within close reach of the average neighbourhood skater.



7.2 Sustainable Design and Construction Practices

There are several measures and techniques that can be incorporated into the skatepark to make it sustainable. Examples of these include:

- Treating the storm water run-off with environmentally sustainable methods.
- Incorporating ‘fly ash’ in the concrete mix. Fly ash is a by-product of coal combustion that is typically considered a waste product. However, when added to concrete mixes, it makes for stronger concrete end product with tighter consolidation.
- Use recycled crushed concrete for a base rock under the concrete.
- Use of Forest Stewardship Council certified wood products for framing of concrete forms.
- Balanced cut and fill to reduce off-site hauling, which will save energy and landfill space.
- A desire to incorporate reused or recycled materials – jersey barriers, wheel stops, steel, non-perfect granite, etc.
- Use of locally produced or manufactured materials – locally harvested wood, etc.
- A requirement for separation of recyclable materials from construction waste.
- Use of native vegetation for storm water treatment and shade.
- Inclusion of interpretive signage to explain these measures.

An example of a sustainable skate park is Ed Benedict Skate Plaza in Portland, Oregon. There are natural elements such as trees and native plants to help reduce storm water runoff and allow it to infiltrate back into the ground.



Ed Benedict Skate Plaza, Portland, Oregon

7.3 Concrete vs. Modular

(The following are excerpts from author Carol Newman in Landscape Architecture Magazine)

Elite Concrete

Skate park cost analysis can benefit from a broader view. Rod Wojtanik, landscape architect and project manager for Portland Parks and Recreation, has years of experience planning for Portland’s skate parks and has determined that poor long-range durability drives up prefab costs.

“In a nutshell,” he says, “ramps are cheaper to install but in the long run they are considerably more expensive. Ramps made of steel are noisier, get chipped and rust. Ramps made of wood and masonite need to be checked regularly for screw heads that back out. They don’t hold up well under inclement weather and they don’t take the abuse of the sport very well. These factors increase maintenance costs and in a few years the ramps need replacing. There is no cost savings with ramps if you look at five- to ten-year feasibility of construction, maintenance, and replacement costs.”

Design and Safety

In addition to driving up costs, deterioration of modular units creates safety problems: sharp edges, loose screws, and widening lips and joints. In a pitch for a quality concrete park to his city hall in Arlington, Washington, Chris Raezer of Skateboard Alliance, an advocacy group for quality skate parks, referred city officials to two local modular parks, Bothell and Mount Vernon. Both parks were less than three years old and had already suffered significant wear and tear. His presentation included photographs of loose screws with kneepad plastic wedged underneath. And, he noted, not everyone wears kneepads.

Upon review of this documents and several others on both Skaters for Public Skateparks and

The Tony Hawk Foundation it is recommended that only integrated, site specific, concrete skateparks be considered for the Skateboard Amenity Strategy.

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