# Placing Pedestrians at the Core

Considerations for the Pedestrianization of
Ontario and Market Streets in Kingston, ON



## Land Acknowledgement

Our project team acknowledges that we live, work, and learn in Kingston, known traditionally as Katarokwi, which is situated on the ancestral and traditional homelands of the Anishinaabe, Haudenosaunee, and the Huron-Wendat.

In recognizing these traditional territories, we recognize that these Nations' presence and histories on this land reaches back to time immemorial.

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# Project Team

This report was written collaboratively by six master's students in the School of Urban and Regional Planning at Queen's University to fulfil the requirements of SURP 823: Planning Project. Under the supervision of Dr. Patricia Collins, the team worked with the City of Kingston to conduct research and develop recommendations for a unique public realm project.



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# Executive Summary

## Purpose

The purpose of this report is to develop a series of recommendations for the City of Kingston for the proposed pedestrianization of Market Street and Ontario Street. This report will aim to provide additional insight that can supplement the work being undertaken by the consultant, McIntosh Perry.

The City of Kingston's Transportation and Transit Services Department initiated this project in order to better accommodate increasing densification and demand for services within the downtown core. The City of Kingston is aiming to make public spaces more accessible, safer, and welcoming for all users. As such, the Project Team was tasked with identifying key considerations and recommendations to maximize the potential for a successful pedestrianization project.

## Methodology

This study used the following qualitative research methods to inform our recommendations:



- A **Literature Review** was conducted of over 50 articles and reports. This included peer-reviewed journal articles, thesis reports, Master's reports, as well as studies and reports produced by municipal governments.



- An **Observational Analysis** was undertaken based on a series of site visits conducted over the past four months. Qualitative observations were conducted at various times of the week, at various times of day, and during special events.



- A **Thematic Analysis** was conducted of public feedback received by the City of Kingston through survey data and emailed comments. Feedback pertained to the Ontario Street Pedestrianization Study and was received from June to October 2023.



- **Semi-Structured** Interviews were conducted with a variety of key stakeholders from over 15 municipalities across Canada and the United States. Interviews were focused on understanding the context and associated challenges that accompanied pedestrianization projects in municipalities with similar characteristics to Kingston.



- A **Case Study Analysis** was conducted on 45 pedestrianization projects from across Canada and the United States. Project outcomes and accompanying strengths and weaknesses were compared between cases.

## Key Findings

The following four research findings were established to shape the recommendations of this report:

**Safety** was found to be one of the most important elements of a pedestrianization project to both municipalities and the public. It is beneficial for pedestrianization projects to ensure secure separation between vehicles and pedestrians within these spaces through clear signage and barriers.

**Pilot Projects** are recommended as a first step to initiating a permanent pedestrianization project. It is important to gauge public response before major investments are undertaken and to allow the perspectives of local businesses and residents to help shape the vision for the project. Programming and infrastructure should be budget-friendly at this stage of the project.

**Meaningful Consultation** with the local business community through BIAs can help alleviate future project challenges. Efforts to address access and infrastructure needs should be ongoing and collaborative to maximize the potential for all parties to be satisfied.



**Seasonal Activation** opportunities should be fully explored if a permanent pedestrianization project will be undertaken. Programming should not be neglected in the winter months and accessibility concerns should be alleviated to ensure a successful winterization.

## Recommendations

Results from the research revealed a variety of key considerations for municipalities undertaking a pedestrianization project. The recommendations outlined below were designed based on these key findings to help maximize the potential for a successful pedestrianization project within the City of Kingston.

**Safety**

- Eliminate pedestrian-vehicle conflict points by creating clearly defined boundaries and signage.
- Reduce the speed and flow of traffic around the site by introducing traffic calming measures, such as raised intersections and pedestrian-priority signage.
- Increase the perceived safety of the space with sufficient lighting.

**Placemaking**

- Use landscaping features, design, and activation on Ontario Street to connect Confederation Park to Springer Market Square and create a strong, cohesive 'sense of place.'
- Use a mix of permanent and flexible programming and infrastructure to allow for adaptability.
- Commission local public art, such as street murals and sculptures, that reflect the area's history and culture, while providing a distinct character for the space.
- Provide space for large and small events and activities throughout the year.

**Accessibility**

- Provide accessible and efficient pedestrian entrances.
- Include wayfinding elements to enhance the visitor experience by highlighting key features, while facilitating access and exploration.

**Management**

- Improve the market experience for vendors with enhanced amenities and more options for stalls.
- Increase the duration and frequency of market days and increase opportunities for local businesses to expand into the space.
- Collaborate with and empower programming coordinators and/or community groups
- Establish an open-air bistro around the amphitheater.
- Create an oversight committee in charge of the day-to-day operations of commercial vendors.
- Provide meaningful and significant public consultation opportunities.
- Collaborate with the Downtown Kingston Business Improvement Area to ensure their support.

**Seasonality**

- Close both streets to vehicles in the warmer months to enhance the pedestrian experience downtown, improve the tourist realm, and boost the local economy.
- Consider providing vehicular access during the winter months, with the space still accommodating special events or weekend closures.

# Key Terminology

The terms below have been defined by the team to help categorize pedestrianization projects. We opted to classify projects by their status rather than to identify them as 'successes' or 'failures,' given that these terms are often subjective and lack nuance. These terms were used throughout the report, particularly within Chapter 4, to identify key trends between projects. Key terms that appear less frequently within the report can be found within the glossary.

## Project Type



**Temporary**

Projects that are not consistently active and involve the reopening of the roadway. This can include weekend closures, timed closures (e.g. only from 9-5pm), and bi-weekly closures.



**Seasonal**

Projects that are only active during a certain period of the year. This typically involves a summer pedestrianization and the reopening of the roadway to vehicles in the Fall.



**Permanent**

Projects that involve the complete pedestrianization of the roadway. The area is closed to vehicles year-round.



**Flex Street**

Streets that can adapt to accommodate a variety of travel modes. These streets are normally open to cars, cyclists, and pedestrians but vehicle access can be restricted for events and programming.



**Pilot Project**

Projects that are temporary, designed to determine the viability of a recurring or permanent project and allow opportunities for community feedback.



## Project Status

**In Planning Phase**
The project has not yet been fully initiated.

**Active**
The project is still ongoing.

**Scaled Up**
The project is still active but is planning to or has taken up more street space, provides less vehicle access or occurs more frequently.

**Scaled Down**
The project is still active but is planning to or has been altered to take up less space, provides greater vehicle access, or occurs less frequently.

**Inactive**
The project time-period has ended or the project has been put on pause.

**Ceased**
The street has returned to its original state. The area is no longer pedestrianized and has been reopened for vehicle access.

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# Introduction & Context



# 1.0 Introduction & Context

## 1.1 Purpose

City planners and public administrators are increasingly recognizing the value of designing urban spaces for people, not motor vehicles, to promote vibrancy, sociability, and commerce. A growing number of municipalities across North America are pedestrianizing areas of their central business districts to support these benefits. The City of Kingston is currently exploring the pedestrianization of Market Street and Ontario Street adjacent to City Hall in the downtown core. In doing so, the City would be able to connect two existing and heavily used public spaces in Kingston: Springer Market Square and Confederation Basin. Reimagining the streetscape and expanding the waterfront park offers a unique opportunity to create a space that reflects and uplifts the community and promotes the charm of Kingston's historic downtown to visitors and residents alike.

The purpose of this report is to develop recommendations for the City of Kingston for the prospective pedestrianization of Market Street and Ontario Street. Focusing on scholarly literature and select case studies from across North America, the report will identify and analyze best practices in pedestrianization planning and implementation to aid the City of Kingston in successfully transforming this area into a vibrant, pedestrian-focused environment.

## 1.2 Project Overview

City of Kingston staff established a community focus group in 2021 to identify opportunities for downtown improvement. Key themes included physical improvements downtown and the creation of more safe and welcoming public spaces. The group indicated that they enjoyed temporary closures of Market Street and Ontario Street to vehicular traffic in front of City Hall since 2020. To create additional public space, the focus group supported the initiation of a process to consider the closure of Ontario Street and Market Street to vehicular traffic around City Hall.

The need for pedestrianization of the study area was identified in the City's Downtown Improvement Plan in 2022 to create more welcoming and safer pedestrian spaces in the downtown area (City of Kingston, 2023). In spring 2023, the City commenced an ongoing study to close Ontario Street and Market Street to enhance pedestrian activity from City Hall and Market Square to Confederation Park. In August and September 2023, the City undertook engagement with key stakeholders and received mixed feedback on the proposal. As of November 2023, engagement remains ongoing and will remain open until the study is complete. The City of Kingston has retained McIntosh Perry ('the consultant') to complete a comprehensive project/study to assess the feasibility of permanently pedestrianizing Ontario Street and Market Street at City Hall. The consultant will complete a Municipal Class Environmental Assessment (MCEA) Schedule 'B' Study (Phases 1 and 2) in accordance with the Municipal Engineers Association 'Municipal Class Environmental Assessment' document. At the conclusion of the process, the consultant will present the City with a technically sound, preferred alternative solution and conceptual design(s) for the pedestrianization of Ontario Street from Clarence Street to Brock Street, and Market Street from Ontario Street to King Street.

Working closely with the City, local stakeholders, and focus groups, the McIntosh Perry project team will develop a design concept that makes the spaces currently designated as Ontario and Market Streets a destination, instead of simply streets for good and people movement (McIntosh Perry, 2023). The consultant, in collaboration with the City of Kingston, will develop several potential alternative design concepts aimed at meeting shared stakeholder goals, including:

- Creating a safe, comfortable, and convenient walking environment;
- Supporting and enhancing economic and retail vitality;
- Improving street aesthetics and visual quality;
- Accommodating all legitimate mobility and access needs;
- Designing for sustainability, maintainability, and resilience, and
- Integrating the project area into the existing streetscape and facilitating connections with surrounding activity centers (McIntosh Perry, 2023).

The design concept alternatives produced by the consultant will be informed by best global practices and the findings of their study. The diversity of concepts will include those that employ a variety of approaches to mode segregation, passenger and commercial loading, traffic circulation, illumination, landscaping, street furniture, street operations, concessions, and accessibility (McIntosh Perry, 2023). By capturing the views, interests, and priorities of those who live, work, and play in Kingston, the McIntosh Perry project team will seek to provide the first steps in identifying visioning, guiding principles, and emerging considerations that will guide the next steps for the future of the Ontario Street and Market Street streetscape (McIntosh Perry, 2023).

In September 2023, a group of six Master's of Urban and Regional Planning students from Queen's University, with direction from Dr. Patricia Collins (Queen's University) and Danny Potts (City of Kingston), were asked to prepare a planning report with recommendations for successful pedestrianization of the study area for the City of Kingston. The report produced by the student team aims to build upon the technical work produced by consultants McIntosh Perry by focusing on the social, health, and community impacts of pedestrianization. Working closely with the instructor and client, the project team completed four major tasks, including a scholarly literature review on the costs and benefits of pedestrianization in central business districts, an analysis of key themes that emerged from the City's public engagement activities, an investigation of North American case studies on pedestrianization, and a study of the site and broader downtown Kingston context to identify key considerations and lessons to maximize successful implementation in Kingston.

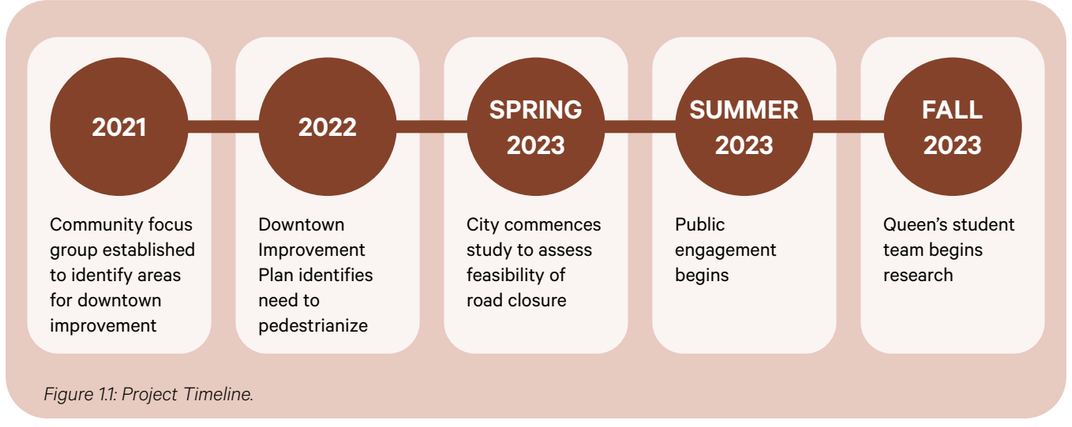



*Figure 1.1: Project Timeline.*

## 1.3 Pedestrianization Projects in Kingston

The City of Kingston has initiated a variety of projects in recent years to enhance its public spaces and to make Kingston healthier, more connected, and more accessible to all. Two temporary street closure projects in Kingston have aimed to improve the pedestrian experience downtown, including the 'Summer on Sydenham' road closure to provide more outdoor seating and public space for activities and pop-up community events, and the annual Princess Street Promenade.

Initiated by the Downtown Kingston BIA, Summer on Sydenham provides ongoing, changing events on Sydenham Street between Princess and Queen Streets over the summer, including live music, mini putt, patio tables, and a children's play zone. When the street was upgraded, the intention was to regularly close this segment for events to create a more flexible, pedestrian-friendly space and better animate the downtown area without fully pedestrianizing the street. With its central location and connectivity to nearby Skeleton Park, the project is well-suited for community events and has created a vibrant pedestrian-oriented space for all in the downtown core, and nearby businesses benefit from the expanded outdoor seating for their customers.

Challenges associated with this project include ensuring that the street closure is clear to motorists at times there are no events taking place, and some issues with accessibility and reduced parking as customers and delivery drivers have grown reliant on having direct access to the street. There have been some complaints from the community about the use of bright construction signage not blending with the surrounding environment.




*Figure 1.2: Summer on Sydenham (Photo via Downtown Kingston BIA).*

The Princess Street Promenade has been a major draw to downtown Kingston since its launch in 2010 and has become a popular, well-attended event. Led by the Downtown Kingston BIA, the closure of Princess Street from Division to Ontario Street three times over the summer allocates space for local businesses, performers, and vendors to connect with the community. Free transit is offered during the event to encourage visitors to arrive without a vehicle, and child-friendly programming and activities attract families to the downtown core. The project raises some concerns around parking and vehicular access and experiences some challenges with keeping crossroads open. With the number of participating vendors growing each year, activity space is becoming narrower as more space is allocated to businesses.



## 1.4 Project Methodology

This section of the report outlines the qualitative research approach that was applied to the project. The primary methodology used comprised of five tasks that were taken on by the project course team, this included:

**Academic Literature Review** (Chapter 2): A review of academic and nonacademic literature weighing the costs and benefits associated with pedestrianizing central business districts in North America and elsewhere. Cost and benefit themes were identified in the literature and were evaluated on a weighting criterion based on their presence across literature. This weighting criterion helped organize the themes by their significance to understanding the overall costs and benefits of pedestrianization.



**Site Visits** (Chapter 3): Reoccurring site visits throughout the project timeline were conducted. Using qualitative observation methods, findings examining pedestrian, cyclist, motorist, and built environment characteristics were gathered. In addition to site visits specific large scale pedestrianization events in Kingston were observed to provide supportive findings on the organization, management, and user experience during pedestrianized street events.



**Thematic Analysis of Public Feedback** (Chapter 3): An analysis of public feedback comments provided by the city, these comments were sorted into key themes and analyzed to understand the support, concerns, and suggestions of Kingston residents regarding the pedestrianization of Market and Ontario Street. As with the literature review public feedback was evaluated on a weighting criterion based on how frequently themes were brought up throughout the public feedback comments.



**Comparative Case Study Analysis** (Chapter 4): An examination of case study examples from municipalities across North America. Data on the positive and negative impacts, as well as activation ideas were synthesized to identify general trends for successful implementation of pedestrianization projects in downtown cores. Semi structured stakeholder interviews were also conducted to provide a more detailed understanding of how other municipalities implemented their own pedestrianization projects.



**Recommendations** (Chapter 5): Through an integration of all qualitative findings gathered key recommendations for the city were presented. Recommendations were categorized into the key themes of Implementation, Placemaking, Seasonality Access, Safety and Activation. Integrating each of the key findings from the preceding chapters helped shape the recommendations and aimed to provide the city with findings that help support the importance of pedestrianizing Ontario and Market Streets in Kingston. A long-term vision was also presented to provide the city with a plan for the long-term goals for pedestrianization of Market and Ontario Street.



## 1.5 Project Limitations

This project presented the team with various limitations to the research. Key limitations of the project are discussed to best address the potential gaps in research, and how they could be improved upon for future research on the pedestrianization of Market and Ontario Street.

This project was conducted and presented during a limited time frame of one academic semester, therefore limiting the time and scope of the research. Prior to the initiation of this project, McIntosh Perry had been recruited by the city as the primary consultants on the project. Their role was to establish a feasibility assessment for the proposed pedestrianization of Market and Ontario Street. With limited communication with McIntosh Perry the project course team worked to stay within the project's scope of examining primarily qualitative evidence for the costs and benefits of pedestrianization. This created a limitation regarding the amount of quantitative research findings included in the report's research findings. Extending the project's timeline could have expanded the scope of research and allowed for more extensive quantitative analysis.

Another limitation of the project was the unrepresentative public feedback sample. Engagement with the public was through the City of Kingston's Get Involved page. From the feedback received on the Get Involved page only 155 respondents provided comments or suggestions. This was not a representative sample of Kingston Residents and presented a limitation in the project course team's ability to gain an accurate understanding of Kingston residents' feelings towards the project. More extensive public feedback and consultation was needed to gain a stronger and more representative opinion of the proposed project.

Throughout the duration of the project there was a lack of in-person consultation with stakeholders. With limited time to complete the project, extensive in-person consultation was not feasible with a variety of stakeholders. Key stakeholder interviews with different municipalities were conducted although no in person consultation took place with Kingston residents, emergency services, BIAs, or Market Organizers. Given more time and access to in-person consultation this would benefit the extent of the recommendations and considerations considering the feedback from in-person consultation.

Finally, researcher bias from the project course team and city was a limitation of the project. With this being a student run project working with the city there was not as much at stake for the project course team. With findings provided by the city from McIntosh Perry leaning towards the recommendation of a permanent closure of both Market and Ontario Street this could have led to the project course team having a bias towards their research findings. Additionally, with no monetary stake in the project this could have had the potential to create a bias among the researchers that favour an outcome recommending the permanent closure of Market and Ontario Street.

## 1.6 Kingston Context

### 1.6.1 City Boundary

Kingston is located on the east end of Lake Ontario on the traditional lands of the Anishinaabe, Haudenosaunee, and the Huron-Wendat. Figure 1.3 shows the boundary of the City of Kingston in 2023.

### 1.6.2 Population

The city's population is rising faster than it has in more than 50 years and this growth is expected to continue as the global trend toward urbanization picks up speed (McIntosh Perry, 2023). In 2021, the population of the City of Kingston was 132,485, an increase of 7% from the previous Census period in 2016, as shown in Table 1.1 (City of Kingston, 2022). In addition to this, more than 30,000 post-secondary students reside in Kingston who are not accounted for in the Canadian Census as part of the permanent population (Watson & Associates Economists Ltd., 2019). Between 2001 to 2016, the population of post-secondary students grew at a much faster rate than Kingston's permanent population growth rate (Watson & Associates Economists Ltd., 2019). The largest age demographic in Kingston is individuals aged 25 to 29 years old, followed by individuals aged 20 to 24, and those aged 30 to 34 (City of Kingston, 2021).




*Figure 1.3: The City of Kingston municipal boundary in 2023 (KMaps, 2023).*

*Table 1.1: Population growth from 2001-2021 in the City of Kingston, as well as the Census Metropolitan Area (CMA) and surrounding townships (City of Kingston, 2022; Statistics Canada, 2021).*

| | 2001 | 2006 | 2011 | 2016 | 2021 | Population Change, 2016-2021 |
|---|---|---|---|---|---|---|
| Kingston CMA | 146,838 | 152,358 | 159,561 | 161,175 | 172,546 | 7.1% |
| City of Kingston | 114,195 | 117,207 | 123,363 | 123,798 | 132,485 | 7.0% |
| South Frontenac | 16,415 | 18,227 | 18,113 | 18,646 | 20,118 | 8.3% |
| Loyalist | 14,590 | 15,062 | 16,221 | 16,971 | 17,946 | 5.7% |
| Frontenac Islands | 1,638 | 1,862 | 1,864 | 1,760 | 1,930 | 9.7% |

### 1.6.3 Attractions

Kingston is recognized as a community rich in arts, heritage, and culture which makes the city an attractive place to live and visit. The city has a historical legacy as Canada's first capital and was home to Canada's first Prime Minister, and is home to Fort Henry, a UNESCO World Heritage Site. No other Census Metropolitan Area (CMA) in Canada attracts more domestic visitors than Kingston, relative to its population size (Tourism Kingston, 2022). In 2022, Kingston welcomed 1.67 million visitors (Tourism Kingston, 2022).

Most of Kingston's tourism is centralized in its historic downtown which benefits from a wealth of heritage architecture and a strong and vibrant commercial center. Kingston's downtown includes the Central Business District (CBD) stretching along the waterfront and Princess Street, and the adjacent neighbourhoods of Williamsville, Sydenham Ward, Queen's University District, and Inner Harbour, all of which have their own distinct character. The CBD includes a wide range of retail, business offices, entertainment, cultural and recreational facilities, tourism and hospitality facilities, personal services, as well as institutional, civic, open space and medium and high-density residential uses (City of Kingston, 2022). Figure 1.4 shows downtown Kingston's distinct neighbourhoods.

Many of the city's most popular downtown attractions are within close walking distance of Ontario and Market Streets. Among these attractions are Kingston's

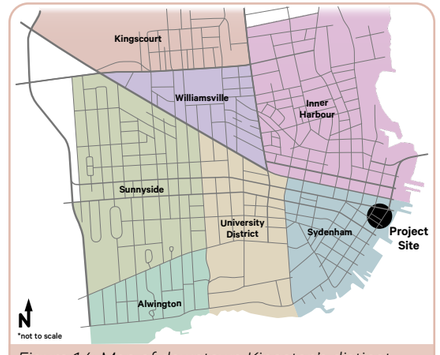



*Figure 1.4: Map of downtown Kingston's distinct neighbourhoods.*

neoclassical City Hall building built in 1844 and the adjacent Springer Market Square, the Waterfront Pathway, Confederation Park, Murney Tower, 1000 Island Cruises, the Kingston City Trolley Tour Bus, the Wolfe Island ferry dock, and several heritage properties, restaurants, and cafes. Kingston offers visitors walking and cycling tours around downtown, including tours of its historic and institutional buildings, food scene, and waterfront.



*Figure 1.5: Kingston City Hall viewed from Confederation Park (Photo via Tourism Kingston).*

### 1.6.4 Student Population

Kingston is well-known as a student town, being home to Queen's University, the Royal Military College of Canada, and St. Lawrence College (City of Kingston, 2021). It is estimated that out of the 96% of students who come to study at Queen's University from outside Kingston, 92% leave Kingston upon graduation, presenting a unique opportunity for the City to attract and retain young professionals (City of Kingston, 2011).

The City's Town and Gown Strategic Plan and the Culture Plan both highlight the importance of building an attractive and vibrant community that is an exciting place to live and work to persuade recent graduates to stay in the city (City of Kingston, 2011). Recognizing that young professionals are drawn to cities that offer opportunities for culture, heritage, and the arts, and support a healthy lifestyle and sociability, the City aims to attract this population by strengthening its transit system, walking and cycling paths, and recreational facilities (City of Kingston, 2011).

## 1.7 Site Context




*Figure 1.6: Map of the study area, including City Hall, Market Square, and Confederation Park.*

### 1.7.1 Study Area

The study area includes Ontario Street from Clarence Street to Brock Street, and Market Street from Ontario Street to King Street, and is adjacent to the Kingston City Hall building, the pedestrian plaza at Springer Market Square, and Confederation Park in the Confederation Basin. The study area is illustrated in the map in Figure 1.6.

### 1.7.2 History of Springer Market Square

The region now known as Kingston has been home to Indigenous peoples since time immemorial. Prior to European settlement, it is likely that Indigenous peoples used the site of the current Market Square area at least seasonally (Cataraqui Archaeological Research Foundation, 2003). When the first European settlers began to arrive in the 17th century, the north shore of Lake Ontario and the area originally known as Katarokwi (modern-day Kingston) continued to provide a home base for the Huron-Wendat Peoples and the Five Nations/St. Lawrence Iroquois (City of Kingston, 2023). Pre-contact sites have been identified nearby along the shores of the Great Cataraqui River, St. Lawrence River, Little Cataraqui River tributaries, and Collins Creek (Cataraqui Archaeological Research Foundation, 2003).





*Figure 1.7: View of Market Square filled with wagons and showing Brock Street beyond, c. 1907 (Photo retrieved from Market Square Heritage Conservation District Plan, City of Kingston, 2013).*

A traditional center of trade and commerce, Market Square has long provided the Kingston community with a place to sell locally crafted goods, fresh produce, antiques, and a range of wares since the establishment of an informal market at the site in 1788 (City of Kingston, 2023; Cataraqui Archaeological Research Foundation, 2021). Once the location of French period defensive works and a French market, the Market Square area originally included a Market House that burned down in 1852 (Cataraqui Archaeological Research Foundation, 2006).

As the city grew and flourished as an important site for political and judicial institutions over the 18th and 19th centuries, Market Square was the main trading location where foodstuffs, tobacco, and hides were exchanged between Indigenous peoples and United Empire Loyalists (City of Kingston, 2022). The Prince George Hotel, located at 200 Ontario Street, was originally constructed as a home between 1817 and 1820, and neighbouring properties included a shop, saloon, auction house, and warehouses run by different tenants. During the mid-1900s, activity at the Market Square slowed down as more space was needed to accommodate larger roads and grocery stores. The market space subsequently shrunk and was eventually converted to a parking lot.

In the 1960s, plans to permanently pedestrianize Market Square and improve visitor experience in downtown Kingston were brought to the City. Civic designers Gordon Stephenson and George Muirhead's 1960 urban renewal study on Kingston described significant deterioration; by 1960, "a harbour bustling with commercial activity now looks out on little-used railway tracks and small sheds... nearly every block in the Central Area presents a picture of decaying building and inefficient land use" (Stephenson and Muirhead, 1960). To help make City Hall more than just an administrative centre, the planners advocated for improvements to the waterfront, including adding a marina to host visiting pleasure crafts. The enhancement of the waterfront was cited as "vital to downtown redevelopment... a wonderful and unique symbol of the city" (Stephenson and Muirhead, 1960). Many of the ideas put forth in their study were eventually implemented.

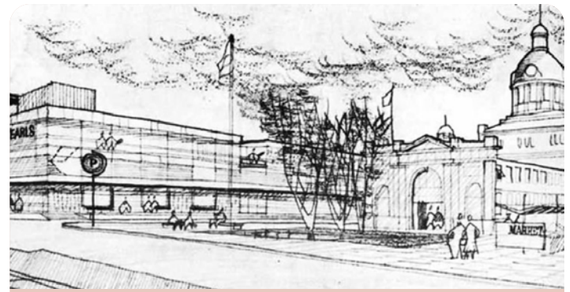


*Figure 1.8: Stephenson and Muirhead's proposed redevelopment of the parking lot behind City Hall into an urban square that can accommodate a farmers' market (Photo via Stephenson and Nicholson, 2012).*

The study brought awareness for more pedestrian focus in Kingston's downtown. Stephenson and Muirhead encouraged the improvement of the public realm at Market Square, calling for a proper urban square with pedestrian uses on non-market days (Gordon and Nicholson, 2012). With these recommendations, the study argued that downtown Kingston could become a unique and attractive destination to rival the suburban areas (Gordon and Nicholson, 2012).

## 1.8 Confederation Basin



*Figure 1.9: View of the Kingston waterfront in the 1980s. Inspired by Stephenson and Muirhead's plans, the park and marina were constructed in the 1960s (Photo via Stephenson, 1992).*

The Confederation Basin, which includes Confederation Park, is located at the waterfront in front of City Hall facing Ontario Street. The area makes up a portion of the Kingston Fortifications National Historic Site of Canada and includes Shoal Tower, one of five separate 19th century military installations forming part of an inter-related defense system along the waterfront (Parks Canada, n.d.). First used by the French in the 17th century for its strategic location facing the confluence of the St. Lawrence River and Lake Ontario, the Kingston Harbour area was the gateway to the Great Lakes and a significant site for shipping (Parks Canada, n.d.). Shoal Tower was built in the mid-1840s as a fortification to provide the town, canal, and dockyards with a more comprehensive defense system (Parks Canada, n.d.). Key character defining elements that contribute to the heritage character of this National Historic Site include its location in and around Kingston's harbour area and its setting overlooking the confluence of the lake and river (Parks Canada, n.d.).

## 1.9 Redevelopment of Market Square

In 2004, following decades of discussions, the Market Square underwent redevelopment to transform the space from a parking lot with a bi-weekly market into one of Kingston's preeminent public spaces and community gathering places (Rapoport, 2004; Gordon and Nicholson, 2012). To create a safe and welcoming permanent pedestrian space, the redevelopment included a new common surface finish with interlocking pavers, replacement of the underground infrastructure, a new fountain, and an ice-skating rink (Rapoport, 2004). New lighting, planters, and waste receptacles were also added to the Square as part of the project (City of Kingston, 2013). The vision for the space was a public square similar to a European piazza (Rapoport, 2004). The 2004 transformation improved the pedestrian realm downtown as originally proposed by Stephenson and Muirhead in 1960 (Gordon and Nicholson, 2012). In 2005, the name "Springer" was added to the Market Square in honour of the Springer family who donated substantial funds for the Square's improvements and restoration. Springer Market Square won a Livable City Award of Excellence in 2011 (City of Kingston, 2013).

Today the Square hosts a variety of community activities and events year-round, including a weekly market featuring farmers' produce, antiques, and craft wares; free public movie screenings and concerts; and a seasonal skating rink. Springer Market Square currently remains pedestrianized year-round, offering public seating and tables, and is often activated on non-market days with various public events, festivals, and community activities such as dancing and yoga. The marina at Confederation Basin is home to 350 docks. Confederation Park and the surrounding waterfront are host to an eclectic mic of historical artifacts, park design, and contemporary sculptures (City of Kingston, 2010). Attractions include the Confederation Park Fountain, a steam locomotive, and a large "Kingston" sign popular with tourists. Confederation Park is dotted with several benches facing both the waterfront and City Hall and there is a visitor information centre on Ontario Street with public Muskoka chairs.



## 1.10 Planning Context

### 1.10.1 Existing Zoning

The study area at Market Square is designated as "Central Business District" under the City of Kingston Official Plan and is subject to "Zoning Schedule 1, Zone HCD2". Confederation Park is zoned as "Open Space" and is subject to "Zoning Schedule 1, Zone OS2" under the Kingston Zoning By-Law (2022-62). Figure 1.10 shows the existing zoning at the study area.

Under the City of Kingston Official Plan (OP), the strategic intent and function of the downtown is to be the prime, multi-faceted centre of the city and surrounding region (City of Kingston, 2022). The downtown area and related harbour sub-area, while not land-use designations, signify the civic focus of the city with City Hall, Market Square, and Confederation Park as the nucleus of historic public activity, and linkage to the harbour (City of Kingston, 2022). The CBD commercial land use designation in the downtown is intended to contain the broadest range of commercial uses, tourist and hospitality facilities, and civic activity within a context that preserves human scale, historic amenity and vibrant pedestrian activity (City of Kingston, 2022).

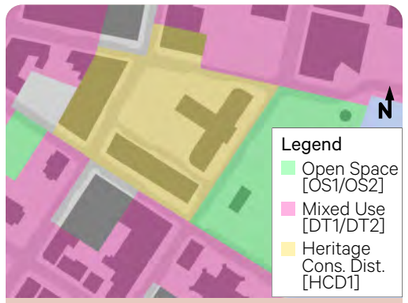



*Figure 1.10: Existing zoning of the study area.*

The harbour area is also intended to contain a mixture of uses with an emphasis on tourist and open space uses that provide a mutually supportive relationship with harbour activities and public access along the waterfront (City of Kingston, 2022). In addition to the commercial, civic and harbour activities that characterize the downtown and harbour area, higher density residential uses and prominent buildings, such as City Hall and St. George's Cathedral, are important components of both areas that enhance their vitality and contribute to their unique "sense of place" within the municipality (City of Kingston, 2022).

### 1.10.2 Heritage Designation

The study area is located within the Market Square Heritage Conservation District, one of the oldest Heritage Conservation Districts (HCDs) in Ontario, designated by the City of Kingston in 1985 under By-law no. 84-172 (City of Kingston, 2023). The HCD includes the City Hall building, Springer Market Square, and the surrounding streets and sidewalks at its center, and is bounded by commercial and institutional 19th century properties along King Street East, Clarence Street, Market Street, Ontario Street, and Brock Street (City of Kingston, 2013). The Square's contextual heritage value includes its defining elements of the setting of City Hall, its scale and character, and its cultural and social value as the commercial, ceremonial, and civic core of the city (City of Kingston, 2013).

The updated 2013 Market Square Heritage Conservation District Plan provides guidelines for the protection and preservation of the HCD's heritage attributes in order to maintain the area's unique qualities and sense of place (City of Kingston, 2013). Per the Kingston Official Plan, any proposed site alteration or new development within the HCD boundaries will be guided by the Market Square Heritage Conservation District Plan and will maintain the district's cultural heritage resources, heritage attributes, and function. Properties within the HCD are protected under Part V of the Ontario Heritage Act from demolition and alterations that would alter or harm their heritage attributes, and any proposed physical exterior changes would require a heritage permit.

## 1.11 Transportation Context

### 1.11.1 Surrounding Road Network

The surrounding road network around City Hall and Springer Market Square is comprised of several key streets and arterial roads that serve as vital conduits for vehicular traffic within downtown Kingston that connect the core to the rest of the city. Among these are King Street, Brock Street, Princess Street, and Johnson Street. King Street runs in an east-west orientation and is positioned one block to the north of Ontario Street, directly north of Springer Market Square. Brock Street is an arterial road at the eastern boundary of the study area and is oriented in a north-south direction, facilitating vehicular traffic movement in a northward direction. Princess Street, the primary commercial street downtown, is another north-south oriented thoroughfare, accommodating vehicular traffic traveling in a southward direction. Clarence Street, a local street at the western boundary of the study area, is also oriented in a north-south direction, while Johnson Street, similarly oriented north-south, caters to vehicular traffic flowing in a southward direction. A map showing major roads that connect to downtown Kingston is shown in Figure 1.11.

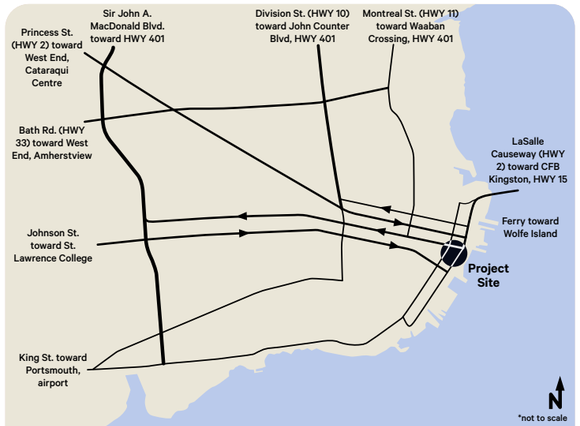



*Figure 1.11: Major roads connecting to downtown Kingston.*

### 1.11.2 Sustainable Mode Shares

Among the country's smallest (population of over 100,000 but less than 225,000) Census Metropolitan Areas (CMAs), commuters are most likely to use sustainable transportation modes (public transit, walking, and cycling) in Kingston (Statistics Canada, 2017). As reported in the 2016 Canadian Census, Kingston had the highest proportion of commuters using active transportation and public transit in its group of CMAs (Statistics Canada, 2017). A 2019 survey of household travel and daily travel characteristics in Kingston revealed that the fewest trips by automobile take place downtown and in the sub-central part of the city, and that commuters living in these areas also report taking more cycling trips compared to those in the rest of Kingston (Malatest, 2019). Residents in downtown and central Kingston also report taking the most trips by walking (40-70%) compared to other residents (Malatest, 2019). Sustainable transportation modes comprise 32.9% of daily travel trips within Kingston, and nearly half of all daily trips (49%) taken by residents of the central sub-area are made via sustainable modes (Malatest, 2019).

### 1.11.3 Public Transportation

The study area's central location and proximity to a major bus exchange terminal makes it easily accessible by public transportation for residents and students. The Kingston Transit Downtown Transfer Point (DTP) located at Brock Street and Bagot Street in the heart of the Central Business District is a five-minute walk from City Hall and Springer Market Square. The DTP serves as a key connection to downtown Kingston by 12 transit routes, allowing passengers to easily transfer to and from the core of the city from major institutions and places across the city with ease (City of Kingston, 2023).



Travel to the city's three post-secondary institutions is the single most common use of public transit, with its use being highest among people aged 15 to 24 (Malatest, 2019). There are several bus routes connecting Queen's University to downtown via the DTP, including the #1 and #2, and the #3 (Kingston Centre to DTP) connects the university to City Hall along Brock Street. The #12 route provides transit service from Kingston Centre to the Canadian Forces Base (CFB) along the causeway connecting the east end of Kingston to downtown. Additionally, the study area can be accessed by express route #602 at the DTP, which connects to Kingston General Hospital, the CFB, and Innovation Park. Figure 1.12 shows the location of bus stops near the study area.

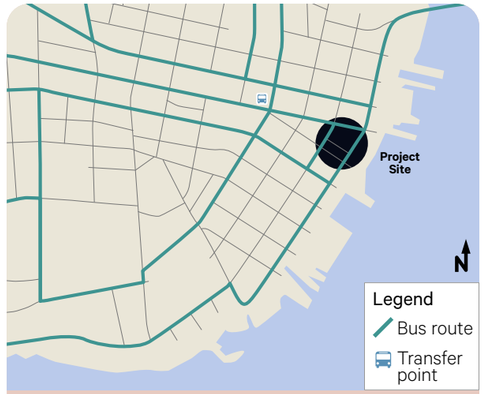



*Figure 1.12: Bus routes throughout downtown Kingston, and the Downtown Transfer Point.*

### 1.11.4 Cycling Infrastructure

While there are "sharrows" along Brock Street and Johnson Street to remind road users to share the road and offer line-of-travel guidance to cyclists, there is a notable lack of cycling infrastructure near and at the study site. As shown in Figure 1.13, there are no designated or protected bike lanes connecting cyclists directly to City Hall and Springer Market Square.

There are three inverted U bike racks and three post and ring bike racks outside City Hall and Springer Market Square along Brock Street, three post and ring racks at Market Street and King Street East, and three inverted U racks at Confederation Park along Ontario Street facing City Hall. In early 2023, in efforts to encourage active transportation downtown and allow cyclists to safely park their bikes when visiting downtown, the City of Kingston and Tourism Kingston implemented secure bike parking racks on Princess Street between Ontario Street and King Street. The racks operate with an app that allows users to lock and release their bikes (Tourism Kingston, 2023).

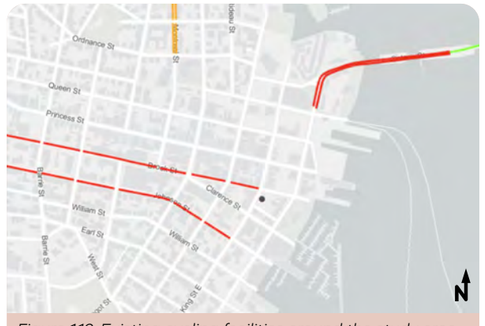



*Figure 1.13: Existing cycling facilities around the study area (City of Kingston KMaps, 2023).*

## 1.12 Provincial and Municipal Objectives

An analysis of applicable policies was undertaken to ensure the proposed project to pedestrianize Ontario Street and Market Street is consistent with and meets provincial and municipal policies, standards, and objectives. The team determined that the proposed project supports and enhances provincial and municipal goals related to sustainable and active transportation, climate action, downtown resiliency, sustainable tourism, and the promotion of cultural heritage resources. Relevant policies and objectives that apply to the proposed project are described in this section.

### 1.12.1 Provincial Policy Statement

The Provincial Policy Statement 2020 (PPS) sets the policy foundation for regulating the use of land in Ontario. It provides guidelines for appropriate development, including the planning of open

and public spaces, while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. The document intends to address all the unique challenges of planning by providing an overall framework for Ontario to help create healthy and sustainable communities and a strong economy while protecting resources for current and future generations. Section 3 of the Planning Act requires that decisions affecting planning matters "shall be consistent with" policy statements in the PPS; hence, a review of the PPS was conducted for the purpose of this study, with particular attention paid to sections relating to Building Strong and Healthy Communities (1.0) and Wise Use and Management of Resources (2.0).

The PPS contains guidelines for planning public streets, spaces, and facilities to meet the needs of pedestrians. It encourages the fostering of social interaction by facilitating active transportation and community connectivity, and aims to prepare municipalities for the impacts of climate change through efficient use of existing infrastructure and enhancement of sustainable and multimodal transportation systems. To support long-term prosperity, the PPS encourages maintaining and enhancing the vitality and viability of downtowns by encouraging a sense of place, providing opportunities for sustainable tourism development, and providing pedestrians access to a full range of open space and commercial areas.

**1.12.2 City of Kingston Official Plan**

The Official Plan (OP) sets out land use planning goals and policies for the City of Kingston that guide physical development, protection of natural and cultural heritage, resource management, and necessary supporting infrastructure. It serves as the blueprint for how the city will grow over the next 20 years and will assist in making Kingston Canada's most sustainable city. (City of Kingston, 2023). For this report, the December 1, 2022 version of the City of Kingston Official Plan (OP) was reviewed, which incorporates OPA 50 and all approvals and modifications made to the Plan after January 27, 2010, up to and including November 30, 2022.

Several policies in the OP apply to the subject area, including those associated with the 'Central Business District' and 'Heritage Conservation District' designations, and broader policies pertaining to Sustainable Development, Infrastructure and Transportation, and Cultural Heritage and Archaeology. Paying particular attention to the sections specific to the CBD and Market Square areas, the OP was reviewed for policies and targets relevant to the proposed project.

Guided by the OP, the City of Kingston aims to achieve greater sustainability through land use patterns that foster active transportation and enhance access to public amenities and spaces for all residents, visitors, and workers. Using streetscape design that coordinates movement of pedestrians, cyclists, and transit, the City seeks to lead by example through initiatives that promote sustainability and reduce reliance on the automobile. While the automobile will continue to be the primary mode of transportation in Kingston, the OP states that the City will "aggressively promote" active transportation to maximize existing road capacity and improve environmental conditions (City of Kingston, 2022). With improved and efficient active transportation infrastructure, the City will ensure that community resources are accessible to all residents and that public health and sustainability are prioritized.

The City aims to continue to value and conserve cultural heritage resources in the CBD and Market Square HCD that contribute to sense of place and promote tourism, and will support pedestrian oriented activity in the downtown core. Recognizing the traditional and important role of pedestrians in this historical commercial area, the City will connect commercial properties through active transportation pathways to provide direct access to amenities and shopping areas.



**1.12.3 City of Kingston Plans**

In addition to the PPS and OP, several other City of Kingston plans that were deemed relevant to the proposed project were analyzed and frequently consulted throughout the course of the study, including the Transportation Master Plan, Active Transportation Master Plan (Walk n' Roll), Climate Leadership Plan, Culture Plan, Downtown Action Plan, and Market Square Heritage Conservation District Plan.

The Transportation Master Plan and Active Transportation Master Plan aim to guide Kingston in meeting the City's strategic objectives and vision to improve sustainable transportation infrastructure and increase sustainable mode shares. The Climate Leadership Plan builds upon the transportation plans and reinforces the importance of active transportation in meeting climate action targets and reducing emissions. It aims to achieve this by supporting the changes needed to create a vibrant experience for pedestrians to encourage walking and rolling in Kingston. The plans emphasize investment in infrastructure and programming to improve the facilitation of active transportation in Kingston to unlock benefits related to health, tourism, social connections, the environment, safety, and economic development. The plans provide guidance and highlight best practices in active transportation infrastructure implementation and promotion in the Kingston context.

The City seeks to realize a sustainable, authentic, long-term vision for cultural vitality in Kingston by building upon and investing in its existing pedestrian-friendly downtown core. The Culture Plan, Downtown Action Plan, and Market Square Heritage Conservation District Plan provide guidance on matters related to tourism, particularly heritage tourism, and the conservation and promotion of cultural heritage resources. The Market Square Heritage Conservation District Plan lists the Square's unobstructed open space to accommodate market stalls and vendors, public activities and special events, and free pedestrian movement and gathering as an important heritage attribute of the site that contributes to its cultural value. These plans all articulate the importance of fostering and maintaining Kingston's cultural tourism industry by enhancing the public and pedestrian realms and allowing for better access to historic sites and landmarks so they may be enjoyed by residents and visitors for years to come.

**1.12.4 Policy Analysis**

The proposed project was determined to be in accordance and consistent with the goals and objectives outlined in the PPS, OP, and relevant City of Kingston plans for the subject area and for the city as a whole.

The proposed project aims to prioritize the needs of pedestrians by creating a safe corridor for active transportation, improving connectivity through the heart of downtown and commercial areas, and providing direct access to Kingston's shoreline across Ontario Street to Confederation Park. The subject area is near several bus stops as well as institutional and commercial amenities within the Urban Settlement Boundary, which are supportive of active and public transportation modes, and will assist in minimizing the number of vehicular trips to and from the subject area. Increased opportunities for active transportation would support provincial and municipal climate action targets and improve environmental resiliency.

The proposed project would provide enhanced vitality and viability of Kingston's downtown and main streets in the CBD by providing safe pedestrian access to one of the city's major historic landmarks and destinations in the core of the city. The extension of pedestrian space will encourage a sense of place, support tourism, improve the existing streetscape, and strengthen the cultural and heritage character of Springer Market Square and City Hall by allowing residents and visitors more

space for interaction with the historic area. The proposed pedestrianization will provide visitors, shoppers, and workers with a means of safe and free transportation to and from City Hall, the farmers' market, and local businesses.

The proposed project will make efficient use of existing transportation infrastructure on Market Street and Ontario Street, and does not include any new development, site alteration, or physical modifications to the surrounding built heritage or existing cultural or archaeological resources. Should the City of Kingston plan to undertake any development, site alteration, or physical modifications to the study area as part of the project, proper consultation with Indigenous communities, as well as confirmation by a Heritage Impact Statement and Archaeological Assessment, is recommended per the PPS.

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# Literature Review



# 2.0 Literature Review

## 2.1 Introduction

This chapter presents the findings from a review of scholarly literature on pedestrianization within central business districts. The review focused on identifying the costs and benefits associated with pedestrianization, as well as key considerations for the success of these projects. The findings from this review informed both the direct observations and recommendations of the study.

## 2.2 Methodology

Articles published within the last ten years and that spoke to a North American context were prioritized. However, articles from Europe, Asia, South America, and Africa were plentiful and made up for the lack of Canadian research on the topic. Searches were conducted through Google Scholar and the Queen's University Library Omni search tool.

The search for relevant literature was guided by 23 search terms, as outlined below. In selecting these terms, the team considered various types of street closures and street activation projects that might be discussed in the literature. The team also ensured that the focus of the research was on downtown cores and central business districts to ensure articles remained applicable to the project. There are many benefits and costs associated with pedestrianization projects which differ by location, context, and the type of project. It is therefore possible that not all associated costs and benefits have been identified within this literature review.

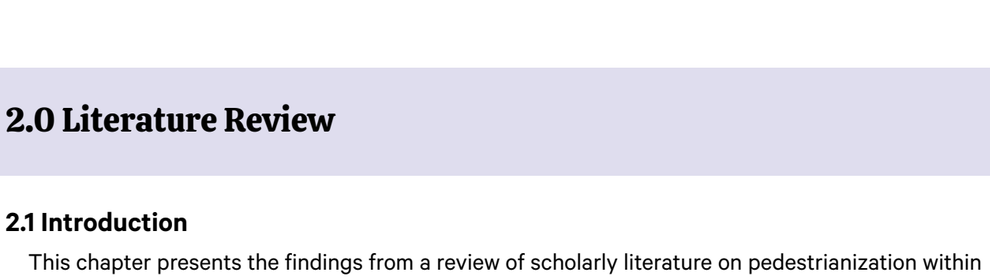



*Figure 2.1: Key Search Terms*

A total of 48 articles and reports were reviewed. These included peer-reviewed journal articles, thesis and Master's reports, as well as studies and reports produced by municipal governments. Key themes from the articles relating to the costs and benefits of pedestrianization were documented, as were key considerations when undertaking a pedestrianization project. Some themes, such as 'safety' and 'parking', were identified by the research team prior to the literature review, while others, such as 'human connection' and 'mental wellbeing', emerged as links between articles were established.

Each theme was assigned a weight of one to three diamonds. One diamond indicates that the theme is of lesser importance to the community and the City of Kingston's current development goals while three diamonds indicate that it is of high importance. These weights were determined based on presence of the theme within the Kingston Strategic Plan and public feedback on pedestrianization used within Chapter 3 of this report. The frequency which the term appeared shaped our understanding of its importance and the tables have been presented in order from most to least important.



## 2.3 Key Findings: Benefits

This section summarizes general findings from the literature on the benefits of pedestrianization. Common themes that emerged within this section were safety, economic growth, health and wellbeing, sustainability, and human connection. There was significantly more research indicating the benefits of pedestrianization projects compared to the costs.

### 2.3.1 Safety ◆◆◆

The safety benefits associated with pedestrianization projects were the most common findings within the literature. While there are many factors that influence the frequency of vehicular accidents, the built environment can help mitigate these issues by controlling the speed and volume of traffic as well as individual perceptions of safety (Hwang, 2023). The introduction of pedestrianized streets provides opportunities to increase safety in a meaningful way that satisfies the needs of a variety of people. The potential transformation of Ontario Street presents an opportunity to bring accessibility and safety to an otherwise dangerous arterial road.

*Table 2.1: Safety Benefits*

| Key Findings | Sources |
|---|---|
| **Lighting** is critical for **safety and mental wellbeing** within pedestrianized spaces. | Jones, 2012; Sundling & Jakobsson, 2023 |
| **Perceived safety** is essential for experiencing the positive aspects of urban environments. | Jones, 2012; Sundling & Jakobsson, 2023; Panagopoulos et al., 2018 |
| '**Safety of Pedestrian Mobility**' was found to be the second most important advantage of pedestrian zones to respondents. | Panagopoulos et al., 2018 |
| **Wider sidewalks** can help **reduce the severity of pedestrian injuries** within and beyond central business districts. | Hwang, 2022 |
| **Traffic calming measures** such as **reduced speed limits** have been shown to **result in fewer traffic-related pedestrian injuries**. | Jones, 2012; Kumar & Ross, 2006; Noland et al., 2015 |
| People often **connect safety** to an **improved sense of wellbeing and decreased levels of stress** when fewer vehicles are on the street. | Koenig, 2023 |
| Pedestrian areas can help to **improve overall perceptions of neighborhood safety**. | Zieff et al., 2018; Triana et al., 2019; Panagopoulos et al., 2018 |
| For the 'Open Streets' initiative in the United States, **perceptions of neighborhood safety amongst pedestrians were shown to improve** when more people were occupying the streets. | Zieff et al., 2018 |
| Car-free zones can **improve accessibility** and **create calmer street environments**. | Dostal & Eisenman, 2022 |
| In Hamilton, **people with dementia preferred walking on local or mixed-used streets** that were more accessible than arterial roads. | Biglieri & Dean, 2021 |

### 2.3.2 Economic Growth ◆◆◆

The economic benefits associated with pedestrianization projects were some of most valuable findings from the literature, alongside safety benefits. These types of projects were found to boost local economic activity by increasing foot traffic within the space. Residents and tourists alike are drawn into businesses that are easy to access. Municipalities can also benefit from increased transit ridership and lower road maintenance costs when downtown cores become more walkable.

*Table 2.2: Economic Benefits*

| Key Findings | Sources |
|---|---|
| High pedestrian counts are correlated with **increased local economic activity**. | Soni & Soni, 2016; Wooller et al., 2012; Navon & de Silva, 2023; Shahmoradi et al., 2023; Volker & Handy, 2021; Kumar & Ross, 2006 |
| The **shorter the distance** to retail stores, the **more likely shoppers are to walk** instead of drive. | Yang et al., 2023 |
| Pedestrian zones can **draw new customers** to an area. | Newman, 2007 |
| The removal or reduction of roadways and parking was **not found to have a direct negative impact on economic gain**. | Volker & Handy, 2021 |
| Pedestrianization can result in **increased property values** which may, in turn, **boost retail sales and bring economic advantage**. | Kumar & Ross, 2006 |
| Municipalities are able to **save on road maintenance and parking costs** when pedestrian areas are implemented. | Blaga, 2013 |
| **Transit** is highly **dependent on walkability** for its success. | Speck, 2012; Soni & Soni, 2016 |
| Pedestrianization is correlated with a **drop in retail vacancy rates** in the area. | Soni & Soni, 2016 |

### 2.3.3 Health and Wellbeing ◆◆

Pedestrianized streets are shown to have numerous positive implications for the health and mental wellbeing of pedestrians. For older adults, increased walkability and safety within public spaces has been shown to improve mental health. Numerous scholars have also indicated that pedestrian environments can help to boost physical activity amongst downtown residents. Overall, the quality of a pedestrianized area is shown to be more important than the size and quantity of space available.



*Table 2.3: Health and Wellbeing Benefits*

| Key Findings | Sources |
|---|---|
| There are **strong associations** between the level of street **walkability and the wellbeing** of older adults. | Wang et al., 2019; Lucchesi, 2021 |
| Car-free environments help to **reduce pollutants** that can negatively impact the health and wellbeing of pedestrians. | Soni & Soni, 2016; Hui et al., 2017; Hematian & Ranjbar, 2022 |
| The **quality of public open space has a larger impact on mental health** than the quantity of open space. | Francis et al., 2012; Sundling & Jakobsson, 2023; Buttazzoni, 2022 |
| 'Open Street' events contribute to **increased levels of physical activity** in people who would have otherwise been sedentary. | Cohen et al., 2016; Perry et al., 2017; Salazar-Collier et al., 2018; Kuhlberg et al., 2013 |
| Pedestrianized streets could help to **improve the level of physical activity for populations at risk** for developing chronic diseases. | Kuhlberg et al., 2013; Soni & Soni, 2016 |

### 2.3.4 Sustainability ◆◆

Pedestrianization projects can help to create more sustainable urban environments by providing opportunities to introduce more green space. Scholars have noted various positive environmental impacts from pedestrianization projects such as improved air quality and fewer urban heat islands. These spaces can also provide opportunities to shift behaviors by encouraging active transportation and can change perceptions about how streets can and should be utilized.

*Table 2.4: Sustainability Benefits*

| Key Findings | Sources |
|---|---|
| Pedestrianization contributes to improved mo**bility and livability**; key components of sustainable urban development. | Yassin, 2019; Soni & Soni, 2016; Speck, 2012 |
| Pedestrian-friendly streets can **encourage more sustainable modes of transportation** (i.e., walking, cycling, and transit). | Sundling & Jakobsson, 2023; Cohen et al., 2016 |
| Pedestrianization can **reclaim underutilized road space** which can then be converted into greenways. | Dostal & Eisenman, 2022 |
| Tree-covered pedestrian spaces can reduce '**urban heat islands**'. | Speck, 2012 |
| Pedestrianized streets can **disrupt car-centric narratives**. | Koenig, 2023 |
| Pedestrianization is the **most effective way reduce vehicle emissions**. | Soni & Soni, 2016; Keseru et al., 2016 |
| Pedestrianized spaces **create opportunities for additional planting and improved landscaping** within existing streets. | Hussein, 2018 |

### 2.3.5 Human Connection ◆◆

Finally, pedestrianization projects can support efforts to increase social connection within communities. When environments feel safe and inclusive, people are more likely to engage in social activities, meet new people, and strengthen existing connections outside of their home. These spaces can also support a sense of unity and a stronger community identity within neighborhoods, resulting in more street activity overall.

*Table 2.5: Human Connection Benefits*

| Key Findings | Sources |
|---|---|
| Street reclamation can help **foster more opportunities for social connection** within communities. | Koenig, 2023; Balsas 2014; Lund, 2002; Hussein, 2018; Kingham et al., 2020 |
| Integrating more 'third places' into downtown cores can help to **support the unity of neighborhoods.** | Jones, 2012; Mehta & Bosson, 2010 |
| The sociability of public open spaces can help to i**mprove the quality and frequency of use of public space, and strengthen community ties**. | Jones, 2012 |
| 'Playing Out' sessions (part of the Street Play movement) **strengthen existing connections and form new ones between neighbours**. | Ferguson, 2018 |
| **Social interaction** between community members tends to **happen more in areas with less traffic** where people can meet and engage in activities. | Kumar & Ross, 2006; Gregg et al., 2022; Kingham et al., 2020 |
| Pedestrian zones can **increase local social capital** within a community. | Newman, 2007 |

## 2.4 Key Findings: Costs

In the academic literature review, the team investigated costs associated with pedestrianization projects. Most articles demonstrated that the costs of pedestrianization were minimal however, some common themes emerged, including economic challenges, parking and traffic congestion.

### 2.4.1 Economic Challenges ◆◆◆

The economic challenges associated with pedestrianization projects were primarily focused on accessing funding for the costs of programming and design within the space. Pedestrianized spaces must also address the challenges that might arise for businesses and on-site programming if vehicles cannot easily access the site.



*Table 2.6: Economic Costs*

| Key Findings | Sources |
|---|---|
| Residents may express an **unwillingness to pay public taxes** for the construction and maintenance of pedestrian streets. | Panagopoulos et al., 2018 |
| Businesses may suffer economic costs if the the **loss of storefront access for vehicles is not mitigated**. | Speck, 2012 |
| Pedestrianization projects **may not meet their desired outcome**, which can result in losses if streets **revert back to their original form**. | Speck, 2012; Yassin, 2019 |
| **Effective programming** serving the community **can be costly**. | Cohen et al., 2016; Yassin, 2019 |
| Pedestrianization projects often **overrely on external funding**. | Koenig, 2023 |
| Projects may result in **unforeseen costs that inhibit their success**. | Traffenstedt, 2019 |
| Pedestrianization can result in **rent increases**, leading to the **replacement of local businesses with chain stores**. | Castillo-Manzano et al., 2014 |
| If pedestrian zones are not accessible to cars, this can result in **decreased activity levels and less engagement with programming**. | Castillo-Manzano et al., 2014 |

### 2.4.2 Parking ◆◆

Challenges associated with parking for pedestrianization projects tend to focus on the loss of existing spaces and the impact this may have on business clientele. It is critical that adequate transportation infrastructure is in place in order to support a decrease in parking spaces and an increased demand from people visiting the pedestrianized space. As well, considerations should be made to ensure that delivery drivers can still access the site for loading where necessary.

*Table 2.7: Parking Costs*

| Key Findings | Sources |
|---|---|
| **Overspill parking** and **difficulty finding parking** are some of the most commonly expressed concerns from residents. | Panagopoulos et al., 2018 |
| Effects of reduced parking are exacerbated when existing **parking supply and cycling and transit infrastructure within the area is inadequate.** | Parajuli & Pojani, 2017; Panagopoulos et al., 2018 |
| Pedestrianized streets may draw visitors, **increasing parking demand**. | Traffenstedt, 2019 |
| **Business owners may be opposed to the loss of surface-level parking** in front of their store entrances. | Berne, 2021; Speck, 2012; Castillo-Manzano et al., 2014 |
| Pedestrian zones can **cause challenges for delivery drivers, resulting in double parking or illegal parking**. | Munuzuri et al., 2013; Parajuli & Pojani, 2017 |

### 2.4.3 Traffic Congestion ◆◆

Pedestrianization projects may result in increased traffic congestion surrounding the site. Scholars have indicated that the lack of accommodation for motorists could result in fewer visitors to the site, vehicle-users opting to avoid sections of the downtown core and longer travel times overall. This may also result in changes to the current air quality and traffic patterns within the site area.

*Table 2.8: Traffic Costs*

| Key Findings | Sources |
|---|---|
| Increased traffic congestion can **lead to more air pollution**. | Speck, 2012 |
| Pedestrianization projects may result in **shifting traffic patterns and congestion along minor streets.** | Noland et al., 2015; Aljamal et al., 2021; Keseru et al., 2016 |
| Motorists may opt for more accessible, traffic-free destinations, **avoiding the area entirely, if too much congestion is generated**. | Castillo-Manzano et al., 2014 |
| People may experience **longer travel times** when accessing their place of work or returning home. | Castillo-Manzano et al., 2014; Whitehead et al., 2006 |
| Increased attractiveness of an area **may increase congestion**. | Whitehead et al., 2006 |

## 2.5 Key Considerations

Throughout our review of the literature, the team also came across various key considerations for pedestrianization projects. This section highlights useful strategies that emerged within the literature as well as lessons learned from past pedestrianization projects.

### 2.5.1 Consultation

Lam (2021) emphasized the need for meaningful **public consultation and participation** when undertaking a pedestrianization project. Lam (2021) also stresses the need to **work with closely with local businesses, BIAs, Chambers of Commerce**, and other partner organizations to ensure that project concerns are being addressed. Projects should look to **incorporate businesses into the street design**. In Hamilton, grants were offered to businesses that chose to **incorporate public art** on their property in order to improve the attractiveness of the space (Lam, 2021).

It is also recommended that municipalities begin pedestrianization projects with a **pilot or trial street closure** to assess the impacts and public response (Berne, 2021; Speck, 2012). This can help to plan for a long-term closure that will be most effective and well-supported by the public.

> **Don't spend a penny on gorgeous car barricades, because if a pedestrian zone is going to be successful, it will thrive due to its location, demographics, and organization - not its streetscape.**
>
> *Quoted from Speck, 2012*

### 2.5.2 Mitigation

Challenges that might arise as a result of pedestrianization should be fully considered. To function well and ensure access is maintained, pedestrian streets should be **integrated into current walking, biking, and transit networks** to ensure people do not need vehicles to access the space (Moore et al., 2019). Transit serving the pedestrian area should operate at **slower speeds** to ensure safety is maintained (Moore et al., 2019).

It is also important to make careful decisions about how the project budget is used. One way that this can be accomplished is by assessing **sizing needs** for a pedestrian zone. Berne (2021) explains that a street closure can still be a great success even if it just covers a single block. The use of **pop-up infrastructure** also allows for certain designs to be tested which can lead to more robust architecture if the project is well-received (Thorpe, 2020).

### 2.5.3 Safety

Measures should be put in place to slow down the speed of cars surrounding the pedestrianized space. The presence of **on-street parking and trees** can serve to slow down vehicles and make sidewalks safer (Speck, 2012). Features that promote safety and security such as unencumbered **sight lines, permeable buildings, and good lighting** should be encouraged within the pedestrian space (Jones, 2012).

### 2.5.4 Activation

Opportunities for the unique activation of pedestrian spaces should be fully explored. Designs should consider **seasonal extremes** and explore opportunities for microclimate designs to ensure that the space can be enjoyed year-round (Jones, 2012). Incorporating **greenspace and shading** is also a great way to ensure that comfort is maintained (Moore et al., 2019).

Pedestrian streets should also look to incorporate elements that encourage people to stay in the space. Accessible **public seating** can help accomplish this goal (Moore et al., 2019). As well, opportunities to incorporate **unique design elements** that can serve as 'magnets' for the space can help to draw people in (Berne, 2021).

### 2.5.5 External Variables

Many external factors can play a role in the success of a pedestrian street. The **COVID-19 pandemic**, for instance, has changed urban living patterns with more people seeking reduced density and has halted or altered the emergence of pedestrianized street projects (Berne, 2021).

It is also important to know the **demographic** that is being served by a pedestrian street in order to ensure its long-term success. For older **adults and children**, walkable environments can provide an additional layer of safety that they are often seeking (Shahmoradi, 2023). Berne (2021) suggests that college and university towns tend to be excellent locations for pedestrian malls because **students** tend to "have both the time and the inclination to 'promenade'" (p.4). **Academics and creative professionals** also tend to be drawn to these types of places to engage with markets and local activities (Berne, 2021).

### 2.5.6 Accessibility

Finally, pedestrian streets should prioritize inclusivity and accessibility for all visitors to the site. Moore et al. (2019) recommends including tactile and audible **wayfinding elements** within these spaces to ensure that all users are able to enjoy the space. Public seating and designs should also comply with **accessibility standards** (Moore et al., 2019).

There should also be adequate **parking** surrounding the site to ensure it remains convenient (Balsas, 2021). The cost of parking should aim to be affordable as this can influence how long people choose to stay on a pedestrianized street (Balsas, 2021).

*Table 2.9: Summary of Articles on Pedestrianization*

| # | Article Type | Article Title | Author, Date | Location |
|---|---|---|---|---|
| 1 | Peer-Reviewed Journal | Evaluation of the Use of a Road Diet Design: An Urban Corridor Case Study in Washington, DC. | Aljamal et al., 2021 | USA |
| 2 | Peer-Reviewed Journal | Walking and Urban Vibrancy: An International Review of Commercial Pedestrian Precincts. | Balsas, 2014 | Various |
| 3 | Peer-Reviewed Journal | The Pedestrian Mall: The Newest Fad? | Berne, 2021 | USA |
| 4 | Peer-Reviewed Journal | Everyday Built Environments of Care: Examining the Socio-Spatial Relationalities of Suburban Neighbourhoods for People Living with Dementia | Biglieri & Dean, 2021 | Canada |
| 5 | Thesis Report | Pedestrian Zones as Important Urban Strategies in Redeveloping the Community Case Study: Alba Iulia Borough Park. | Blaga, 2013 | Romania |
| 6 | Peer-Reviewed Journal | Extending Pedestrianization Processes Outside the Old City Center: Conflict and Benefits in the Case of the City of Seville. | Castillo-Manzano et al., 2014 | Spain |
| 7 | Peer-Reviewed Journal | CicLAvia: Evaluation of Participation, Physical Activity, and Cost of an Open Streets Event in Los Angeles | Cohen et al., 2016 | USA |
| 8 | Thesis Report | Pedestrianizing Streets as a Strategy for Urban Greenways. | Dostal & Eisenman, 2022 | USA |
| 9 | Peer-Reviewed Journal | Playing Out: A Grassroots Street Play Revolution. | Ferguson, 2018 | UK |
| 10 | Peer-Reviewed Journal | Quality or Quantity? Exploring the Relationship Between Public Open Space Attributes and Mental Health in Perth, Western Australia. | Francis et al., 2012 | Australia |
| 11 | Peer-Reviewed Journal | North American Street Design for the Coronavirus Pandemic: A Typology of Emerging Interventions. | Gregg et al., 2022 | USA |

| Focus | Benefits | Costs |
|---|---|---|
| Road diet conversions | • Improved accessibility for businesses<br>• Served as a traffic-calming strategy<br>• Enhanced the performance of unsignalized intersection<br>• Decreased the annual number of predicted crashes | • Dramatic increase in traffic volumes along minor streets |
| Commercial pedestrian precincts | • Promoting of a culture of walking is critical to sustainable cities<br>• Contributes to urban vibrancy | N/A |
| Pedestrian malls | N/A | N/A |
| Walkable suburban environments | • Enhanced opportunities for social interaction<br>• Contributes positively to sense of worth for people living with dementia<br>• Reduces “shrinking world” effect | N/A |
| Pedestrian zones | • Improvements to the wellbeing of residents and their sense of place<br>• Reduces road maintenance costs<br>• Provides economic revival for local businesses | N/A |
| Pedestrianization outside of city centres | • Significant changes to the shopping and consumption habits of pedestrians<br>• Improved results of pedestrianization projects when more time has passed | • Loss of surface-level parking space which is a benefit for retail outlets |
| ‘Open Streets’ events | • Encourages physical activity in people who are often sedentary<br>• Enhances the use of active transportation<br>• Improves community connection | • Costly to organize and activate the pedestrian space for events |
| Urban greenways | • Promoting of a culture of walking is critical to sustainable cities<br>• Contributes to urban vibrancy | N/A |
| Street play | • Street play programs improve community connections and neighborhood cohesion<br>• Improves children's activity levels and social skills<br>• Helps “normalize” streets as a place for pedestrians | N/A |
| Public open spaces | • Providing quality public open spaces can increase mental wellbeing<br>• Quality of public open spaces is more significant than the quantity of open spaces | N/A |
| Street closure design | • Provided opportunities for physically distanced socialization during COVID-19 | • Challenges with rights-of-way for cyclists<br>• Privatization of public space by businesses |

| # | Article Type | Article Title | Author, Date | Location |
|---|---|---|---|---|
| 12 | Peer-Reviewed Journal | Evaluating Urban Public Spaces From Mental Health Point of View: Comparing Pedestrian and Car-Dominated Streets. | Hematian & Ranjbar, 2022 | Iran |
| 13 | Peer-Reviewed Journal | Measuring the Completeness of Complete Streets. | Hui et al., 2017 | North America |
| 14 | Peer-Reviewed Journal | The Pedestrianisation and Its Relation with Enhancing Walkability in Urban Spaces. | Hussein, 2018 | Turkey |
| 15 | Peer-Reviewed Journal | The Reinforcement of Pedestrian Safety in the Central Business District: A Spatial Analysis of Austin, Texas. | Hwang, 2022 | USA |
| 16 | Masters Report | The Chill of Outdoor Plazas. | Jones, 2012 | Canada |
| 17 | Peer-Reviewed Journal | Monitoring the Impact of Pedestrianization Schemes on Mobility and Sustainability. | Keseru et al., 2016 | Belgium |
| 18 | Peer-Reviewed Journal | Streets for Transport and Health: The Opportunity of a Temporary Road Closure for Neighborhood Connection, Activity, and Wellbeing. | Kingham et al., 2020 | New Zealand |
| 19 | Masters Report | Reconstruction Ahead: School Streets and Street Reclamation in Ontario. | Koenig, 2023 | Canada |
| 20 | Peer-Reviewed Journal | Open Streets Initiatives in the US: Closed to Traffic, Open to Physical Activity. | Kuhlberg et al., 2013 | USA |
| 21 | Peer-Reviewed Journal | Effects of Pedestrianization on the Commercial and Retail Areas: Study in Khao San Road, Bangkok. | Kumar & Ross, 2006 | Thailand |
| 22 | Municipal Report | Steps to Revitalizing Hamilton's Downtown. | Lam, 2021 | Canada |



| Focus | Benefits | Costs |
|---|---|---|
| Pedestrian-oriented streets | • Pedestrianized streets can enhance social experiences<br>• Reduced traffic noise and air pollution greatly improves mental health | N/A |
| Complete streets | • Prioritizes the movement of pedestrians and cyclists over vehicles<br>• Reduces environmental pollution | N/A |
| Pedestrianized urban environments | • Provides more space for greenery and attractive street furnishings<br>• Provides a more welcoming environment for tourists<br>• Enhances sporadic social interactions | N/A |
| Pedestrianization in central business districts | • Pedestrianization of CBD's greatly decreases pedestrian-vehicle conflicts<br>• Decreases the severity of pedestrian injury | N/A |
| Winterization of outdoor plazas | • Well-designed outdoor plazas provide vibrancy to urban spaces<br>• Permanent projects can encourage outdoor activity in the winter<br>• Provides "third spaces" for the public that are accessible year-round | • Winterized programming can create challenges with engagement |
| Mobility and sustainability | • Addresses concerns of inactivity in communities by enhancing active transportation routes<br>• Improves air quality | • Increases traffic flow on surrounding streets |
| Temporary road closures | • Provides opportunities for physical activity<br>• Improves neighborhood sociability and connection<br>• More opportunities for sporadic interactions and activities | • Inconvenience to vehicle users during the time of road closures |
| School streets | • Reclaims the streets as a space for children to engage in active transportation<br>• Helps disrupt car-centric narratives surrounding street use<br>• Reduces vehicular reliance in school areas | • Relies heavily on external funding and stakeholder volunteering |
| Open streets | • Increases physical activity levels in populations at risk of developing chronic diseases<br>• Creates more job opportunities for vendors and local shops<br>• Contributes to economic growth | N/A |
| Pedestrianization in commercial areas | • Reduces the number of streets experiencing high levels of traffic congestion<br>• Improves feelings of safety when engaging in commercial activity<br>• Increases sale volumes within commercial areas | N/A |
| Revitalization of central business districts | N/A | N/A |

| # | Article Type | Article Title | Author, Date | Location |
|---|---|---|---|---|
| 23 | Peer-Reviewed Journal | The Role of Security and Walkability in Subjective Wellbeing: A Multigroup Analysis of Different Age Cohorts. | Lucchesi et al., 2021 | Brazil |
| 24 | Peer-Reviewed Journal | Pedestrian Environments and Sense of Community. | Lund, 2002 | USA |
| 25 | Peer-Reviewed Journal | Third Places and the Social Life of Streets. | Mehta & Bosson, 2010 | USA |
| 26 | Municipal Report | Living Streets: A Pathway Toward Inclusive, Equitable, and Accessible Pedestrian Streets. | Moore et al., 2019 | USA |
| 27 | Peer-Reviewed Journal | Simulating the Effects of Pedestrianisation on Urban Freight Deliveries. | Munuzuri et al., 2013 | Spain |
| 28 | Peer-Reviewed Journal | Measuring Local Economic Activity Using Pedestrian Count Data. | Navon & de Silva, 2023 | Australia |
| 29 | Peer-Reviewed Journal | The Virtuous Cycle: Incremental Changes and a Process-Based Sustainable Development. | Newman, 2007 | Canada |
| 30 | Peer-Reviewed Journal | Costs and Benefits of a Road Diet Conversion | Noland et al., 2015 | USA |
| 31 | Peer-Reviewed Journal | The Usage and Perception of Pedestrian and Cycling Streets on Residents' Wellbeing in Kalamaria, Greece. | Panagopoulos et al., 2018 | Greece |
| 32 | Peer-Reviewed Journal | Barriers to the Pedestrianization of City Centres: Perspectives from the Global North and the Global South. | Parajuli & Pojani, 2017 | Various |
| 33 | Peer-Reviewed Journal | Ciclovia in a Rural Latino Community: Results and Lessons Learned. | Perry et al., 2017 | USA |



| Focus | Benefits | Costs |
|---|---|---|
| Safety and walkability | • Safety and wellbeing of older adults is great improved on walkable streets<br>• Middle-aged and older adults' satisfaction with streets increases with improved walkability | N/A |
| Pedestrian environments and sense of community | • Improves pride and sense of community connection | N/A |
| Third places | • Provides opportunities for more socialization<br>• Encourages enhanced street fronts to make them more attractive and appealing<br>• Creates a more cohesive community | N/A |
| Evaluation of pedestrian streets | N/A | N/A |
| Freight deliveries in pedestrian zones | N/A | • Pedestrianized zones may cause delivery drivers to park illegally or engage in double parking to access businesses |
| Economic activity and pedestrian counts | • Increased numbers of pedestrians correlated with increased local economic activity | N/A |
| Sustainable development | • Pedestrian zones can draw people in from outside the immediate area<br>• Strengthens social capital | N/A |
| Road diet conversions | • Can be used as a traffic calming measure<br>• Decreases rates of pedestrian-vehicle conflicts | • Minor additional delays in traffic on surrounding streets<br>• Costs of infrastructure and road construction |
| Pedestrian zones | • Improves access to the downtown through active transportation<br>• Improves pedestrian mobility | • Reduces parking capacities<br>• Higher turnover for local businesses<br>• Increase in public taxes |
| Pedestrianization of city centres | • Reduces the number of streets experiencing high levels of traffic congestion<br>• Improves feelings of safety when engaging in commercial activity<br>• Increases sale volumes within commercial areas | • Creates issues with parking management<br>• Decreases access for business deliveries |
| Ciclovias | • Provides safe and accessible opportunities for physical activity for people living in suburban communities<br>• Affordable to implement | N/A |

| # | Article Type | Article Title | Author, Date | Location |
|---|---|---|---|---|
| 34 | Peer-Reviewed Journal | Evaluation of Event Physical Activity Engagement at an Open Streets Initiative Within a Texas-Mexico Border Town. | Salazar-Collier et al., 2018 | USA |
| 35 | Peer-Reviewed Journal | Pedestrian Street and its Effect on Economic Sustainability of a Historical Middle Eastern City: The Case of Chaharbagh Abbasi in Isfahan, Iran. | Shahmoradi et al., 2023 | Iran |
| 36 | Peer-Reviewed Journal | Benefits of Pedestrianization and Warrants to Pedestrianize an Area. | Soni & Soni, 2016 | Various |
| 37 | Academic Book | Walkable City: How Downtown Can Save America, One Step at a Time. | Speck, 2012 | Various |
| 38 | Peer-Reviewed Journal | How Do Urban Walking Environments Impact Pedestrians' Experience and Psychological Health: A Systematic Review. | Sundling & Jakobsson, 2023 | Various |
| 39 | Academic Report | Reclaiming the Streets: Possibilities for Post-Pandemic Public Space Forthcoming. | Thorpe, 2020 | Australia |
| 40 | Academic Report | Revitalizing High Street Through Pedestrianization. | Traffenstedt, 2019 | Various |
| 41 | Peer-Reviewed Journal | Active Streets for Children: The Case of the Bogota Ciclovia. | Triana et al., 2019 | Columbia |
| 42 | Peer-Reviewed Journal | Economic Impacts on Local Businesses of Investments in Bicycle and Pedestrian Infrastructure: A Review of the Evidence. | Volker & Handy, 2021 | North America |
| 43 | Peer-Reviewed Journal | The Relationship Between Visual Enclosure for Neighbourhood Street Walkability and Elders' Mental Health in China: Using Street View Images. | Wang et al., 2019 | China |



| Focus | Benefits | Costs |
|---|---|---|
| Open streets | • Increases physical activity amongst families and social networks<br>• Engages youth in open street activities<br>• Improves cycling<br>• Enhances the health and wellbeing of low-income communities | N/A |
| Pedestrianization of commercial and historical areas | • Helps to prevent economic decline<br>• Improves local business and employee turnover | • May result in pushback from local businesses |
| Warrants for pedestrianization | • Improves mobility for people of all ages and abilities<br>• Reduces risk of pedestrian injury<br>• Benefits local shops and the tourism economy | N/A |
| Walkable downtowns | • Helps to reduce urban heat islands<br>• Encourages active mobility and sustainable design strategies for streets | • Increased traffic congestion and stalling can lead to more air pollution<br>• Limits the type of commercial opportunities to pedestrian friendly shops |
| Walkable environments and mental health | • Reduced traffic improves sense of safety especially for older adults<br>• Encourages natural surveillance for parents and their children<br>• Can help to improve psychological wellbeing and accessibility | N/A |
| Public spaces post-pandemic | N/A | N/A |
| Pedestrian streets and plazas | • Increased use of active transportation<br>• Allows for tactical interventions<br>• Creates more scenic city centers for residents and tourists | • Loss of parking spaces in front of businesses<br>• Re-routing may be required for delivery drivers |
| Ciclovias | • Increases activity time for children<br>• Supports the growth of social skills and social networks in children and families<br>• Improves perceptions of safety | N/A |
| Pedestrian- and cyclist-friendly streets | • Pedestrian and cyclist infrastructure improvements can help to enhance economic growth<br>• Supports cycling access to commercial areas<br>• Engages with local businesses | • Restricts access to auto-centric businesses |
| Walkable environments and mental health | • Provides a social space for older adults in the community<br>• Provides mental and physical health benefits for older adults | N/A |

| # | Article Type | Article Title | Author, Date | Location |
|---|---|---|---|---|
| 44 | Peer-Reviewed Journal | The Effect of Urban Quality Improvements on Economic Activity | Whitehead et al., 2006 | UK |
| 45 | Peer-Reviewed Journal | Pedestrianization: Are We Reading From the Same Page: Perspectives from Key Stakeholders in Takapuna, Auckland. | Wooller et al., 2012 | New Zealand |
| 46 | Peer-Reviewed Journal | The Effect of the Perceptible Built Environment on Pedestrians' Walking Behaviors in Commercial Districts: Evidence from Hong Kong. | Yang et al., 2023 | China |
| 47 | Peer-Reviewed Journal | Livable City: An Approach to Pedestrianization Through Tactical Urbanism. | Yassin, 2019 | Various |
| 48 | Peer-Reviewed Journal | Talking the walk: Perceptions of neighborhood characteristics from users of open streets programs in Latin America and the USA | Zieff et al., 2018 | Various |

| Focus | Benefits | Costs |
|---|---|---|
| Urban quality improvements | • Positive impacts on total employment and office rents<br>• Creates a more attractive city center | • Increased traffic congestion due to increased number of shoppers visiting the area |
| Stakeholder perceptions of pedestrianization | • Improves aesthetics, connectivity, and accessibility<br>• Improves transit infrastructure<br>• Increases walking and cycling | N/A |
| Pedestrian walking behaviors | N/A | N/A |
| Tactical urbanism | N/A | N/A |
| Open streets | • Greater inclusion of vulnerable populations in community programming<br>• Increased safety<br>• Reduces the environmental barriers of car-centric neighborhoods | N/A |

## 2.6 Key Takeaways

This review of academic literature identified benefits, costs, and key considerations associated with pedestrianization projects in central business districts. The research found that costs associated with pedestrianization are minimal compared to the various benefits that can emerge from these projects.

Several themes emerged within this review which emphasized how pedestrianization projects can impact people's wellbeing, contribute to the sustainability of a downtown core, and promote economic growth within a municipality. **Safety and economic growth** were the most widely acknowledged benefits of pedestrianization projects identified within the literature. Scholars noted how pedestrianization projects can **improve perceptions of neighborhood safety** and **reduce pedestrian injuries** while drawing **new transit users** and **economic activity** to the downtown core. Pedestrianization initiatives can also help support the **health and wellbeing** of residents, through opportunities for **increased physical activity** while also supporting more **sustainable modes of transportation**. As an associated benefit, pedestrianized spaces have also been shown to increase opportunities for **human connection**, leading to the development of **more unified communities**.

The challenges associated with these types of projects surround economic costs, parking and traffic congestion. These types of projects often require **large investments** for long-term success and may be subject to funding challenges. With more visitors to the downtown core, challenges may also arise with **limited parking** and **increased traffic congestion** around the area. However, as indicated through the 'Key Considerations' section, these issues can be **mitigated through design**. While there are many benefits to implementing a pedestrianization project, it is critical to reflect on how such a project may improve or disrupt an existing neighborhood and to plan accordingly.

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# Primary Research



# 3.0 Observations and Public Feedback

## 3.1 Introduction

This chapter highlights the results of various primary data analyses conducted at the study area and of public feedback received by the City of Kingston on the proposed pedestrianization project. The purpose of these analyses was to better understand the relationship of pedestrians, motorists, and cyclists to the site through direct field observations, and gauge public opinion on the project. This section aims to analyze how people in Kingston use, navigate, and feel about the study area in order to identify opportunities, challenges, and key considerations for the pedestrianization of Ontario and Market Streets.

## 3.2 Methods

### 3.2.1 Direct Observations

The team conducted a variety of site observations from September to November 2023 on regular non-event days and during various temporary street closure events. The goals of the site observations were to capture the behaviour of a variety of road users; examine the different uses of the streets and surrounding areas; and to observe the existing built environment and physical conditions at the study area to best understand the opportunities and challenges of a pedestrianization project.

During site observations, members of the team situated themselves individually at different vantage points to record observations (Figure 3.1). Site observations typically lasted 30 to 60 minutes, with each observer focusing on pedestrian, cyclist, and motorist behaviours, paying particular attention to how each group navigates and uses the site, and how they interact with each other. Observations also focused on features of the built environment. Field notes were sorted based on observation type observed on Ontario Street and Market Street. This information is summarized in the tables below (Table 3.1 & 3.2).

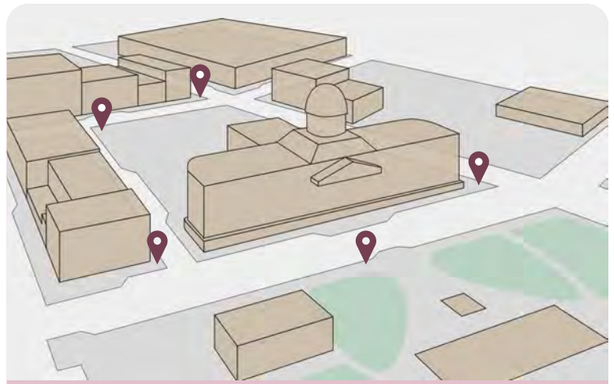


*Figure 3.1: Map showing the team's vantage points for observations at various locations around Ontario and Market Streets.*

The observations of temporary road closures at and surrounding the study area took place from September to November 2023. This included the Princess Street Promenade, Kingston Intercultural Festival, and the Open Farm Days event. While some of these events took place off-site, valuable insights were gained on the challenges and opportunities that accompany these types of closures. The qualitative observations that were gathered by the team were then analyzed for key trends. Quantitative analyses were not included as part of the site observations as this fell outside the scope of the student project. The City of Kingston had previously collected data on traffic counts, signal timing, and collisions at the study area, allowing the team to focus on qualitative data collection.



### 3.2.2 Public Feedback

The latter part of this chapter involved a thematic analysis of public feedback received by the City of Kingston from June 2023 to October 2023. An online survey with open-ended questions about the potential pedestrianization of Ontario and Market Streets was made available in June 2023 to gauge interest in the project and understand the public's concerns. Survey comments were emailed directly to Transportation Engineering at the City of Kingston or shared via its Get Involved webpage. The survey collected demographic information (postal codes) and allowed respondents to share their ideas, concerns, and needs directly with the City. 155 posts were made on the City's webpage and 55 emails were sent directly to the City. The team worked to categorize these responses by theme and assess trends that arose within the feedback.

## 3.3 Observational Data

### 3.3.1 Site Observations

This section highlights observations collected during site observations from various vantage points around the site. General trends observed at the study area include a large number of pedestrians engaging in mid-block crossings, visiting or crossing the site in groups, taking photos at specific points of interest, and using the space at Springer Market Square as a thoroughfare rather than a place to linger. During temporary street closures, pedestrians were observed remaining on sidewalks instead of using the pedestrianized roadway. Conflicts between motorists and pedestrians were not noted at either non-event days or temporary street closure events.

*Table 3.1: Ontario Street Observations (Between Clarence Street and Brock Street).*

| Date, Time, Weather | Subject | Notes |
|---|---|---|
| Tuesday, September 12, 2023<br>9:30 a.m.-10:00 a.m.<br>Cloudy, no precipitation, 18C | Pedestrians | • Pedestrians taking photographs at the front of City Hall<br>• Multiple mid-block crossings observed one pedestrian was almost hit by a car mid-crossing<br>• No pedestrians were observed using the benches within the extended sidewalk in front of City Hall<br>• Most pedestrians opted for the sidewalk that was closest to Confederation Park when navigating Ontario Street |
| | Motorists | • Cars turning left onto Brock Street from Ontario Street caused some traffic congestion on Ontario Street<br>• Two buses were observed hitting the curb when turning left from Ontario Street onto Brock Street<br>• High noise level from cars and trucks |
| | Other | • Poor sidewalk quality in some areas; potholes and uneven surfaces<br>• Sidewalks were fairly clean |
| Friday, September 29, 2023<br>12:00 p.m. – 12:30 p.m.<br>Sunny, no wind, 22C | Pedestrians | • Few pedestrians were observed<br>• Some mid-block crossings by pedestrians taking photos at City Hall |
| | Motorists | • Moderate traffic congestion<br>• Full parking lot at Brock Street and Ontario Street |

| Date, Time, Weather | Subject | Notes |
|---|---|---|
| Sunday, October 1, 2023<br>12:00 p.m.- 12:30 p.m.<br>Some wind, 23C | Pedestrians | • Seating on Ontario Street was unused<br>• Multiple mid-block crossings across Ontario Street<br>• One person using a skateboard on the extended sidewalk in front of City Hall<br>• Larger groups of pedestrians walked down Ontario Street to access Market Square |
| | Motorists | • Minimal car traffic<br>• Some loading trucks in front of City Hall |
| | Other | • Lack of shaded areas and greenery<br>• Lack of bike lanes in the area |
| Tuesday, October 3, 2023<br>8:20 a.m.- 9:10 a.m.<br>Mild, sunny, 16C | Pedestrians | • Two people observed using benches on the corner of Brock and Ontario Street and beside the entrance to City Hall<br>• Confederation Park is largely vacant<br>• Older adults observed navigating Ontario Street with walkers |
| | Motorists | • Parking lot at Brock and Ontario Street was moderately busy |
| Friday, October 6, 2023<br>1:20 p.m.- 2:20 p.m.<br>Warm, breezy, 12C | Pedestrians | • Most pedestrians were walking down Ontario Street to access Market Square<br>• Confederation Park was fairly busy<br>• Large group of pedestrians attending a wedding at City Hall<br>• Many pedestrians engaging with art displays on Brock Street |
| | Motorists | • Parking lot at Brock and Ontario Street was full |
| Thursday, October 26, 2023<br>10:30 a.m.- 11:00 a.m.<br>Cloudy, 13C | Pedestrians | • Religious group handing out pamphlets on Ontario Street near Brock Street<br>• Many pedestrians were stopping to engage with the art display along Brock Street |
| | Cyclists | • Very few cyclists were observed navigating Ontario Street |
| | Other | • Planters have been removed for the season |
| Monday, November 6, 2023<br>8:30 a.m.- 9:00 a.m.<br>Cloudy, 2C | Pedestrians | • Children were observed playing on Train 1095 within Confederation Park<br>• Many families were stopping along Ontario Street to take photographs of the marina |
| | Motorists | • Many vehicles parked along Ontario Street to visit Confederation Park |



| Date, Time, Weather | Subject | Notes |
|---|---|---|
| Friday, November 10, 2023<br>8:30 p.m.- 9:00 p.m.<br>Cloudy, 2C | Pedestrians | • Many small groups moving down Ontario Street towards restaurants<br>• Moderate-high pedestrian traffic including some dogwalkers and families<br>• Piano being played in Confederation Park<br>• Seating remained mostly unused by pedestrians along Ontario Street |
| | Motorists | • Parking lot and all street parking spots were filled |
| | Other | • Ontario Street would need a more permanent barrier to indicate a closure given high traffic levels<br>• Opportunity to create more connection between Ontario Street and Market Square<br>• Ontario Street could benefit from street furniture that introduces more greenery to the space |

*Table 3.2: Market Street Observations (Between King Street E. and Ontario Street).*

| Date, Time, Weather | Subject | Notes |
|---|---|---|
| Tuesday, September 12, 2023<br>9:30 a.m.-10:00 a.m.<br>Cloudy, no precipitation, 18C | Pedestrians | • Mid-block crossings between Market Street and Springer Market Square |
| | Cyclists | • Cyclists must navigate around parked vehicles |
| | Other | • Street lighting on the east side of Market Street but none on the west side where businesses are located<br>• No signaled crossings at intersections of Ontario Street or King Street E.<br>• Picnic benches at Market Square not used<br>• Little bike parking available (one post and ring rack at west corner of Market Street and King Street) |
| Friday, September 29, 2023<br>12:00 p.m. – 12:30 p.m.<br>Sunny, no wind, 22C | Pedestrians | • Yoga in the Square event taking place<br>• Pedestrians stay near edges of the street or cluster around City Hall |
| | Motorists | • Loading zone misused on King St. E.<br>• All parking spots full on Market Street |
| | Other | • Cyclists using bollards to park bikes |
| Sunday, October 1, 2023<br>12:00 p.m. - 12:30 p.m.<br>Some wind, 23C | Pedestrians | • Mid-block crossings between King Street E. and Market Street, and Market Street to Springer Market Square |
| | Other | • Loud vehicular traffic on King Street E.<br>• Tables and chairs underutilized<br>• No vendors present |

| Date, Time, Weather | Subject | Notes |
|---|---|---|
| Tuesday, October 3, 2023<br>8:20 a.m.- 9:10 a.m.<br>Mild, sunny, 16C | Pedestrians | • Few pedestrians stay and sit at Springer Market Square; most pass through<br>• Very little mid-block crossings |
| | Motorists | • Very little traffic on King Street E.<br>• Loading zone misused on King Street E. |
| | Other | • Most benches unused; some use of Muskoka chairs<br>• Site is very inactive, with very few visitors overall |
| Friday, October 6, 2023<br>1:20 p.m.- 2:20 p.m.<br>Warm, breezy, 12C | Pedestrians | • Some pedestrians viewing public art |
| | Motorists | • All parking spots full on Market Street |
| | Other | • All public benches at Springer Market Square in use<br>• Businesses did not put out patio furniture |
| Thursday, October 26, 2023<br>10:30 a.m.- 11:00 a.m.<br>Cloudy, 13C | Pedestrians | • Children were observed playing on Train 1095 within Confederation Park<br>• Many families were stopping along Ontario Street to take photographs of the marina |
| | Motorists | • Some traffic along King Street E. in both directions |
| Friday, November 10, 2023<br>8:30 p.m.- 9:00 p.m.<br>Cloudy, 2C | Pedestrians | • Slow, steady stream of pedestrians walking through Springer Market Square from all sides, not lingering |
| | Motorists | • Loading zones misused<br>• Most parking on Market Street full |
| | Other | • Most public seating is vacant<br>• Music from nearby restaurants is vacant |
| Saturday, November 11, 2023<br>12:30 p.m. - 1:00 p.m.<br>Overcast, 6C | Pedestrians | • No use of amphitheater |
| | Motorists | • Minimal car traffic, side lane now open |
| | Other | • Farmer's market taking place with activity; Confederation Park was quiet |

### 3.3.2 Temporary Street Closure Events

This section focuses on observations made during temporary road closures of Ontario, Market, and Princess Streets for special events, including the Princess Street Promenade, Intercultural Arts Festival, and Open Farm Days. The direct observations focused on the behaviour of various road users in the context of a pedestrianized street closure with specific attention paid to the activation of the space. The observations served as an opportunity for the team to reflect on how the City of Kingston and the Downtown Kingston BIA organize, manage, and activate pedestrian spaces to best understand how these strategies could be implemented into the pedestrianization of the study area. In addition to the events observed, a brief overview of other street closure events in Kingston which were not attended by members of the research team is provided at the end of this section.

All three observed events were noted to be popular and well-attended. Events were well-organized with no direct conflicts between motorists and pedestrians observed. The Princess Street Promenade and the Kingston Intercultural Festival were free for all attendees, and Open Farm Days was a private ticketed event costing $75.00.





*Figures 3.2 - 3.3: The Princess Street Promenade in 2014 (left) and the event in 2023 (right) (Photos via The Kingston Whig-Standard, 2014; J. Murphy, 2023).*

The Princess Street Promenade was noted to be an especially popular and busy event, attracting many families and children. The event appeared to benefit local businesses, including retail establishments and restaurants, as well as various community groups. Diverse vendors lined the street and attracted clientele with a wide range of goods, including food, arts and crafts, and clothing. Children engaged in spontaneous play with sidewalk chalk and various arts activities provided, allowing them to engage imaginatively with the space. With Ontario Street closed for the Kingston Intercultural Festival, the street functioned as an extension of public space to Confederation Park and helped animate the Confederation Basin area, making it a central point of the event. The expansion of public space from the park towards the City Hall building created an integrated environment and helped tie the two distinct areas together. The closure of Ontario Street contributed to a vibrant social scene and the creation of a strong community feel, with visitors of all ages and abilities participating in various activities and programming. It is unlikely that surrounding businesses benefitted from the private Open Farm Days event, as participants were in a gated, closed-in environment, separated from typical Saturday market vendors. The outcome of using fencing was a physically tight setting, and to move along Market Street as a non-paying participant required closely passing by many stalls and people.

#### *3.3.2.1 Princess Street Promenade*

The Princess Street Promenade is a one-day festival that takes place two to three times per year to promote active living and community involvement within the downtown area (Downtown Kingston, 2023). The Promenade blocks vehicular access on Princess Street from Division Street to Ontario Street, allowing the street to be used by pedestrians, local businesses, and vendors. Over 100 businesses and community groups engage residents and tourists during the event with family-friendly programming and commercial opportunities. The event is hosted by the Downtown Kingston BIA with support from the City of Kingston.



*Figure 3.4. Pedestrians and vendors during the Princess Street Promenade in 2023.*

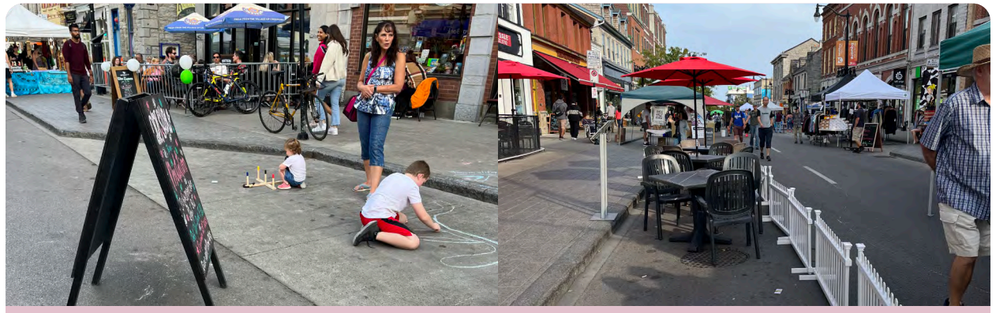
In 2023, the festival set a record level with over 8,000 people in attendance. To alleviate concerns about reduced parking capacity, reduce parking overspill into surrounding

streets, and to offer residents a convenient and sustainable transportation mode, free city-wide public transit is offered during the event. The team's observations at the Princess Street Promenade took place on Sunday, September 23, 2023 from 3:00 p.m. to 4:00 p.m. Weather conditions were slightly overcast but mild.

Visitors of all ages were present, with most walking together in groups. Activations at the event engaged people of all ages and included music, games, and various interactive activities. Activation points were spread out effectively along the street, keeping people engaged through the entire stretch of the pedestrianized space. Businesses fronting Princess Street engaged customers by expanding operations into the street, allowing for more commercial space and attracting people to browse and linger. Restaurants expanded their patios further into the street to accommodate more patrons. Restaurants that animated their patio spaces, including attractive signage or live music, appeared to be attracting the largest crowds. Restaurant patios on Princess Street were observed to be busier and more animated than on typical days when the street is open to traffic.

Cyclists used the street alongside pedestrians with no conflicts observed. No conflicts between motorists and pedestrians were observed, although some alarm was noted in pedestrians who appeared to forget to stop for vehicles on through-traffic points on Barrie Street and Bagot Street. Signage reminding pedestrians to stop at the through-traffic points was placed in the middle of the street and was not highly visible from the sidewalks. Most pedestrians used the sidewalk or stayed close to the sidewalk during the street closure, stepping into the street only when engaging in a specific activation or to approach a vendor's stall.

The Promenade appeared to decrease the parking capacity in the downtown area along the event boundaries, and surrounding streets were noticeably impacted with parking overspill. Vehicles drove noticeably slower at through-traffic points. Traffic flow appeared to increase on King Street E. during the event.



*Figures 3.5 - 3.6. Children playing on Princess Street (left); Expanded restaurant patio on Princess Street (right).*

### *3.3.2.2 Open Farm Days*

Market Street was closed in October to accommodate Open Farm Days, a one-day ticketed event hosted by the City of Kingston in partnership with Frontenac County and Tourism Kingston to celebrate agriculture in Frontenac County. Open Farm Days is centered on food and drink, with several participating local restaurants offering tastings to attendees and showcasing live cooking demonstrations. The event coincided with the regular Saturday Farmers' Market at Springer Market Square. The team's observations at the Open Farm Days event took place on Saturday, October 14, 2023 from 10:30 a.m. to 11:30 a.m. Weather conditions were sunny and slightly windy.



Traffic cones prevented vehicles from entering Market Street at King Street, and vehicles were blocked by an orange placard at the intersection of Ontario Street during the event. With Market Street closed to vehicles, more pedestrians seemed to fill the space than on a typical market weekend. The private event was closed off to the public with fencing, and public seating was removed and relocated behind the fences for event participants only. It was noted that cyclists were unable to park their bicycles on Market Street, and loading zones were blocked off by the event.

Booths with electricity were made available to event staff. Event patrons dined outdoors with heavy traffic around Springer Market Square. Restaurant patios on Ontario Street were not especially busy. The event generated significant foot traffic and customers in the area, without much disruption to surrounding areas and activities.

### *3.3.2.3 Intercultural Arts Festival*

The Kingston Intercultural Arts Festival was held at Springer Market Square and Confederation Park on Sunday, September 17, 2023. The event is a cultural festival celebrated annually with a road closure on Ontario Street, bringing together a wide variety of cultural groups and organizations with diverse and educational programming such as live music, dance, and educational workshops. The event is organized by the City of Kingston to promote and highlight the rich cultural diversity of the city's residents. This year's event included 25 food and craft vendors, and a food truck hosted by the Katarokwi Indigenous Art and Food Market. A performance stage was set up at Ontario Street and Brock Street. The team's observations at the Kingston Intercultural Arts Festival took place on Saturday, September 17, 2023 from 2:00 p.m. to 3:00 p.m. Weather conditions were sunny and warm.



*Figure 3.7: Performance taking place at the Intercultural Arts Festival (Photo via Visit Kingston).*

Ontario Street was closed to vehicular traffic using orange construction cones and signs indicating it as a pedestrian designated zone. Throughout the entirety of the event, song and dance acts were performed and activations and workshops were set up on Ontario Street. Confederation Park was observed to be very busy with pedestrians shopping and wandering along the pathways where most vendor stalls were concentrated. The event was well attended, and groups of pedestrians spilled into Ontario Street and gathered to engage with the performances taking place on the stage. The event provided a number of Muskoka chairs for attendees, but many visitors had to sit on pavement on curbs to watch the performances. Some Ontario Street businesses engaged in the event, but other businesses in the area were less busy. There was some activation at Springer Market Square, with dancing performances in the amphitheater.



*Figures 3.8 - 3.10: The Kingston Intercultural Fair viewed from Ontario Street (left); the Intercultural Fair viewed from Confederation Park (middle and right)*

Throughout the event, vehicular traffic was observed to be heavier on King Street while Ontario Street was closed. Vehicles were noted to

generally be moving slower on King Street during the event than during other observations. No cyclists were observed on Ontario Street during the street closure.

*3.3.2.4 Other Temporary Street Closures in Kingston*

Other special events throughout the year have resulted in street closures in downtown Kingston. These pedestrian-priority events brought more visitors to the downtown area and included Rockin' the Square, the Vanier Cup Celebrations hosted by Queen's University, and a viewing party for the Tragically Hip's Final Concert in 2016 which closed Market Street to private vehicles. The latter hosted 25,000 people, many of whom visited Kingston solely to attend the event (Macleans, 2022). A full stage was installed in for these events. Several philanthropic and community events, such as the Pull for Epilepsy event and Pride Parade, take place downtown and result in street closures for pedestrian use. Children's events include Kingston Buskers Rendezvous and Santa Clause Parade which draw crowds to Ontario and Princess Streets, often limiting traffic flow for several hours. The team did not conduct direct observations at these events.




*Figures 3.11 - 3.12: Pull for Epilepsy event on Ontario Street in front of City Hall (top) and Kingston Buskers Rendezvous event (bottom) on Ontario Street and Market Square (Photos via Downtown Kingston; Visit Kingston, 2023).*



*Figures 3.13 - 3.14: Residents celebrating Kingston's Pride Parade along Ontario Street by City Hall (left) and spectators watching the 2022 Santa Clause along Princess Street (Photos via Meghan Balogh for Kingston Whig-Standard; Correa, 2023).*

## 3.4 Public Feedback Analysis

A critical component of the primary data analysis was considering public opinion on the proposed pedestrianization of Ontario and Market Street. Through survey responses and emails received by the City of Kingston's Transportation department from June to October 2023, the project team was able to develop an understanding of local opinions on the project. The team coded the public feedback and categorized comments into six key themes: **Safety**, **Accessibility**, **Local Economy**, **Placemaking and Activation**, **Transportation Infrastructure**, and **Walkability**. Many respondents expressed strong sentiments either 'for' or 'against' one or both streets becoming pedestrianized with comments on improving road safety appearing most frequently.



### 3.4.1 Safety

Responses related to safety appeared most frequently within the public feedback. **Speeding and distracted drivers** were perceived as imminent threats to pedestrianizing the site, especially during the evening when visibility is limited.

> **"I hope that it will stop Ontario St. from becoming a raceway. During the summer, it has become cruising central with excessively loud motorcycles and sports cars revving their engines and actually passing slower vehicles."**
>
> *- Get Involved Kingston Webpage Respondent*

Some respondents suggested **enhancements to the built environment** for pedestrians, such as highly visible mechanical **bollards**, which would allow for a complete separation of vehicle and pedestrian activity. Installing permanent, pedestrian-activated **traffic lights**, **pavement markers**, and more **safe-crossing areas** were also identified as a potential tools for enhancing road safety. For cyclists, respondents expressed that creating more secure and covered **bike parking** on site would help to increase the number of visitors to the site. Finally, respondents suggested integrating lower s**peed limits** to limit pedestrian injury.

### 3.4.2 Accessibility

Responses that focused on accessibility brought up concerns about the extent to which the site remains **barrier-free** and navigable for those with **auditory, visual, mobility, or cognitive impairments**. Some comments expressed were worried that **tourists** were being prioritized over those with mobility issues. Respondents expressed that the City should ensure seamless access from the site to **Princess Street**, **Confederation Park**, and **City Hall**. Some comments shared concerns about residents with mobility issues no longer having easy access to **taxis**, **rideshares**, and **personal vehicles** if these streets were to close. There was particular concern about access for seniors with some comments expressing how the removal of **parking and loading zones** might make it challenging to access the site. Respondents also shared that **clear signage** to indicate entrances and exits to the pedestrian area would be a useful addition to the site.

> **"We believe closing Ontario Street to traffic in the blocks in front of City Hall would result in improved mobility and accessibility for pedestrians. It would encourage face to face social interactions and communications and would positively add to urban life."**
>
> *- Get Involved Kingston Webpage Respondent*

### 3.4.3 Local Economy

Some respondents expressed concerns and praise for the impact a pedestrian closure could have on the prosperity of the local economy. Positive comments expressed how an activated and improved pedestrian space could provide opportunities for new and existing **businesses** to increase their clientele with additional **foot traffic** in the downtown core. Some concerns were expressed about the loss of **parking** in front of businesses and how this might impact clientele. Respondents suggested that the project should place an emphasis on **encouraging patronage** to local businesses while ensuring that **delivery access** is not negatively impacted by the street closures. Some respondents expressed an interest in seeing **food trucks** on Ontario Street while others advised that new **tourism** opportunities should be created within the space.

> **"This is a fantastic idea. It will [...] help our tourism industry, assist downtown businesses with much-needed foot-traffic, promote non-vehicle leisure activities."**
>
> *- Get Involved Kingston Webpage Respondent*

### 3.4.4 Placemaking and Activation

Responses surrounding placemaking and activation focused on the need to create more opportunities for **music**, **public art**, and **festivals** within the street closure area. Respondents suggested creating new **art installations** and **gardens** to make the space feel more vibrant. Other comments suggested extending the existing **patio furniture** at Springer Market Square into the pedestrianized area in order to improve **seating** options. Some respondents suggested that a **temporary or seasonal closure** be considered if the space cannot be continuously activated in the colder months, with some suggesting that this alternative might be a more appropriate option for **seniors**. The project should also consider increasing the use of **activation hubs** and mitigating **noise** throughout the site in order to make the space more engaging and enjoyable for pedestrians.

> **[Kingston] should create an inviting atmosphere similar to Distillery District in Toronto. This could feature local artisans and restaurants. Special events and holidays could be hosted and would be more inviting for locals and tourists.**
>
> *- Respondent Email*

### 3.4.5 Transportation Infrastructure

Some responses focused on the need to ensure adequate transportation infrastructure was in place to support a pedestrianization project. Comments expressed that opportunities should be explored to improve **connectivity** from the downtown core to the **Waterfront Trail** through the addition of protected **bike lanes**. Respondents also expressed a desire for the City to prioritize public **transit** accessibility to the area and invest in more **park-and-ride** locations near the downtown core to ensure more people can reach the closure area. While some respondents were concerned that re-routing vehicles might increase **traffic congestion**, others suggested mitigation measures such as converting **Brock Street to a two-way road** and implementing a **flexible street design** to permit vehicle access when necessary. Finally, some respondents suggested providing designated and affordable public **parking** options near the site that do not impact side streets but help mitigate the impacts of lost parking spaces within the closure area.

> **I'd love to see this section of Ontario Street closed. We don't want to be a city that advantages cars overs pedestrians and bikes, rather we should keep making the pedestrian and bike experience better at the expense of cars.**
>
> *- Get Involved Kingston Webpage Respondent*

> **This section of Ontario Street is vital for my commute to work, and my access to the east end of Kingston. There is no adequate alternative in the old infrastructure of Downtown to navigate around this section of Ontario St. PLEASE DO NOT CLOSE THIS SECTION OF ONTARIO ST. Even when sections are temporarily closed, traffic downtown becomes unbearable.**
>
> *- Get Involved Kingston Webpage Respondent*

### 3.4.6 Walkability

Responses that focused on walkability were overwhelmingly supportive of the project, highlighting how a pedestrianized area would help to promote **healthier lifestyles** within Kingston. Some respondents suggested that the City should explore opportunities for street closures on **King Street** to extend the perimeter of the closure. Others mentioned how improvements to **sidewalk conditions** along surrounding streets outside of the designated pedestrian zone would help them to feel prioritized within the downtown core. Overall, many respondents expressed that they prefer walking to driving as they enjoy having the **opportunity to explore** Downtown Kingston without a vehicle. Vehicles are further mentioned as a significant cause of **air and noise pollution**, with some concerns expressed about how **traffic congestion** from an Ontario Street closure might worsen pollution in the downtown core. Other respondents expressed concerns that **Confederation Park** might become less peaceful with increased foot traffic.

> **I am someone who chooses to live without a car and so I walk, bike, and/or take transit for everything. The reason I choose to live where I do is because of how walkable the area is.**
>
> *- Get Involved Kingston Webpage Respondent*

## 3.5 Strengths, Weaknesses, Opportunities, and Challenges (SWOC) Analysis

A SWOC (Strengths, Weakness, Opportunities, and Challenges) analysis was completed following a series of direct observations of the existing conditions at the study area and a review of the public feedback on the proposed project. The SWOC analysis table below was continuously added to and refined throughout the three months of site observations as more information was gathered.

*Table 3.3: Strengths, Opportunities, Weaknesses, and Challenges (SWOC) table.*

| **Strengths** | **Weaknesses** |
|---|---|
| **Central location**: Downtown core and commercial business district; transit stops; bars; restaurants; retail establishments<br><br>**Strong tourism industry**: Historical setting; existing market; proximity to major destinations<br><br>**Large student population**: walking distance from Queen's University<br><br>**Widespread support**: City of Kingston; Downtown Kingston BIA; tourism sector | **Lacking cycling infrastructure**: No bicycle lanes; insufficient bicycle parking<br><br>**Insufficient signage**: Lacks wayfinding and tourism markers<br><br>**Maintenance and infrastructure**: Limited street lighting, especially on Market Street; poor sidewalk quality, especially along the north side of Ontario Street<br><br>**Limited activation**: Springer Market Square used mainly for large-scale events |
| **Opportunities** | **Challenges** |
| **Ensure cohesiveness through design**: Better connect Confederation Basin to site through a pedestrianized Ontario Street<br><br>**Enhance visitor experience**: Provide more street furniture and accessibility features<br><br>**Meet planning goals**: Strategic Plan (2023-2026) to make Kingston more pedestrian- friendly; Vision Zero Road Safety Plan to improve pedestrian/ cyclist safety; Climate Leadership Plan and Climate Action Plan to reduce emissions<br><br>**Provide more robust, frequent activation between major events**: public art; Indigenous programming<br><br>**Improve transportation infrastructure**: Add cycling facilities and a connecting bicycle lane; add transit stops at site; encourage transit ridership to avoid parking congestion as a result of road closure | **Resistance to change**: Pushback from commuters and residents accustomed to using Ontario Street as a thoroughfare<br><br>**Business concerns**: Reducing impacts of customer parking loss on operations; logistics of receiving deliveries; streamlining detouring<br><br>**Resident concerns**: Parking overspill into nearby streets and residential areas; issues with emergency access; increased congestion<br><br>**Winter logistics**: Reduced foot traffic in colder months; winter programming; snow clearance<br><br>**Infrastructure costs**: Repaving, constructing curbless streets, lighting, cycling facilities |

The SWOC analysis highlights the strengths of the existing study area that situate it as a prime location for a pedestrianization project. The opportunities are based on the ways the study area could become a vibrant public place but utilizing various recommendations. The weaknesses speak to the existing conditions that could be improved, built upon, and enhanced. Finally, certain scenarios or issues that may cause challenges in implementation are presented.

### 3.6 Key Takeaways and Conclusion

This chapter examined the primary data collected from observational analyses of the site as well as public feedback received by the City of Kingston through surveys and emailed comments.

Observational data revealed that many pedestrians are engaging in **mid-block crossings** in and around Market and Ontario Streets. The research team noted that most traffic was turning from Ontario Street onto Brock Street, indicating a good **opportunity for re-rerouting**. Within the space, the team noted that most **seating remained unoccupied**, yet nearby **parking lots** were either nearly or completely full most of the time. Cyclists were not very well accommodated within the site, with a **lack of bicycle lanes** and no secure **bicycle parking** in the vicinity. Opportunities were identified to provide more engaging **programming** and add **greenery and shaded areas** within the site to retain pedestrians. It was also noted that improvements could be made to the **sidewalks** along Ontario Street to ensure that all users are able to properly access the space.

Public feedback received by the City of Kingston on the proposed pedestrianization of Ontario Street demonstrated, through six major themes, a diverse range of opinions. Overall, respondents saw the project as an opportunity to improve Kingston's streetscapes. Positive comments tended to focus on opportunities to increase **walkability**, boost the **local economy** by increasing foot traffic within the downtown core, integrate creative **programming**, and develop **placemaking** on Ontario and Market Street.

Those who were in opposition to the project expressed primarily **safety**-related concerns. Many respondents expressed concerns surrounding **accessibility** and general access to the site if a closure were to take place. Comments suggested various mitigation measures such as ensuring affordable **parking** options were located near the site and that appropriate transportation infrastructure such as **bike lanes** were implemented. Many respondents expressed how, although they had concerns about a permanent closure, a **temporary or seasonal** pedestrianized area might be a more preferable alternative. Future engagement should build on public feedback and ensure adequate opportunities for public participation in order to plan for community needs.

Overall, trends found within this chapter have helped to shape the team's recommendations for the pedestrianization of Market and Ontario Street. Key considerations were developed based on first-hand observations and sentiments expressed by residents within Kingston.



# 4.0 Case Study Analysis

## 4.1 Introduction

This chapter presents the findings from a qualitative case study analysis on 45 pedestrianization projects from across North America. The purpose of this research is to provide comparative data on the trends and lessons learned from these projects to help guide the final recommendations for this report.

## 4.2 Methodology

North American pedestrianization projects were selected for this analysis, while Canadian projects located in downtown cores and central business districts were prioritized. Further, an additional set of parameters was created to ensure selected cases would be applicable to the Kingston context. Projects located within cities or neighbourhoods with similar characteristics to Kingston, including but not limited to, population size, historic downtowns, student population, a strong tourist industry, and winter climate were sought for the study. A variety of types of street closures were selected, including pilot, temporary, seasonal, and permanent projects, as well as flexible ('flex') street conversions. Failed projects were also sought to develop a better understanding of the challenges that may be encountered when conducting pedestrianization projects.

An Excel sheet was created to track each project's location, type (permanent, temporary, seasonal, etc.), status (active/inactive, scaled up/down, etc.), relation to the Kingston context, and the impacts of COVID-19 on their operations, if applicable. The projects' successes and positive impacts on the community, obstacles and challenges faced, means of activation, and public feedback received were then investigated to identify common themes within the collected data among project types.

To complement this research, 15 semi-structured interviews were conducted with key stakeholders involved in these projects including urban planners, municipal staff, project managers, BIA representatives, transportation managers, and community organizations. The purpose of these interviews was to develop a better understanding of the outcomes and challenges associated with a select number of cases. Stakeholders were contacted via email or phone to gauge interest in participation. A member of the research team then distributed the Letter of Information (Appendix A) and was responsible for obtaining verbal consent from the interview participant to whom they were assigned. A Master Linking Consent Log (Appendix B) was used to ensure the confidentiality of interview participants was protected. Interviews were conducted through MS Teams following the Interview Guide (Appendix C) and recordings were deleted once the transcription process was complete. The research team then followed up with interview participants to ensure that direct quotations included in the report were accurate and conveyed the point the participant was trying to make.

The 15 interviews were then coded based on the project's objectives, strengths, challenges, public reception, mitigation measures, activation techniques, and lessons learned from implementation. From these interviews, 6 cases from across Canada were chosen for a more in-depth analysis including two permanent projects, one seasonal/temporary project, a flex street, a successful pilot project, and an unsuccessful pilot project. This section of the chapter aims to provide a more nuanced discussion of the factors that made these projects successful and identifies opportunities for improvement.



## 4.3 Comparative Case Study Summary

The four tables presented below synthesize key highlights from all 45 cases, focusing on the strengths and challenges of each project. Cases have been sorted into tables by project type. The 'context' column in each table includes relevant comparators to the context of Kingston and the study area to explain why the cases were chosen for analysis and how they can be compared to the proposed project. The 6 cases marked with a diamond are presented at the end of this chapter as in-depth analyses to highlight the unique nature of these projects in their individual contexts. The number assigned to each case can be found corresponding to a link in the references section for more information.

*Table 4.1: Pilot Projects*

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 1 ◆ | William Street | Ottawa, ON | Tourism, Heritage, Winter | Strong communication efforts with businesses; concerns with deliveries mitigated through consultation; funding will increase in 2024 for more robust programming and continued maintenance | Must be regularly maintained and cleaned due to nightlife in area |
| 2 ◆ | Yew Open Street | Vancouver, BC | Tourism, University, Waterfront | Located in popular tourist and commercial area; proximity to university attracted students | Not enough time allocated for collaboration with businesses; confusion around closure times; road closure methods were inadequate; vehicles often bypassed the closure; not enough regular programming and activation; seen more as a pedestrian thoroughfare than a public gathering space; ineffective stewardship with the absence of a BIA to manage daily maintenance and activities; ended prematurely |
| 3 | Bute-Robson Plaza | Vancouver, BC | Tourism, CBD | Permanent implementation underway; strong community support; adjacent coffee shop benefits from increased patio space; collaboration between municipality and BIA; simple street furniture and inexpensive amenities; includes bike-share station; activated in evening with attractive lighting; used 24/7 due to adjacent all-night coffee shop | N/A |

*Table 4.2: Seasonal and Temporary Projects*

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 4 | Lochiel Street | Sarnia, ON | Historic district, Mid-size city | Cultural programming; benefitted from already having little on-street parking which made the conversion less disruptive | Not enough patios, seating, greenspace, or public art; public feedback shows desire for more events |
| 5 | Open-Air Dunlop | Barrie, ON | CBD, Mid-size city | Well-funded; generates significant economic benefits; benefits from recently upgraded sidewalks; funding helps support regular programming | Required extensive planning and support from municipality and businesses to implement |
| 6 | Pike Street | Seattle, WA | Tourism, Historic district, Waterfront | Popular tourist area; ongoing communication with businesses ensures that additions and improvements are made for mutual benefit; seating; shaded areas; increased patio space; photo-ops for tourists; connects to major tourist destinations | N/A |
| 7 | Spring Garden Road | Halifax, NS | University, Historic district, Mid-size city, Tourism, Arterial street, Winter | Launched as pedestrianization pilot with transit access allowed; created wider sidewalks, more crossings, and reduced parking; significant greening efforts; strong collaboration with businesses; burying utility wires improved aesthetic of public realm; increased quality of nearby transit stops; street furniture well-utilized | Pushback from businesses caused project to fail; construction was disruptive and took longer than expected; sidewalk treatments chosen due to budgetary considerations caused accessibility issues |
| 8 | St. James Street | St. Catharines, ON | University, Mid-size city | Used as gathering space; moveable seating; located across from City Hall and market square; offers ample patio space; has not impacted many businesses | Inconsistent programming; more tucked away from main commercial streets and has less commercial activity; causes some congestion |
| 9 | Yonge Street | Toronto, ON | CBD | Businesses experience economic growth; inexpensive implementation; led to increased social interaction in the area; empowers work of local organizations; has improved accessibility and safety of sidewalks | Little greenery; more activations and space for public art needed |
| 10 ◆ | Banff Avenue | Banff, AB | Tourism, Historic district, CBD, Winter | Helped alleviate economic impact of pandemic; strong collaboration with businesses; quick implementation and iterative improvements; free parking at nearby lot; bicycle valet service and e-bike charging station; transit integration increased ridership without safety concerns | Traffic spillover on nearby streets; detours only somewhat effective despite ample signage; unbridled access to public space for business use creates clutter and accessibility issues; quick response to pandemic left no time for initial consultation |
| 11 | Downtown Dining District | Guelph, ON | University, Historic district, Winter, Mid-size city | Businesses experienced increased foot traffic during pandemic; benefits from central location and nearby parking garages; includes many dining and nightlife establishments | Unequal benefits experienced among businesses; began as seasonal closure during pandemic and transitioned to a general patio program due to disruptions to bus routes and delivery drivers being unable to access businesses; vehicles now allowed but with reduced space |
| 12 | King Street East | Hamilton, ON | University | Activation hubs across entire 4 blocks; businesses experience higher volumes of clientele; large team evaluating effectiveness of closure and to address and mitigate concerns; impacts on traffic are minimal; businesses heavily involved in project | Not enough signage directing visitors to activation hubs; proposed LRT route will run through the site – must consider this if project expands; restaurants overwhelmed with not enough food options on street |
| 13 | L'avenue du Mont-Royal | Montreal, QC | University, Historic district, CBD, Winter | Shared space for pedestrians and cyclists; businesses have attracted new clientele; increased community spirit; interactive activation elements | Costly to implement |

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 14 | Main Sreet | Cambridge, ON | Mid-size city, CBD | Expanded patios benefit restaurants; helped businesses navigate pandemic; benefits from recent renovations including addition of new benches and trees | Unequal economic benefits felt among businesses; some retail businesses struggled with reduced parking space while restaurants benefitted with more patio space |
| 15 | Newbury Street | Boston, MA | Historic District, University | Placemaking efforts; live music; games; children's activities | N/A |
| 16 | Promenade Wellington | Verdun, QC | University, Historic district, Winter | Provides ample parking nearby; provides bus and bicycle access; accessible design; greenery; shaded areas; public art; public washrooms | Businesses experience challenges with delivery access; traffic congestion on side streets; noise issues at night; lack of planning for snow clearance and emergency access; businesses outside site boundaries experience reduced clientele |
| 17 | St. Paul Street | St. Catharine's, ON | University, Mid-size city | Expanded patios; provided safe public space and helped restaurants struggling during pandemic; helped connect downtown to the community; well-publicized on routine basis to generate interest | Closure times reduced each year since pandemic and fully ended in 2022; public generally enjoyed the closure but businesses had complaints since pandemic, argued that it was no longer necessary since public health restrictions were removed |
| 18 | Victoria Row | Charlottetown, PEI | Tourism, University, Mid-size city, Winter | Benefits from cruise ship tourism in the summer; diverse activation including live music and stage; patios, and festivals | Organization was time consuming; closures often do not coincide with busier retail times, creating missed opportunities to benefit businesses |
| 19 ◆ | Dundas Place | London, ON | Mid-size city, CBD, University | Shared vehicular, pedestrian, and cyclist space; street fully closes for special events; initial concerns and issues with navigating shared road mitigated through education; large mix of commercial uses; extra space for businesses in summer; near a park | Faces issues with security and delinquency downtown |
| 20 | Allen Street | State College, PA | CBD, University, Mid-size city | Week-long arts festival draws 100,000 visitors; benefits from student population; includes mini water park, diverse events, programming, amenities, and public art | Requires significant daily maintenance, cleaning, and security |
| 21 | Argyle Street | Halifax, NS | University, Historic district, CBD, Tourism, Winter | Extensive consultation led to support from businesses; manually operated gates allow for flexibility and changing needs; pedestrian volumes increased during pandemic despite reductions elsewhere | Construction disruptive and costly; non-restaurant businesses vacated, leading to homogenous commercial district (intentional); snow removal is costly |
| 22 | Bear Street | Banff, AB | Tourism, Historic district, CBD, Winter | Project coincided with replacement of underground servicing; extensive public consultation led to support from residents; pedestrian counts in area doubled; no safety or collision issues; construction provided employment opportunities | Minimal pedestrian activity in winter with little tourism |
| 23 | Clematis Street | West Palm Beach, FL | Tourism, CBD, Waterfront | Retractable bollards go up on weekends to block vehicles; pedestrians on equal footing with vehicles on weekdays; creative use of street furniture and attractive pavement; murals and sculptures; expanded restaurant patios; bike parking; no safety issues reported with shared street | N/A |

*Table 4.3: Flex Streets*

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 24 | Lancaster Boulevard | Lancaster, CA | Mid-size city, CBD | Improved sidewalks; tree canopy; central flexible parking zone also for pedestrian use; business revenue and property values increased; spurred construction and rehabilitation of more housing and commercial space; traffic collisions fell by half | Costly to implement |
| 25 | Lock Street | Port Dalhousie, ON | Tourism, Waterfront | In planning stage; aims to benefit from nearby tourism; will feature expanded patios; easily convert to pedestrian use in the summer and allow more vehicle access in the winter | N/A |

*Table 4.3: Permanent Projects*

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 26 ◆ | Gaukel Block | Kitchener, ON | Mid-size city, CBD, University, Historic district | Strong placemaking efforts; greenery; seating; art; planters block vehicles; adaptive reuse of old storage containers for vendor use; used as space for community advocacy; near City Hall and a park | Struggled with funding issues initially |
| 27 ◆ | Government Street | Victoria, BC | Mid-size city, CBD, Historic district | Popular site for festivals and cultural celebrations; placemaking efforts; seating and tables; greenery; art; improved lighting; repurposed street furniture and amenities; cross streets left open for traffic flow; benefitted from streamlined permitting processes during pandemic | COVID rush resulted in shorter consultation time; requires balancing the needs of many businesses with different demands |
| 28 | Brady Street | Milwaukee, WI | Historic district, Winter | Public amenities and greenspace; popular for cultural festivals; historical programming; parades; used for in-person town halls | Often empty on days without sports events; significant cleanup costs after events; sidewalk infrastructure is poor; transit stops are far from site |
| 29 | Charlottesville Historical Downtown Mall | Charlottesville, VA | Mid-size city, Historic district, University | Benefits from student population; free trolley service connecting university to the space; large arts scene and local shops; concerts; restaurant patios; year-round event programming; seating | Lack of parking in vicinity; issues with encampments; some vacant storefronts since pandemic; shops have limited hours; issues with crime in area |
| 30 | Church Street Marketplace | Burlington, VT | Mid-size city, CBD, Historic district, University, Winter | Benefits from student population; adaptable to multiple uses; patios and retail on both sides of street; named one of America's Best Public Spaces | Commercial rent has increased; disconnected from surrounding area, creating an inconsistent aesthetic; conflicting priorities with the organization of events |
| 31 | Downtown Civic Plaza | Sault Ste. Marie, ON | Mid-size city, CBD, University, Winter | Skating rink; fountain; flexible gathering areas; stage with outdoor screen; play zone; lighting displays; public washrooms and changing area; greenery; benefitted from significant public donations | Site is far from popular waterfront; concerns over a lack of parking; costly to implement |
| 32 | Downtown Pedestrian Mall | St. John's, NL | Mid-size city, CBD, University, Winter | Alternative transit routes are provided around the site and businesses have delivery access; barrier-free accessibility; utilizes technology for accessible wayfinding for people with visual impairments | Some push for a permanent program but will remain seasonal as certain businesses outside project area do not support the closure; limited washroom access; activation challenges due to large scale of project |
| 33 | Gould Street | Toronto, ON | CBD, University, Tourism | Within Toronto Metropolitan University campus; good connection to major attractions; includes seating, gathering space, greenery, and pond; animates downtown and campus; improves accessibility in area; proximity to major commercial areas; park nearby | Perceived as an area "only for students" due to location; no commercial uses directly in the site; reduced parking opportunities for those wishing to park on a quieter street away from Dundas Square; activations are inconsistent |

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 34 | Ithaca Commons | Ithaca, NY | Mid-size city, Tourism, University, Winter | Benefits from student population; hosts popular events and public festivals; year-round activation; free activities; political rallies and speeches | Redesign was costly |
| 35 | Long Wharf Mall | Newport, RI | Mid-size city, Tourism | Benefitted from tourism and scenic surroundings | Has since re-opened to vehicles due to public pushback; no activations; perceived as a place for shopping, not lingering; COVID severely affected businesses and many did not recover, leading to calls to re-open to vehicles |
| 36 | Market Square | Guelph, ON | CBD, University | Features splash pad that transforms into a skating rink in winter; seating with shade by native trees and plants; decorative lighting in evening; includes glass pavilion offering views of splash pad/skating rink | Lack of convenient parking; issues with vagrancy; inconsistent business hours |
| 37 | Nicolett Mall | Minneapolis, MN | CBD, University, Winter | Transit-oriented area transitioned into pedestrian/ active transportation zone; policy guidelines reshaped to encourage activation and provide open access to public spaces; includes “activation zones” throughout; removed barriers and reduced permitting requirements to support spontaneous street activity | Hybrid work since pandemic has reduced foot traffic and increased retail vacancy; no public washrooms on-site; issues with cleanliness |
| 38 | Pearl Street | Boulder, CO | Historic district, University, Winter | Benefits from student population; works with scenic views to create a cohesive aesthetic with natural elements; greenery; diverse commercial uses nearby; year-round events and activities; sculptures; playgrounds; interactive animations | Taxes have increased, putting stress on some local businesses; bus routes required re-routing to less convenient streets; lack of accessible parking |
| 39 | Prince Arthur Landing | Thunder Bay, ON | Mid-size city, CBD, University, Historic district, Winter, Waterfront | Underutilized waterfront area turned into public space; focuses on Indigenous placemaking; incorporates range of landscapes, activities, park elements, and public art that reflects the cultural and historic roots of the region and acknowledges history of the site; festivals; allows direct access to waterfront; benefits from scenic views | Area has experienced gentrification |
| 40 | Route 343 Greenway | Binghamton, NY | University, Winter | Active transportation thoroughfare to allow travel between school and downtown without a vehicle; new pavement and lighting; physical barriers from roadway | Some safety issues with cyclists and pedestrians anticipated; construction has not begun – discussions have been time consuming |
| 41 | Scarth Street | Regina, SK | Historic district, University, Winter | Frequented by lunch crowd attracted to restaurants and pubs; local music acts; public fitness classes; Indigenous mural projects | Lack of usage and activation has caused municipality to seek feedback on reopening to vehicles; lack of commercial opportunities in area; reduced use in winter; issues with cleanliness |
| 42 | Sparks Street | Ottawa, ON | CBD, Historic district, Tourism, Winter | Proximity to major tourist destinations and political institutions; increased pedestrian traffic expected with new LRT stations nearby; plans to increase programming and activation underway | Little attraction year-round due to inconsistent programming; poor business support, retail decline; too long, feels disjointed, inconsistent design details; poor upkeep and maintenance; insufficient greenery |
| 43 | State Street | Madison, WI | Mid-size city, University, Winter | Popular with students and younger populations; ample amenities in area; edges of street have become more active; perceived as place for social interaction; diverse events and festivals | Does not include space for cycling or other active transportation modes; street furniture, lighting, and sidewalks in poor condition |

| # | Project | Location | Context | Strengths | Weaknesses |
|---|---|---|---|---|---|
| 44 | Stephen Avenue | Calgary, AB | Mid-size city, CBD, University, Winter | Extensive streetscaping to improve accessibility; coordinated with replacement of aging infrastructure; adjacent to “+15 Network”, allowing users to move indoors in winter; includes electricity connections | Underground infrastructure increased costs and complexity; clutter during COVID patio expansion; connection to “+15 Network” is unclear; activity is in nodes, leading to dead spots |
| 45 | Sunset Avenue, Turtle Island Parkway | Windsor, ON | Mid-size city, CBD, Historic district, University | Extensive consultation with Indigenous community; functions as venue for Truth and Reconciliation events; sidewalks and curbs replaced with level pedestrian road; new lighting, paving, and landscaping added; plaques celebrating Indigenous history | Amenities are costly |

## 4.4 Thematic Analysis of Case Studies

This section presents a detailed discussion on the common themes identified in the above case studies. The recurring themes provided insight into the impacts of pedestrianized street projects on the local community, businesses, and built environment, and the various facilitators and barriers to implementation. Many cases harnessed similar methods to activate the pedestrianized streets and create vibrant and community-oriented public spaces, which are also discussed.

### 4.4.1 Impacts of Pedestrianized Street Projects

Pedestrianized street projects of all types leave several positive impacts on their communities by improving the active transportation network, enhancing the public realm, and increasing social and commercial opportunities. In addition to fostering increased activity, these spaces provide an ‘urban oasis’ for visitors to linger and gather in between busy city hubs and major destinations. While most pedestrianized street projects were found to be successful and beneficial to local residents and the business community, some cases demonstrated that positive impacts may not be felt among all stakeholders. In some cases, economic benefits are not experienced equally by businesses along pedestrianized streets depending on the needs of their clientele, and in some instances the physical design of the project may affect how users can effectively interact with the space.



*Figures 4.1 - 4.2: Halloween celebrations at the Open-Air Dunlop seasonal street closure in Barrie, ON (left), and a Salsa dance performance on Main Street, Cambridge, ON (right). Photos via Downtown Barrie BIA; Cambridge Today.*



#### *4.4.1.1 Community Benefits*

Successful projects of all types address the need for more social spaces in urban areas by providing space for public events and activities, such as free festivals, cultural celebrations, and markets. Users of these spaces enjoy more opportunities to connect with others, particularly in diverse cities, citing cultural programming and a wide variety of events as attractive features.

Functioning as both movement corridors and as spaces for rest, successful projects provide a variety of amenities and features to support a wide range of uses, from transportation to leisure. Successful projects often support a variety of active transportation modes to connect tourist destinations, major institutions, transit stops, and shopping amenities, helping to re-stitch the urban fabric and ‘tie together’ the city.

Many successful examples feature cycling facilities such as designated bicycle lanes and secure bicycle parking. Proximity to public transportation is a key feature of many successful examples, increasing ridership and often spurring the provision of more transit opportunities in the area.

#### *4.4.1.2 Commercial Activity*

Following pedestrianization, many businesses experience economic growth from increased commercial activity, particularly through patio expansion. The ability to expand their footprint and offer more outdoor seating was particularly helpful to restaurants struggling with reduced economic activity during the pandemic. Outdoor expansion also allows businesses to self-promote and engage more actively with the community, and better accommodate customer volumes during tourist season and warmer weather. For instance, the Open-Air Dunlop seasonal pilot project in Barrie, ON has generated roughly $4 million in local economic impact since 2021, with 78% of businesses in the BIA reporting an increase in foot traffic and 74% reporting an increase in sales.



*Figure 4.3: Bike share station at the Bute-Robson Pedestrian Plaza in Vancouver, BC (Photo via JRFM).*



*Figures 4.4 – 4.5: Expanded patio space at the Downtown Dining District, Guelph, ON (right) and at the Downtown Pedestrian Mall in St. John’s, NL (left). Photos via Guelph Today; CBC*

In some cases, businesses may not experience the same economic benefits from pedestrianization projects, leading to reduced support and calls to end the project. Customer parking is more critical to the operations of some businesses than others, with clients of retail and grocery establishments often requiring storefront parking or nearby loading zones, while diners are more inclined to want to walk to and from a restaurant or café. For example, Main Street in Cambridge, ON closes to traffic seasonally with much success. However, some retail businesses have reported experiencing a decline in sales during the road closures while many restaurants benefit due to their customers' different parking needs and preferences. This led to several complaints from frustrated business owners and requests to reopen the street to vehicular traffic.



*Figure 4.6: Picnic tables and ample seating at Bute-Robson Plaza in Vancouver, BC provide an extended patio for the adjacent café (Photo via DailyHive).*

### 4.4.2 Facilitators and Barriers to Implementation

Pedestrianized street projects of all types may use many methods for successful implementation and face similar challenges. Ways in which successful projects have implemented long-lasting, vibrant pedestrianized streets is through the use of high-quality infrastructure, public consultation, and selecting the right location. The most frequently recurring issues include those related to parking and vehicle detouring, costs and funding, and maintaining on-site programming through the winter months. Specific project types may also face unique challenges. Permanent pedestrian plazas must adapt to every season and provide continuous programming year-round, which presents several logistical challenges, while non-permanent projects must continuously collect feedback and implement necessary changes for the next upcoming phase to maintain public support.

#### *4.4.2.1 Infrastructure and Amenities*

Well-designed infrastructure at and around any pedestrianized street project is necessary for ensuring its success and longevity. Infrastructure such as pavements, sidewalks, landscaping, and lighting enhance the safety and aesthetics of the public realm, improving visitor experience and allowing a full range of activities to take place for different occasions and uses. Spaces that offer ample seating, shaded areas, and use natural elements and greenery in the streetscape provide the most optimal and comfortable environment for lingering. Infrastructure at successful projects tends to be versatile and flexible, conforming to various needs based on the season, climate, and event.



*Figures 4.7 - 4.8: New paving, cycling facilities, and landscaping features on Argyle Street flex street, Halifax, NS (left) and streetscaping on Victoria Row, Charlottetown, PE (Photos via AFAR Media & Fathom Studio).*




*Figure 4.9: Political rally taking place on an elevated platform at Ithaca Commons in Ithaca, NY (Photo via Ithaca Voice).*

Infrastructure must meet universal accessibility standards and feature barrier-free amenities to be useful to all visitors. Ensuring roads are well paved, curbs and pathways are not blocked, lighting is sufficient, and that ample space is available for people with mobility devices to navigate the area provides access for all. A key accessibility and safety feature noted in successful projects is sufficient lighting, allowing for better access and safety during the evening and encouraging use after business hours. Accessibility can go beyond physical infrastructure. The Downtown Dining District seasonal project in Guelph, ON partnered with BlindSquare, a wayfinding app for individuals with visual impairments that provides audio directions to help users understand and navigate their surroundings at a specific site.

Permanent projects, including pedestrian malls, benefit from infrastructure and facilities that support major events and large volumes of attendees, such as built-in platforms and performance stages. Smaller projects, including temporary, seasonal, and pilot projects, often feature low-cost moveable street furniture and amenities that support community events over the short term. Portable vendor stalls and pop-up stages allow these spaces to host smaller events promoting local talent and commercial ventures.

Pilot projects can benefit from implementation on streets with newly improved infrastructure, which helps attract visitors. Pilots can also provide momentum for the improvement and construction of new infrastructure and services when they are considered for permanent implementation. For example, the Bear Street project in Banff, AB provided an opportunistic opportunity to coincide with the replacement of hundred-year underground servicing, and the redesign of the Lancaster Boulevard flex street in Lancaster, CA spurred the construction and rehabilitation of 800 nearby dwelling units and an additional 145,000 square feet of commercial space.

#### *4.4.2.2 Public Engagement*

As most pedestrianized street projects are situated in commercial hubs with a wide range of retail and restaurant activity – downtowns, central business districts (CBDs), historic cores, and university town centers – the ongoing support of the business community is critical to a project's success and longevity. Collaborating with individual businesses to better understand their unique needs and requirements, and continuously collecting feedback throughout the



*Figure 4.10: Public engagement at the Bute-Robson Plaza pilot project in Vancouver, BC in (Photo via Alison Boulier on Flickr).*

project, helps develop solutions that benefit all stakeholders. Businesses are generally the most invested stakeholder in any pedestrianization project and will therefore express the most concerns, mainly expressing issues with receiving deliveries and a loss of clientele with reduced customer parking.

Municipalities can benefit from allowing BIAs and community groups to act as project stewards to manage daily activities and maintenance, giving back agency to the community and establishing stronger relationships with local businesses. Ensuring operations are not negatively impacted by vehicle detouring and parking loss is vital for generating and maintaining support from the business community.

The case studies revealed that successful projects of all types underwent rigorous public engagement prior to implementation, with many current pilots continuing to collect feedback as the project progresses. Maintaining public support is particularly important in the pilot phase during which the feasibility and possibilities of the project are being tested. As feedback is intended to inform the final design of the streetscape, it has been shown to be particularly crucial for pilot projects to undertake significant consultation, with successful examples using the suggestions to routinely improve amenities and services until permanent implementation becomes viable.

#### *4.4.2.3 Location*

Projects located in central business districts, downtowns, historic downtowns, and tourist hubs experience high volumes of foot traffic and a diverse user base by virtue of nearby attractions and commercial opportunities. Projects in university towns benefit from a youthful student population, with most surviving successful pedestrian malls often being situated within walking distance of major educational institutions.



*Figure 4.11: The Ithaca Commons pedestrian mall (1975) benefits from foot traffic from nearby Cornell University and Ithaca College and its success has allowed it to become a tourist destination in itself (Photo via The Ithaca Journal).*

While attracting students and younger visitors to the project can bring economic and social benefits, public spaces becoming too closely associated with one demographic can present challenges in attracting visitors of all ages and backgrounds. Gould Street in Toronto, ON, a permanent pedestrian plaza near Toronto Metropolitan University, has struggled to attract a wide variety of visitors due to its reputation within the community as a space for 'only for students'.

#### *4.4.2.4 Costs and Funding*

Costs and funding can present challenges that recur throughout a project. Projects managed by nonprofit organizations require significant funding and permitting to implement the closure, and to provide amenities and host regular programming as the project continues. Projects led by municipalities face less funding barriers but can be costly to implement, ranging from thousands to millions of dollars depending on the project's scope and purpose.





*Figure 4.12: Before and after the construction of the Lancaster Boulevard flex street. The project cost the City of Lancaster $11 million, which was considered reasonable for a project of its size and impact (Photo via Project for Public Spaces).*

Permanent projects require infrastructure upgrades when needed, accruing the most significant costs. In addition to initial costs associated with construction and implementation, all projects require frequent maintenance and upkeep, including regular cleanup after late night activities and events. Mess and inconsistent cleanup can undermine the benefits of public spaces and reduce community support. Hiring on-site security and maintenance staff is particularly important for pilot projects, as their continuance rests on community support and favourability.

Regular upgrades to aging infrastructure are important in avoiding dilapidation. Ithaca Commons had become an uninviting place by the mid-2000s due to its outdated infrastructure. The space was successfully revitalized following extensive redesign. Updates included a new central lane, improved paved areas, and energy-efficient lighting.



*Figure 4.13: The completed redesign of Ithaca Commons (Photo via Sasaki).*

#### *4.4.2.5 Programming*

On-site programming to attract visitors and enliven the space, such as live performances and public art, is critical for the success of all project types, and is especially important in the early stages as it helps generate awareness of the road closure. A lack of or inconsistent programming can drastically affect the outcome of a project, leading to reduced community interest and little use. Programming that is too wide ranging or uncoordinated can contribute to a lack of a 'sense of place'.

Sparks Street in Ottawa, ON has faced decline for decades due to inconsistent programming. Sparks Street provides few smaller-scale events throughout the year to supplement major events, mainly being used for larger seasonal festivals with little programming in between. Future plans for Sparks Street include increasing its winter activity levels by improving regular programming in the colder months, such as introducing portable heaters and an ice rink.



*Figures 4.14 – 4.15: Sparks Street in Ottawa, ON in the winter with no programming (left) and Sparks Street during the Winterlude festival, a major annual tourist draw to the capital city (right). (Photos via CBC).*



*Figures 4.16 – 4.17: The splash pad in Market Square in Guelph, ON is converted into a skating rink in the winter (Photos via City of Guelph).*

The length of the Sparks Street presents another programming issue for this project, as with projects of significant size spanning over multiple blocks it can be challenging to provide cohesive programming throughout the entire street, resulting in a concentration of programming in smaller sections and creating 'dead spots'. Closed streets that are too short can also face programming challenges if there is not enough physical space for activities.

#### *4.4.2.6 Seasonality*

Winter programming is crucial for projects in colder climates but can be difficult to implement due to logistics. Lower outdoor activity levels, reduced foot traffic, and snow removal can present challenges. Most pedestrianized street projects therefore run in the summer and early autumn. Successful permanent closures feature flexible amenities that adapt to seasonal changes. Amenities that can easily adapt are more cost-effective, removing the need to purchase new elements as seasons and user needs change.

Sparks Street plans to increase its winter activity levels by improving its programming in the colder months, such as introducing portable heaters and an ice rink. The Main Street pedestrian plaza in Cambridge, which runs from May to October, is considering more winter activation which will begin as weekend-only shutdowns to measure whether the City has the capabilities to successfully manage a longer winter closure.

### 4.4.3 Activation

'Activation' refers to the use of placemaking efforts to create public spaces that are vibrant, lively, versatile, and continuously 'active'. Activation can be uncomplicated and economical, and does not have to be large in scale or scope to be effective. Activation can include the use of moveable street furniture that allows users to adapt and modify the space to create their own unique environment. Public feedback indicates that a wide variety of activation methods, whether low or high cost, significantly impact the space's use and how it is perceived by the community.




*Figure 4.18: Interactive light displays at Ithaca Commons in the winter (Photo via Ithaca Week).*





*Figure 4.19: Simple, colourful chairs at the Open-Air Dunlop seasonal street closure in Barrie, ON (Photo via CTV News Barrie).*

Interactive amenities can create space for imaginative play and encourage curiosity in the local environment, and pose opportunities to tell a story and share local history. L'Avenue Mont-Royal introduced an interactive app to identify native plants in the area. At Pearl Street Pedestrian Mall in Boulder, CO, rocks sourced from Boulder were used for seating and are used by children to play on, providing educational opportunities as well as a functional amenity. The successful year-round Bute-Robson Plaza in Vancouver, BC uses simple street furniture with umbrellas, planters, picnic tables, and public piano to activate the space. Lighting is used in the evening for safety and aesthetics, keeping the plaza active for 24 hours.



*Figures 4.20 - 4.21: Bute-Robson Plaza in Vancouver, BC activated at all times of the day (Photos via DailHive).*



*Figure 4.22: Children playing on rocks at Pearl Street Pedestrian Mall in Boulder, CO (Photo via Learning Landscape Design).*

## 4.5 In-Depth Case Studies

### 4.5.1 Dundas Place, London, ON

#### *4.5.1.1 Project Background*

Since opening in 2017, Dundas Place has become a popular feature of downtown London and a destination for events. Spanning along four blocks, Dundas Place uses a flexible street design that is shared equally by pedestrians, cyclists, and motorists with extra wide sidewalks and no curbs. Full closures of Dundas Place restrict vehicular traffic, allowing local businesses and programming events to take over.

**Type**: Flex Street
**Start**: 2019
**Status**: Active
**Lead**: City of London, Downtown BIA

**Key Takeaways:**

- Provide public education when implementing new designs and projects.
- Use stakeholder feedback to guide processes.
- Consider how the space can be adapted and changed; with flexibility comes creativity in the animation of a space, improving user experience.
- Create design features to enhance aesthetics without sacrificing the safety of users.

#### *4.5.1.2 Activation*

The project uses fixed and moveable street furniture to encourage users to shape the environment themselves, making the street more adaptable. Streetscaping features include trees, flower beds, and artistic seating to playfully animate the space. A pop-up stage accommodates local artists without complicated processes or costs. When the street is not fully closed, the stage can still be used by anyone with their own equipment. Balancing commercial uses at Dundas Place has attracted a diverse customer base.

#### *4.5.1.3 Strengths*

Dundas Place increases pedestrian-focused activity downtown and enhances the urban experience. The flex street effectively accommodates a diversity of road users by separating spaces for pedestrians, motorists, and cyclists without creating a hostile environment, ensuring the needs of all users are met. The project's success can be attributed to effective communication and education on the concept and benefits of flex streets.

***"Dundas Place is seen as a place where there is always something new to see and explore right in the heart of Downtown London"*** - Key Stakeholder

#### *4.5.1.4 Challenges*

As a relatively new concept, the street's unique design has been well received by residents, despite initial concerns about the ability of curb-less streets to separate pedestrian and vehicular spaces. During the initial implementation phase, confusion arose among pedestrians, cyclists, and motorists about how to safely navigate the new design.

***"It's kind of confusing sometimes. People that are on bikes, one day it's closed, people walking around, and the next day it's open and it's just a very busy street with cars, with Uber Eats, with pickups, with drop-offs..."*** (Quoted from LeBel, J., 2023)



The City faced challenges promoting the design to businesses, with some expressing concern about closures potentially impacting operations. Restaurant owners generally supported the street design as it would allow for expanded patio space. Upon opening, patios began 'taking over' parking spaces allotted to other establishments, causing some conflicts between businesses. The project has shown the importance of addressing concerns and educating the public from the start, setting realistic goals and expectations, and helping road users understand how to share the street.

***"It's important to create a dynamic and lively space. Consider how the space will be used in a very practical way. Build the space so that people can come and interact with it making it a more personal experience."*** – Key Stakeholder

#### *4.5.1.5 Public Feedback*

Downtown London has experienced issues with delinquency for some time, leading to questions about how Dundas Place would be used and maintained. The project also sparked feedback on parking and public transit access, as the street was previously a main construction route before its reconstruction. More consistent street closures could be beneficial for businesses by better preparing motorists and business owners for potential disruptions. A business owner at Dundas Place shared,




*Figure 4.23: Dundas Place (Photo via City of London).*

***"They did do a beautiful job. It is a beautiful street, and it can be so much more if we just get a little bit of a schedule in place or some rules and things like that."*** (Quoted from LeBel, J., 2023)

#### *4.5.1.6 Mitigation Measures*

The City prioritized public concerns by involving the community in the decision-making process. Strong collaborative efforts throughout the project made adaptation easier for businesses. Effective maintenance of Dundas Place by the BIA has been critical in maintaining a safe, aesthetically pleasing public space. The BIA assumed the daily management of the street to ensure that all business needs related to vehicular access and deliveries were addressed.

Concerns about transit access were addressed by modifying the city's public transportation infrastructure. Bus stops were relocated from Dundas Street to nearby King Street and Queens Avenue, ensuring uninterrupted service. The City replaced certain design features, such as uniquely shaped benches, that were said to be 'awkward' and uncomfortable. Regular monitoring and management is prioritized to ensure public safety. Fixed street furniture items such as bike racks and garbage cans were initially used to block traffic, but this put them at risk of damage. In response, the City replaced these items with standard metal bollards.

### 4.5.2 Case Study: Gaukel Block, Kitchener, ON

#### *4.5.2.1 Project Background*

Gaukel Street is a local road in downtown Kitchener. Its northern two blocks are known as 'Upper Gaukel' and are located between two arterial roads. The southern block, known as 'Lower Gaukel' was the focus of the Gaukel Block project.

The project began in 2019 following changes to the local bus network, which positioned Gaukel Street as an ideal site for pedestrianization. Given that City Hall and Victoria Park were already active pedestrian areas, the City of Kitchener was interested in using the connection of Gaukel Street more effectively. The City hosted a pop-up park event to engage with the community and garner support for the project. Residents were asked to provide input on how they would like to see the street function and what types of amenities should be used to activate the space (Engage WR, 2023). The concept required shifting from active, event-focused plans to more passive programming options when the COVID-19 pandemic began in 2020, such as an open-air take-out space for picking up food from local businesses. In 2023, after a three-year pause, Gaukel Block could officially open as a pedestrian-only street.

**Type**: Permanent
**Start**: 2019
**Status**: Active
**Lead**: City of Kitchener

**Key Takeaways:**

- Allow the interests and concerns of residents to shape project vision and outcomes.
- Explore a variety of funding options before setting expectations for the project.
- Integrate multi-use amenities to assist with budgeting.
- Generate excitement for the project and ensure resources are available to deliver on promises.
- Consider how smaller pedestrian spaces can be used to maximize the success of small-scale events.

#### *4.5.2.2 Activation*

As one of three key animated public spaces downtown, Gaukel Block hosts various events, including small and community-based events such as Indigenous art markets, night markets, and dog-friendly events. It is used as a space for emerging business ventures, offering opportunities for small businesses to test out the market to determine demand before pursuing a permanent space.

Gaukel Block uses planters to block vehicular traffic. In Upper Gaukel, where there are concerns with driveway access, 'flex stakes' are used for emergency vehicles to drive over if necessary. The City has transformed unused shipping containers into kiosks for market use and storage for event equipment. The containers are wrapped in art created by 17 local artists to support public art initiatives in the Kitchener area.

An unexpected benefit from the opening of Gaukel Block has been the space's use for advocacy work, community gatherings, and protests.

***"A really interesting and an exciting piece for us is that it's also been a space that the community really sees as their own... if they want to do things that are more about community-building and social-based causes, which is really exciting."*** – Key Stakeholder

#### *4.5.2.3 Strengths*

The City's early consultation proved to be a significant strength of this project, allowing its vision to be shaped by what residents wanted from the beginning. Despite initial challenges with funding and the pandemic, they continued to work toward the goal of satisfying resident expectations.



#### *4.5.2.4 Challenges*

Initially, a challenge for this project was a lack of adequate funding to realize the City's vision. During the pandemic, the City had to opt for more cost-effective forms of activation that were easy to implement, including using reproposed amenities such as the BIA's wooden huts, before they were able to purchase the existing permanent amenities.

The project highlights the importance of considering how unforeseen operational costs might increase upon implementation, and to ensure adequate budgeting throughout the project. Additional costs can include snow removal, increased demands for waste collection, and maintaining greenery.

***"If you're going to start with a small funding, you want to have a strategy in mind around where that additional funding might come [...] We generated a lot of enthusiasm and support from the community and then we didn't really have the budget to match those expectations."*** – Key Stakeholder

#### *4.5.2.5 Public Feedback*

Since opening, resident feedback has been overwhelmingly positive due to public desire for more pedestrian spaces downtown and the City's strong engagement efforts. In the 2019 survey, respondents expressed a desire for more greenery, seating options, markets, and murals (Engage WR, 2019). All these suggestions have since been implemented, including bistro tables and chairs, modular benches, planters, and accessible seating options.

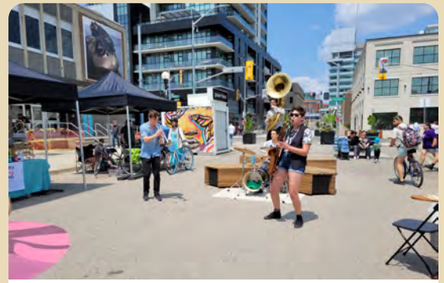


*Figure 4.24: Gaukel Bock (Photo via EngageWR).*

The survey revealed that 97% of respondents supported the transformation of Gaukel Street and 12% expressed concerns with the restriction of vehicle access (Engage WR, 2019). The concerns focused mainly on vehicle access, safety, and inclusion. Questions were raised about accommodating emergency vehicles, delivery drivers, and resident parking, and the impact of traffic on other downtown streets. Some respondents emphasized the importance of adequate lighting, shade, and signage, as well as compatibility with future developments (Engage WR, 2019).

Most concerns were from businesses and residents on Upper Gaukel, where rear accesses to parking, loading, and waste management are located. Some businesses worried the project would attract unhoused individuals to the open space.

#### *4.5.2.6 Mitigation Measures*

The City has left the block on Upper Gaukel open to vehicles due to concerns from businesses and residents about access. There are also challenges with grade changes on Upper Gaukel, making animation more challenging, and necessitating further research before extending the project. The City is still exploring long-term options on this block and will revisit the idea once more redevelopment has occurred, as well as the potential pedestrianization of nearby King Street.

Gaukel Block shows that it is critical to explore a variety of funding options from the beginning. Once the City received funding for the project, a larger variety of event and programming options could be explored. However, it did strain some relationships.

***"You have to think about [...] you do want to raise expectations, generate excitement, get people enthused about it. But make sure that you have the resources to match that enthusiasm."*** – Key Stakeholder

### 4.5.3 Case Study: Government Street Pedestrian Plaza, Victoria, BC

#### *4.5.3.1 Project Background*

Government Street is a high-volume arterial road in downtown Victoria, BC popular for its pubs, restaurants, and markets. It connects to Bastion Square, a historic pedestrian mall, and is surrounded by collector streets leading to residential neighborhoods and parks. Public events and festivals have taken place on this route since the 1980s.

**Type**: Permanent
**Start**: 2020
**Status**: Active
**Lead**: City of Victoria

**Key Takeaways:**

- Communication and collaboration help alleviate concerns from businesses.
- A 'bureaucracy-light' approach can streamline processes, resulting in quicker implementation.
- Regulation on the use of public space maintains aesthetic consistency and quality.
- Provide consistent closure hours and allotted times for commercial vehicle access if needed.
- Build strong relationship with cultural groups to reimagine cultural spaces.

The COVID-19 pandemic served as a catalyst in the City of Victoria's decision to close Government Street to vehicles. The pandemic drastically changing the nature of the city's shopping districts, prompting the municipality and the business community to consider new ways to bring people downtown during public health restrictions. Businesses struggling with stalled economic activity became interested in outdoor commercial space opportunities, such as patio extensions.

In 2020, the City initiated improvements of Government Street as part of the 'Build Back Victoria' program, a city-wide effort to boost economic activity by reimagining public spaces during the pandemic recovery phase. In 2021, Government Street closed to vehicular traffic between Humboldt Street and View Street between noon and 10:00 pm, seven days per week. The City undertook consultation with businesses, community stakeholders, the public, and First Nations representatives to help with the planning of a conceptual design. Pedestrian counts now show more foot traffic downtown than before the pandemic, with Government Street boasting some of the highest counts.

#### *4.5.3.2 Activation*

The street is activated with variety of placemaking efforts including expanded patios, public seating, picnic tables, sculptures, greenery, and public art. Small pop-up performances and major festivals are held on the street. The street features covered and secured bike parking, and intersections have been upgraded with new paint markings, curb cuts, and cycling infrastructure. Bicycles are separated from vehicles with curbs for enhanced safety. Improved lighting was installed for winter to improve visibility. Temporary materials are used for street amenities instead of permanent fixtures, to allow for modification when needed.

***"Activating this space is more about creating broad based support and refining ideas for transportation scenarios by pivoting when necessary."*** - Key Stakeholder

#### *4.5.3.3 Strengths*

Streamlined implementation processes during the pandemic benefitted the project by allowing City staff to work faster under a 'bureaucracy-light' approach. Staff were supported by City Council to expedite the process to not delay economic recovery. Implementation ran smoothly with little political overhead and lengthy permitting procedures. The project further benefits from its location in the city's historic downtown core, a thriving tourism industry, and from temperate weather, making it a popular destination year-round. With steady temperatures throughout the year, activation can remain mostly the same in all seasons. The City's carpentry shop built much of the street furniture and pre-existing materials from the City's Public Works yards were used, which reduced costs and prevented supply-chain issues.

Traffic congestion has not presented problems, as major streets parallel to Government Street can handle the capacity. Cross streets are left open, so vehicles can travel east/west.

#### *4.5.3.4 Challenges*

The 'COVID rush' resulted in shorter planning time and less pre-implementation work. Typically, the municipality would undertake more in-depth background research prior to implementing a project of this scope. The need to balance the unique needs of multiple individual businesses and their different demands was challenging, requiring effective collaborative work to establish shared goals and a vision that would benefit the whole community.

#### *4.5.3.5 Public Feedback*

Before implementation, concerns about the impacts of a road closure on traffic flow, parking availability, and access to commercial loading zones were raised. Ensuring emergency vehicle access was deemed critical. Three years into the project, the City of Victoria now hears fewer concerns from business owners, with only occasional comments about customer parking. Most issues have been mitigated through effective collaboration and communication.



*Figure 4.25: Government Street (Photo via CBC).*

#### *4.5.3.6 Mitigation Measures*

Strong communication and collaboration were critical in ensuring business owners' operations were not impacted. The business community's comments and goals were considered, leading to a stronger willingness to embrace the street closure. City staff addressed parking and loading zone concerns by conducting a business-specific survey, sending letters to businesses, and engaging with the local BIA. Maps showing alternative parking facilities were produced in advance of the closure, and articles were published in the local newspaper to alert the public of the changes. New loading zones were created adjacent to Government Street to accommodate deliveries, and a time-based closure system was implemented to allow commercial vehicle access to storefronts on specific times of day. City staff have provided keys for business owners to remove bollards when opening the street at allowed times, simplifying procedures. Emergency vehicles continue to have 24-hour access to the street.

While the 'bureaucracy-light' approach expedited processes during the pandemic, rushing the project resulted in less regulation around the use of public space by private businesses, which can lead to incohesive aesthetics or safety concerns. The City plans to revisit its public space programs and policies in greater detail to refine the aesthetic quality of the space.

### 4.5.4 Case Study: William Street Pedestrian Plaza Pilot, Ottawa, ON

#### *4.5.4.1 Project Background*

William Street is a small local road in Ottawa's historical ByWard Market, a popular and thriving entertainment, dining, and shopping district in the heart of the nation's capital. ByWard Market is easily accessible by foot from several major destinations and landmarks and is serviced by several bus routes and a light rail station. The William Street Pedestrian Plaza pilot was launched to expand pedestrian spaces in the Market before making any long-term investment to renew the street (Ottawa Markets, 2019). The pilot has recurred yearly since 2019 with success. In 2023, the street was closed in the winter for the first time for Ottawa's Winterlude celebrations.

The project aligns with the ByWard Market Public Realm Plan and ties into the larger planning objectives for the area. The plan prioritizes pedestrian spaces in ByWard Market to address desires for more "places for people" expressed in public feedback at the time the plan was being created.

**Type**: Pilot
**Start**: 2019
**Status**: Active
**Lead**: Ottawa Markets

**Key Takeaways:**

- Programming can only be successful if rigorously promoted ahead of time.
- Pilots are key to assessing a project's long-term viability.
- Do not stay in the pilot phase for too long – once a project has shown itself to be successful, begin plans to permanently pedestrianize.
- Provide visuals, such as drawings and renderings, to aid the community in understanding what to expect during the closure.
- Effective ground-level management is critical in preventing unexpected costs and increased maintenance expenses.
- Allocating sufficient resources for programming is essential for success, with a well-planned summer schedule developed and promoted in advance of the closure.

#### *4.4.4.2 Activation*

Programming plays a pivotal role in attracting visitors. The plaza regularly hosts various community events, street performances, and market stalls, and aims to enhance visitor experience with bright and colourful street furniture, ample seating, and public art. The street is closed to traffic with sliding bollards.

#### *4.4.4.3 Strengths*

The project benefits from its location in a well-established historic district and bustling tourist area in the heart of downtown. Alignment with the ByWard Market Public Realm Plan provides a solid foundation for implementation and support from the City of Ottawa.

#### *4.5.4.4 Challenges*

The project faces challenges with underfunding which places a financial burden on the nonprofit organization. Placemaking efforts can be challenging due to complexities with partnerships. The limited time available given the project's seasonal scope presents challenges in effectively promoting programming. Despite these obstacles, the pilot has stood as a promising venture with the potential for permanent pedestrianization and makes significant positive contributions to the community.

#### *4.5.4.5 Public Feedback*

The main concern expressed by the public during initial implementation was reduced parking availability. The project also prompted concerns about the plaza's use, including potential issues with noise levels and how others will use the space. Businesses, particularly retail and commercial establishments, expressed worries about the impact of the project on their operations, especially regarding deliveries. Restaurants were more likely to support the plaza as it would provide them with more space for patio expansion and make the surrounding area more attractive for diners.

#### *4.5.4.6 Mitigation Measures*



*Figure 4.26: William Street, Ottawa (Photo via CityNews Ottawa).*

Addressing initial concerns involved specific issue walkthroughs, transparent communication, clear documentation of plans, collaboration with businesses, and routine feedback loops. Respectful collaboration with business owners has been essential in helping them adapt to changes, especially in managing and arranging deliveries. Setting firm closure dates and times and designated delivery windows ensures business operations are not negatively impacted, and advance reminders two weeks prior to closure and strategic signage helps businesses plan for changes in advance every summer. Initial apprehensions diminished over time as businesses became comfortable with the routine. The project's continued success in a popular nightlife hub known for its late-night revelry relies heavily on the consistent maintenance and upkeep of the space by dedicated personnel, ensuring the plaza is kept clean and safe.

The current funding allocated by the City of Ottawa for the project has proven to be insufficient given the costs of sustaining regular programming, promotion, and maintenance. The budget is set to increase in 2024, allowing Ottawa Markets to continue operations and expand programming. The road closure system initially used gates and barricades and has since been replaced with sliding bollards which have been helpful in defining the boundaries of the pedestrianized space, and allow for simple opening and closing of the street.

### 4.5.5 Case Study: Banff Avenue Pedestrian Zone, Banff, AB

#### *4.5.5.1 Project Background*

Banff is a popular tourist destination with a vibrant natural history associated with its nearby parks, which welcomes approximately 4 million visitors annually — 70% of whom arrive during the summer months. In response to the threat of lost tourist revenues due to the COVID-19 pandemic, Banff Town Council quickly approved, without consultation, a phased pedestrianization of two blocks of Banff Avenue in the spring of 2020. Due to the quickly-evolving nature of the pandemic, increased value of public health measures such as physical distancing led to the immediate implementation of a full closure. Benches and planters were gathered from elsewhere to transform the roadway into a welcoming human-oriented space.

The project has renewed seasonally since with two major changes, beginning with the incorporation of transit in the pedestrian zone in its second year. The roadway east of the street's median was transformed into a low-speed transit corridor with automated gates to block private vehicles. Other minor improvements such as e-bike charging facilities have also been implemented over the course of the project. As of November 2023, planning staff are in the conceptual design phase of the public consultation process to determine a future for the project.

**Type**: Pilot, Seasonal
**Start**: 2020
**Status**: Active
**Lead**: Town of Banff

**Key Takeaways:**

- Adapting to public and business feedback is critical.
- Transit can be accommodated in pedestrian zones by using gates and additional safety measures.
- If left unregulated, businesses can overwhelm public areas.
- Signage and marketing can mitigate traffic detour issues.
- Traffic re-routing can be challenging, and spillover may cause noise and congestion.
- Assistance from government agencies may be slow.

#### *4.5.5.2 Activation*

Activation of the pedestrian zone takes place on rare occasion, mostly for major events like Canada Day, or as beginning/end points for marathons. The street capitalizes on Banff's existing tourist draw, and therefore relies less heavily on consistent programming. The street's scenic viewpoints, tourist-oriented businesses, well-landscaped promenade, and central location have established it as a popular destination for visitorss and photographers. Businesses along Banff Avenue are encouraged to take initiative to activate the public realm through patios and stalls, expanding their operations outdoors over the summer season. To provide a scenic backdrop to compliment the natural surroundings and mountain views, the street uses large wooden planters to line the road and limitations have been placed on the installation of dining tents.

#### *4.5.5.3 Strengths*

The Town's attempt at pandemic mitigation has had a positive impact on the economic resiliency of the businesses and the town as a whole. Being open to iterative improvements maintained the overall quality of the project by allowing it to adapt to changing conditions. This was particularly valuable in a hastily implemented project lacking the time for extensive initial consultation.

The success of this project has rested largely on the existing popularity of the area. Local businesses were vocal and keen to mitigate the challenges of the pandemic, and worked closely with the Town to maximize the positive impacts of pedestrianization. The seasonal nature of the project allowed for an iterative approach, where minor changes, improvements, and investments could be made and tested annually. This extensive testing (by town staff, residents, and tourists) has laid the groundwork for the current round of consultation which will lead to a long-term vision for the site.

The project incurs low annual costs between $15,000 and $30,000, including maintenance and the reprogramming of traffic signals, which is notably low for a project of its size and scope.

#### *4.5.5.4 Challenges*

While generally very well received, some aspects of the project required refinement. Excessive dining tents cluttered the street, made pedestrian movement difficult, and blocked mountain views. The aesthetics of the site were said to lack cohesion. With its subarctic climate, Banff sees far fewer tourists, reduced active transportation and transit use, and commercial activity in the winter months, necessitating a seasonal adaptation to vehicle traffic. During the summer closure, slightly ineffective traffic detours increased noise and congestion on adjacent residential streets.



*Figure 4.27: Banff Avenue, Banff, AB (Photo via Town and Country Today).*

#### *4.5.5.5 Public Feedback*

Despite the impact of COVID-19 on tourism, the project has maintained popularity through the pandemic tourism slump by adhering to public health guidelines and by allowing businesses to take initiative to activate the public realm. The business community largely supported the project. Deliveries and loading were not seen as a issue as the street has a back alley. Council meeting notes and letters from local businesses showed near unanimous support for continuation of the project following the initial pilot, citing significant economic impacts and improved customer experiences:

***"Data suggests that over 90 per cent of visitors loved the change. So much, in fact, that some nicknamed the stretch 'Banffsterdam' on social media."*** (Quoted from Kost, H., 2020)

In its implementation phase, most concerns were expressed by residents worried about congestion spillover into parallel residential streets. Efforts were made to direct vehicles to the secondary entrance to town and shift traffic patterns to more traditionally commercial areas, which led to complaints about increased noise and disturbance from nearby residents.

#### *4.5.5.6 Mitigation Measures*

An improvement of transit connections to the site in the second year helped mitigate traffic impacts. Visitors are encouraged to use a new 500-stall parking lot within a 10 minutes' walk of downtown, which also contains a bus stop. As a result, transit ridership has grown significantly.

To avoid confusion for motorists, a comprehensive communications campaign was launched to encourage the use of Banff's secondary access road. Signage was placed in strategic locations to alert drivers of a detour and 'ambassadors' were placed at key locations to help direct traffic.

Measures to mitigate the impacts of traffic re-routing were not entirely effective, as most residents and visitors depend on a vehicle to fully access and experience the city. The placement of the closure creates difficulty for those who are trying to access attractions across the adjacent Bow river. Efforts to encourage the use of transit or shuttle buses to reach these destinations are ongoing.

Aesthetic and access challenges within the site were identified annually and remedied through limitations on business intrusions into the public realm and temporary streetscaping.

### 4.5.6 Case Study: Yew Open Street Pilot, Vancouver, BC

#### *4.5.6.1 Project Background*

Yew Street is located in Vancouver's Kitsilano neighbourhood, a vibrant residential and commercial neighbourhood. Kitsilano is conveniently situated near the University of British Columbia and the downtown core of Vancouver, making it a popular destination for students and young professionals. The Yew Open Street Pilot Project was launched by the City of Vancouver on June 30, 2023 to test the feasibility of turning two blocks of Yew Street into a pedestrianized, cycling-friendly "open street" free of vehicular traffic.

The City initiated the pilot to provide a pedestrianized plaza in response to local businesses' requests for a more vibrant outdoor commercial space, aiming to test the viability of the plaza as a recurring fixture in the community. The project involved collaboration with residents, businesses, and stakeholders to design, implement, and manage the pilot. Yew Street was closed to vehicle traffic at specific times, with deliveries allowed outside these hours. Vehicular access and loading for businesses were maintained through laneways behind buildings. Businesses continued to operate, but motorists had to use alternative routes to reach loading zones and underground parking. The pilot ended prematurely three weeks earlier than its proposed completion date.

**Type**: Pilot
**Start**: 2023
**Status**: Inactive
**Lead**: City of Vancouver

**Key Takeaways:**

- More time may have allowed for more in-depth consultation with businesses to establish a clear and detailed plan for detouring, deliveries, customer parking, and design details.
- Consistent programming and activation are critical in generating interest in pilot projects.
- Use effective and understandable signage.
- clearly understandable road blocking measures to prevent accidental access by vehicles are critical for safety.
- Implementation should be gradual to allow businesses to adapt to changes.
- Building stronger relationships with business owners results in a better understanding of their unique needs, constraints, and interest in the project.

#### *4.5.6.2 Activation*

Short concrete blocks were used to block traffic, and were painted to enliven the space. The blocks also served as seating. Some visitors brought their own lawn chairs to the site. Occasionally ad-hoc entertainment was provided, such as live DJs, but no specific programming or event schedule was established. Social media and a project webpage were used for programming updates, but the City's communications campaign was limited due to the project's small neighbourhood scale.

#### *4.5.6.3 Challenges*

The pilot struggled to meet its goals of becoming a vibrant community space. The project was rushed, resulting in little programming and activation, creating more of an active transportation thoroughfare rather than a gathering place. With no BIA to oversee the stewardship of the project, the project faced challenges with daily upkeep and maintenance.

Challenges led to a premature end date and lower priority status for renewal, pausing its continuation and ultimately delaying its potential for permanency. Because Vancouver's higher-priority public space projects will take precedence in 2024, it is unlikely that the City will have the capacity to run the pilot in the near future.



#### *4.5.6.4 Public Feedback*



*Figure 4.28: Yew Open Street Pilot Project (Photo via CityWatch).*

The project received significant negative media coverage, and a petition was circulated to end the project. Initially, community members appreciated the idea of a pedestrian-friendly space, but concerns and criticisms were voiced by businesses once the project was initiated, particularly from those reliant on vehicle access for deliveries and loading. Motorists struggled with navigating confusing signage and residents faced challenges related to parking, traffic detours, and congested laneways. Ad-hoc late-night entertainment led to noise complaints. Several local and regional news outlets shared stories about the closure's issues. Business owners reported drops in patronage and complained that customers were unable to find parking. Despite the project's issues, community feedback shows support for re-launching the pilot with improvements, with some community members expressing they enjoyed the experience of a car-free zone (Global News, 2023).

Feedback from the community showed greater interest in a public plaza with a more robust programming schedule and better amenities rather than a closed street allocated primarily for walking and passing through.

#### *4.5.6.5 Mitigation Measures*

Efforts were made to mitigate negative impacts of the project with changes to road closure methods to improve clarity, safety, and efficiency, but limited time and the short seasonal period made it difficult to implement major changes. Concrete blocks were placed to close the street after road tape caused confusion, but they were not tall enough to function as visible barriers and motorists were seen driving through the closure on numerous occasions, leading to safety concerns. Collapsible bollards and traffic cones were introduced in addition to the concrete blocks to help clarify the closure's boundaries and offered greater flexibility in managing access to the street. These barriers prevented unauthorized vehicles from entering and could be moved or lowered when necessary for emergency vehicles or delivery services.

## 4.6 Key Takeaways and Conclusion

The comparative and in-depth case study analyses provided valuable insight into the resources and methods used by municipalities, nonprofit organizations, and BIAs in creating successful and vibrant pedestrianized street projects, and the obstacles and challenges they may encounter and must mitigate. Pedestrianized street projects of all types were found to leave several positive impacts on their communities. Based on the analysis of forty five North American examples, pedestrianized streets were found to provide the benefits of **enhanced public space and social opportunities** in urban environments, **improved sustainable transportation** infrastructure, and **increased commercial opportunities**. In addition to fostering increased activity, these pedestrian-first spaces can provide an 'urban oasis' where visitors can **linger and gather** in between busy city

hubs and major destinations by allowing users to **safely sit and play**. Functioning as both **active transportation corridors and as spaces for rest**, pedestrianized street projects that experience the most success offer a variety of amenities and features that **support a wide range of uses**.

Projects of all types face similar challenges, including those related to **parking**, **vehicle redirection**, **costs and funding**, and **programming**. Specific project types may also face unique challenges. Permanent pedestrian plazas must **adapt to seasons and provide programming year-round** to maintain consistent use which can present **financial and logistical challenges in the winter months**, while non-permanent projects require **continuous feedback collection and iterative improvements** to maintain public support. Most business concerns were shown to be easily **mitigated through strong consultation** and collaboration efforts with the business community and local residents.

**Public engagement was found to be crucial** during all phases of a project's lifespan, with public feedback informing the final design of the streetscape. **Continuous feedback loops** are particularly important for pilot projects, with suggestions being used to routinely improve amenities and services until permanent implementation is viable. Successful project implementation r**equires support from a variety of stakeholders** and community groups, including municipalities, BIAs, and nonprofit organizations. Strong **relationships** with stakeholders result in projects with the most community benefits, helping to **streamline management responsibilities** and establish clear roles for stewardship and maintenance.

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# Recommendations and Conclusion



# 5.0 Recommendations and Conclusion

## 5.1 Introduction

This final chapter presents recommendations for the pedestrianization of Ontario Street and Market Street, which are supplemented with insights, rationale, and potential scenarios for different street closure interventions. The recommendations were established from a comprehensive review of the literature, case studies, and public feedback. These recommendations have been organized around the overarching themes that have emerged throughout the research process. These themes include **Safety**, **Placemaking**, **Seasonality**, **Accessibility**, and **Management**. A discussion of research findings is presented in the section below, followed by a series of final recommendations and a conclusion.

## 5.2 Discussion of Research Findings

Each stage of the research process allowed the team to develop a better understanding of the site context and key considerations when undertaking a pedestrianization project. From the literature and case studies from across North America, the team was able to develop an understanding of what elements could make a pedestrianization project most effective and where challenges might arise when conducting this type of project.

Across the three chapters some similar findings emerged. **Safety** was found to be one of the most important elements of a pedestrianization project. It is critical to ensure that the **separation between vehicles and pedestrians** is clearly demarcated with signage and blockades to prevent unnecessary injuries. Both the case studies and the literature stressed the importance of beginning a pedestrianization initiative with a **pilot project**, to gauge public reception before committing to a major closure and accompanying programming investments. Meaningful and ongoing **engagement with the local business community** was also found to be a critical component to a project's success. Conflict with businesses whose access needs are not being prioritized can place a major strain on new projects.

From the literature review (Chapter 2), the team found that pedestrianization projects should explore ways to incorporate **local businesses** into the street design. Pedestrian streets should also be integrated into current **cycling and transit networks** and careful considerations should be made around **budget** allocations. Opportunities for year-round **activation** of the space should be considered and opportunities should be explored to incorporate **accessible and attractive design elements**. In planning for a new closure, municipal staff should be aware of external factors such as **demographic shifts** that might impact how the space is used. The closure **location** should also be carefully selected to optimize its accessibility to target users.

During primary data analysis (Chapter 3), the team found that pedestrians commonly engage in **mid-block crossings** near the site. **Seating** remains fairly unoccupied most of the time and **cyclists** are poorly accommodated. The team identified opportunities to provide more engaging **programming**, as well as more **greenery** within the site. From the public feedback data, the team identified suggestions from the public to increase **walkability** through the downtown core, improve **transportation infrastructure** in and around the site area, and integrate more creative programming that caters to **all age groups**. There were some concerns about maintaining **accessibility** within the site and some push from residents to opt for a **temporary or seasonal closure** as opposed to a permanent project.



After reviewing the literature and situating the findings within the site context, pedestrianization case studies from across North America were analyzed to better understand best practices. From this analysis (Chapter 4), the team found that challenges encountered by municipalities tend to arise with **parking**, providing **alternative routes** for vehicles, and adequately **funding** and **programming** the space. Permanent projects must remain **flexible** and able to adapt to **public feedback**. Strong relationships with project **stakeholders** can also help to streamline the project's management and establish stewardship and maintenance roles within the community. Projects should also aim to implement **cost-effective infrastructure** that requires minimal maintenance, where possible, in order to ensure funding can be allocated more efficiently throughout the project.

From these findings, recommendations have been developed, as outlined below, to guide the City of Kingston in their development of a successful pedestrianization project.

## 5.3 Recommendations

The presented recommendations place **safety** a top priority given that a secure environment for all road users can help to improve the wellbeing of a community. **Placemaking** plays a critical role in creating a dynamic public space that reflects Kingston's unique identity and community, ensuring the project is interesting, and inviting. **Seasonal** recommendations demonstrate that the site can be used in different climates and weather conditions if appropriate infrastructure and design is used. Emphasizing **accessibility** includes the implementation of universal design and barrier-free elements to ensure the space welcomes people of all ages and abilities. Finally, sustained success of the project can be facilitated through effective **management**. Following a list of the recommendations grounded in the key themes listed above, this section will present various scenarios for the closure of Ontario and Market Streets with a discussion on the benefits and costs of each option.

### 5.3.1 Safety

***Eliminate pedestrian-vehicle conflict points by creating clearly defined boundaries and signage.***

A well-defined and highly visible boundary between pedestrians and vehicles to increase awareness of the pedestrianized space is critical to ensuring the safety of all road users. Road delineators should be tall enough to be clearly seen by motorists, and sufficient signage should be placed at and near the site boundaries to inform motorists of the road closure.

The use of construction zone delineators at the 'Summer in Sydenham' road closure in Kingston led to complaints about the aesthetics of the site. The recommendations propose that safety features be integrated seamlessly into the surrounding area or function as an aesthetic piece by using infrastructure that serves a dual function. For example, landscaped cement planters with trees could line the boundary of the site, or existing structures such as the nearby 'I in Kingston' sign could be repurposed to both block vehicles and serve as a photo opportunity.

***Reduce the speed and flow of traffic around the site by introducing traffic calming measures, such as raised intersections and pedestrian-priority signage.***

As mid-block crossings may occur more often near pedestrianized areas, effective and strategic traffic calming measures on adjacent streets are critical to reducing high speeds and improving safety around the site. Interventions such as raised intersections, pedestrian-priority signage, and speed bumps can help with traffic calming and mitigate risks posed by distracted motorists.

***Enhance the perceived safety of the space with sufficient lighting.***

Lighting plays an important role in improving perceptions of safety in public spaces by improving visibility and accessibility. It can also help to deter illegal and undesired behaviours. Well-lit spaces contribute significantly to reducing the likelihood of crime, can help individuals orient themselves within the site, and ensure safer navigation. Further, sufficient lighting can encourage night-time visitation and contribute to a bustling, well-used public space at all hours.



*Figure 5.1: Inexpensive string lights provide aesthetic appeal and enhance safety at Bute-Robson Plaza, Vancouver, BC.*

Lighting can also be used as an aesthetic feature. At Bute-Robson Plaza in Vancouver, wrap-around lights are hung from trees to create a whimsical and pleasant environment 24/7 and becomes a popular location for photography in the evening. The City of Kingston could consider projecting late-night light shows onto City Hall or using string lights throughout the pedestrianized space to enhance safety in the darker hours and provide visual appeal.

### 5.3.2 Placemaking

***Use landscaping features, design, and activation on Ontario Street to connect Confederation Park to Springer Market Square and create a strong, cohesive 'sense of place'.***

A key goal for the pedestrianization of Ontario Street and Market Street, identified by the City of Kingston, is to improve the connection between Confederation Park and Springer Market Square. When connecting two places with distinct area identities and uses, cohesive design elements can enhance the sense of place and can help 'tie together' disjointed areas. The pedestrianization of Ontario and Market Street could greatly improve the connection between Confederation Park and Springer Market Square with the installation of cohesive elements and features, such as matching planters or a continuous street mural. This can help to draw visitors from the park, along Ontario Street, and up Market Street into the Square. This can also help to create a continuous, connected space and facilitate a seamless passage through two currently disconnected areas. Family-friendly interactive elements to encourage visitors to explore could be considered, such as a children's 'passport' program where stamps, points, or small prizes can be collected from stations set up at various points of interest or businesses across the site.



*Figure 5.2: Plantings extend the feeling of the nearby botanical gardens along Spring Garden Road in Halifax, NS. (Photo via CBC News)*



***Use a mix of permanent and flexible programming and infrastructure to allow for adaptability.***

A balanced design approach ensures flexibility when the street is needed for different uses, such as during seasonal changes or to accommodate special events or festivals. Pedestrianized spaces should be able to adapt with the needs and interests of the community in order to support a wide range of events and draw more visitors. The Dundas Place flex street in London, Ontario effectively accommodates and balances all road users with its curbless design and easy adaptability to different events and user needs. The street, when necessary, can quickly transform to a pedestrian-only space with a pop-up stage for events without procedural and economic challenges.




*Figure 5.3: Pop-up stage at Dundas Place flex street, London, ON.*

***Commission local public art, such as street murals and sculptures, that reflect the area's history and culture, while providing a distinct character for the space.***

Public feedback from the community showed that there is interest in interventions that cater to both tourists and local residents alike. Highlighting the area's history through public art can instill a sense of pride in the local community and foster a unique connection to the area for new visitors. Functioning as commemorative pieces for the community and as a draw for tourists, a rotation of vibrant public art installations that align with various holidays and cultural celebrations can honour Canada's diversity and encourage visitation year-round as displays change. Art created by local Kingston artists can be prioritized to enhance community engagement and tell the story of city, with specific priority given to Indigenous or marginalized artists. These installations could explore the city's rich history and create a unique and immersive visitor experience, while elevating the local art community. Interactive art, including local competitions, allows members of the public to participate in the creation of activation pieces. The annual SnowDay sculpture competition at the waterfront pedestrian plaza at Prince Arthur Landing in Thunder Bay is a much-loved community event. Local 'snow carvers' create grand sculptures from snow to decorate the area and animate the space in the winter, attracting families and visitors to participate and enjoy the creations. Further, dynamic and interactive public art provides photo opportunities which promotes social media sharing and generates interest online.



*Figure 5.4: Indigenous street mural at Bute-Alberni pop-up pedestrian plaza in Vancouver, BC (Photo via ShapeYourCity.ca).*

***Provide space for large and small events and activities throughout the year.***

Gaps in programming and activation in between major events can contribute to a loss of a 'sense of place' and purpose for a pedestrianized street project, as seen at Sparks Street in Ottawa, Ontario. The street is well-known for successfully hosting major festivals and events, such as the annual Winterlude celebration, but lacks smaller scale activations throughout the year. As a result, Sparks Street has acquired a reputation as a 'dead zone' and struggles to maintain a strong and purposeful identity. The site should support diverse large and small events throughout the year and cater to a variety of festivals, celebrations, and community-focused initiatives to establish its purpose and identity as a pedestrian-oriented space.

### 5.3.3 Accessibility

***Provide accessible and efficient pedestrian entrances.***

Enhancing accessibility within the site involves design elements that promote ease of movement for all individuals regardless of ability. Reducing or eliminating curbs, especially at entrances and intersections, can create a space that is more accessible to individuals with mobility challenges, strollers, and those with difficulties navigating elevated surfaces.

Equally important is the elimination of narrow passageways which can be unappealing, unsafe, and impede the flow of pedestrian traffic. Widening pathways or ensuring a consistent width throughout the site creates a more fluid and comfortable pedestrian experience. Open, visible entrances offer clear points of access, reducing confusion, hassle, and potential hazards. Placing gates or bollards strategically at entrances allows pedestrians to enter and exit with ease, minimizing the risk of pedestrian-vehicle conflicts and enhancing overall access to the site.

***Include wayfinding elements to enhance the visitor experience by highlighting key features, while facilitating access and exploration.***

Clear, accessible wayfinding and signage in and around the site ensures that pedestrians can orient themselves and locate nearby points of interest and activation nodes. To facilitate barrier-free navigation throughout the site, it is recommended to minimize obstacles and utilize accessibility features, such as signage with braille. New integrative technology can also be utilized to enhance accessibility. The Downtown Dining District project in Guelph, Ontario partnered with BlindSquare, a wayfinding app for people with visual impairments that provides audio directions to help visitors understand and navigate their surroundings.



*Figure 5.5: Highly visible, backlit signage at ByWard Market in Ottawa, ON (Photo via Jedco.co.uk).*

A clever use of wayfinding can foster an environment that encourages curiosity, exploration, and spontaneity. This can involve the design of pathways and open spaces that integrate into other areas of the city. It can also include the use of multi-functional signage which can serve as both an informative and artistic contribution to the space. Signage should be strategically placed and visible at night, similar to the backlit signs used in Ottawa's Byward Market. These signs include maps, directories, and compass arrows guiding visitors to important city landmarks, stores, and attractions.



### 5.3.4 Management

***Improve the market experience for vendors with enhanced amenities and more options for stalls.***

Improving the market experience for existing and new vendors could transform the market area into a thriving hub of diverse commercial activity and better facilitate commercial operations. Implementing noise reduction measures would create a more pleasant environment for both vendors and visitors. This can be accomplished by prohibiting the use of noisy generators and providing battery packs to vendors. A long-term solution could involve installing electrical outlets throughout vendor areas. The use of landscaping as a sound barrier could involve trees and planters placed at the boundaries of the site along open streets.



*Figure 5.6: Rental cabins for vendors at the Halifax Waterfront (Photo via Expedia.ca).*

The use of semi-permanent stalls and rental cabins could improve both flexibility and stability for vendors, depending on their goals. Rental cabins, as used at the Halifax waterfront, provide vendors with the opportunity for seasonal leases and can help to ensure continuity and stability within the site area. On the other hand, offering monthly leases for semi-permanent stalls opens the door for new vendors to participate and test the market. By facilitating diversity and adaptability in the market, commercial ventures can grow and adapt based on needs and interests of both the vendor and their customers.

***Increase the duration and frequency of market days and increase opportunities for local businesses to expand into the space.***

An expansion of the market into Ontario Street could allow for more market days with longer operational hours, helping to create a more connected public square. Encouraging new vendors to join the market could be accomplished by making market spaces and stalls more financially accessible to businesses of all sizes. This could provide opportunities for up-and-coming small business ventures to test the local market before investing in more permanent facilities. Providing space for a diverse range of new and existing businesses offers visitors a wide variety of products and services to explore, creating a dynamic and unique shopping experience.

***Collaborate with and empower programming coordinators and/or community groups.***

Assigning designated events coordinators or community groups to provide support can help with the organization and promotion of programming within the space. Coordinators will be able to invest time and effort into understanding the community's goals and vision, ultimately leading to events that cater to the diverse interests and preferences of Kingston residents and visitors.

***Establish an open-air bistro around the amphitheater.***

A new outdoor bistro, paired with the existing sunken amphitheater at Springer Market Square, could function as an integrated space for small concerts, open mic nights, and other unique performances with the convenience of a café and bar area. Collaborating with local bars, cafés, and restaurants to sell food and drinks at the bistro could promote these businesses in a unique way. The National Capital Commission (NCC) partners with local restaurant entrepreneurs to enhance the experience of Ottawa's urban parks and shorelines with their 'NCC Bistros.' Each bistro features a modern patio design and offers an exciting assortment of food and beverages (NCC, 2023). A permanent closure could include the development of a permanent structure to house the bistro. However, a seasonal or pilot project might opt for a more portable and affordable option, such as re-used shipping containers as seen in Kitchener, Ontario's Gaukel Block.




*Figure 5.7: NCC Bistro at Confederation Park in Ottawa, directly in front of City Hall.*

***Create an oversight committee in charge of the day-to-day operations of commercial vendors.***

The establishment of a committee or group to oversee vendor activities within the market provides a structured and efficient approach for the day-to-day operation of the market. This group would oversee setting guidelines, monitoring compliance, and ensuring equitable treatment for all vendors. By consolidating responsibilities through a centralized entity, decision-making can become more streamlined, ensuring accountability and supporting the success of programming.

***Provide meaningful and significant public consultation opportunities.***

Public participation should play a pivotal role in the design of the pedestrianized area, enabling the diverse perspectives of the community to shape the shared space. This process empowers businesses and residents to share perspectives and goals that help inform the final streetscape. Engagement offers opportunities for ongoing dialogue and collaboration that allows the space to adapt to the changing needs and desires of the Kingston community over time. In doing so, collaborative work creates a sense of ownership and responsibility for the space amongst members of the community.

***Collaborate with the Downtown Kingston Business Improvement Area to ensure their support.***

BIAs and other local stakeholders bring valuable insights to the project with their knowledge of the local economic landscape and community. BIAs can play a crucial role in ensuring the design of a site is harmonious with the economic interests of local businesses, contributing to a design that strategically aligns with their goals. This strategy can help avoid elements that may be incompatible with the local context and ensures the project benefits in economic activities. The case studies showed that strong consultation efforts with BIAs results in mutually beneficial partnerships and reduces conflicts between the municipality and the local business community during implementation. Projects that engaged regularly with BIAs, collected their feedback, and spoke with individual business owners to arrive at solutions related to parking and loading concerns experienced the most success, such as William Street in Ottawa, Ontario. Working closely with William Street businesses over the years has helped address their initial concerns, streamlined parking and delivery processes, and created a clear routine for seasonal closures that businesses now fully understand and look forward to participating in.

### 5.3.5 Seasonality

***Close both streets to vehicles in the warmer months to enhance the pedestrian experience downtown, improve the tourist experience, and boost the local economy.***

Most street closure projects in Canada are seasonal and take place over the warmer months, given the country's climate and the logistics of planning winter events. A seasonal summer closure would allow the City to capitalize off of existing tourism and expand its offerings to visitors through an increase in public space and dynamic programming options.

Implementing a street closure during the summer can enhance the visitor experience in Kingston by providing a safe, engaging space for tourists and residents alike. Providing large- and small-scale summer programming with an expansion of public space downtown, such as festivals, arts events, musical performances, and various vendors' markets during the city's busiest tourist months can provide new attractions, accommodate a large volume of people, and increase patronage of local businesses in the area. A summer closure would involve the use of temporary infrastructure, such as collapsible bollards and moveable street furniture, that would allow for easy set-up and take-down and a reopening to vehicles in the colder months if needed.

***Consider allowing vehicular access during the winter months, with the space still accommodating special events or weekend closures.***

Given the challenges of a winter pedestrianization project, such as snow removal, inclement weather and wind, and reduced foot traffic and outdoor activity, reopening the streets to vehicles in the colder months may hold value. However, these challenges can be mitigated with the use of appropriate infrastructure, programming, and promotion. This could involve transforming Ontario Street into a versatile, flexible street in the winter that serves all road users equally and safely. It could also involve expanding Springer Market Square's existing winter programming through the site.

Creating a flex street on Ontario Street by positioning fixtures to narrow the roadway and designate more space for pedestrians would contribute to a safer pedestrian-prioritized environment. Public art installations or ice sculptures could be installed along the street to add interest and calm traffic. Adding highly visible pedestrian-priority signage would reduce confusion and chances of vehicle-pedestrian incidents. A flexible Ontario Street could remove vehicle access in order to accommodate special events or weekend closures with gates or collapsible bollards. The street could then easily reopen for vehicle access when there is demand for vehicle access.

Expanding on the existing winter programming at Springer Market Square, namely the ice rink feature, could position Market Street as an extension of this area and provide more space for participants and spectators. Lining the street with warming huts, fire pits, or sheltered spaces to offer comfort during the cold months could add to the visitor experience. Maintaining a permanent pedestrianization of Ontario Street could also establish consistent travel patterns for pedestrians and vehicles, providing predictability for residents and commuters.

## 5.4 Types of Pedestrianization Interventions

The sections above have outlined a series of recommendations that can be implemented and expanded upon with any project type. The scenarios presented below highlight the pros and cons of different types of street closure interventions based on the associated level of risk. The closure types discussed are seasonal, permanent, and pilot projects.

### 5.4.1 High Risk Intervention – Permanent Closure

A high-risk intervention involves a permanent closure of the two streets. Permanent closures are the **costliest** intervention, requiring significant financial investment from the municipality to develop **high-quality facilities** that ensure the longevity and functionality of the space. Construction of permanent facilities requires the **greatest time commitment** and is the **most disruptive to traffic and businesses**. There is further increased **risk in closing arterial roads** such as Ontario Street due to their function as major throughways and commuters' reliance on the road connection. The Downtown Dining District in Guelph, Ontario included the closure of a major arterial road used by commuters and transit, causing traffic difficulties with **transit re-routing**. Finally, there is a risk of the final streetscape **not meeting community expectations**, leading to complaints, pushback, and **additional costs to mitigate issues and reverse interventions**. With Kingston's population projected to grow in coming years, **a permanent closure without a pilot phase would not allow for adaptation to the evolving needs and desires of the new population**.

While it poses risks, a permanent closure could bring many benefits to the Kingston community by **integrating Confederation Park** through the site, and **improving active transportation** through safe pedestrian infrastructure downtown. Following the recommendations detailed in the sections above, a permanent closure could bring **enhanced green space** to the area, **increased tourism opportunities**, and a **diverse range of programming** for people of all ages and abilities **year-round**. If meaningful public consultation is conducted and a **high quality public realm** is created, the site can become a **staple feature of downtown Kingston**. The perception of Ontario Street as a car-centric thoroughfare would be replaced as it is tranformed into a vibrant, people-oriented public space.

To best implement a permanent closure, recommendations include **establishing a working group or management team** to effectively administer the site from implementation to day-to-day operations, ensuring that **construction challenges are mitigated and programming, activation, and upkeep is well-organized**. Effective and **thoughtful design interventions** are also critical to the success of permanent street closures, helping to **integrate the space into the public realm** and establish it as a vibrant destination. It is recommended that the permanent pedestrianized streetscape be thoughtfully designed with **high-quality materials** that complement the downtown area and add visual appeal. This can be achieved through investment in **improved landscaping, paving, and attractive lighting**. To ensure the longevity of the space, **sustainable design principles** are recommended, such as the use of **bioswales and water retention planters**, which provide effective storm water management while adding to the aesthetics of the streetscape.



### 5.4.2 Medium Risk Intervention – Seasonal Closure

Medium risk intervention involves a **seasonal closure** and the re-opening of the streets to vehicles when it is deemed more valuable to do so, such as during colder months when pedestrian activity slows. Seasonal closures require **less financial investment** than permanent projects, as they typically **do not require permanent infrastructure upgrades**. A seasonal closure can involve the **re-use of existing features**, such as planters, public art installations, and portable stages, rather than the construction of costly permanent infrastructure. With a seasonal closure, market vendors can be encouraged to supply their own tents and stalls, helping to reduce overhead costs. Seasonal closures are **quicker and easier to implement**, and cause **less traffic interference**. These closures can be easily implemented with **collapsible bollards or moveable barriers** to block the road. Further, seasonal closures are more **easily reversible** than permanent closures, allowing the City to revert the streets to their existing condition if needed. Finally, seasonal closures provide the community with **more time to become accustomed to a closure** if they are implemented on a yearly basis.

Seasonal closures may be **less safe** overall than a permanent closure, due to the materials used to block the streets to vehicles and a lack of permanent design interventions such as pavement improvements. **Inexpensive, moveable delineators may not be as safe** overall as permanent concrete fixtures or costly permanent bollards. Secondly, seasonal closures **may not bring the same aesthetic benefits** and qualities that a well-designed permanent closure could achieve through the use of high-quality infrastructure. Complaints about the aesthetics of the seasonal 'Summer on Sydenham' closure showed that **Kingston residents value the appearance of public spaces** and the use of quality materials, and those who are opposed to a closure **may react negatively to the use of lower-cost or temporary materials**. Re-opening a pedestrianized street to vehicles at the end of a seasonal closure risks **reinforcing the status quo** and encouraging driving. Further, a **lack of consistency** around when streets are open or closed to vehicles **may lead to confusion and frustration**.

### 5.4.3 Low Risk Intervention – Pilot Project [Recommended]

Having analyzed the impacts of a variety of street closure types and interventions, the team has determined that a pilot project poses the **lowest overall risk**, and recommends implementation that follows an **iterative process focused on ongoing public consultation**. By beginning with a pilot project, the City is presented with a unique opportunity to **mimic the effects of a permanent street closure** with the use of low-cost, temporary, easily reversible fixtures. This approach allows the City to assess the feasibility and impact of a full-time closure before committing to the associated costs.

By maximizing the use of **existing City-owned fixtures** and inventory, **project costs can be kept to a minimum** while exploring the potential benefits of a street closure and **building a relationship with the community**. A pilot would allow the City to **gauge community interest and support, traffic implications, and the overall feasibility** of the project. A major strength of pilot projects is their **adaptability**. As with seasonal closures, pilot projects feature **low-cost, reversible elements and amenities**, allowing for easy modification and evolution to **suit public feedback**.

Based on case study research, **the lifespan of a pilot varies** across municipalities. The pilot phase **may last between one year and multiple years**, depending on project goals and the efficiency of the consultation process. After this, public feedback and logistics are evaluated to determine whether it is viable for permanent implementation.

Similar to seasonal closures, pilot projects **risk returning to the status quo** if it is deemed unsuitable for permanent implementation. Further, a pilot street closure would retain the **short-term**

**image** of a temporary project rather than a long-term vision for the area. A hastily implemented pilot project with ineffective prior consultation efforts runs the risk of **creating confusion**.

It is recommended to implement a pilot project with a **balanced approach**. Pedestrianization should be maintained **through the first winter to gauge community response** and feasibility of permanent implementation. The City could begin by using its **existing inventory** of street furniture and fixtures to reduce costs, though **aesthetic cohesion** and quality should be prioritized. Investments in new elements should be gradual to **avoid wasteful spending**. The pilot should work towards more permanent streetscaping treatments, if appropriate following **annual consultation and project re-evaluation**. **Programming and activation should be included from the onset** of the project to increase public awareness and draw visitors.

Animating the space should begin with **low-cost efforts that do not require investment in amenities**, such as providing space for food trucks, vendors, and buskers. If the pilot is well-received, more robust, **semi-permanent amenities to support programming**, such as pop-up stages or portable warming huts can be implemented. Once the pilot can be deemed successful and permanent implementation is planned, **higher-cost infrastructure should be considered**, such as a permanent performance stage or road resurfacing. An effective **working group or management team** should manage the daily operations of the project as it continues, with staff available to answer questions from the public, collect comments, and interface with businesses.

## 5.5 Conclusion

This report has provided recommendations towards the pedestrianization of Ontario and Market Streets for the City of Kingston's Transportation and Transit Services Department. Best practices in pedestrianized street projects and critical considerations from cities across North America were identified based on a thorough review of relevant academic literature, public feedback, and case study examples. This research was complemented by direct observations of the study area to better apply these principles and lessons learned to the unique Kingston context. Key stakeholder interviews were conducted with city planners, urban designers, various municipal staff, and BIA coordinators who shared their experiences with implementing pedestrianized street projects and highlighted the many benefits and challenges that may arise when undertaking such projects.

The report has demonstrated that there are numerous advantages to pedestrianized street projects of all types, including temporary, seasonal, permanent, and pilot projects. Pedestrianized streets were found to create a safer pedestrian experience, provide a more aesthetically pleasing streetscape, reduce traffic-related accidents, and foster accessibility. These projects may also bring challenges, such as seasonal considerations in winter cities, funding and cost barriers, pushback from the business community, and gaps in programming. The report has carefully explored these challenges and identified several successful mitigation measures to overcome issues encountered in pedestrianized street projects.

The report culminates with specific recommendations for the closure of Ontario and Market Streets guided by the key lessons learned through this research. The success of this project will rely on its closure type, location, community partnerships, and activation methods. It has been recommended that the City undertake an initial pilot project to test the viability of a permanent closure of the streets. This pilot should seek to harness best practices in placemaking, adapt to seasonal changes, provide universal access, and be led by effective management to create a vibrant and successful public space.

# Glossary

**Activation** – The process of making a space or area more lively, vibrant, and engaging through various activities and design elements.

**Bollard** – A short traffic post used as a protective or architectural perimeter to control vehicle access or enhance safety.

**Central Business District** (CBD) – A prominent or major commercial downtown center of a community.

**Ciclovia** – Originating from Columbia, a 'Ciclovia' refers to a cycle lane where temporary closures of the street to automobiles occur, and the street becomes accessible to pedestrians and cyclists. Similar to the 'Open Streets' concept.

**Complete Street** – A street designed to accommodate all modes of transportation, including cycling, walking, transit, vehicles, and micro-mobility, with a focus on safety and accessibility for all users.

**Connectivity** – The degree to which streets or areas are interconnected, and easily accessible through different modes of transportation.

**Livable Street** – A street designed to prioritize the well-being and quality of life for its users, often with features that promote safety, comfort, and community interaction.

**Mid-Block Crossing** – Refers to a pedestrian engaging in an illegal crossing of a roadway. Mid-block crossings can increase the risk of pedestrian-vehicle conflicts and injuries. Often mid-block crossings occur when there is insufficient pedestrian signaling, or it is not located where the majority of foot traffic is carried.

**Open Street** – A street temporarily closed to vehicular traffic for recreational or community events, allowing people to use the space for activities other than transportation.

**Pedestrian Friendly** – A street, neighborhood, or public space that is oriented towards easy pedestrian access and promotes a walkable environment.

**Pedestrian Mall** – A street or section of a street that is exclusively for pedestrians, typically with amenities like benches, plantings, and public art to create a pedestrian-friendly environment.

**Pedestrianization** – The process of converting a street or area into a pedestrian-only zone, often done to improve safety, accessibility, and the overall pedestrian experience.

**Placemaking** – Focuses on creating and transforming public spaces through design, to strengthen the connections between people and places.

**Play Street** – A street temporarily closed to traffic for children's play and recreational activities, typically organized by the community or local authorities.

**Right to the City** – A concept popularized by urban activist Jane Jacobs that emphasizes the importance of urban residents having a say in the development and design of their cities, ensuring that cities are built for the benefit of the people who live in them.

**Road Diet** – The reconfiguration of a road to reduce the number of lanes, slow down traffic, and improve safety, often by reallocating space to other uses such as bike lanes or wider sidewalks.

**School Street** – A school-adjacent street that is temporarily closed to vehicular traffic during school arrival and dismissal times, creating a car-free zone for the safety of students and pedestrians.



**Seasonality** – Refers to the periodic and general seasonal changes that occur over the year. In terms of this report, it refers to the flexibility of urban design to accommodate the shifting climate of a given geographic location throughout the year.

**Streatery** – A concept that emerged during the COVID-19 pandemic, where restaurants expand their outdoor seating into spaces previously dedicated to sidewalks, parking spaces, or even roadways to serve customers while adhering to social distancing regulations.

**Tactical Urbanism** – The implementation of temporary, low-cost interventions in the built environment on public and private lands, often without official sanction, to improve the urban environment and promote community engagement.

**Third Places** – Public spaces where people can go that are separate from home (first place) and work (second place). This can include parks, cafes, and community centers. Third places can be seen as the 'public's living room'.

**Thoroughfare** – Part of the roadway system, serving as the principal network for through traffic. The routes connect areas of principal traffic generation and important rural highways entering the city.

**Traffic Calming** – Strategies implemented by municipalities that set physical changes to the street design to reduce vehicular speeds and volumes.

**Urban Heat Island** – Refers to the higher temperatures within urban areas, due to the extensive surface area of streets, sidewalks, parking lots, and buildings.

**Wayfinding** – The use of signage or other design elements to help users orient and navigate spaces.

**Walkability** – Refers to the ability to safely access services and amenities in the built environment by foot.

# Appendix A: Context Map




*Figure 1.14: Site context map*

# Appendix B: Letter of Information



***Department of Geography and Planning, Queen's University***
***SURP 823 – Health and Social Planning Project Course (Fall 2023)***

This research is being conducted by a team consisting of students in the project course SURP 823 – Health and Social Planning Project Course through the Department of Geography and Planning at Queen's University in Kingston, Ontario. The course instructor is Dr. Patricia Collins (Queen's University), and the project is being led by Danny Potts from the City of Kingston. This study has been reviewed for ethical compliance by the Queen's University General Research Ethics Board (GREB).

**What is this study about?** This research is being conducted by students in the Master of Urban and Regional Planning program in the Department of Geography and Planning at Queen's University. This year, our project is focused on the pedestrianization of Ontario and Market Streets in Kingston's downtown core. To that end, our team is working to identify key considerations for successful implementation of this initiative in Kingston.

You are invited to participate in a semi-structured interview with members of the project team to share your knowledge [*describe their area of expertise as it relates to the project*]. There are no known physical, psychological, economic, or social risks associated with this study. The input from your interview will inform our final report and recommendations.

**Is my participation voluntary?** Yes. Although it would be greatly appreciated if you would answer all questions as frankly as possible, you should not feel obliged to answer any question that you find objectionable or that makes you feel uncomfortable. You may also withdraw from the project at any time. Should you choose to withdraw from the project at any point, including during or following the interview session, please inform the project team manager or our course instructor, Dr. Patricia Collins, at patricia.collins@queensu.ca. You have not waived any legal rights by consenting to participate in this study.

**What will happen to my responses?**
The interview will be video-recorded through Zoom and transcribed verbatim. The video-recording will be permanently deleted immediately following its transcription. If you decline the use of video recording through Zoom, then the interviewer will take written notes only. Only the research team will have access to this information. Interview participants speaking in their professional capacity may consent to have their name attributed to their statements OR request to have their confidentiality protected as noted in the attached consent form. If you choose the latter option, we will strip your name and any other information from the transcript that we suspect could indirectly identify you to ensure your responses are kept confidential. However, given the small number of participants, it is possible that you could be identified from a quotation that we use from your interview, and thus your confidentiality cannot be guaranteed. The Queen's General Research Ethics Board (GREB) may request access to study data to ensure that the researcher(s) have or are meeting their ethical obligations in conducting this research. GREB is bound by confidentiality agreements and will not release any personal information.

For the duration of this study, all interview transcripts will be securely stored on team members' password-protected computers and in an encrypted cloud-based data management platform. By January 2024, after the study is complete, all raw data from this study will be destroyed. The





final report from the study will be made available on the Queen's School of Urban and Regional Planning website (https://www.queensu.ca/geographyandplanning/surp/project-courses). The findings may also be published in professional journals or presented at academic or professional planning conferences.

**Will I be compensated for my participation?** You will not be compensated for your participation in this project.

**What if I have concerns?** If you have any complaints, concerns or questions about this research, please feel free to contact Dr. Patricia Collins at patricia.collins@queensu.ca (613-533-6000x77060) or the Chair of the General Research Ethics Board at chair.greb@queensu.ca (1-844-535-2988) at Queen's University.

Again, thank you. Your interest in participating in this research is greatly appreciated.

# Appendix C: Verbal Consent Script

VERBAL CONSENT SCRIPT FOR KEY INFORMANT INTERVIEWS

**Project Title**
***Department of Geography and Planning, Queen's University***
***SURP 823 – Health and Social Planning Project Course (Fall 2023)***

**Study Title:** *SURP 823: Placing Pedestrians at the Core: Considerations for the Pedestrianization of Ontario and Market Streets in Kingston, Ontario*

**Participant Study Number/ID:**_____

**LOI Verification Prompt:** "Can you please confirm that you have read and that you understand the letter of information that I sent to you in advance of our call today?" [If participant responds with 'NO', then read the LOI in full. Otherwise, proceed with the script below.]

"I confirm the following:
☐ I have explained all aspects of this study to the participant as outlined in the letter of information that you received prior to our call.
☐ I answered all of the participant's questions to their satisfaction and the participant had sufficient time to consider their participation in this study.
☐ The participant was informed that they may choose to stop their participation at any time for any reason without penalty or impact to their employment.
☐ The participant was informed that their legal rights would not be affected by consenting to participate in this study.
☐ The participant verbally agreed to participate in this study and to follow the study procedures.
☐ The participant was provided with a copy of the Letter of Information for their records.
☐ The participant consented to the use of video recording.
☐ The participant consented to the use of quotes from this interview."

| _____ | _____ | _____ |
|---|---|---|
| Signature of the person conducting the verbal consent discussion | Printed name | Date |





# Appendix D: Interview Questions

KEY INFORMANT INTERVIEW QUESTIONS

**SURP 823 – Fall 2023**

1. Please tell us about your involvement in the pedestrianization of [project name] in [location of project].
2. What were the goals and objectives for pedestrianization of [project name] in [location of project]?
3. Prior to implementation, what were some of the biggest concerns expressed by the community, and who expressed these concerns?
4. What steps did the [title of municipality/organization] take to allay these concerns prior to implementation?
5. What were the biggest challenges to implementing the pedestrianization of [project name] in [location of project]?
6. If the [title of municipality/organization] could do it again, what would it do differently in terms of implementation?
7. What concerns did the [title of municipality/organization] hear once [project name] had been pedestrianized?
8. What outcomes has the [title of municipality/organization] observed from the pedestrianization of [name of street]?
9. Does the [title of municipality/organization] have plans to pedestrianize more streets in the future?