

Reconstruction Ahead

School Streets and Street Reclamation in Ontario



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Front Cover Image: School Street in Kingston, Ontario (own photo).

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Executive Summary

Streets are public spaces, yet they remain the domain of motorists. Contrary to this, people continue to challenge the narrative. One strategy has been through street reclamation efforts, referring to how streets can be reclaimed psychologically and physically from motorists to improve health, social connections, and community well-being.

One type of street reclamation effort is called a **School Street**, a street experiment restricting vehicles on the street in front of a school at the start and end of the school day to create a car-free environment. School Streets have been organized globally in the past decade, with at least five implemented in Ontario since 2019 (8-80 Cities, 2022).

This report investigated the implementation of Schools Streets in Ontario to reveal the implications for broader street reclamation efforts. To reach this goal, those who led every known School Street in Ontario and other relevant interest groups were interviewed to investigate the barriers faced and potential scaling solutions. The experience of the author of this report, as a School Street implementer in Kingston, Ontario, was also captured, ensuring the information was grounded by first-hand experience.

Based on the findings, this report has documented barriers that hinder School Streets' establishment, scale, and sustainability; proposed recommendations for municipalities to establish, scale, and sustain School Streets in Ontario; and names long-term implications for contemporary street reclamation efforts - summarized below.

School Streets face...

- Municipal skepticism
- Conflicting perceptions of leadership roles
- Divergent assessments of risk
- School site selection limits
- Road permit requirements and costs
- Legislative uncertainty
- Requirements for barriers and volunteers

To start a School Street, municipalities should...

1. Seek delegated authority
2. Form an advisory group
3. Gather relevant school data
4. Establish a list of schools
5. Manage perceived risks
6. Demonstrate School Streets as proof of concept
7. Evaluate and propose a long-term role
8. Expand labour roles
9. Create a streamlined application system
10. Use a variety of forms and strategies

If we want to support street reclamation in Ontario...

- We need to change legislation
- We need bollards
- We need new stories
- We need strong evidence
- We need women's experiences
- We need a movement

Chapter 1: Introduction

Background

Streets are public spaces, yet they remain the domain of motorists. In Canada and around the world, this narrative is being challenged. Fundamentally, every person has a right to the city and has a right to inhabit and transform its public spaces (Mitchell, 2003). Furthermore, the climate crisis has ignited calls for reducing private vehicle use (Milman, 2021), while the global pandemic has highlighted the need for residents to meet safely outdoors (Stevens et al., 2021). To meet these demands, municipalities and residents are looking for new ways to reclaim streets by non-motorists (Sadik-Khan & Solomonow, 2020).

School Streets offer a perfect example of street reclamation efforts. A School Street restricts vehicles on the street in front of a school at the start and end of the school day (8-80 Cities, 2022; *Figure 1*). As an emerging practice, School Streets surged in popularity during the first two years of the COVID-19 pandemic, and in 2022, there were an estimated 1,250 School Streets practiced in 17 different countries (Advocacy Hub, 2022). The first School Street in Canada was established in 2019, and by 2023, School Streets had been implemented in nine cities across Canada, five of which were in Ontario (8-80 Cities, 2022).



Figure 1: A School Street in Kingston, Ontario (own photo).

This research investigates the implementation of Schools Streets in Ontario, from which to reveal implications for broader street reclamation efforts. As the bulk of the study was informed by School Streets that occurred in Ontario, the findings are most beneficial to Ontario's municipalities, school boards, non-profit organizations, and school communities seeking to reimagine their streets in a sustained way. Those who are planning to establish or expand a School Street will gain particular insights from understanding and anticipating the experiences of their peers in reclaiming street space from motorists.

Various School Street stakeholders were interviewed, and their experiences were categorized into School Street features, barriers, and recommendations for growth. The experience of the author of this report, as a School Street implementer in Kingston, Ontario, was also used to frame, clarify, and in some cases, add to the findings. For validation purposes and to offer additional scaling considerations, one case from British Columbia was also incorporated into this study. Taking everything into account, this report uses its findings to propose implications for contemporary street reclamation efforts in Ontario.

Research Questions

To explore this issue, the stakeholders implementing every known School Street in Ontario were interviewed, as were relevant interest groups. In addition, the author's year-long experience in implementing a School Street in Kingston, Ontario, was also captured. Drawing upon all these experiences, this report will address the following research questions:

1. What are the defining features of School Streets in Ontario?
2. What barriers hinder the establishment, growth, and sustainability of School Streets in Ontario?
3. What strategies should School Street proponents consider when launching and scaling School Streets in Ontario?
4. Considering the experiences of School Street stakeholders, what are the implications for street reclamation efforts in Ontario?

Report Outline

This report begins with a literature review detailing the history of street use in North America, recent street reclamation efforts, and an overview of School Streets in [Chapter 2](#). Next, a detailed account of the research methods used in the study is provided in [Chapter 3](#), followed by the research findings in [Chapter 4](#). The results offer an overview of School Street features noted in Ontario and describe common barriers that stakeholders faced during its implementation.

This report will provide specific recommendations for municipalities to launch and scale School Streets in [Chapter 5](#) and conclude with overarching implications for street reclamation efforts in Ontario in [Chapter 6](#). An [Appendix](#) with supporting documentation terms appears at the end of this report for additional clarification.

Chapter 2: Literature Review

Early Street History

Let us start by defining what we mean by a street. Streets are often considered public passages that weave between buildings and open land in cities. The Province of Ontario includes a street under its definition of a highway and a roadway, both described as passages for vehicles (Province of Ontario, 2022-a). Municipalities in Ontario often describe streets as local roads providing access to residential and commercial areas and typically have lower speeds and vehicle volumes than arterial roads (City of Kingston, 2015).

While the findings of this report will refer to streets as local roadways, the idea of a street is a much broader and all-encompassing category. Streets should first be considered in terms of their relationship to cities. As proposed by Engwicht (1999), cities exist to “maximize exchange opportunities and to minimize travel” (p.19), in which exchange can mean almost any reciprocity of goods, knowledge, care, and culture. To access different exchange spaces, people need space to move. According to Engwicht again, to maximize the efficiency and diversity of exchange, streets offered the opportunity to be both spaces for exchange and spaces for mobility.

Streets as spaces for mobility and exchange have run throughout human history. The United Nations Human Settlements Programme, also known as UN-Habitat (2013), offers a comprehensive introduction to the history of streets across human civilization in *Streets as Public Spaces and Drivers of Urban Prosperity*. Since their earliest conception, cities have been organized around streets as places for economic, civic, ceremonial, political, cultural, and social exchange. The traditional value of a street as a link within a road network between destinations tends to ignore this long-standing aspect of streets as a forum for public life (UN-Habitat, 2013).

It is worth noting the historical use and design of streets throughout modern history as described by UN-Habitat (2013). Pre-industrial urban settlements traditionally had a central meeting place where exchange activities took place,

and these settlements were surrounded by houses and workshops, often described as monocentric cities. Streets, in this way, radiated from the centre of a city, usually of political, commercial, or cultural significance, and also formed connections to other areas of importance. As far back as 2600 BC, settlements in the Indus Valley used a grid street system to maximize social interaction and commercial exchange of streets. These settlements even introduced how streets could be used to provide water and sewage services, two street-building approaches that are still used today.

Moving ahead three thousand years, the ways people travelled and lived together changed immensely, yet up to this point, the understanding of streets as public spaces for both exchange and mobility remained. This began to shift in the 18th century, especially in European and North American streets, with wealthier populations moving away from the city centre (UN-Habitat, 2013). This process led to the emergence of polycentric designed cities, and although still a distant idea, the suburban form. Most importantly, city leaders and builders would begin to move away from creating and reinforcing a city based on a grid street system and towards one defined by a hierarchical street system that assigned different levels of importance and functions to different streets (UN-Habitat, 2013).

Social Reconstruction of Streets

It is crucial to remind ourselves what streets were like not long ago. Here, Norton (2011) offers a historical look at American streets in *Fighting traffic: the dawn of the motor age in the American city*. By 1920, most users of American streets, which mirrored Canadian streets in many ways, considered motorists as uninvited guests, as a nuisance, with motorists expected to conform to the street as it was, namely for pedestrians, horse-drawn vehicles, and streetcars. Similar to what has been described previously, streets at this time were understood as “a public service, subject to official regulation...in the name of the public interest” (p.13). In this same year, a relatively small number of motorists would frequently obstruct streets, leading to the consensus, backed by downtown leaders and enforced by police, that vehicle use on streets should be restricted. In sum, one hundred years ago, both psychologically and physically, streets were not meant for motorists, so they had to be “socially reconstructed as places where motorists unquestionably belong” (p.1).

The details of the social reconstruction of streets are well documented in Norton's work. In general, Norton (2011) describes that the change was orchestrated by motor clubs, with growing wealth and political power, which pushed the narrative of individual liberty and free-market rule for street use. Streets were to be transformed from a public utility directed by the number of people using it to a commodity to be purchased by motorists. Motor clubs successfully lobbied for one of the most fundamental changes to street use in 1925 with the *Los Angeles Traffic Code*, which constrained all downtown pedestrians to crosswalks. The code was championed by automobile clubs across California and, in 1927, was effectively reproduced as the *Model Municipal Traffic Ordinance*, which has since directed municipal traffic policies across America (Norton, 2011).

In *Reckless Walking Must Be Discouraged*, Davies (1989) offers an overview of Ontario's roadways early in the 20th century. Here, Davies documents how the Province of Ontario was more progressive towards motor vehicles than its southern neighbour. The *Motor Vehicle Act* was first introduced in the Province of Ontario in 1903 when 173 vehicles were registered, as demonstrated by the absence of motorists shown in *Figure 2*. By 1915, there were 42,346 vehicles registered in Ontario, making it the Province with the highest number of vehicles in Canada.

Similar to the mindset of the time, there remained a general unease and hostility towards motorists using the roadway in Ontario. For example, during this period, the Toronto City Council ensured that motorists would be forbidden from parking on public streets entirely (Davies, 1989). Even the Premier of Ontario was firmly against the notion that motorists could take the right of way from pedestrians.

The pedestrian has the first right of the road. The chauffeur who thinks that, because he gives warning of his approach, he is entitled to the road, is utterly and entirely wrong. He comes after the pedestrian and even after the man on the bicycle. It is not the pedestrian who must get out of the way of the automobile, but the automobile that must get out of the road of the pedestrian, even if he is standing still.
- Sir George William Ross, Premier of Ontario, 10 March 1910, as quoted by Davies (1989)



Queen & Yonge Sts, Toronto, Can.

Figure 2: Yonge Street in Toronto in this postcard from 1907 (Chuckman, n.d).

This sentiment would change in the early 1920s, as motor clubs would call for pedestrian regulation and road use education campaigns to secure the roadway for the exclusive use of motorists (Davies, 1989). The Highway Traffic Act replaced the Motor Vehicle Act in 1923, which effectively limits all pedestrian traffic on roadways to sidewalks and marked crossings (Government of Ontario, 2022). An additional consideration is the *Municipal Act*, which allows Ontario municipalities to enact by-laws for their highways, including streets, in ways that regulate or prohibit their use (Province of Ontario, 2022-b).

Concluding the history of street use, it is worth noting a century of alternative social reconstruction efforts, albeit briefly. During the 1920s in America, more than 200,000 people died from collisions with motorists, primarily pedestrians, of which most were children (Norton, 2011). In retaliation, women's groups nationwide championed public safety campaigns and public mornings to constrain vehicle use, while the media regularly vilified motorists. Although vehicle dominance grew over the following decades, pedestrianization emerged in the early 1950s, as shown in *Figure 3*. In North America, more than 200 pedestrian-only streets, or pedestrian malls, were created in the 1960s and 1970s (Schmidt, 2021), including Ottawa's Sparks Street Mall in 1967 and Toronto's Young Street Mall in 1971 (Gregg,

2019). Pedestrian malls were seen as a downtown economic renewal strategy in competition against the suburban sprawl. Because they largely failed to increase downtown shopping, most were removed in the 1980s and 1990s (Gregg, 2019).



Figure 3: Pedestrian Mall proposal for Appleton, Wisconsin, by Victor Gruen in 1953 (Gregg, 2019).

Streets as Public Spaces

To consider streets as public spaces, we should define public space. Mitchell (1995) highlights how the notion of public space often speaks to the goals of democratic societies, with public spaces representing an ideal of a free, open, and accessible forum where social interactions and political activities occur. Specifically, streets are legally owned and managed by a public institution for public use, just like a park or public square, mirroring the general interpretation of public space.

The contemporary perspective of streets as public spaces for people and not motorists has been championed by Gehl (2010) and Sadik-Khan & Solomonow (2016). Advocates of 'streets for people' often associate streets with the positive aspects of public spaces, such as their use for building community and as places to socialize (Project for Public Spaces, 2015). Describing streets as public spaces are also used by advocates to frame an unrealized and potential use of streets for the general public. Here, advocates note that streets, often representing a

municipality's largest asset, are effectively inaccessible to many residents (Transportation Alternatives, 2021). However, after a century of use dominated by motorists, the idea that streets are public spaces 'for people' seems to counter one's everyday experience of using them.

To further explore this contradiction, it is worth exploring the concept of the right to the city, illuminated by the work of Lefebvre (1996). The right of the city describes people's right to participate in urban decision-making and to shape the production of urban space. Reflecting on this idea, Mitchell (2003) notes that cities are places where interaction and exchange occur with people who are essentially different. The right to inhabit streets as spaces are met with struggle because of this difference. The 'right to the city' proposes that this struggle is necessary to create new collective ways of living and knowing, and importantly, this struggle can also create space.

A central tenet of Mitchell (2003) is that public spaces are not neutral or democratic spaces, but rather are heavily shaped by power relations in society. Public spaces, seemingly inclusive, are places of struggle and only become public when to "fulfill a pressing need, some group or another *takes* space, and through its actions *makes* it public" (Mitchell, 2003, p.35). Framed in this way, streets are a contested public space where motorists have power which, at this moment, has not been 'taken away' or 'made' by non-motorists. However, this framing obscures other types of political inequalities. For example, people of colour and trans people continue to be criminalized and harassed for being on the street, and women are targeted for violence (Gauthier, 2020). As political spaces, streets will necessarily reproduce social and political inequalities that exist in society (Pitter, 2022).

Street Reclamation

As has been described, street use has changed over time. The ways to enable this change can be wide-reaching, from attempts to change culture and language to funding infrastructure and redesigning streets. This report uses the term *street reclamation* to describe the specific effort to change street use, and it is also used to describe the intention of a School Street.

According to Engwicht (1999), **street reclamation** describes the process of reclaiming streets from motorists for play, social activity, community building, and a thriving human experience. Engwicht uses the term decidedly, with a direct effort to confront a narrative that cities would be better off if only motorists were calmed or slowed down. A better approach, according to Engwicht, is for streets to be reclaimed, both psychologically and physically. In the following section, this report will describe terms associated with street reclamation and those that also encompass the intention of School Streets.

One term that is associated with street reclamation is *tactical urbanism*. Although often more grassroots in nature, tactical urbanism refers to “a city, organizational, and/or citizen-led approach to neighbourhood building using short-term, low-cost, and scalable interventions to catalyze long-term change” (Street Plans, n.d). In recent years, a kind of municipal-led tactical urbanism strategy has used the terms of *street rebalancing* (Federation of Canadian Municipalities, 2020) and *street reallocation* (Firth et al., 2021) to describe quick-build projects and temporary changes to streets which occurred during the beginning of the COVID-19 pandemic. These initiatives closed streets to vehicle traffic, slowed vehicles (creating *slow streets*, or *quiet streets*), added patios, and installed temporary walking or biking paths, as shown in *Figure 4*.



Figure 4: 'Interim Bike Lane' was created by the City of Brampton as part of a street rebalancing effort by the City of Brampton (Mazumder, n.d).

When tactical urbanism is applied to the street and prioritizes evaluation and experiential learning to generate support for change, the concept of *street experiment* emerges. Bertolini (2020) defines street experiments as “an intentional, temporary change of the street use, regulation and/or form, aimed at exploring systemic change in urban mobility, away from “streets for traffic,” and towards “streets for people” (p.735). Bertolini (2020) categorizes several street experiments that repurpose whole streets instead of one section of a street or a parking space. These include *play streets*, which temporarily close one or many streets to motorists to allow children to play (Bridges et al., 2020), and *ciclovias* or *open streets* (Kuhlberg et al., 2014), which are recurring programs or one-off events which close streets or an entire street network to vehicle traffic and open them temporarily as public spaces (Figure 5).



Figure 5: Yonge Street in Toronto during the Open Streets Festival in 2019 (BlogTO, 2019).

Street design policies and typologies also speak to how streets are being reconceptualized or redesigned for non-motorists. For example, *road diets* (Noland et al., 2015) and *complete streets* (Hui et al., 2018) are increasingly used in transportation policies in Ontario. A growing practice is also engaged with intentionally mixing motorists and non-motorists, creating *shared streets* (Ben-Joseph, 1995), or establishing a *woonerf* (Hand, 2007). A slightly different variation is the *flexible street* (Marshall, 2018) or *flex street* (Rodriguez, 2019), which suggests that a street should meet the flexible needs of its users, and so may inhibit motorists when required. A significant difference between these policies and School Streets is that while the policies mentioned above may limit motorists, their intention is not to accommodate them and, therefore, may fall outside of what is understood as street reclamation.

To close, the term street reclamation contests motorist street use. One street reclamation effort is a tactical urbanism implementation of a street experiment that emphasizes evaluation and experiential learning as elements to drive change in street use. Seen collectively, street reclamation and street experimentation best exemplify the method and intention of a School Street.

School Streets

School Streets originated in Bolzano, Italy, in the early 1990s to manage traffic during school pick-up and drop-off periods. It was only until the last decade that the idea spread through Belgium and Scotland, and it is now estimated to be practiced in 17 countries (Advocacy Hub, 2022), as shown in *Figure 6*, with more than 500 School Streets in place in London, United Kingdom alone (Mayor of London, 2022). In 2019, the first School Street was established in Toronto over four days (8-80 Cities, 2022). Between the 2021-2022 school year, four School Streets were piloted across Ontario in Markham, Hamilton, Kingston, and Mississauga (*Figure 7*), under the direction and support of the non-profit organizations 8-80 Cities and Green Communities Canada (8-80 Cities, 2022).

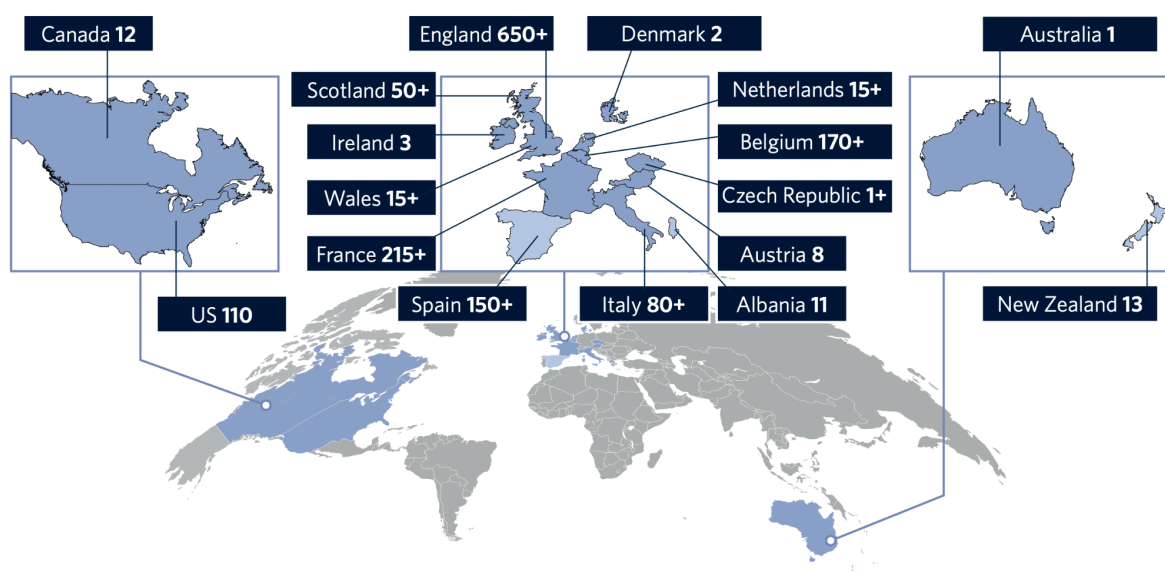


Figure 6: School Streets by Country (Advocacy Hub, 2022).

While still a novel approach, some research has sought to document its overall impact and benefits. Child Health Initiative's Advocacy Hub (2022) offers a recent and comprehensive analysis of School Streets as they are practiced across the globe in *School Streets: Putting Children and the Planet First*. This report cites research that found that School Streets reduced the number of vehicle journeys to school, increased active travel, improved air quality, created a calmer and safer environment, encouraged independent mobility, and supported community and social connections. In the 8-80 Cities' *Ontario School Streets Pilot Summary Report* (8-80 Cities, 2022), the evaluation found similar results and added that School

Streets raised awareness of road safety issues and explicitly did not increase traffic on surrounding streets. Both reports found that the response to School Streets from caregivers, children, and school communities was overwhelmingly positive.



Figure 7: School Street in Mississauga held between May and June of 2022 (Green Communities Canada, 2022).

It is worth noting that several recommendations have been made regarding the opportunities and barriers facing School Streets. The borough of Hackney, outside of London, United Kingdom, speaks to these strategies in their guidebook for professionals seeking to establish a School Street (Hackney, 2021). Advocacy Hub (2022), offers a list of conditions that supported its growth, such as the growing evidence regarding the multidimensional environmental impacts of vehicle use, the success of complementary people-centred and low-cost initiatives, the desire for more social distancing during COVID-19, and strong political leadership. Their recommendations for growth include streamlining the navigation of street use legislation, taking a city-wide approach, and, importantly, promoting School Streets to make life better for children.

Investigating Ontario's recent School Street experience, Smith et al. (2022) note that synergism between four mechanisms is needed to successfully launch a School Street: partnerships, legitimacy, community mobilization, and collaborative governance. Municipal and school support is essential for establishing legitimacy and collaborative governance for a thriving School Street. On a final note, *Ontario School Streets Pilot Summary Report (8-80 Cities, 2022)* reviewed the recent pilots established in Ontario and offers additional recommendations for school communities. Their report suggests assembling a municipal and school staff team, incorporating School Streets within active school travel programs, and linking School Streets to broader policy changes.

Chapter 3: Methodology

Purpose

This study aims to investigate the implementation of Schools Streets in Ontario to reveal implications for broader street reclamation efforts in Ontario. The following questions guided the research:

1. What are the defining features of School Streets in Ontario?
2. What barriers hinder the establishment, growth, and sustainability of School Streets in Ontario?
3. What strategies should School Street proponents consider when launching and scaling School Streets in Ontario?
4. Considering the experiences of School Street stakeholders, what are the implications for street reclamation efforts in Ontario?

Approach

The research approach is based on pragmatism, oriented towards solving practical problems and valuing objective and subjective knowledge. (Creswell & Clark 2017). This study relied on a literature review of the context and terminology surrounding street reclamation efforts and School Streets, as well as key informant interviews to document the experiences of School Street stakeholders. The researcher's experience as an implementer of a School Street was also used to frame and guide key informant interviews and add to the findings.

Geographic Scope

The geographic scope of the research is the Province of Ontario in Canada. As School Streets have only been implemented in southern Ontario, data collected from key informant interviews will relate to the context in which they were operated. As such, it should be noted that School Streets have only been implemented in the Ontario municipalities of Toronto, Markham, Mississauga, Hamilton, and Kingston (8-80 Cities, 2022). With this geographic limitation in mind, additional effort was made to include data from other regions of Ontario, as well

as one School Street, which was initiated in British Columbia, for data validation purposes.

Literature Review

To better understand the context and terminology of street reclamation and School Streets, a review of academic literature was conducted using Queen's University Library and Google Scholar using the following search terms: *public space, streets as public space, school streets, tactical urbanism, street rebalancing, motor vehicle history, pedestrian legislation, and Ontario vehicle legislation*. Since School Streets are a new practice with limited peer-reviewed literature, non-academic sources were also consulted to gain a deeper understanding of the issue. The literature review findings helped justify the research questions, categorize the study findings, guide recommendations for School Streets, and, considering the historical and contextual background, frame the implications for street reclamation efforts in Ontario.

Key Informant Interviews

The researcher conducted key informant interviews with eleven School Street stakeholders. Interviews were chosen because they provide a more in-depth and personal understanding of the stakeholders' experiences and perspectives compared to other data collection methods, such as surveys or focus groups. Interviews supported the use of direct quotes to provide evidence of emergent themes. Additionally, interviews using video conferencing software allowed for remote participation, which was more convenient for the researcher.

Given that this research involved human subjects, approval from the Queen's University General Research Ethics Board (GREB) was required. A GREB application was submitted in October of 2022 and was approved in December of 2022. Once authorized, an initial set of School Street implementers were identified through publicly available School Street webinars and educational material. Snowball sampling was also used whereby each interviewee was asked to provide contact information of other relevant School Street stakeholders and interest groups. In some cases, these stakeholders were contacted for an interview. Ten key informant interviews with eleven stakeholders were performed between January and March 2023.

The eleven stakeholders represented one of three different roles defined accordingly:

- Implementers: Stakeholders who led the implementation of a School Street. Implementers may represent a municipality, school board, or non-profit organization depending on how the School Street was structured.
- Proponents: Stakeholders who advocate for the implementation of School Streets within their municipality or Province. Proponents included people with and without experience in School Street implementation.
- Reviewers: Stakeholders who work for municipal departments are responsible for providing technical review and approval of street permit applications. Reviewers included those with and without experience in School Street implementation.

Of the eleven stakeholders, five were implementers, two were proponents, and four were reviewers. It should be noted that some stakeholders represented more than one stakeholder role.

Interviews were recorded using Microsoft Office Teams video conferencing software. All stakeholders were aware that their participation was voluntary and that unidentified quotes would be used in the report. The interviews were semi-structured and sought to understand each stakeholder's experience and perspective of School Street implementation barriers and opportunities for scale.

Interview transcripts were then coded inductively (Thomas, 2003), whereby the raw textual data was read and interpreted by the researcher and then categorized into an emerging set of concepts and themes. Following the completion of the interviews, all transcripts were reread to confirm that textual data was captured into relevant concepts and themes. Common themes and concepts with relevant unidentified quotes were summarized into the appropriate research response categories and are detailed in this report's findings.

Researcher Experience

The researcher of this report is part of the leadership group involved with implementing two School Streets in Kingston, Ontario. Specifically, the researcher led and coordinated one School Street initiative, which has operated every school day since September 2023, intending to continue into the foreseeable future. As such, the first-hand experience of the research was used to frame and guide key informant interviews, as well as a way to clarify and add to the findings, recommendations, and implications detailed in this report.

Chapter 4: Findings

Features

A School Street is a model that has a variety of features. This section offers an overview of its various intended objectives, stakeholders and roles, and formats.

Objectives

School Streets create active, safe, and better mobility options

The most commonly noted intended purpose of School Streets was to encourage active transportation, improve overall safety, and create better travel options, especially for children. The logic in this approach is that by closing a street in front of a school to vehicle traffic, pedestrians and cyclists feel safer and will be more likely to use active travel modes to get to and from a school. School Streets, in this way, form one part, or one street (*Figure 8*), of a more extensive travel network used by people and children to get to and from school every school day.



Figure 8: Children walk to school during a School Street in 2022 (Uriona, 2022).

Stakeholders offered different perspectives of what was meant by an improvement in safety. For example, increased safety was discussed in relation to the decreased risk of pedestrian injury or fatality caused by a vehicle collision. Some stakeholders connected safety to a feeling of well-being, decreased stress, and a perceived increase in the sense of safety due to the absence of vehicles. A better travel route was not only described in terms of safety and also as a reliable route that could be social, positive, and encourages independence. This difference in these perspectives suggests that communication campaigns and evaluation metrics may differ depending on how stakeholders understand the potential benefits of School Streets.

Active transportation is a healthy and normal way of travelling, and we should be prioritizing how we can support that over just how people get to school in cars. - Implementer #1

[School Streets] improve the safety and well-being of children and caregivers in the space, especially on the school journey. - Proponent #2

Parents don't feel safe taking their kids to school by bike or by foot because there is too much [vehicle] traffic around the school. So [School Streets make it] safer and easier to drop [kids] off. - Proponent #1

School Streets relieve congestion, decrease vehicle use, and disrupt driving culture

Some stakeholders considered School Streets as a potential solution to relieving vehicle congestion in front of a school during pick-up and drop-off periods. By restricting vehicles on the street, other modes may gain favour, thereby decreasing private vehicle use and relieving congestion. Also, vehicle traffic may disperse to other areas, thereby decreasing overall vehicle intensity on nearby streets. Some School Street implementers went further to describe how School Streets, by decreasing private vehicle use, met a municipal goal for lowering vehicle emissions as part of a municipal climate change-related strategy.

Along these lines, a recurring theme was the intention of School Streets to disrupt the culture of driving children to school. School Streets, in this way, interrupts a long-held narrative around street use and provides an experiential example of a new and safer way that the street could be used.

There's been a real shift towards the culture of driving to school as maybe the most legitimate way of getting to school. We see lots of investment from school boards and things like kiss and rides... that is not really questioned... I like the idea of the School Street to turn that on its head. - Implementer #1

[School Streets] are about safety, reimagining and rethinking the role of streets and the role they play in our cities and for children's lives. - Proponent #2

School Streets build community

By creating an environment that welcomes pedestrians, School Streets can create a better place for people to meet, interact, and support positive neighbourhood relationships. Stakeholders often shared how the relationship between the school community and its neighbourhood residents improved through program planning and community engagement. Caregivers also had extra time and space to socialize with other peers during pick-up and drop-off times. Although these examples of community-building were described by many stakeholders, stating this intention as an explicit goal of a School Street was uncommon.

[School Streets are about] creating a better space for kids, but it's also creating a better space for residents... we're creating better neighbourhoods, we're creating better places to live. - Implementer #3

School Streets can be used as a multi-faceted policy tool

Stakeholders would often speak about how School Streets effectively supported various established municipal policy goals such as road safety plans and municipal active transportation master plans. Indeed, there are likely other municipal, provincial, and school board-related policies which speak to the goals of public health, community development, and youth development, which could use School Streets as a tool.

[A municipal transportation department must] recognize the tremendous value of School Streets as an implementation device to support their broader efforts on increasing active mobility, meeting climate goals, reducing fatalities, increasing sense of safety, improving air quality... there needs to be a commitment from

[municipal transportation services] to say [that] this is not just something that we're gonna react to, but that we're gonna integrate this. - Proponent #2

Stakeholders & Roles

Eleven general categories of stakeholders were identified as being involved in implementing a School Street. These include, in alphabetical order, construction companies, councillors, municipal legal and risk management services, municipal transportation services, non-profit organizations, parent councils, police, school administration, school boards, school caregivers, street residents, and School Street volunteers.

To clarify, municipal transportation services may refer to various departments such as Traffic Operations, Public Works, Engineering, and Transportation Services. Non-profit organizations may refer to local, provincial, and nationwide non-profit organizations engaged in issues related to pedestrian safety, active school travel, and recreation. School administration refers to principals and other related school leadership but does not include school teachers specifically. Also, it should be known that not all stakeholders were involved in implementing every School Street. For example, construction companies were infrequently used to activate a School Street to manage street barriers.

The interest and power of each stakeholder change depending on a School Street's phase of implementation which includes program development, permit navigation, and activation. In practice, each implementation phase is not necessarily distinct or linear, and each phase may even coincide. The implementation phases are defined accordingly:

- Program Development: School Streets are often introduced as a program to be developed within a city, school, or school board and may include a visioning role. School Streets also require a coordinated body to lead or advise its implementation.
- Permit Navigation: School Streets require permission from a municipality when using a public roadway for a different use other than what is currently supported by provincial and municipal authorities. Permit navigation often involves submitting the road closure request, a municipal technical review, and permit approval.

- Activation: Once a permit is approved, activation involves informing relevant stakeholders before, during, and following the School Street's conclusion; procuring equipment; recruiting and training volunteers. Activation may also include **street animation** referring to structured or unstructured interactive activities that occur inside a School Street such as the use of chalk on the street or ball games.

In order to provide an analysis of each stakeholder by implementation phase, a power-interest grid, described by Bryson (2004), was used and is demonstrated in *Figures 9-11*. These power-grids offer a subjective assessment to clarify typical roles by stakeholders, but it is not meant to be representative of every School Street in Ontario.

Reviewing this grid, a few points are worth considering. *Figure 9* shows how municipal transportation services, non-profit organizations, and school boards hold the most interest and power during program development. During this phase, parent councils, school administration, and councillors also have a high level of power, effectively offering support and permission to the lead implementation group to move forward with their proposal.

Stakeholders shift positions during permit navigation, where the power and interests of municipal stakeholders, such as legal services, risk management, and the local police service, are concentrated (*Figure 10*). Stakeholders shift again during the activation phase, where non-profit groups and School Street volunteers are the most engaged (*Figure 11*). During the day-to-day activation, those who have high power but low interest, which must be 'kept satisfied' according to Bryson (2004), are school caregivers, street residents, and parent councils.

It should be noted that there were other stakeholders whose involvement was not directly identified, but likely had interest and power in its implementation. These stakeholders include teachers, public health practitioners, and students of the school.

We knew that [the councillor] needed to be involved. We worked with the school board, we connected with permitting and transportation... we had to do all that work. - Proponent #2

Although the project was led by city staff, we had an advisory group that had partners from both of the school boards... then from the student transportation consortium that provides school buses... also representatives from a [safety] committee made of citizen members. [All these partners] were all involved in the planning [of a School Street], but the city staff were involved in the actual implementation. - Implementer #1

[School Streets were] initiated as an idea from our [municipal] team and we brought [it] to the school board, got their buy in, and we looked for [where to] pilot it - Implementer #2

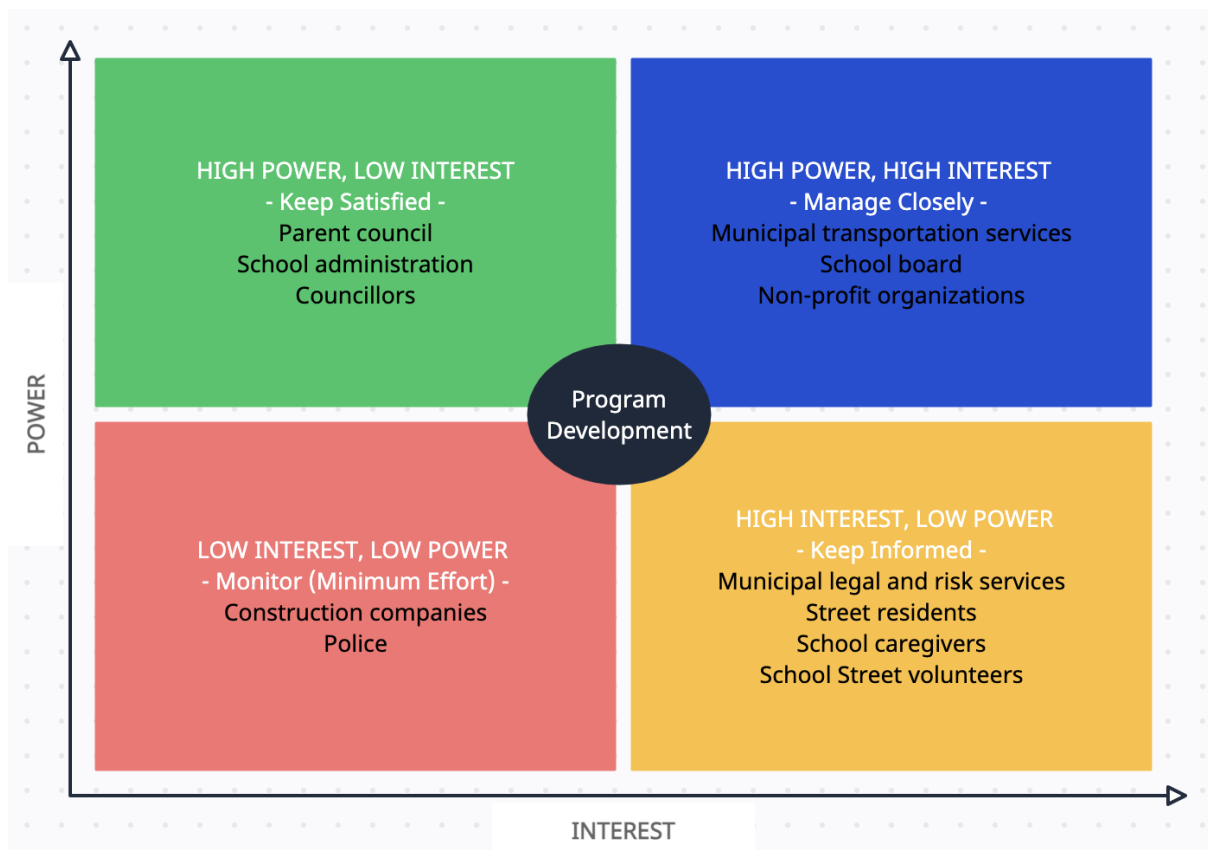


Figure 9: Power-interest grid for School Street stakeholders during program development.

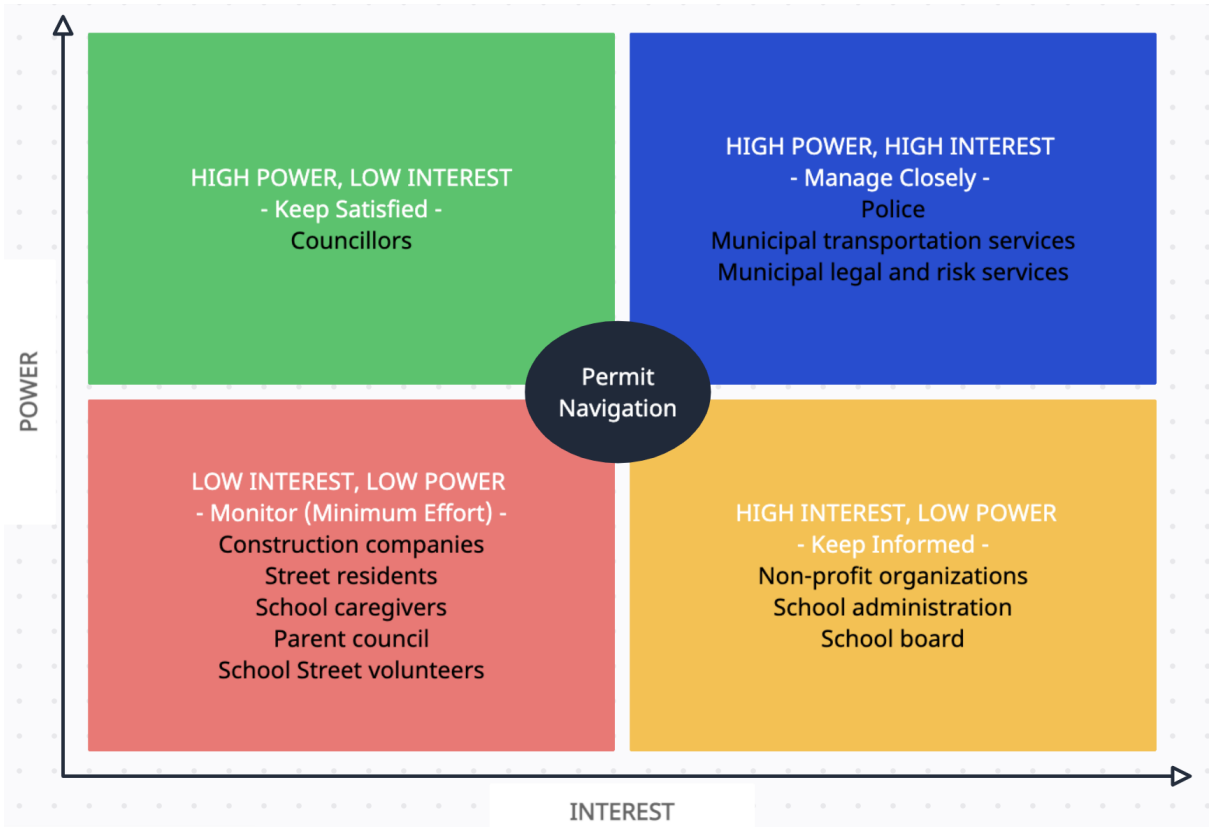


Figure 10: Power-interest grid for School Street stakeholders during permit navigation.

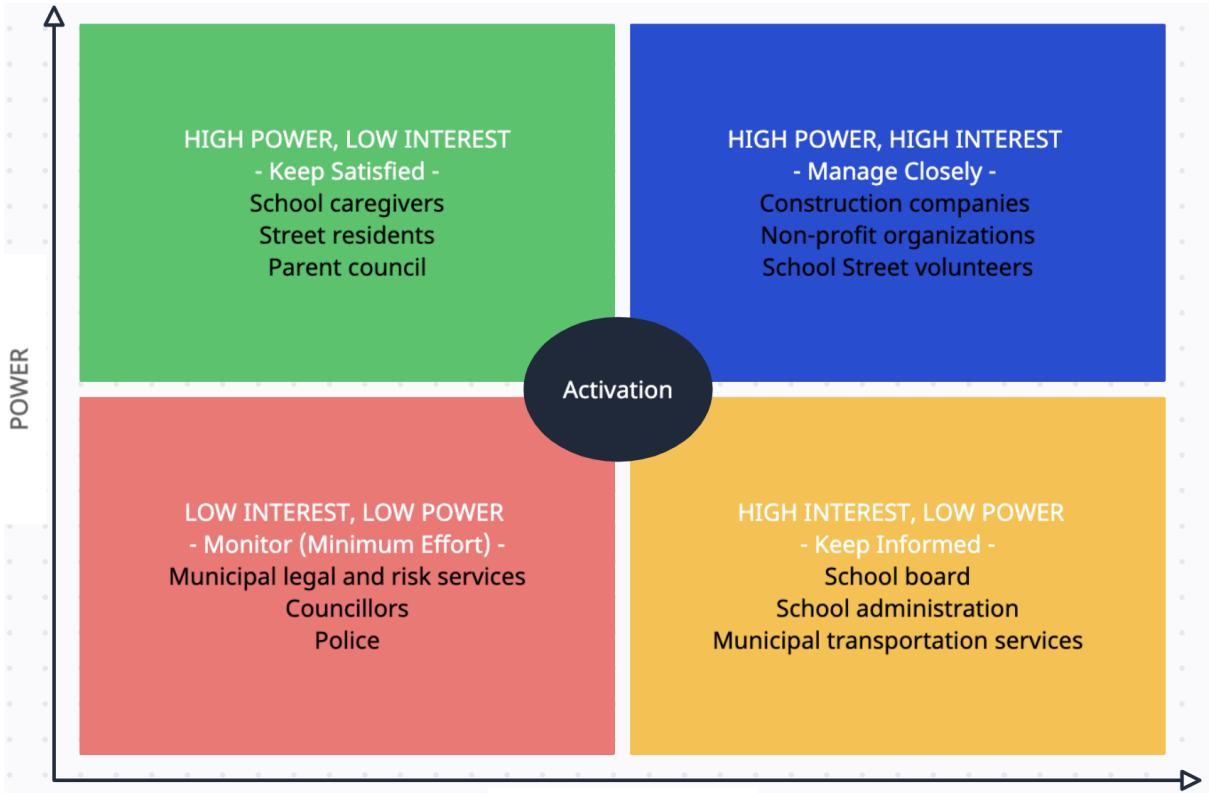


Figure 11: Power-interest grid for School Street stakeholders during activation.

Formats

This section presents a variety of format options that guide the implementation of a School Street. The horizontal line in the spectrum column represents the separation between two format options, with an X approximating the format currently implemented in Ontario.

As is shown in *Table 1*, most School Streets in Ontario were developed by paid staff, were permeable to specific vehicles, short-term in nature, and used temporary plastic A-frame barricades. There was a mix of interpretations for who should be in charge of activation and whether animation was to be regularly coordinated.

[School streets can be anywhere between] free open pavement that the community can use as they like... to having more public amenities in that space. So do you have seating, do you have picnic tables? Do you have painted murals, [are you] collaborating with the school and the local community to design and bring that space to life?... It kind of depends on each site and what that street looks like...[and] how it might link to other projects in the area. - Implementer #2

Table 1: A variety of School Street format options chosen in Ontario

	Format Option #1	Spectrum	Format Option #2
Program development	Volunteers: community groups	<-----X-->	Paid staff: municipal staff, school board staff, advisory group
Street permeability	Partly open: School buses, residents, municipal services, emergency services may enter and exit a School Street with a volunteer, some times called street chaperone	<-X----->	Closed: Emergency services only
Barricades	Temporary: Plastic A-frame barricades	<--X----->	Heavy-duty: concrete and water-filled barricades
Time length	Short-term: one week, once a week, one month, two months	<---X----->	Long-term: Every school day
Closure area	One street closed	<---X----->	Two or more streets: intersecting streets surrounding the front of a school
Activation lead	Volunteers: residents, caregivers, community groups, post-secondary students	<-----X----->	Paid staff: municipal staff, teachers, third party barrier company
Animation	Sporadic play and activities still possible but not coordinated	<---X----->	Programs and play equipment regularly coordinated

Barriers

School Street stakeholders revealed several barriers that hindered its establishment, growth, and long-term sustainability. This section describes the most frequently cited barriers facing School Streets and is organized by the three implementation phases.

Program Development

Municipal skepticism

Some municipalities were disinterested in School Streets, skeptical of its value, and concerned about its impact on residents. As previously identified, municipalities tend to be stakeholders with high interest and power in program development and permit navigation of a School Street, so their support in its establishment and scale is essential. Along these lines, some municipal staff went further to support the 'rights' of School Street residents to access their homes by vehicle. This perspective may hinder School Streets' scalability, especially if municipal staff value such residents more than those who use a particular street to get to school.

Municipalities also tended to frame School Streets as a site-specific solution, such as seeking to relieve vehicle congestion at one school site. This type of framing and site-specific evaluation may not capture proponents' broader intention for School Streets, which include increasing children's independence, decreasing vehicle usage city-wide, and building a sense of community.

[The municipality has] gotten everything (the benefits of School Streets) with sort of a veneer of "this is awesome" and... "this is really gonna be fantastic". But we really wanna drill down and get a better sense of what were the impacts on the community from a vehicle displacement perspective. For me, honestly, I don't want to shift a problem. I don't wanna shift the chaos that's in front of the school to [other] streets. And I'm not sold on a paradigm shift that people are just all of a sudden going to click and say, "you know what, this is fantastic. I don't have to drive my kid to school anymore." - Reviewer #1

What is the problem or what is trying to be solved [by implementing School Streets? Is there vehicular congestion in front of the school during pick up and drop off that we're trying to dissipate? Are there safety concerns in front of the school related to motorists behaviour, speeding or parking noncompliance? What is the problem that's trying to be solved? - Reviewer #3

Conflicting perceptions of leadership roles

A consistently cited conflict was the difference in opinion regarding which stakeholders should take the lead role in implementation. In *Table 2* below, direct quotes from stakeholder interviews highlight arguments for and against the potential leadership role of specific stakeholders. The quotes provide evidence that different stakeholders have different weaknesses and strengths regarding the establishment and scale of School Streets.

This difference in perception of roles may weaken the potential for one clear stakeholder to take charge across Ontario. As a School Street is a novel practice without a system to reproduce it, it will not occur without someone or some institution leading it. Leadership is also required to guide and coordinate the various stakeholders involved in its implementation. Without leadership in the implementation, School Streets will be unable to be established and will prove difficult to scale across a municipality, school board, or Province.

Table 2: Quotes from stakeholders regarding which stakeholder is best suited to lead the implementation of a School Street.

Sentiment	For	Against
Municipalities should lead School Streets	<p><i>[Municipalities] own the roads. We [school boards] don't own the roads. We can advise and educate as much as we can and encourage the school community. But again, don't own the roads. - Reviewer #3</i></p> <p><i>[A municipality] either has the resources or it has control of the resources which you would need to operationalize the School Street. - Proponent #1</i></p>	<p><i>Who would be most appropriate? That's the \$1,000,000 question. Who wants to take this up? Who wants to own the liability piece? Who has the amount of labour consistently that's willing to pay to put this in? I can tell you that it won't be the city. - Reviewer #1</i></p>
School boards should lead School Streets	<p><i>Who closed down neighbourhood schools and forced people to go to bigger schools farther away? So [school boards] have to come up with a plan to get kids safely to school. - Implementer #4</i></p> <p><i>[If] the ownership of the program would be for the school board, then it could choose which schools it would want to, because obviously it knows its community better around the schools. The way I see it is it's a [school] community building initiative. - Reviewer #4</i></p>	<p><i>There's some trepidation that [school boards] do not want [School Streets]. They are educators. They are focused on education. They see [School Streets] as [controversial]...Principals are overwhelmed with all kinds of [other] issues. - Propopant #1</i></p> <p><i>[School boards are] not going to allow the teachers to go off site to man a barricade to walk kids in. [Teachers are] not going to be leaving the property, so that excludes every school board. - Reviewer #2</i></p>
The school community should lead School Streets	<p><i>[The community] are the experts, they have to have buy-in and have the capacity for this type of program...It really does take kind of a detailed proposal and look at it and consideration and a team of people, whether it's school community or broader community that are willing and able to implement it. - Reviewer #3</i></p>	<p><i>If a community organization wanted to do a School Street, it would be a very big barrier [without technical expertise on streets use]. - Proponent #2</i></p>
A third party or non-profit should lead School Streets with support from a municipality	<p><i>Having a strategic partnership in place where [municipalities] recognize, "hey, we don't have this capacity within our organization". Having a third party help us do the engagement and set up the actual operation of a School Street would be helpful, but [municipalities] have to make that commitment...put that budget aside. - Implementer #4</i></p>	<p><i>[The municipality] tried contracting a nonprofit to lead all aspects of volunteer coordination to try and alleviate that burden from school communities. And what we found was that without having the kind of social capital and connection within that school community, it was really difficult to get volunteers. - Implementer #2</i></p>

Divergent assessments of risk

Many stakeholders offered a variety of perceptions of risks involved in a School Street. Many were also uncertain about how best to assess risk and relied on legal and risk management professionals within or outside a municipality to guide their understanding of risk. There were also divergent assessments of risk in terms of the risk involved when forbidding motorists from a street. For example, one stakeholder suggested that the overall risk of injury is decreased without vehicles, while another argued that risk is increased because of its permeability.

When a stakeholder is willing to lead a School Street, their perspective on risk is a barrier as it creates additional work to evaluate and manage the risk, which may slow or pause its implementation. If the risks seem overwhelming to a stakeholder, their interest in establishing, sustaining, or scaling a School Street will likely be limited or even antagonistic. Divergent interpretations of risk may also diffuse support to solve, manage, or eliminate risk and may put stakeholder partnerships and long-term sustainability in conflict if one partner sees the other as more cautious than is required.

The following themes were mentioned by key informants as perceived risks of implementing a School Street (see [Appendix Section A - School Street risk](#)). In general, it was stated that there would be an increased risk to School Street stakeholders due to the following conditions:

Change to road use conditions	Injury by collision due to permeable street	Lack of precedence	Lack of authority
Chaos due to lack of preparation and capacity	Backlash from local residents	Being sued	Use of untrained volunteers
General use of roadway	Congestion pressure on nearby streets	Loss of children	

Any location where motor vehicles do or can travel, may be dangerous. By preventing most motor vehicles from entering the block, the danger to residents on

the street and sidewalk is significantly decreased, although it does remain. Those using a School Street do have a chance of injury, however, no more than a typical street with similar traffic volumes. - Municipal email correspondence to Implementer #2

We knew we were allowing cars in. But that was seen as less risky than not letting them and getting the neighbours mad...we might have faced backlash...[this] might have potentially put the project at risk. We wouldn't have been able to run it if the councillors felt that there was too much pushback from their residents. - Implementer #1

School site selection limits

Before a School Street can occur, a school must be chosen to host it. Every stakeholder discussed the selection process for identifying an appropriate site for a School Street with different levels of apprehension. At a high level, any street in front or near a school could potentially become a School Street; however, in practice, there were a significant number of considerations that each stakeholder assessed when selecting an appropriate school site. Many municipalities created a novel set of criteria severely limiting the number of schools that could potentially host a School Street.

The School Street selection criteria offered less weight towards school community buy-in or access to volunteers, and was more concerned with the classification of roads that would be closed, a school's catchment area, and whether School Street residents' use of a vehicle would be accommodated. Not only does this criteria constrain School Streets to a much smaller number of schools, but it also highlights factors heavily entrenched in an auto-centric mentality. For example, School Street stakeholders limited themselves to local streets, with most arguing that closing arterial and high-volume roadways would be inappropriate. Caregivers, for their part, expect to be able to send their children, by vehicle or by bus, to any school they choose, no matter the distance from home. In this way, the criteria are based on an auto-centric landscape and culture, which will generally inhibit the implementation of School Streets.

We acknowledge that we cannot do School Streets everywhere. We as much as we would love to do it ... I think we acknowledge that it's not a fit in every setting. - Implementer #3

There's a lot of schools in [the city] where the road is just too busy to make it feasible to close to cars. But then that also kind of begs the bigger question... if we want to promote walking, why are we putting schools on these streets that have such heavy traffic? That's not really an ideal walking location for kids. - Implementer #1

There had to be alternate ways that traffic [could move during a School street]...[People would say] "what are we gonna do with the cars? We can't disrupt the car." So we needed to make sure [School Streets are] a place where no one is really going to be put out and inconvenienced. - Implementer #1

[People would say] "are you teaching kids mixed messaging that it's safe to be on the street now?" and "how will they know that it's not safe tomorrow?" I think there's still that societal push back from some people. - Implementer #2

Permit Navigation

Road permit requirements and costs

Those who attempt to implement a School Street require permission from a municipality in the form of a permit of some kind. In Ontario, municipal road use permits are inconsistent and go by different names, such as road occupancy, temporary road closure, or special event permits. For municipal staff to apply for a permit, the process was relatively straightforward as the required knowledge of the permit process is either already known or accessible through existing internal relationships. Indeed, these internal relationships make permit navigation and approval significantly easier for municipalities when establishing a School Street.

The process was viewed as exhaustive to those outside of a municipality, such as non-profit organizations and school boards. Outside the permit application, the more significant barrier was proving that the School Street stakeholders had liability insurance. In one instance, the cost of insurance came to \$5,000. In some instances, the municipality would not approve a permit for an outside group, which meant the outside group had to navigate the legislative process of seeking formal approval from the municipal council. These barriers will likely hinder those

with limited or no experience navigating bureaucratic processes and those who need more funding or extensive liability coverage.

We had a couple of people that were our friends from our team on the [permit approval review]. We work with [them] all the time and so they more or less pulled some strings to help us out to get this event going. - Implementer #5

[For community groups] starting to explore this process and then finding out, you know, well insurance [requirement] was one turn off, but just not knowing who to contact, not knowing what was involved in the first place and having to research all that would have been pretty daunting for a neighbourhood to do... just knowing where to go, knowing that you can even do it was kind of a barrier. - Proponent #2

Any party who is applying for a road closure permit is required to have public liability insurance in the amount of \$5 million which is required to cover all risks and to [the School Street stakeholder] in the event of a person who may make a claim against them for their actions. That's standard across all applicants who are seeking a road closure permit and it reflects a requirement that's relatively consistent across the province as well. - Reviewer #3

Legislative uncertainty

By closing the street temporarily to vehicle traffic, School Streets are neither clearly permitted nor necessarily forbidden under existing guidelines or legislation in Ontario. While most municipalities modified an existing permit system, there was no clear legislative pathway for municipalities to run a School Street without updating their own municipal by-laws. The legislative uncertainty and lack of Provincial guidance act as a barrier towards its establishment and scale in Ontario.

[The Ontario Highway Traffic Act is] largely silent on or does not contemplate this type of road closure (School Streets)... it isn't necessarily clear how a municipality as a road authority is to actually close a road. - Reviewer #3

Looking at the landscape of permits that are available for closing the roadway or repurposing the roadway, because it is in essence, closing it to vehicular traffic...[the municipality] has nothing that targets that specific use. - Reviewer #1

Activation

Requirements for barricades and volunteers

Municipalities required stakeholders to set up barricades to close the street to vehicles. In most cases, this task was performed by volunteers twice each day (*Figure 12*). Some stakeholders suggested that the requirement for volunteers and barricades masks the street design's flaws, effectively accommodating fast-moving vehicles.



Figure 12: School Street volunteers who were caregivers would often set-up and monitor the barricade with their children in Kingston (own photo).

Accessing barriers was relatively easy for most School Street stakeholders. However, a third-party construction company was required to place barricades at \$800 per closure in one case. In this instance, as a School Street closes a street twice daily, the cost could have totalled \$32,000 at one school if it had been run for an entire month.

The immediate cost of hiring a construction company to monitor barriers would have been a significant barrier for School Streets. Primarily for School Streets, which ran for a month or more extended periods, the requirement for volunteers was the most cited barrier to the program's establishment and sustainability.

[The municipality] basically said if we had any less than [six volunteers per School Street], we couldn't operate it. - Implementer #4

In the other [school communities], there wasn't enough momentum to carry on daily volunteer shifts for the duration of the school year. - Implementer #2

I can't tell you the number of times somebody's asked for retractable bollards, because wouldn't that be great to just pop something up and then the Principal could go back inside and at the end of the half an hour, they can pop it back down. - Implementer #2

Chapter 5: Recommendations

The original purpose of this chapter was to offer advice tailored to specific audiences, such as school boards and non-profit organizations, based on their capabilities and expertise. However, after conducting a thorough literature review and research, it has become clear that the most effective approach would be to create a focused list of recommendations for municipalities as the essential enablers of School Streets in Ontario.

This recommendations chapter is therefore intended solely for municipalities that are either considering or currently implementing School Streets. Municipalities should be guided by the following ten steps to launch and sustain a School Street successfully.

1) Seek delegated authority

Investigate whether the municipality has the delegated authority to close streets to vehicle traffic. If the delegated authority does not exist, seek to have it granted through a vote from the municipal council.

2) Form an advisory group

Establish an advisory group of relevant stakeholders, such as school board members, non-profit organizations, and school community representatives, to guide the purpose, scope, implementation, and evaluation of a School Street. It is also vital to explore and document the school communities' unique concerns, interests, and goals.

3) Gather relevant school data

With support from an advisory group, gather relevant data for every school within a municipality to guide School Street site selection. Data could include nearby road classification, area density, and equity-related factors (see [Appendix Section B - School data](#)).

4) Establish a list of schools

Based on the selection criteria, establish a list of schools to prioritize. Outreach to each school's administration and parent councils and inquire about their interest in implementing a pilot School Street program.

5) Manage perceived risks

The risks involved in School Streets can be mitigated and managed, while liability can be clarified and made a shared responsibility with the stakeholders involved. Municipalities can add parties under their general liability policies. It is recommended that all stakeholders work together to consider various strategies to manage risk, including creating a Memorandum of Understanding between partners and establishing a mutual indemnification agreement (see [Appendix Section C - Risk management strategies](#)).

6) Demonstrate School Streets as proof of concept

Support and guide school communities to establish their first School Street as a proof of concept. Framed as a pilot, School Streets offer caregivers, students, and the surrounding neighbourhood a tangible example of a different way to experience life in a city and on the street. Stakeholders can actively use School Streets to engage with residents and learn about their concerns. As an iterative model, School Street stakeholders should actively test strategies, capture stories, evaluate outcomes, promote results, and quickly alter or expand plans.

7) Evaluate and propose a long-term role

It is important to review and validate the results with an advisory group and newly engaged School Street stakeholders and form new goals collectively. Strive to consider the role of School Streets as one of many tools to be applied within a transportation system in tandem with other mobility strategies as well as complementary to other municipal or provincial policies. For example, it is worth reviewing how School Streets can pair or be embedded with existing municipal initiatives such as Vision Zero plans, emission reduction targets, active school travel programs, crossing guard programs, and traffic calming policies.

8) Expand labour roles

The use of volunteers to set up and monitor School Street barricades should be temporary and for use only as a proof of concept. Requirements for multiple volunteers, often caregivers, to monitor a barricade also privileges schools that have access to caregivers with free labour to offer. Instead, consider expanding the role of crossing guards and integrating existing supervision aids (see [Appendix Section D – Labour roles](#)).

9) Create a streamlined application system

With guidance from an advisory group, create a streamlined School Street application process which includes templates that would assist applicants in communication plans with relevant school community stakeholders. Through this process, the municipality should be prepared to access and deliver standardized road closure materials to schools. The data provided by the applicant should be minimal, while the bulk of the application details and the approval process should be led by the municipality (see [Appendix Section F – Application requirements](#)).

10) Use of a variety of forms

Utilize a variety of School Street forms in order to understand what works best in different contexts and to garner support from new partners. Alternative forms include paired programming, clustered pathways, and permanent closures (see [Appendix Section G – Forms and strategies](#)).

Chapter 6: Implications

The experiences of School Street stakeholders have implications for the on-going efforts toward street reclamation in Ontario. This final chapter will discuss these overarching themes for those seeking long-term strategies to both physically and psychologically reclaim Ontario's streets.

We need to change legislation

There needs to be a targeted inquiry into what types of legislative documents are most appropriate to alter in order to allow or direct municipalities to confidently establish School Streets and other non-motorist street use in Ontario. There are multiple legislative avenues which should be investigated, including the *Ontario Highway Traffic Act*, *Ontario Traffic Manuals*, Ontario's road classification system, and complete streets policies (see [Appendix Section H - Legislative changes](#)).

We need bollards

There should be a focused investigation into and advocacy for the appropriate use of infrastructure which benefits pedestrians. One consistently suggested piece of street infrastructure recommended by School Street stakeholders was the installation of bollards, short vertical posts that are often used to separate vehicles from pedestrians. Bollards are familiar sights in many parts of the world and can be permanent, retractable, removable, or automatic. As such, bollards should become a main feature of every school (*Figure 13*) and every area of high-pedestrian activity.



Figure 13: Retractable bollards are set up for School Streets in the London Borough of Haringey (Sanderson & Addy, 2022).

We need new stories

Street reclamation advocates have campaigned on increasing pedestrian and children's safety, creating better neighbourhoods, improving overall health, and being more efficient in the utilization of public space. These are all valid arguments; however, they are the same campaigns outdone by motor vehicle clubs that successfully lobbied for anti-pedestrian legislation a century ago (Norton, 2011). This does not indicate a lack of effectiveness in these contemporary messages. Instead, it highlights the need for innovative narratives to convince and engage unlikely proponents while encouraging broader participation from diverse groups.

Providing an emotional story rather than one rational or logical one resonates in public messaging. Here, there may be an opportunity to promote the value of joy in street reclamation and street use. Simply put, it feels great to be on the street with friends. Another story is that 'streets are public spaces,' a central theme in this report. This narrative positions the street to mirror the values and images associated with a park, a public square, or a beach in that it is something that we

share, steward, and cherish together. Another story, while seemingly contradictory to the intent of street reclamation, is the potential benefit to motorists. The story here is that closing one road prioritizes another for motorists. Street reclamation advocates could argue that they are effectively 'making the right roads right for drivers.' Altogether, a wide variety of public messages should be used to promote the benefits of street reclamation in Ontario.

We need strong evidence

Throughout this research, there were a number of assumptions made by School Street stakeholders in terms of the perceived risk and impact of School Streets. One common assumption was the correlation between the School Street implementation and the increase in vehicle traffic to nearby streets. While the City of Vancouver's *School Street Program Report* (City of Vancouver, 2022) refutes this claim, noting an overall reduction in motor vehicle volumes on adjacent streets instead, further Ontario-based evidence will be valuable. More broadly, if street reclamation efforts are to progress, wide-scale evaluation of the impacts of closing or redirecting vehicle traffic must be rigorously evaluated, understood, and promoted across the Province.

Traffic impact studies of low-traffic neighbourhoods (LTNs) performed in London in the United Kingdom represent an example of the type of evidence and of an effective city-wide initiative that is needed in Ontario. LTNs are schemes that remove cut-through motor traffic from residential streets using modal filter measures such as lockable bollards (Lavery et al., 2020). In fact, School Streets are often fully integrated as a tool for creating LTNs (Hackney Council, 2023). The most comprehensive study to date has found that LTNs successfully reduce the number of motor vehicles within their LTN boundary and do not appear to increase traffic congestion on adjacent roads (Walker, 2023). One could imagine that a variety of street reclamation efforts, in conjunction with School Streets, could be initiated across a city as was done in London, and that traffic would be evaluated in a similar manner.

We need women's experiences

It is well documented that differences in travel patterns by gender can be significant (WEDO, 2018). This fact should be well understood by provincial and municipal leaders and transportation specialists in Ontario. Unfortunately, while it may be known, women's experiential knowledge is underrepresented in the professions that lead and design transportation infrastructure (Engineers Canada, 2021).

Based on the author's experience as a School Street implementer, women were more likely to surround and access a school during drop-off and pick-up times, many of whom were caregivers, teachers, educational assistants, school administration, and School Street volunteers. It is worth mentioning as well while not representing a large sample size, all those interviewed who were in charge of approving street closure permits were men. There appears to be a gap between the gendered experience of transportation leaders and the adults who are most likely to travel and linger outside of a school.

Taking this experience outside of a School Street, there is a role for documenting how gender informs all transportation policies. One specific strategy is by incorporating Gender-Based Analysis (GBA Plus). According to the Government of Canada (2022), GBA Plus is a method for "the assessment of systemic inequalities, as well as a means to assess how diverse groups of women, men, and gender diverse people may experience policies, programs and initiatives" (para 2). Such an assessment should be introduced to all municipalities, embedded within transportation departments, and used to review all transportation master plans and budgets.

We need a movement

Street reclamation can scale through successive implementation initiatives. Simply put, implementation informs experience, increasing public awareness, further driving acceptance and scale. These reinforcing experiences can produce a movement of advocates and practitioners who are aligned in a common cause and can gain political power to reclaim streets in a broader scale across Ontario.

To further the curricular and experiential scaling approach, it is recommended to adapt common movement-building strategies to street reclamation efforts:

- Establish communities of practices and knowledge-sharing forums
- Build coalitions with varied supporters and organizations
- Create a communications campaign that requests a direct action
- Integrate street reclamation efforts with long-standing institutional systems, policies, and frameworks
- Embed street reclamation efforts within an advocacy organization
- Evaluate, measure, and communicate impact and values of street reclamation

Reconstruction needs

As the title of this research implies, School Streets offer sign of street reclamation in Ontario. As a physical barrier to vehicle-use norms, School Streets help us reconsider our cultural narratives regarding street use and reveal a new story. Street reclamation can be furthered by enabling new barrier technologies, embedding women's experiences into transportation policy, and capturing evidence which effectively speak to transportation planners. Paired with movement-building strategies, street reclamation can direct a path towards better health, social connection, and community well-being, and perhaps, to the end of the road as we know it.

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Appendix

Section A – School Street risks

Risk	Quote
Risk due to change in conditions	<i>When a group or a person is closing a road, they're introducing a change in conditions to that road. Insurance is intended to protect or cover all risks for those who are who are creating that change, or who are who are closing the road, and as well as protecting the city... in the event again if a person were to make a claim against them for their action. - Reviewer #3</i>
Risk of injury due to permeable street	<i>[Traffic Operations] felt that having pedestrians walk on the road [with] local traffic to still go through... they felt that it was just unsafe...when they issue a road closure, they never have that mix of vehicles with pedestrians. - Implementer #3</i>
Risk without precedence	<p><i>We were really kind of in uncharted territory with everyone that was involved in it and, you know, being the road authority...collectively, we were working through some challenges and balancing to make sure that the program would be safely implemented and understood. - Reviewer #3</i></p> <p><i>There's not really a finite duration on it and it's not fixed...It's closed and then opened, then closed again. So that was one of the things that [municipal legal department] saw as a potential inconsistency [for a permit approval]. - Reviewer #1</i></p>
Risk of chaos due to lack of preparation or capacity	<i>Once this goes in one location, it's gonna be like "I want this at my school!" Like, "we are doing this" and [schools] are going to start planning before [the municipality] even gets involved. - Reviewer #2</i>
Less or unchanged risk without vehicles	<i>Any location where motor vehicles do or can travel, may be dangerous. By preventing most motor vehicles from entering the block, the danger to residents on the street and sidewalk is significantly decreased, although it does remain. Those using a School Street do have a chance of injury, however, no more than a typical street with similar traffic volumes. Indeed, as the road remains closed to vehicles except limited vehicles travelling at low speeds....School Streets are likely safer as the most serious road injuries and fatalities come from collisions with</i>

	<i>motor vehicles travelling more than 30km/hr. - Municipal email correspondence to Implementer #2</i>
Risk of backlash from local residents	<i>We knew we were allowing cars in. But that was seen as less risky than not letting them and getting the neighbours mad...we might have faced backlash...[this] might have potentially put the project at risk. We wouldn't have been able to run it if the councillors felt that there was too much pushback from their residents. - Implementer #1</i>
Risk due to use of volunteers	<i>My concern with the volunteer workforce is that they're not trained properly...when you rely on a volunteer workforce, you're getting a huge cross-section of society...inherent with it is the risk associated with people not understanding [the rules of the Ontario Traffic Manual]. - Reviewer #1</i>
Risk of being sued due to injury	<i>If something happens, if a child was injured during our School Street, [the City] doesn't want to be liable. - Proponent #2</i> <i>We have to ensure that whoever brings [School Streets] and takes it on has the commensurate liability to operate within the right of way. [A municipality] looks at all the possible outcomes of a failure, [instead of] what can be learned from it. - Reviewer #1</i> <i>If an incident happened, what happens is the lawyers of the victims sue whoever is involved and whoever has the deepest pockets. - Implementer #4</i>
Risk because of lack of authority	<i>I think [Traffic Operations] felt that should something happen, should a pedestrian be hit, who would be responsible for it? They didn't want to issue us the [road] permit without having a larger authority providing that approval should something happen. - Implementer #3</i>
Risk because it occurs on the road	<i>[Any] event plan is elevated as far as safety importance because it's on the road. - Implementer #5</i>
Risk of pressure on nearby streets	<i>The biggest concern is traffic displacement and that will be the first thing that comes up. - Proponent #1</i>
Risk because of potential loss of children	<i>It's the worst kind of loss that you want to see.... When something happens with a child, they have basically until they're 18 plus 2 years to put in a claim...attention to detail is heightened a little bit more when it comes to kids. - Reviewer #4</i>

Section B – School data

Data	Description	Selection Criteria
Catchment area	The proportion of current students that live within a catchment area	High proportion
Road classification	Road classification according to municipal guidance, estimated volume, and speed limit of the road in front of a school as well as those nearby	Local road
EMS route	The availability of alternative routes for Emergency Medical Services to access the school	Access available
School bus	The number of school buses used which access the front of the school	Few, none, or alternative route available
Access to active transportation pathways	Distance to separated bike lanes, multi-use pathways, or slow street areas	Near
Area density	The number of residents who live nearby to the school	Low
Collision data	The number of collisions of pedestrians, cyclists, and of vehicle collisions within 500 metres of the school area	Medium or high
Active transportation mode share	The proportion of students who walk, bike, or roll to school.	Medium or high
Culture of active Transportation	The school's engagement with active transportation related projects, programs, or initiatives	Medium or high
Equity-related factors	The proportion of socio-economic factors that increase risk of pedestrian collisions such as low household income	High

Section C – Risk management strategies

The risks involved in School Streets can be mitigated and managed using a variety of strategies:

- Create a Memorandum of Understanding (MoU): Clarify how the road space will be used, who is responsible, and cement the partnership by forming an agreement document.
- Establish a mutual indemnification agreement: To indemnify means to compensate someone for their harm or loss. For School Streets, it can mean protecting a separate party from harm by accepting or transferring risk. Basically, if something happens on the street, both parties are willing to help each other out. For example, the municipality could have a school board under their commercial general liability policy for the duration of a School Street.
- Insure workers: School Street volunteers can be covered under municipal insurance as workers. Under this approach, if trained volunteers or chaperones were negligent, they would be insured by the municipality.
- Distribute risk by area: Consider ways to pilot School Streets on opposite ends of a municipality, thereby reducing the risk of external factors that may be difficult to predict.

Section D – Labour roles

Instead of a volunteer-run School Street, the following options should be explored with the advisory group:

- 1) Expand the role of crossing guards: Crossing guards, hired directly or indirectly by a municipality or school board, are used extensively across many municipalities in Ontario. Crossing guards are trained workers who have the capacity to take on additional roles, such as setting up barricades. While their use may reproduce a mindset that crossing guards are needed over roadway design changes, their use in the short to medium term is appropriate.
- 2) Additional hours for school staff: There are a number of paid employees who work on school property who may be interested in additional paid working hours within the same school that they are already present. For example, educational assistants, supervision aids, and schoolyard or lunch monitors may be an ideal workforce to set up and implement School Streets in the short or medium term.

Section F – Application requirements.

The table below provides a list of all known permit application details required by municipalities in order to establish a School Street. The two right columns note whether these requirements should be met by a school applicant or the municipality in a future streamlined application process to be developed by a municipality.

Current permit application requirements	Recommended requirement for applicant	Recommended to be led by municipality
Date/time/location of School Street	X	
Rationale for School Street		X
List of stakeholders involved	X	
Map: Location of barriers, street closure, number of driveways, school parking lot		X
Road classification		X
Confirmation of resident involvement and support	X	
Traffic management plan: for residents, emergency access, driveway access, caregivers		X
Communication plan to residents		X
Communication to municipal services		X
Mechanism for reporting issues		X
Volunteer requirements if applicable		X
School Street barricade coordination / volunteer coordination	X	
Type of signage requirements		X
Road closure materials needed and provided		X
Safety plan: practices to ensure pedestrians will clear the road in case of emergency/permeable School Street		X
Proof of insurance		X
Evaluation process (not explicitly mentioned as a requirement by stakeholders)	X	

Section G – Forms and strategies

Consider using a variety of School Street forms in order to understand what works best in different contexts and to garner support from new partners. The following list presents some alternative School Street forms and supporting strategies:

- School hour programs: Embed or pair complementary school programs, such as physical education classes or art programs, to make use of the street outside of School Street hours.
- Hard closure: Create a School Street without exceptions for vehicle use.
- Repurpose: permanently close and repurpose the street outside of a school. There may be other quick-win opportunities to repurpose streets near to schools that are adjacent to parks.
- Animation: Partner with non-profit, community groups, and caregivers to lead animation programs during a School Street.
- Clustered pathway: Create a temporarily closed pathway to form a spine along the school catchment or neighbourhood area. This approach could be led in partnership with multiple schools along the same catchment area.
- Expanded sidewalks: Temporarily widen sidewalks or create pop-up bike lanes.
- Paired programming: Establish or pair existing active transportation programs with implementing School Streets, such as a learn-to-bike workshop, walking school bus, or bike bus.
- Community use: Explore ways non-school community partners could use the space during our outside-of-school hours, such as morning yoga or evening community meeting.

Section H – Legislation changes

There needs to be a targeted inquiry into what types of legislative documents are most appropriate to change or alter in order to allow or direct municipalities confidently to establish School Streets and other non-motorist street use in Ontario.

Here is a list of Ontario legislative guiding documents associated recommendations in order to support street reclamation efforts:

Legislation	Recommendation
<i>Ontario Highway Traffic Act</i>	<ul style="list-style-type: none"> ● Add roadway conditions which may be used for non-motorist use only ● Clarify the requirements for closing a roadway to vehicles temporarily ● Allow council of a municipality apply barricades, physical bollards, automatic cameras, or other vehicle restriction infrastructure in a school zone or community safety zone
<i>Ontario Traffic Manuals</i>	<ul style="list-style-type: none"> ● Add requirements for School Streets or temporary pedestrian event spaces within <i>Book 7 - Temporary Conditions</i> ● Incorporate new signage to indicate that roads are closed to vehicles but open to pedestrians within <i>Book 5 - Regulatory Signs</i> ● Offer examples of traffic calming devices that may be appropriate for all schools, school zones, or community safety zones within <i>Book 11 - Pavement, Hazard and Delineation Markings</i> ● Consider new infrastructure designs that are more physically restrictive to vehicles and which prioritize the maximum amount of safety for pedestrians within <i>Book 15 - Pedestrian crossing facilities</i>
Ontario's road classification system	Investigate and propose new classification to articulate a slow road, non-vehicle road, pedestrian-only, or similarly framed roadway, which could then be applied by municipalities to their roadway assets in front and surrounding schools, areas of concern, or anywhere within their municipality as is appropriate.

Complete streets guidelines	Complete street guidelines and typologies in Ontario, while often focused on accommodating vehicles, could conceivably designate a type of roadway that would prohibit vehicles, or severely constrain vehicle users.
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