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## **CRAFTING A WINNIPEG WINTER PLANNING STRATEGY WITH LESSONS FROM OTHER CITIES**

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### **BACKGROUND**

Many concepts used in urban design and city planning are borrowed from warm-weather climates. This leaves cities experiencing freezing temperatures and snow with an urban environment that does not meet the needs of citizens year-round. Some winter cities have chosen to approach this issue through the creation of winter city planning strategies, that is, a series of policies designed to negate the challenges of winter while celebrating the benefits of the season. This capstone report reviews three precedent strategies from North American cities, distills key elements, and suggests eight steps the City of Winnipeg can take to create its own strategy.

#### ***Winnipeg, Canada***

The central focus of this research is Winnipeg, Manitoba. Winnipeg has a reputation for long, cold, and snowy winters. At times, this reputation has caused the city to be viewed negatively by locals and outsiders alike. Winnipeg

does not currently have a winter city planning strategy. The policies directing Winnipeg's long-term development goals include *OurWinnipeg 2045*, *Complete Communities 2.0*, and a series of targeted guiding documents.

#### ***The Precedent Cities***

The precedent cities in this study are Edmonton, AB, Saskatoon, SK, and Buffalo, NY. Each were selected on the basis of having recently generated a winter city planning strategy. As North American cities, the precedents feature a similar car-centric urban form as Winnipeg. Given their comparable populations and climates, these three cities offer Winnipeg (and other cities) lessons about how best to develop a winter city planning strategy.

### **LITERATURE REVIEW**

#### ***Foundational Research***

Much of the defining literature in the realm of winter city planning was written by Norman Pressman in the 1980s and 1990s, and his work continues to

represent much of the knowledge available on the subject to this day (Stout et al., 2018). Pressman's work focuses on common-sense solutions, such as providing protection from wind and maximizing exposure to natural light (Pressman, 1987). Pressman also argued effective interventions in winter cities must take a holistic approach by targeting four distinct domains: *The physical environment, local culture, human bio-physiology, and the economy* (Pressman, 1996). Others have since built on Pressman's ideas, but his overall work as certainly stood the test of time.

### ***Contemporary Research***

Winter city planning literature is said to have peaked with Pressman (Chapman

et al., 2019). There has however been a renaissance of research in the 2010s, with a significant volume of work emerging from Asia. The objective has shifted from generalist research to determining best practice, with several researchers using modern technology to test and improve older ideas (Paukaeva et al., 2020). Winter city planning literature appears broad but shallow. The field would benefit from greater engagement and collaboration amongst scholars and practitioners operating across multiple arenas (e.g., urban design, engineering, economics, or health sciences). A notable gap in the literature is climate change, a topic which may drive research forward in coming years.

## **RESEARCH QUESTIONS & METHODS**

This report sought to answer two questions:

Q1: To what extent do Winnipeg's policies currently address planning for winter liveability?

Q2: What can Winnipeg learn from how other cities have approached winter liveability in their planning policies?

These questions required the use of multiple research methods to answer: A policy review, SWOT (strengths-weaknesses-opportunities-threats) analysis, and a study of policy precedents.

### ***Policy Review and SWOT Analysis***

In answering Q1, a policy review of the City's *OurWinnipeg 2045, Complete Communities 2.0*, and additional guiding documents was conducted. This process involved reviewing the documents for any mentions of winter planning principles, both explicit and implicit, and coding them for analysis. SWOT analysis, the process of determining strengths, weaknesses, opportunities, and threats as they relate to an organization or a plan, was used to assess the City of Winnipeg's policies (Gurel & Tat, 2017).

### ***Policy Precedent Study***

In answering Q2, a precedent study was carried out to determine what Winnipeg could learn from Edmonton, Saskatoon, and Buffalo. Precedent studies collect and synthesize information from

compatible projects to facilitate the creation of new ideas in different contexts (IGI Global, n.d.). For each precedent city, the winter city planning strategies and supporting documents were reviewed and distilled to highlight big ideas and takeaways, which could potentially offer lessons for Winnipeg.

### ***Knowledge Synthesis***

This research method ties together the findings from the first two methods. Knowledge synthesis is defined as the "approaches to combining, aggregating, integrating, and synthesizing primary research findings (Schick-Makaroff et al., 2016, p. 174). Application of this method involved highlighting the apparent points of success from the precedent cities to address the perceived weaknesses in Winnipeg's current approach to policy.

## **KEY FINDINGS: *Winnipeg's Policy Documents***

- The City's master planning document contains no references to winter
- Few supporting documents show evidence of planning for winter liveability
- While some policy decisions are consistent with winter city planning principles, this is rarely the stated intent
- There is a lack of attention paid to how climate change will impact the ability of citizens to live, work, and play in Winnipeg winters
- Creating a winter city strategy would be a worthwhile investment if the City wishes to address these issues

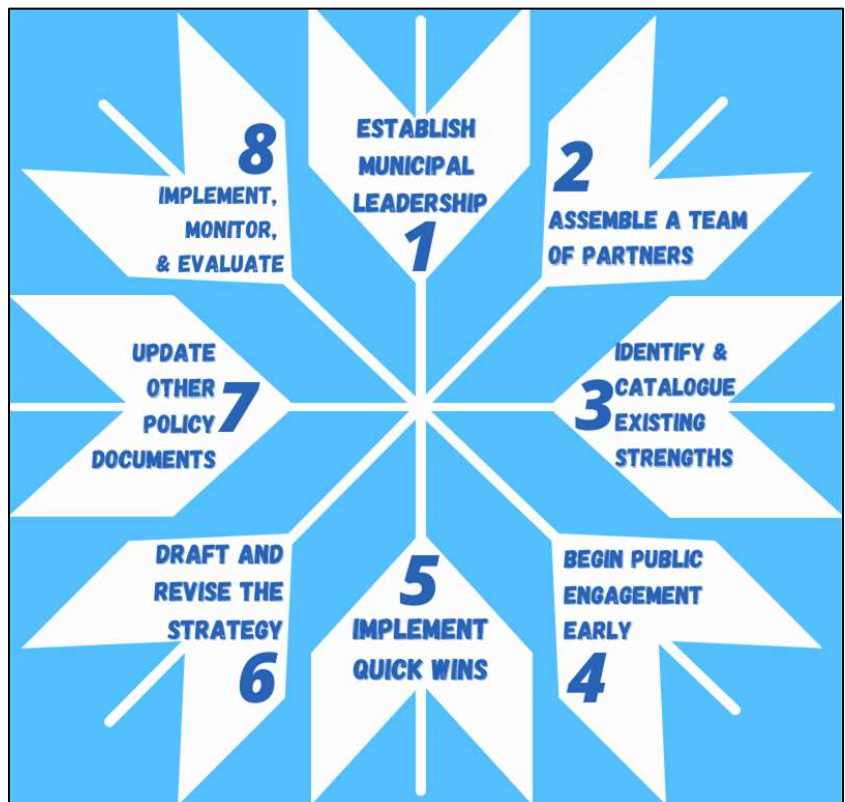
## KEY FINDINGS: *Precedent Winter City Strategies*

- Each city showed the value of creating a winter city strategy to improve winter liveability
- Edmonton has the most mature and complete strategy, receiving awards and earning international praise from the planning community
- Saskatoon demonstrates the ability of a city smaller than Winnipeg to adapt Edmonton’s plan successfully
- Buffalo offers a cautionary tale on the importance of integrating municipal leadership to oversee implementation, as progress on their strategy stalled after the non-profit organization delivered their report to the City
- All three cities emphasize the importance of community engagement, the necessity of partnering with public and private stakeholders, and the need for a holistic approach

## APPLICATION

### *Eight Steps Toward a Winnipeg Winter Strategy*

To assist Winnipeg in creating a strategy of its own, eight steps were generated based on the research findings. These steps form a framework (see **Figure 1**) informed by the precedent cities and localized to the Winnipeg planning context:



*Figure 1: Eight steps toward a Winnipeg winter strategy*

- ❖ **Step 1: Establish Municipal Leadership** ... to oversee the project from conception through implementation
- ❖ **Step 2: Assemble a Team of Partners** ... to include a variety of perspectives and craft a holistic approach
- ❖ **Step 3: Identify and Catalogue Existing Strengths** ... to start from a place of positivity and promote civic pride
- ❖ **Step 4: Begin Public Engagement Early** ... to gather community-driven ideas and shape the direction of the strategy with public input
- ❖ **Step 5: Implement Quick Wins** ... to build excitement about the strategy and create early returns
- ❖ **Step 6: Draft and Revise the Strategy** ... to achieve Winnipeg's winter planning goals as defined by the community and project partners
- ❖ **Step 7: Update Other Policy Documents** ... to reflect a holistic commitment to implementing the strategy across the City's policies
- ❖ **Step 8: Implement, Monitor, and Evaluate** ... to ensure the plan is carried out successfully and to allow for course-correction when necessary

## **RECOMMENDATIONS**

The City of Winnipeg should seriously consider following these eight steps to create a winter city planning strategy. Regardless of whether these specific steps are followed or not, the strategy creation process must do three things:

1. Engage the public early and often
2. Place community input and needs at the centre of the process
3. Practice a holistic approach targeting the built environment, the sociocultural realm, and the economy

If Winnipeg wishes to combat its icy reputation, informed and actionable policy is the recommended way forward.

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