



# **PEDESTRIAN AND BICYCLE WINTER MAINTENANCE STUDY**



**Supplemental Report on Sidewalk  
Snow and Ice Control, Prepared by  
the City of Minneapolis**



# Winter Maintenance Study

## Supplemental Report on Sidewalk Snow and Ice Control

### Introduction

In 2017 Public Works undertook a winter maintenance study to examine best practices to maintain infrastructure for walking and bicycling in winter months. The study, which is now complete, includes alternative winter maintenance options for both walking and bicycling as well as a comparative review of other winter climate cities.

During the course of the study, Public Works simultaneously began to investigate operational challenges surrounding City ordinance and current procedures to ensure clearance of snow and ice from public sidewalks. This supplemental report is intended to take a deeper look at this single topic, to review the ongoing work of the Department and to highlight opportunities to continue to make improvements. This report is divided into the following sections:

- 1) Review of Current Ordinance and Procedures
- 2) Winter Sidewalk Maintenance Problem Identification
- 3) Initiatives to Explore Opportunities for Improvement
- 4) Options Recommended for Immediate Action
- 5) Initiatives Under Further Consideration

### Review of Current Ordinance and Procedures

Public Works has the responsibility for upholding the City's ordinance and procedures for snow and ice control on sidewalks. Throughout the city, property owners are responsible for clearing snow and ice from sidewalks that are adjacent to the properties they own. Single family homes and duplexes are given 24 hours after a snowfall has ended to clear snow and ice, while all other properties have four hours after a snowfall has ended to clear snow and ice. [City ordinance 445](#) establishes this time frame.

### Winter Sidewalk Maintenance Problem Identification

Public Works has been examining sidewalk snow and ice control procedures in greater depth over the last two years. The following challenges have been identified with respect to the City's procedures for ensuring compliance winter snow and ice control on sidewalks:

- **Complaint Driven Process** Currently, while the City does proactively conduct some inspections, the enforcement process is primarily complaint driven and relies on the public to report issues through 311. Public Works believes that many violations are unreported, resulting in inconsistencies in enforcement activities and usability of the sidewalk network.

➤ **Enforcement Process** If sidewalks are not shoveled within the timeframe defined in City ordinance 445, the process for enforcing the snow and ice clearing ordinance may commence. In total, the complaint driven process can take anywhere from 6 to 8 or more working days to resolve. The timeline resets if another snow event occurs during this period. Challenges associated with the current enforcement process include:

- The enforcement process was streamlined in 2016 to eliminate an initial physical inspection that would have occurred prior to a notice of violation (NOV) being issued. Public Works is currently evaluating the impacts of eliminating the initial inspection which, while saving time in the process, was an opportunity to verify the existence and location of a complaint and/or non-compliance. The risk of NOVs being mailed to incorrect addresses is the resulting concern. Public Works is continuing to evaluate the process overall including benefits and challenges to foregoing the initial inspection.
- When inspectors perform field inspections of submitted complaints, they proactively look nearby to see if there are additional violations, especially if the property being inspected appears to be clear. In this instance, the process is slowed because the inspector must begin the process for the additional violations found.
- There are instances of inaccuracies in complaints submitted via digital means (e.g., apps like SeeClickFix or Open 311), specifically when GPS inaccurately captures an address, which may result in NOVs being mailed to incorrect addresses. It is important to note that no issues related to the intake and processing of complaints by 311 have been identified. Inaccuracies in location are due to technological challenges, or simple human error in data entry or reporting.
- Closing the communication loop with the public was identified as a challenge. There have been instances of miscommunication due to how internal processes and software are set up. For example, when a complaint is logged into the 311 system and routed to Public Works for enforcement follow-up, the complaint is closed in the 311 system prior to the actual physical non-compliance being addressed. Additionally, to uphold anonymity, there is no public facing program available for the public to monitor the status of their complaint once it is routed to Public Works.

➤ **Themes of Public Feedback** Public Works has gathered information regarding public complaints about sidewalk snow and ice control from 311, Council offices and social media. The following is a summary of issues most commonly identified:

- The most common complaint received is that individual properties have not cleared snow.
- The length of time to resolve a complaint is too long.
- Boarded buildings and vacant properties are often not cleared.
- A notice of violation has been received in error.

## Initiatives to Explore Opportunities for Improvement

Public Works has recognized the challenges with the complaint driven system of reporting and has been studying the issues and exploring ways to improve. The following section describes our work to date.

- **2016/2017 Process Change** During the 2016-17 winter season Public Works implemented a change in our process with the goal of accelerating our response to a complaint of non-compliance. An initial physical inspection, that would have occurred prior to an NOV being issued, was eliminated. The streamlining has reduced the amount of time between receipt of a 311 complaint and a contractor clearing the sidewalk by two to three working days. However it remains unclear whether this accomplishes our goal of an improved rate of compliance.
- **2017/2018 Pilot and Observations** This past winter season, staff continued with the streamlined process per the changes made in winter 2016-17. However during the course of the winter, staff observed some issues with the elimination of the initial physical inspection as well as technological glitches and inaccuracies related to GPS and addressing. These issues resulted in some erroneously issued NOVs and increased delay in resolving complaints. These observations reinforce that having the right data and the right tools in place are critical to improving the process, reducing delay in responding to complaints and to ultimately increase the rate of compliance.
- **2017/2018 Data Collection** As noted in the Winter Maintenance Study, the data currently available to the Department consists of snow and ice complaints received, managed and processed through the City's 311 system and is limited in that it only represents complaints and violations that were reported and may not be representative of citywide conditions. In an effort to begin collecting data more proactively, staff spent time outlining a preliminary approach to data collection, and established longer term goals for collecting better data.

## Options Recommended for Immediate Action

Public Works has compared the information prepared for this report with the findings presented in the Winter Maintenance Study. Several of the ideas that are described in the study would help address some of the issues discovered in the Department's review. Additional ideas have also been discussed within the Department and our outlined below. The following options are recommended for immediate action.

**Proactive Sidewalk Inspection** Public Works' top priority for immediate action is to implement a pilot program of proactive sidewalk inspection versus relying on the complaint based system. The intent of the pilot program is to test whether proactive inspection reduces complaints and/or non-compliance and increases the rate of sidewalk clearing compliance. The initial pilot is expected to identify a rotation

of specific areas of the city for proactive inspections. Further exploration of a citywide effort will continue; the pilot will help us to better understand the feasibility, costs, and time required. One known challenge is scheduling staff for inspection efforts around weather events which are unpredictable.

**Expand Direct Communication With Residents** Public Works has the opportunity to provide more direct communication with residents on the importance of clearing snow and ice from sidewalks. Messages are often delivered at the same time as other snow emergency messages, which may dilute the effectiveness of the communication. Public Works will explore the possibility of sending a direct letter to each resident and business highlighting the importance of staying mobile in winter, inviting partnership to keep sidewalks clear, and reviewing the ordinance. A similar model exists within the City within Regulatory Services called “All Together Now”, and has proven effective. This type of communication could also highlight options for assistance in clearing snow, which is discussed next.

**Snow and Ice Clearing Assistance Programs for Select Populations** Clearing snow and ice from sidewalks can be challenging for certain populations, including older adults and people with disabilities. The City could seek to partner with existing organizations that provide snow clearing services in an effort to increase participation by raising awareness and promoting the services provided by these organizations.

**Additional Immediate Actions Noted in the Winter Maintenance Study** The Winter Maintenance Study also identified alternative winter maintenance options related to sidewalk snow and ice control for immediate action. These alternatives are intended to enhance the quality and consistency of clearing snow and ice from sidewalks, which would improve safety, accessibility and mobility for those who rely on walking or taking transit. The costs to implement these options range from low to high. Below is a summary of the options related specifically to sidewalk snow and ice control, more detail on each is available in the Winter Maintenance Study.

- P2: Implement Sidewalk Clearing Inspection & Enforcement Process Improvements
- P4: Develop an Expanded Sidewalk Winter Maintenance Awareness Campaign
- P5: Update and Improve the City’s Winter Maintenance Webpage

For each of the immediate actions listed above, Public Works will be identifying the resources needed to fulfill the action item.

## Initiatives Under Further Consideration

Public Works is also exploring the following initiatives, some of which are noted in the Winter Maintenance Study:

- **P3: Create and manage a citywide assistance program.** The City could create and manage a citywide program to assist with clearing snow and ice from sidewalks for select populations.
- **P6: Enhance Winter Maintenance Data Collection** Public Works is further exploring this option and may continue the discussion that was initiated during the 2017-18 winter season. The intent of additional data collection will be to supplement anecdotal and 311 intake

information with field evaluation. It is recognized that the 311 data is incomplete because not all complaints and/or non-compliance are reported. Therefore, the City does not know the magnitude of unreported violations. One known challenge is scheduling data collection efforts around weather events which are unpredictable.

- **\*NEW\* Review the Corner Clearing Program** Public Works could also examine the resources that would be needed to review how and when crews are deployed for corner clearing activities to determine if there are options to reduce the time to complete this work under varying conditions and snow events.
- **\*NEW\* Explore Innovative Technologies** There are new and advancing technologies available that could aid in streamlining the time and effort required to physically inspect. Public Works could conduct further research and cost estimating to determine the feasibility of implementing process improvements via technology. Investigate potential...

## Next Steps to Advance Near Term Actions

With each of these actions Public Works' goal is to obtain more data to identify and understand issues, modify processes and take actions to achieve a higher rate of sidewalk snow and ice control compliance citywide. Each of these actions has the potential to help move the dial by educating property owners to know and understand their responsibilities, identify resources to support them and by improving our data such that we can continue to monitor our progress toward an improved system for all.

During the 2019 budget process, Public Works intends to identify opportunities within our current budget as well as present additional proposal(s) for added resources.