

City of Chicago's

PLOW THE SIDEWALKS PILOT PROGRAM:

Report of Recommendations

May 31, 2024

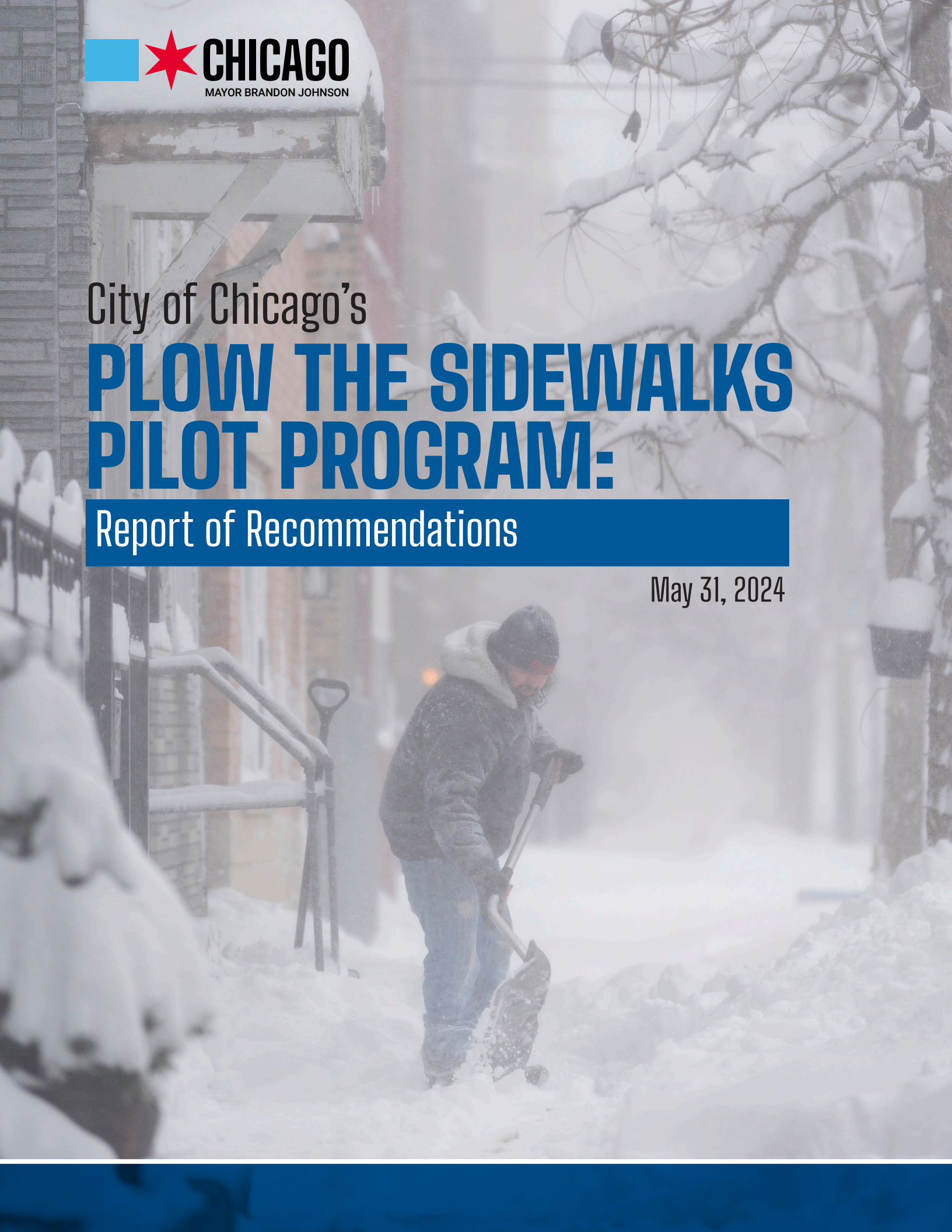


TABLE OF CONTENTS

LETTER FROM THE MAYOR	1
LETTER FROM THE PLOW THE SIDEWALKS COALITION	2
EXECUTIVE SUMMARY Recommendations Summary	4
INTRODUCTION Acronyms Why Plow the Sidewalks?	6
PLOW THE SIDEWALK WORKING GROUP Creation & Charge Summary of Activities September 2023 December 2023 January 2024 February 2024 March 2024 April 2024 May 2024	8
PLOW THE SIDEWALKS PILOT PROGRAM FINDINGS & RECOMMENDATIONS How and when should the City of Chicago administer the Plow the Sidewalks Pilot Program? <ul style="list-style-type: none">- Program Parameters Where should the City of Chicago administer the Plow the Sidewalk Pilot Program? <ul style="list-style-type: none">- Pilot zones- Operational Approach- Communications and Community Engagement- Program Operations- Service Models How much will the program cost? <ul style="list-style-type: none">- Estimated Cost for the City of Chicago Plow the Sidewalks Pilot Program- Funding- Program Evaluation- Special Service Area: Lessons Learned	11
NEXT STEPS	27
ACKNOWLEDGEMENTS	28
APPENDIX Appendix A: Equipment & Materials Considerations <ul style="list-style-type: none">- Regulatory Considerations:- Cumulative Health Impact Considerations:- Optimal Products for Sidewalks: Appendix B: Comparisons & Case Studies <ul style="list-style-type: none">- Chicago Public Schools- Other Cities	31



LETTER FROM THE MAYOR

My Fellow Chicagoans,

From day one, my administration has worked to confront the challenges that our residents are facing so that everyone is empowered to live, work, and thrive in our great city. As we all know, our infamous Chicago winters pose challenges to residents. For residents with decreased mobility, who use mobility aids, are blind, low vision, or have any other impacted disability, senior citizens, citizens, and families with young children, the challenges presented by snow- or ice-covered sidewalks are more acute. Currently, it is the City's responsibility to remove snow and ice from the streets while the responsibility to clear sidewalks is up to property owners, but when sidewalks are not completely clear it creates barriers for our neighbors to get to school, work, the grocery store, and other necessities. Ensuring safe and clear sidewalks is essential for the mobility and well-being of these members of our communities and beyond.

To address this issue, in July 2023 my administration convened a Working Group of relevant City departments and the Mayor's Office to begin researching municipal sidewalk snowplow programs. Community engagement was a focal point of their work to ensure that the voices and ideas of community members and experts on transportation, accessibility, and traffic safety were a part of building recommendations.

Today, I am proud to issue this report of our recommendations for the Plow the Sidewalks Pilot Program, representing a significant step forward in our commitment to making Chicago a more inclusive and accessible city for everyone.

This report begins to meet a longstanding need identified by the disability community, transit advocates, and residents; and aims to address an important issue facing all Chicagoans, especially members of the disability community, senior citizens, and others with accessibility challenges navigating hazardous icy or snowy sidewalks in the winter.

I am grateful to the Alderpeople, Advocates, Commissioners, Budget Director and members of my Mayor's Office Staff for this work.

This is the kind of systems-level change that I promised to bring forth as Mayor. I look forward to seeing the impact of this work and to seeing stronger, safer communities.

A handwritten signature in black ink, appearing to read 'Brandon Johnson', written in a cursive style.

Mayor Brandon Johnson

LETTER FROM THE PLOW THE SIDEWALKS COALITION



Plow The Sidewalks is about equity, justice, and the appropriate provision of public services. Since its inception in 2021, the #PlowTheSidewalks campaign and coalition of supporters have called on the City of Chicago to adopt a municipal sidewalk snow plowing service to clear all city-owned sidewalks of snow and ice during the winter in order to ensure there are universally predictable and clear paths of travel for all residents using sidewalks no matter the destination and no matter the time of year. The Coalition will pursue this goal until it is achieved, and believes the Plow The Sidewalks Pilot is a necessary first step towards ensuring universal mobility.

Over the course of a year, representatives of the Plow The Sidewalks Coalition have consulted with the City of Chicago Plow The Sidewalks Pilot Working Group regarding the design of a pilot proposal. We have come to a consensus regarding the minimum necessary components required for the pilot to adequately demonstrate the concept. This includes the location of the pilot zones, the minimum number of deployments, the extent of sidewalk snow clearance within zones, and the role of enforcement to ensure universal clearance. Our agreements include the following as detailed in this report:

The pilot will consist of a minimum of four 1.5 mi. sq. zones located on the North, West, Southwest, and South Sides each. The zones were identified using a suite of tools provided by the Coalition and City of Chicago and focus on providing services to areas with a large number of disabled residents, seniors, transit riders, car-free households, and the city's Hardship Index among other metrics.

During the course of the pilot deployments will occur for up to seven (7) snow events in each zone or a single year, whichever comes first, to adequately assess the service. The snow accumulation threshold for deployment is 2 inches.

Two zones (South and West) will receive universal snow clearance by plowing services. Two zones (North and Southwest) will receive targeted residential snow clearance by plowing services. Details of these two models are outlined in the report.

The pilot as presented comes after a year of collaboration and compromise between the City and the Coalition. While the coalition would prefer larger and more pilot zones, universal sidewalk snow clearance by plowing services in all four pilot zones, and a different approach to fines-based enforcement during the pilot, we believe the agreed terms will amount to a successful and informative program. We encourage the City of Chicago and its relevant departments, members of the Working Group, contractors, and the City Council to go above and beyond whenever and wherever possible with regards to the final design and to continue in the spirit of universal mobility throughout the deployment of the pilot.

The coalition looks forward to proceeding with the pilot. Chicago is overdue in providing sidewalk snow plowing services for its residents, and this pilot will demonstrate it is an operationally, administratively, and fiscally viable program. Cities throughout Chicagoland, the United States, and Canada have shown that it is not only possible, but incredibly popular with the public. This service will provide life-changing benefits to disabled residents and seniors, improve quality of life for families with small children, provide economic development for local businesses, improve safety for workers who use sidewalks, and ensure the city's entire transportation system is accessible and usable all year – no matter the weather.

We look forward to the opportunity to show residents that the City of Chicago can indeed Plow The Sidewalks.

Signed,

The Plow The Sidewalks Coalition Representatives to
the Pilot Working Group
AARP - Illinois
Access Living
Active Transportation Alliance
Better Streets Chicago
Equiticity
Metropolitan Planning Council
Northwest Center
Shared Use Mobility Center
The Southwest Collective

EXECUTIVE SUMMARY

Mayor Brandon Johnson and the Johnson administration are committed to human rights, equity, and applying an intersectional lens to policymaking and service delivery. Building Bridges and Growing the Soul of Chicago: A Blueprint for Creating a More Just and Vibrant City for All, the Mayoral Transition report issued by the Chicago for the People Transition Team, named the Plow the Sidewalks Pilot Program as a long-term strategy to address barriers to transportation for people with disabilities, families with young children, seniors, and public transit riders.¹ With support from the Johnson administration, Alderman Gil Villegas introduced and passed the Chicago Plow the Sidewalks Pilot Program Ordinance (SO2023-0002851)

To advance accessibility and disability justice, this City of Chicago's Plow the Sidewalks Pilot Program: Report of Recommendations offers a set of recommendations for the City of Chicago to launch a Plow the Sidewalks Pilot Program in 2025 – 2026. Under the Pilot, the City will clear the sidewalks of snow and ice in four 1.5 square mile pilot zones across the city on the South, Southwest, West, and North sides of Chicago.

A Working Group comprised of representatives from relevant City departments including the Chicago Departments of Streets and Sanitation, Transportation, Office of Budget and Management, Assets, Information, and Services, Human Resources, Procurement Services, Fleet and Facility Management, the Mayor's Office for People with Disabilities, Mayor's Office Policy Team, and Mayor's Office Infrastructure Team began research and analysis about municipal sidewalk snowplow programs in July 2023. From the start, the Working Group engaged a coalition of community stakeholders representing transportation, accessibility, and disability organizations, as well as Alderman Daniel La Spata, Chairman of the City Council Committee on Pedestrian & Traffic Safety, as partners in building recommendations.

This report offers 11 recommendations for the design and implementation of a Plow the Sidewalks Pilot Program and is organized by three key categories:

- How and when should the City of Chicago administer the Plow the Sidewalks Pilot Program?
- Where should the City of Chicago administer the Plow the Sidewalks Pilot Program?
- How much will administering the Plow the Sidewalks Pilot Program cost?

The report also offers additional considerations for the Pilot and outlines issue areas that will require continued exploration in the lead-up to implementation. Finally, the report outlines the next steps needed to advance this work from the current set of recommendations to the launch of a Plow the Sidewalks Pilot Program in 2025.

RECOMMENDATIONS SUMMARY

RECOMMENDATION 1: CDOT should serve as the Managing Department for the Pilot.

RECOMMENDATION 2: The Pilot should last one year after its start date or until the City has deployed sidewalk snowplow services up to seven times per Pilot zone, whichever comes first.

RECOMMENDATION 3: The City should activate the Pilot when snow or ice has accumulated to two inches or more in a 24-hour period and should align response times with existing Chicago Municipal Code regulations, current City snow removal practices, and the needs of residents.

RECOMMENDATION 4: The City should conduct the Plow the Sidewalk Pilot Program in the four Pilot Zones designed and recommended by the Plow the Sidewalks Coalition.

RECOMMENDATION 5: The City should pilot the use of a Targeted Residential approach and a Universal approach to effectively evaluate the efficacy of existing plowing efforts of other public or private entities.

RECOMMENDATION 6: The City should employ a range of methods to communicate with residents and coordinate with Ward offices in advance of and through the Pilot.

RECOMMENDATION 7: The City should ensure snow is removed in a way that does not obstruct pedestrian or vehicle traffic or access to emergency access points or other public infrastructure.

RECOMMENDATION 8: The City should prioritize the use of multipurpose tractors to plow city sidewalks, and in general use equipment and materials that minimize noise disruptions and environmental risks.

RECOMMENDATION 9: The City should use a combination of contracted services and in-house services for the Pilot to evaluate the success of implementation of both delivery models.

RECOMMENDATION 10: The City should allocate between \$1.1 Million and \$3.5 Million in the annual budget to adequately fund a pilot that deploys both contracted and in-house snow removal services across all four pilot zones within the set parameters of these recommendations.

RECOMMENDATION 11: The City should develop partnerships to evaluate Pilot success and understand community impact.

INTRODUCTION

ACRONYMS

- **2FM:** Department of Fleet and Facilities Management
- **AIS:** Department of Assets, Information, and Services
- **CDOT:** Chicago Department of Transportation
- **DTI:** Department of Technology and Innovation
- **IGA:** Mayor's Office Intergovernmental Affairs team
- **Infrastructure:** Mayor's Office Infrastructure team
- **MOPD:** Mayor's Office for People with Disabilities
- **MO Policy:** Mayor's Office Policy team
- **M/W/VBE:** Minority-, Women-, and Veteran-Owned Business Enterprise
- **OBM:** Office of Budget and Management
- **P&TS Committee:** City Council Committee on Pedestrian and Traffic Safety
- **Parks:** Chicago Park District
- **RFP:** Request for Proposals
- **RFQ:** Request for Qualifications
- **SSA:** Special Service Areas

WHY PLOW THE SIDEWALKS?

The City of Chicago has long taken responsibility for plowing Chicago's streets when it snows but has historically left the responsibility of removing snow and ice from sidewalks up to property owners. This arrangement has often created an ad-hoc system of snow removal, where the sidewalk abutting one lot might be completely cleared, and another is left covered in snow. Whether on foot, by bike, or accessing public transit, unplowed sidewalks can create significant impediments for people moving around their neighborhoods and beyond.

For residents with decreased mobility, people who use mobility aids or are blind, low vision, or have any other impacted disability, senior citizens, and families with young children, the challenges presented by snow- or ice-covered sidewalks are more acute. Additionally, there are innumerable people who do not have the option of staying or working from home, paying for ride-share, or owning a car, and for whom access to public transportation is critical.

Furthermore, the lack of reliable snow clearing services for sidewalks, creates a significant accessibility issue for Chicagoans with disabilities. Residents with walkers, wheelchairs, canes, and other mobility aids are often left unable to safely use sidewalks, since many property owners do not completely clear adjacent walkways of ice and snow. This can create safety hazards during winter and deepen existing inequities for Chicago residents on the basis of mobility.

The Plow the Sidewalks campaign to establish a municipal sidewalk snowplowing service, led by Access Living and Better Streets Chicago along with several partner organizations, was formed in February 2021. The vision of Mayor Brandon Johnson's administration aligned with the vision of the Plow the Sidewalks campaign, which sought to reduce barriers to mobility through strong municipal services. In response, the Administration began working with 1st Ward Alderman Daniel La Spata, Chair of the Committee on Pedestrian & Traffic Safety, and the Plow the Sidewalks Coalition as co-governance partners to explore a new City service to clear sidewalks of snow and ice.³



PLOW THE SIDEWALK WORKING GROUP

CREATION & CHARGE

The Chicago City Council passed the Chicago Plow the Sidewalks Pilot Program Ordinance³ by a vote of 48-1 in July 2023. The Ordinance tasked a cross-departmental working group, the Sidewalk Snowplow Working Group (“Working Group”), with creating recommendations for a new program to Pilot plowing services for snow- and ice-covered sidewalks. The Ordinance also defined the broader goals of a Pilot Program, challenging the Working Group to build recommendations that took these goals into account:

- Further safe and equitable transit and mobility access that increases economic opportunity within selected Pilot areas;
- Educate City residents on the program’s impact on general welfare, community and government collaboration, social and economic benefits, City revenue, and business engagement; and
- Lessen unemployment in the City by providing jobs clearing sidewalks of snow and ice.

As a first step in advancing these goals, the Ordinance created a Working Group to develop recommendations for the City to implement a Pilot Program to clear snow and ice from sidewalks within selected Pilot areas.

By September 2023, the Ordinance required the Department of Streets and Sanitation (DSS) and Department of Transportation (CDOT) to convene representatives from the following departments as part of the Working Group:

- Office of Budget Management (OBM);
- Department of Assets; Information, and Services (AIS⁴);
- Department of Human Resources (DHR);
- Department of Procurement Services (DPS); and
- Mayor’s Office for People with Disabilities (MOPD).

The Working Group was tasked with advising on the size of the Pilot area, selection of Pilot zones, revenue sources to fund the Pilot, labor decisions, program length, and departmental responsibilities. To determine Pilot zones, the Working Group was also tasked with considering the following criteria:

- Number of residents above the age of 65;
- Public transit ridership;
- Number of zero-car households;
- Areas of historical disinvestment;
- Concentration of low-income households;

- Concentration of families with young children;
- Percent of people with disabilities; and
- Population density.

By Ordinance, the Working Group must deliver these recommendations to DSS, CDOT, the City Council Committee on Pedestrian and Traffic Safety (P&TS Committee), and the community no later than May 31, 2024.⁵

After the commencement of the Pilot Program, the Working Group is required to present to the Committee on Pedestrian and Traffic Safety a study on the impacts of the Pilot Program⁶, including, but not limited to, the public health impacts, labor force impacts, financial impacts, legal liabilities, and community response.

SUMMARY OF ACTIVITIES

September 2023

- The Mayor’s Office convened a cross-departmental Working Group, including representatives of AIS, CDOT, DHR, DPS, DSS, MOPD, OBM, and the Mayor’s Office.

December 2023

- The Working Group began meeting biweekly and identified subject matter leads.
- The Working Group partnered with the P&TS Committee staff to host its first meeting with community stakeholders, which included representatives from the Plow the Sidewalks Coalition. Coalition members collaborated with City decision-makers by creating and prioritizing draft Pilot zones that considered criteria laid out in the Ordinance.

January 2024

- The Plow the Sidewalks Coalition shared a proposal for four Pilot zones with the Working Group.
- The Working Group began to compile cost estimates for both in-house and contracted Pilot Programs and began to develop operational recommendations.

February 2024

- The Working Group visited 13th Ward Alderman Marty Quinn’s aldermanic office for a briefing on the sidewalk snowplow program the Office runs ward wide.
- The MO Policy & Infrastructure teams connected teams connected with advocates from Access Living and Better Streets Chicago to share project updates and hear feedback.
- In partnership with P&TS Committee staff, the Working Group held the second community stakeholder meeting to share its progress to date, outline the timeline moving forward, and facilitate a feedback session about potential approaches to sidewalk snowplow deployments.

March 2024

- Departments finalized their initial research regarding a Pilot and shared draft recommendations with the Working Group.

April 2024

- The Working Group drafted the design for the Pilot and report of recommendations.
- In partnership with P&TS Committee staff, the Working Group held the third community stakeholder meeting to gather feedback on the draft design.

May 2024

- The Working Group finalized its Plow the Sidewalk Pilot Program Recommendations Report and submitted it to departmental and Mayor's Office senior leadership for review.
- The final report must be submitted to City Council Committee on Pedestrian & Traffic Safety by May 31, 2024.



PLOW THE SIDEWALKS PILOT PROGRAM FINDINGS & RECOMMENDATIONS

Overall, effective snow removal for sidewalks in Chicago requires careful planning, significant labor and equipment resources, close coordination between City departments, clear communication with residents, and flexibility to adapt to changing weather conditions. By considering these logistical factors, Chicago can ensure safe and accessible pedestrian pathways during the winter months.

These principles also guide the extensive snow removal work currently undertaken by the City every winter season. The City of Chicago and its respective departments perform snow and ice control on municipal streets, bridges, parking lots, and at City-owned facilities within Chicago. The City's Department of Streets and Sanitation is responsible for maintaining winter roadway safety on a route system of more than 9,400 lane miles. CDOT is responsible for clearing and salting separated bike lanes and sidewalks on city bridges, overpasses, and pedestrian bridges.

To ensure the City of Chicago can best implement the Plow the Sidewalks Pilot Program, the Plow the Sidewalks Working Group organized this report by essential questions and recommendations:

- How and when should the City of Chicago administer the Plow the Sidewalks Pilot Program?
- Where should the City of Chicago administer the Plow the Sidewalks Pilot Program?
- How much will administering the Plow the Sidewalks Pilot Program cost?

Throughout the Working Group process, the City and its partners grappled with the challenges of piloting a new City service. A primary obstacle was the absence of a dedicated source of revenue, which meant funding for the program's implementation would come from a decrease in funding for another City program or service. Additionally, there are relatively few comparable U.S. cities that have established citywide sidewalk snowplowing. This gap in information made it challenging to build accurate cost estimates. Furthermore, workforce challenges compounded the issue; relying on City in-house services presented logistical and operational difficulties, including the need to leverage existing staff for this specialized task and manage their availability during snow events. These combined factors created a complex environment for launching the Pilot. The Working Group navigated this complex set of challenges to propose a transformative new Plow the Sidewalk Pilot Program that seeks to reduce mobility barriers and increase accessibility through robust municipal services. The Plow the Sidewalk Pilot Program will lead to a better, stronger, safer Chicago.

HOW AND WHEN SHOULD THE CITY OF CHICAGO ADMINISTER THE PLOW THE SIDEWALKS PILOT PROGRAM?

To construct the Plow the Sidewalks Pilot Program, the Working Group discussed which City department should manage the Pilot, when the City should activate the Pilot, how the City should plan to clear sidewalks after snow accumulation, what equipment and materials the City should use, and how the City should evaluate success.

Program Parameters

RECOMMENDATION 1: CDOT should serve as the Managing Department for the Pilot.

The Working Group identified several challenges to the development of the Pilot Program related to labor, equipment, and staffing. A contractor-operated Pilot provides the City the best option for evaluation without making significant capital investment. Considering the above, the City of Chicago Department of Transportation (CDOT), should serve as the managing department and be authorized to establish and administer the Plow the Sidewalks Pilot Program with support from and in coordination with the Department of Streets and Sanitation (DSS). CDOT's Division of Citywide Services currently manages several contractor-provided municipal services such as Divvy bikes and median and boulevard maintenance. While CDOT is the appropriate home for the Pilot, further evaluation is needed to determine which department is best suited should the program become permanent.

RECOMMENDATION 2: The Pilot should last one year after its start date or until the City has deployed sidewalk snowplow services up to seven times per Pilot zone, whichever comes first.

Pending budgetary and procurement processes, the City should prepare to begin administering the Plow the Sidewalks Pilot Program no later than December 31, 2025, and to operate the Pilot for one year after the start date or until services have been deployed up to seven times per pilot zone, whichever comes first.

RECOMMENDATION 3: The City should activate the Pilot when snow or ice has accumulated to two inches or more in a 24-hour period and should align response times with existing Chicago Municipal Code regulations, current City snow removal practices, and the needs of residents.

The City should activate the Plow the Sidewalks Pilot Program when at least two inches of snow accumulate, aligning with the required accumulation in peer cities. This may be subject to change throughout the Pilot to allow the City to evaluate different program regulations. City personnel should be deployed to each zone to get a snow measurement on the sidewalk within each zone to determine whether at least two inches of snow have accumulated.

The Working Group recommends that the Plow the Sidewalks Pilot Program use existing Chicago Municipal Code⁷ provisions and current CDOT and DSS snow removal practices as guidance for its plow the sidewalk response times following a snow event. Response time guidelines will need to consider the operational considerations of providing snow clearance services at scale, labor/contractor considerations, and common travel times for residents (morning and evening commutes, school start times, etc.). In the case of an extreme or historic snow event, CDOT may need to adjust timeframes in consideration of the totality of snow operations.

Per existing language for businesses and homeowners in the Code, the City should clear sidewalks of snow and ice to create a continuous five-foot-wide path or the entire width of the sidewalk if it is less than five feet. The Pilot will not include courtesy or catwalk sidewalks, the property owner's sidewalks, or driveways.

WHERE SHOULD THE CITY OF CHICAGO ADMINISTER THE PLOW THE SIDEWALK PILOT?

The Working Group and community stakeholders considered where the City should operate the Pilot, in line with the criteria set forth in the Ordinance.

Pilot zones

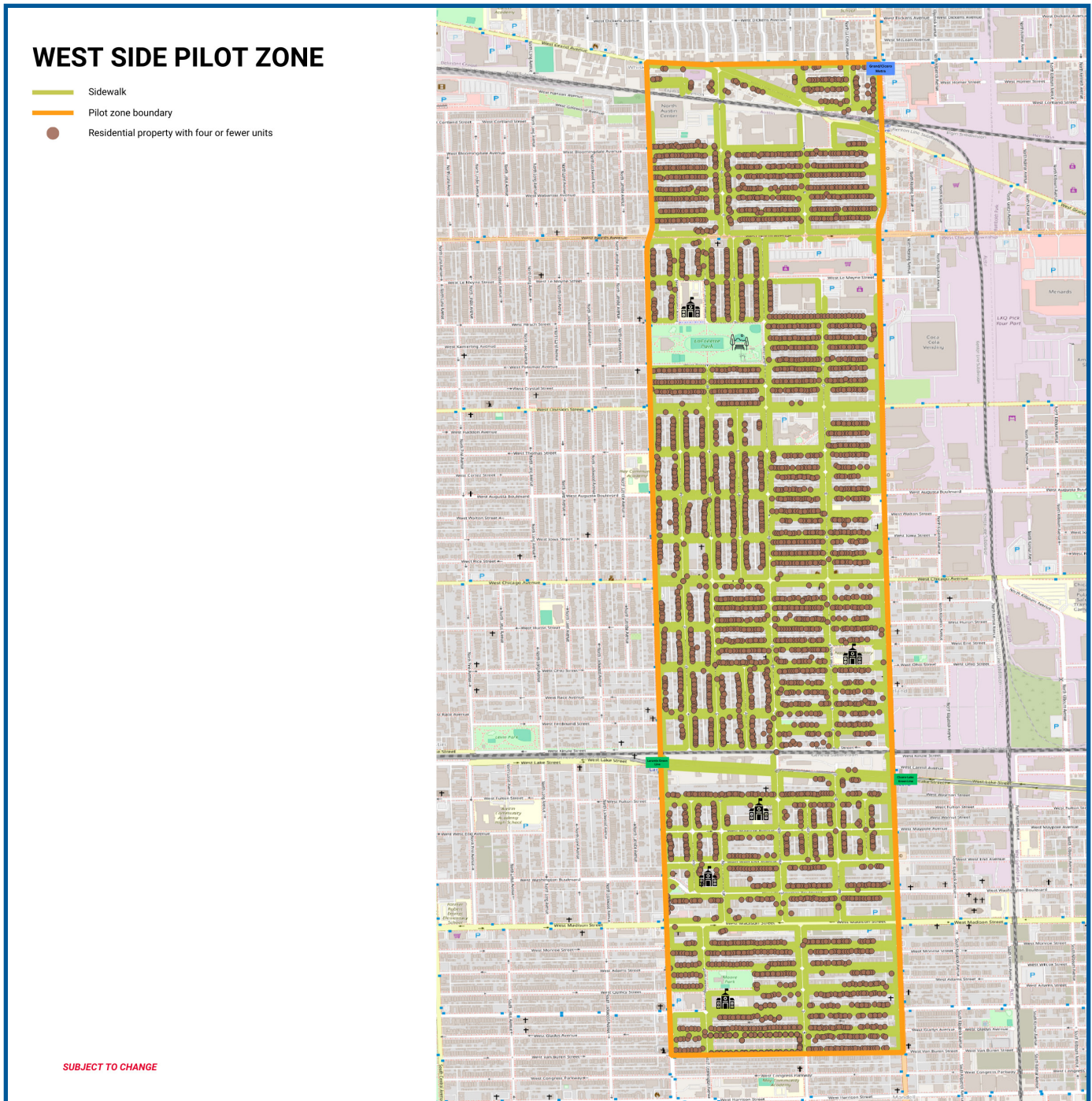
RECOMMENDATION 4: The City should conduct the Plow the Sidewalks Pilot Program in the four Pilot zones designed and recommended by the Plow the Sidewalks Coalition.

Community partners, including Access Living and Better Streets Chicago, along with consulting partners like AARP – Illinois, Active Transportation Alliance, Equiticity, Metropolitan Planning Council, Northwest Center, Palenque LSNA, Shared Use Mobility Center, and The Southwest Collective, made recommendations on proposed locations of the Plow the Sidewalks Pilot Program zones with input from additional community stakeholders.

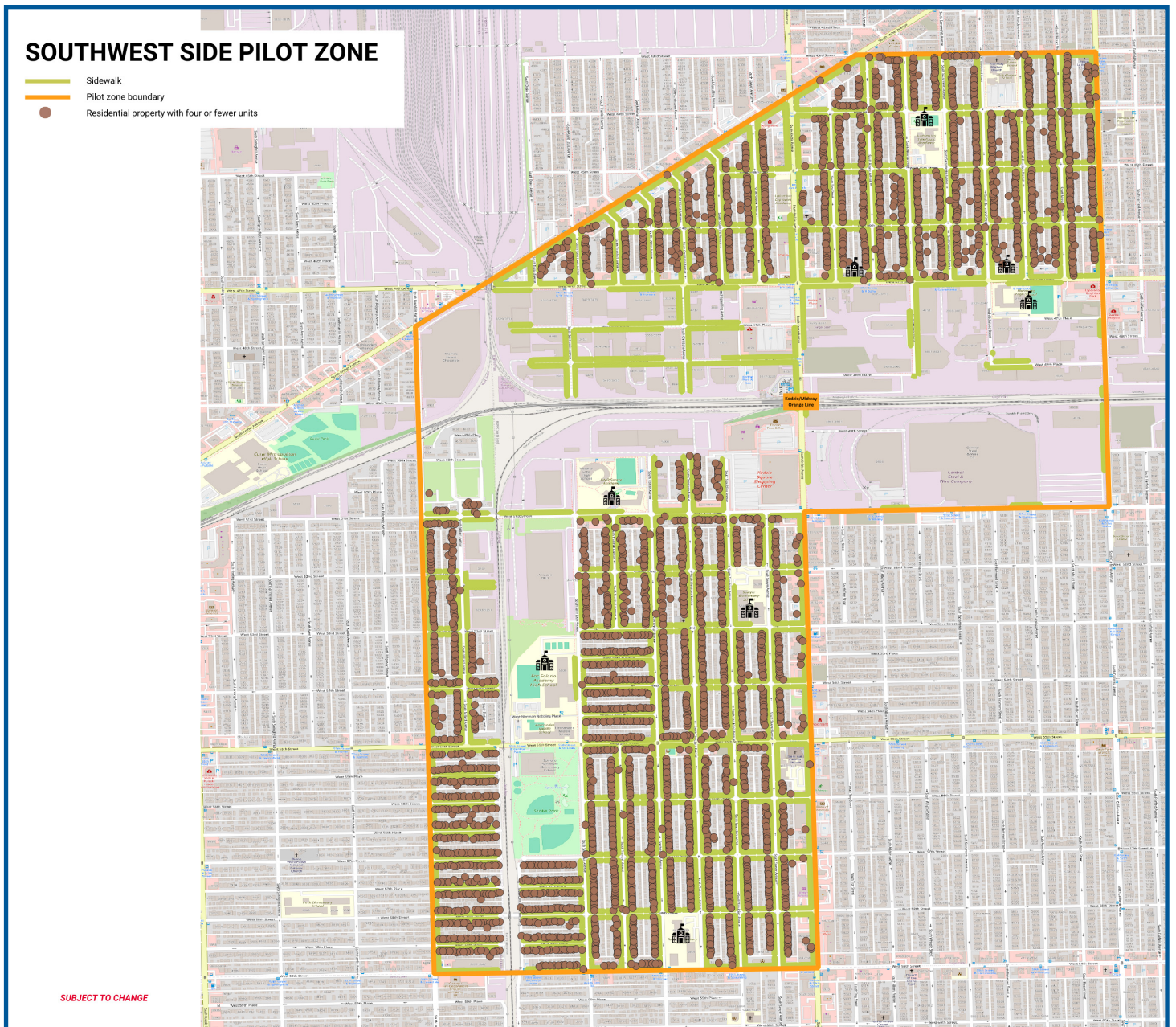
Coalitions prioritized areas of the city called out in the Ordinance, including concentration of individuals over 65 years old and children under 5 years old, population density, public transit ridership, number of zero-car households, concentration of low-income households, and areas of historical disinvestment. One of the main criteria community partners considered was the percent of residents with decreased mobility, who use mobility aids, are blind or low vision, and any other impacted disabilities. To map disability, partners used Census data and data from two imaging tools, one created by the City and one developed by the Plow the Sidewalks Coalition in collaboration with data scientist Ashley Asmus.

The Plow the Sidewalks Coalition data tool created a Disability Matrix to determine on a scale of 1-100 if a block had a high percentage of people with ambulatory and vision disabilities. Based on this Matrix, the North Side zone scored 84 points on the Disability Matrix, the West Side zone scored 98 points on the Disability Matrix, the Southwest Side scored 61 points on the Disability Matrix, and the South Side scored 100 points on the Disability Matrix.

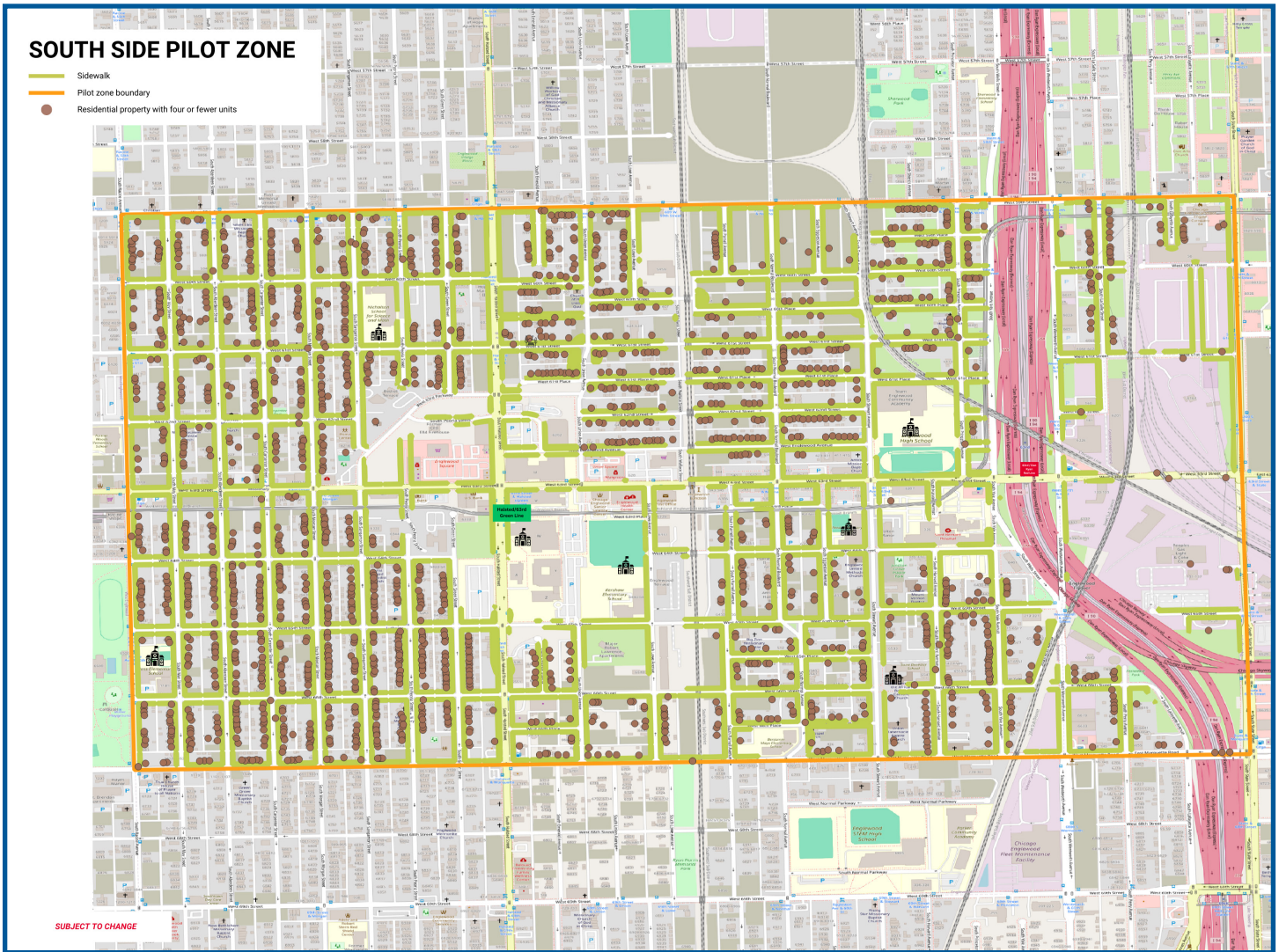
CDOT should administer the Plow the Sidewalks Pilot Program in the following Pilot zones:⁹



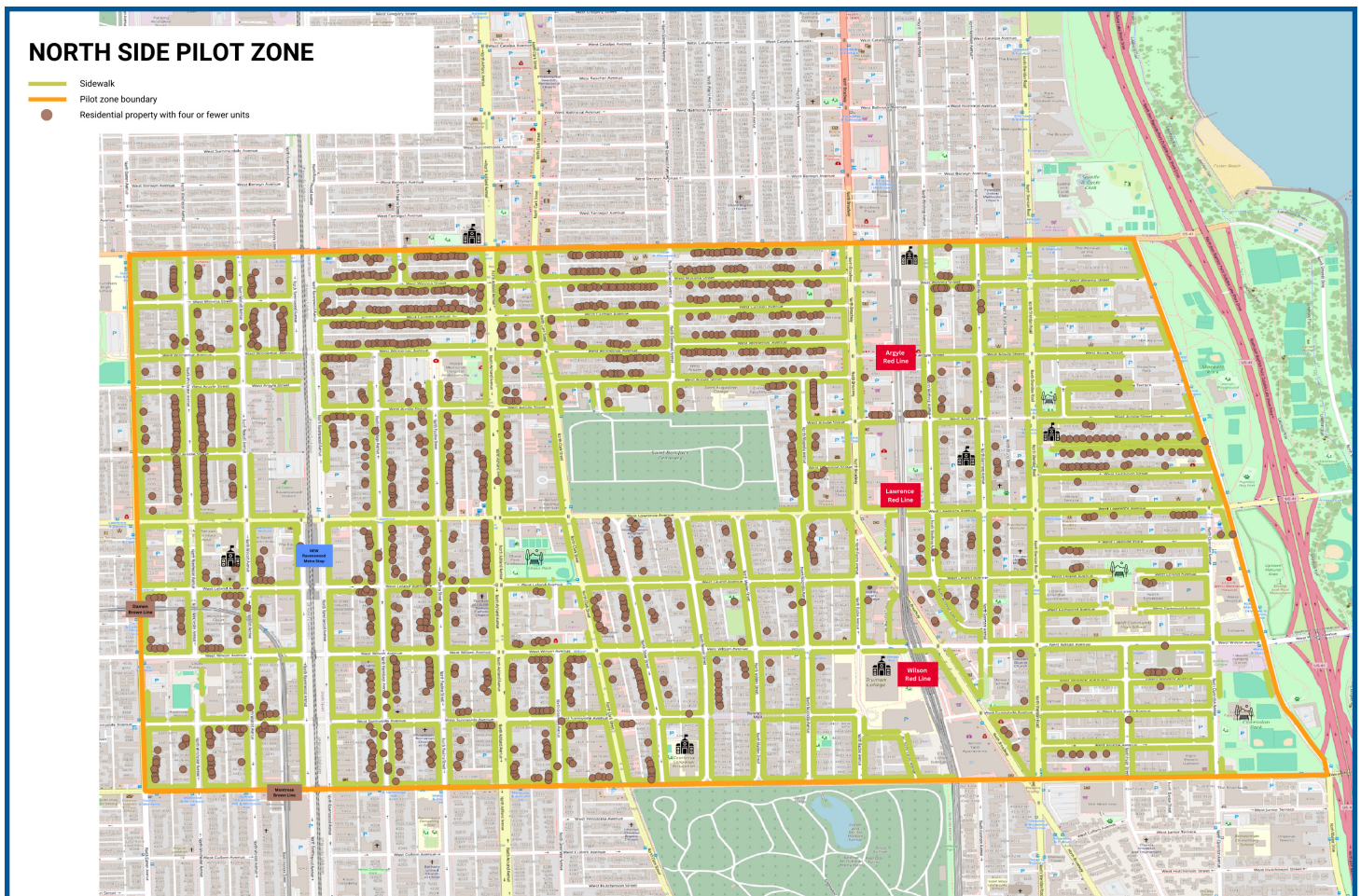
1. West Side Zone¹⁰: The area bounded by Armitage Avenue to the north, Cicero Avenue to the east, Van Buren Street to the south, and Laramie Avenue to the west. This area is centered in the Austin community area and touches Belmont Cragin. The Coalition noted that it scored highly for both Density and Disability, including some of the highest scoring areas for the entire City.



2. Southwest Side Zone: The area bounded by the stretch of Archer Avenue between Lawndale Avenue and 43rd Street to the northwest, 43rd Street to the north, California Avenue to the west between 43rd Street and 51st Street, Kedzie Avenue to the west between 51st Street and 59th Street, 51st Street to the south between California Avenue and Kedzie Avenue, 59th Street to the south between Kedzie Avenue and Lawndale Avenue, and Lawndale Avenue to the west. This area incorporates portions of Gage Park and Brighton Park. The Coalition’s report noted that the zone has one of the highest hardship index scores city-wide, and moderately high Density, though relatively low Disability in comparison to other Pilot zones. The neighborhoods are also known as Environmental Justice Areas due to high levels of industrial pollution.



3. South Side Zone: The area bounded by 59th Street to the north, State Street to the east, 67th Street to the south, and Racine Avenue to the west. This area is centered on Englewood and interfaces with the Interstate highway system. The coalition reported that this area is notable its high Disability Matrix score which extends well beyond the boundaries of the Pilot zone.



4. North Side Zone: The area bounded by Foster Avenue to the north, Marine Drive to the east, Montrose Avenue to the south, and Damen Avenue to the west. This area includes the Uptown and Lincoln Square community areas. The Coalition noted in its report that this area scores highly for both Density and Disability (the highest scores for both on the City’s north side). Additionally, the area features many community amenities like schools and several significant commercial districts such as the Uptown entertainment district.

Deep Dive: CDOT Public Way Inspectors Survey of Pilot zones

Between January 16-17, 2024, CDOT public way inspectors surveyed sidewalk snow removal rates adjacent to 15,000 properties in the recommended Pilot zones in the days after a significant snow event(s) ended on January 13, 2024. The Southwest zone saw a 91% clearance, the North zone saw a 75% clearance, the West zone saw 56% clearance, and the South zone saw 50% clearance. The high rate of vacant lots in the West and South was a significant factor in the lower clearance percentages for these zones. The project team had intended to do additional surveys after snow events, however due to the very mild winter, there were no additional chances to survey and collect data.

Residents being “good neighbors” and businesses throughout the City provide a tremendous amount of bandwidth and this resource will need to continue to be a part of sidewalk clearing efforts in Chicago. When considering how to expand this potential new City service, it is critical to consider how it can be implemented in a format that does not lead to the diminishment of the current efforts by business and large residential property owners to plow their own sidewalks. The City should focus its resources to residents and businesses to further expand Chicago’s response capabilities.

OPERATIONAL APPROACH

RECOMMENDATION 5: The City should pilot the use of a Targeted Residential approach and a Universal approach to effectively evaluate the efficacy of existing plowing efforts of other public or private entities.

Based on an analysis of operational approaches used by sister agencies, other cities, wards, and Special Service Areas (SSAs) and an input session with community stakeholders, the Working Group considered Universal, Targeted Residential, and Request-based approaches to determine which properties and blocks will be part of the Pilot, ultimately determining that the Targeted Residential and Universal approaches should be utilized, each in two different Pilot zones. Piloting the Targeted Residential approach will allow the City to evaluate the role played by large property owners and businesses in commercial districts to maintain clear sidewalks in contrast to the City serving as the predominate service provider. The Working Group recommends prioritizing the South and West zones to pilot the Universal approach, as those zones have the highest concentrations of disabled people.

Throughout the Pilot, the Working Group recommends that the City continue to assess the value and efficiency of a Targeted Residential approach compared to a Universal approach. Additional approaches may be explored as the Pilot progresses, or the City begins to discuss expansion.

Operational Approach	Universal	Targeted Residential	Request-based not recommended
Description	City and/or contractors plow all sidewalks regardless of property type or existing plowing efforts by other parties.	City and/or contractors will provide sidewalk snowplow services to any block where a residential property with four or fewer units is located. Vacant lots will also be plowed under this approach.	City and/or contractors plow sidewalks/blocks of residential properties that have applied to program due to disability and/or age.
Budgetary Considerations	<ul style="list-style-type: none"> • Initial assumption is that approach is most costly. • Likely requires revenue generation if expanded beyond Pilot. 	<ul style="list-style-type: none"> • Initial assumption is that approach is more cost-effective. 	<ul style="list-style-type: none"> • Initial assumption is that approach is lowest cost. • Difficult to estimate cost due to unknown number of anticipated requests/applications.

Enforcement Considerations

Under the proposed Pilot, residential buildings with more than four units, commercial, industrial, and other non-residential buildings should remain responsible for removing snow and ice from sidewalks abutting their properties. Under the Targeted Residential approach, these property types will not be plowed by the City. Under the Universal approach, all sidewalks in the Pilot zone will be plowed by

Operational Approach	Universal	Targeted Residential	Request-based not recommended
<p style="text-align: center;">Operational Considerations</p>	<ul style="list-style-type: none"> • Unlikely to include keyhole to crosswalk plowing services. • Does not factor in existing sidewalk snowplow services in major commercial corridors or Special Services Areas (SSAs). 	<ul style="list-style-type: none"> • Initial surveys showed 50% + of properties cleared sidewalks following a snow event. • Gaps in plowing service on blocks with negligent property owners. • Attempts to maintain existing snowplow services in major commercial corridors 	<ul style="list-style-type: none"> • Keyhole to crosswalk plowing services for applicable properties. • Gaps in plowing service on non-qualifying blocks/ blocks with negligent property owners.

the City, however, larger residential, commercial, industrial, and other non-residential buildings will be encouraged to continue clearing their sidewalks. The City should target its enforcement resources, personnel and efforts on commercial or industrial corridors, large residential buildings, and other non-residential buildings. These efforts should prioritize education of property owners on snow removal responsibilities, as well as consistently notifying property owners of Municipal Code requirements. To assess if privately managed sidewalk snow removal services are effectively clearing sidewalks in a timely manner, it will be critical to closely monitor sidewalk snow removal in the Targeted Residential zones. CDOT Public Way Inspectors, Ward Superintendents, and other personnel with authority should investigate and issue citations to building owners that violate the Code requirements¹³.

Communications and Community Engagement

RECOMMENDATION 6: The City should employ a range of methods to communicate with residents and coordinate with Ward offices in advance of and throughout the Pilot Program.

Communications and community engagement strategies, each of which should include translation and/or interpretation of other languages, may include:

- Direct Messaging: Explore opt-in direct text messaging platforms to inform residents of deployments and other program updates.
- Direct Mail: Send postcards or flyers to addresses within each Pilot zone clearly communicating the details of the Plow the Sidewalk Pilot Program.
- City Website: Create an easily accessible microsite that explains the Pilot Program and includes something like Plow Tracker.
- Press/Aldermanic Outreach: Submit press releases to local newspaper outlets. Draft information for inclusion in Aldermanic newsletters with contact information and links for further information and feedback.

- Social Media Platforms: Post regular and engaging updates on official city social media accounts like the ongoing information already provided during winter events.
- Community Engagement: Collaborate with the Plow the Sidewalks Coalition, Alderman, Chambers of Commerce, SSAs, and other institutions within the pilot zones and consider collaboration with City Sister Agencies.

Program Operations

RECOMMENDATION 7: The City should ensure snow is removed in a way that does not obstruct pedestrian or vehicle traffic or access to emergency access points or other public infrastructure.

Chicago’s sidewalks vary drastically from block to block, and each block will have its own unique characteristics that will determine where the snow is pushed as its removed.¹⁴ The Plow the Sidewalks Pilot will follow the City’s existing snow storage plan and will not impact parking. The Working Group anticipates that this plan will evolve as more lessons are learned through experience.

Snow Storage Recommendations:

- Snow removed from sidewalks should be pushed or placed to the sides of sidewalks or other areas where it will not obstruct pedestrian or vehicle traffic or access to emergency access points or other public infrastructure.
- The City has developed a snow storage plan to account for excessive snowfall that must be removed, relocated, and stored at an off-site location so as not to obstruct public infrastructure and traffic.

Factors that impact snow storage strategy include, but are not limited to: the width of the sidewalk; the layout of private and city property adjacent to the sidewalk (such as private driveways, fence, etc.) and streetscape elements including lighting, trees and other plants, type of pavement, street furniture, waste receptacles, and bike racks, USPS mailboxes, newspaper stands, parking meters; public art, bus stops and shelters, traffic control devices; and fire hydrants.

RECOMMENDATION 8: The City should prioritize the use of multipurpose tractors to plow city sidewalks, and in general use equipment and materials that minimize noise disruptions and environmental risks.

The Working Group anticipates that multipurpose tractors will be the most efficient and utilized method to plow city sidewalks, with snow blowers, shovels, ice crackers, and brooms utilized as an additional method when necessary. The exact tools and equipment utilized in the Pilot may be more varied in order to facilitate evaluation of different methods.

See Appendix A: Equipment and Materials Considerations for more details.

Service Models

RECOMMENDATION 9: The City should use a combination of contracted services and in-house services for the Pilot to evaluate the success of implementation of both delivery models.

Contractor Services

The Pilot should deploy contractor services across all four Pilot zones for up to seven qualifying snow events (“deployments” or “deployment events”). The City’s Department of Procurement Services (DPS) advised that the managing department use Work Services contracts—low bid, estimated quantity contracts that allow for a base term and extension options—to secure contracts for snow removal services for each of the four Pilot zones.

Work Services contracts are very adaptable to these types of services, with line-item costs for the necessary elements of the Pilot alongside additional program parameters and requirements. In addition, the solicitation process for Work Services contracts is significantly shorter than for other procurement mechanisms such as requests for proposals (RFPs) and requests for qualifications (RFQs), which enables a faster start to the Pilot Program. The City should include performance metrics/requirements in the specification and contracts and evaluate Contractor performance and operational outcomes at the time of the deployment events.

DPS conducted an initial review of the market availability of landscaping companies, as the required functions of the Pilot are typically offered by that type of firm. This initial survey identified a total of 263 registered landscaping firms in the State of Illinois, 91 of which are registered in the City of Chicago, and 114 of which are certified as M/W/VBE firms. The managing department should use participation goals and any other available tools to ensure that small, local, and M/W/VBE businesses can participate in the Pilot. The managing department should work closely with the Office of Contracting Equity in DPS to ensure that appropriate contract-specific goals are included in the solicitation for these services, and that fulsome outreach is conducted to ensure that small, local, and M/W/VBE businesses are aware of this opportunity and have the information and resources necessary to compete and participate.

These Pilot contracts will provide opportunities for smaller businesses to gain experience or expand their services in a limited capacity. Should the City move to expand the Plow the Sidewalks Pilot Program beyond the Pilot zones, this strategy will help a broader set of potential Contractors gain labor and equipment resources needed, as well as some of the necessary expertise to provide sidewalk snowplow services.

Bidders may utilize bid incentives available through the DPS process that encourage employment of local and diverse workforce and environmentally sustainable practices, including the City Based Business, Local Manufacturing, Alternatively Powered Vehicles, and Diverse Management and Workforce incentives.

In-House Services

For the Pilot, the City should also be prepared to operate small-scale in-house services to supplement contracted services to enable the City to evaluate labor hours, equipment usage, materials, and performance and operational outcomes. The City should aim to provide in-house services for four snow events.

How much will the program cost?

To establish estimates for the cost of the Plow the Sidewalks Pilot Program, bids for the Chicago Public Schools snow removal service contracts were used as the basis of the contractor portion, and relevant departments were consulted to estimate labor, materials, and indirect costs required for the in-house portion.

Estimated Cost for the City of Chicago Plow the Sidewalks Pilot Program

RECOMMENDATION 10: The City should allocate between \$1.1 Million and \$3.5 Million in the annual budget to adequately fund a Pilot that deploys both contracted and in-house snow removal services across all four Pilot zones within the set parameters of these recommendations.

The estimated range above is based on a Pilot that utilizes contractor services for up to seven deployment events (defined as snow or ice accumulation of two inches or more) and deploys in-house services for up to four deployments. The estimate also assumes contractor and/or in-house teams would clear all blocks of sidewalk in each Pilot zone. Finally, these estimates assume that the City triggers a deployment if a clearance threshold of two inches of snow or ice accumulation occurs.

Breaking Down the Contractor Services Estimates

The contractor portion of the Pilot will consist of all four 1.5 square mile Pilot zones that will be plowed following snow events where accumulation is no less than two inches. The Working Group conducted an analysis of contractor-based sidewalk snowplow programs in multiple other cities and local agencies, ultimately determining that Chicago Public Schools' sidewalk snow removal programs will be used to estimate the cost of Chicago's Pilot Program. However, it should be noted that the school components and significant number of locations require more expensive snow removal services per square foot than we anticipate for the sidewalk snow removal Pilot Program.

CPS utilizes a contractor to clear snow and ice from sidewalks abutting approximately 600 properties that are divided into nine geographic zones. In addition, CPS utilizes a contractor to clear and ice from its parking lots, predominantly using plowing services. Contractor compensation is dependent on accumulated snowfall and square feet of sidewalk cleared within a zone. CPS may activate one, multiple, or all zones depending on weather conditions. The cost per square foot is uniform across all zones and ranges from \$0.009 for one-half inch of accumulation to \$0.0225 for up to 14 inches of accumulation. The cost of salt is also calculated based on accumulated snowfall and square feet of sidewalk cleared within a zone.

The Working Group reviewed bids from prospective contractors that CPS received in 2023 for sidewalk and parking lot snow clearing services. CPS's program uses shovels for all sidewalk clearing and plow trucks for all parking lots, and bids were broken down by the cost per square foot for shoveling sidewalks and the cost per square foot for plowing parking lots. Because the intention for Chicago's Plow the Sidewalks Pilot Program is to use plows as the primary method to clear sidewalks, the Working Group based the estimates for the contractor services portion of the Pilot both on bids to shovel CPS's sidewalks and plow its parking lots to form a more complete picture of cost range. Each estimate represents an average cost based on CPS bid data to deploy contractor services for a single deployment event in a single Pilot zone.

Estimated Cost for Contracted Single Deployment Event (based on Chicago Public Schools' 2023 bids to shovel sidewalks and plow parking lots)				
	Plow Parking Lots: Low Estimate	Plow Parking Lots: High Estimate	Shovel Sidewalks: Low Estimate	Shovel Sidewalks: High Estimate
Average estimated cost per deployment event per Pilot zone	\$38,000.00	\$73,000.00	\$56,000.00	\$111,000.00

Breaking Down the In-House Services Estimates

The in-house portion of the Pilot will allow for up to four deployments following snow events where accumulation is no less than two inches and no greater than eight inches. The below table breaks down the cost estimates for the in-house services portion of the Pilot. For each deployment, the City estimates that forty employees will be needed for roles ranging from laborers to hoisting engineers. For four in-house deployments, there will be a total of 1,280 hours of labor used based on each employee working an eight-hour shift of straight time, including an hour lunch and two ten-minute breaks.

In-House Budget Estimate: Single Pilot Zone			
Cost Type	Title	Rate*	Up to 4 Deployments
Direct (Personnel)	Laborer	\$50.37	\$40,294
	Motor Truck Driver	\$47.05	\$7,528
	Hoisting Engineer	\$58.30	\$9,328
	Foreman of Laborers	\$51.29	\$8,207
	Overtime		\$32,678
Direct (Non-personnel)	Item	Unit Price	Up to 4 Deployments
	Shovel	\$50.00	\$2,500
	Salt	\$31.50	\$104,328
	Gas	\$3.93	\$1,434
	Safety Equipment	\$240	\$9,600
Indirect	Description		Up to 4 Deployments
	Workers Compensation		\$18,000.00
	Liability		\$20,000.00
	Fringe		\$43,517.00
In-House Total			\$297,414

*Cost of Living Adjustments (COLA) included

See Appendix B: Comparisons & Case Studies for more information on other municipalities' program design and cost summaries.

Funding

Operating Expenses

Corporate Fund (0100) revenues would be utilized for any non-capital expenditures, including labor, materials, and contractual services. Without additional revenues to fund a Pilot Program, reductions from other program(s) budgeted in the Corporate Fund would be required.

Program Evaluation

RECOMMENDATION 11: The City should develop partnerships to evaluate Pilot success and understand community impact.

Evaluating Pilot outcomes is key to successfully operating the Pilot and understanding how a potential expansion of City-run sidewalk snowplow services could work. The City, including the Mayor's Office, departments, and Alderpersons, should seek to develop partnerships with third parties such as universities, research organizations, and community advocacy organizations to conduct a program evaluation throughout the duration of the Pilot. The City should also coordinate with Ward offices to proactively communicate expectations to all residents within a Pilot zone and obtain their feedback.



Special Service Areas: Lessons Learned

Special Service Area	Uptown SSA	Beverly SSA
<p>Description</p>	<p>The Uptown SSA¹⁹ attempted to provide sidewalk snow removal as a service for a few years but ended up discontinuing the program in 2016. The SSA would provide sidewalk snow removal from December 15th – March 1st for eight snow events when snow exceeded two inches within all 15 miles of the SSA. The contractor was required to clear a four-foot-wide path on the sidewalk, which they did with a combination of sidewalk plow, hand shovels, and salt. The annual cost of the program was approximately \$53,000. The sidewalk snow removal program was discontinued in 2016 as an SSA service. The Uptown SSA dedicated their snow budget to expanding their litter abatement program and purchasing a snow blower. When snow fall makes it difficult to do litter removal, the contractor does supplementary snow removal by hand at bus stops and schools. SSA staff will use the snow blower for supplementary snow removal when they receive complaints from SSA members.</p>	<p>The Beverly SSA²⁰ maintains year-round contracts that run from January to December. The same vendor is responsible for snow removal throughout the year and is required to clear when there is two or more inches. SSA-4 service does not include salt, rather the businesses are instructed to handle salting. SSA-20 does instruct the contractor to clear and spread salt. In both SSA-4 and SSA-20, the contractors perform services with 1-2 employees, and each has one machine and shovel. The contractors focus on clearing a path on the main walk and the businesses along the corridors are responsible for clearing a path to the door of their business and along the parkway and curb.</p>

Special Service Area	Uptown SSA	Beverly SSA
<p>Challenges</p>	<ul style="list-style-type: none"> • The contractor required a significant financial guarantee to have staff on call, even if they were never required to remove snow. • If eight events were surpassed or snow happened outside of the December 15th-March 1st window, no snow removal would occur, and it was confusing for neighbors. • Sidewalk treatment would not happen if there was only ice, which was confusing to neighbors. • The SSA struggled to find vendors to bid on the opportunity. • Large commercial property owners often had their own contracts and were frustrated that they were paying for snow removal twice (through own contracts AND SSA taxes). • By the time contractor would begin snow removal, a significant portion of sidewalks were already cleared, which for example, meant the SSA paid for 15 miles of sidewalk snow removal when the contractor only completed three miles of sidewalk snow removal. 	<ul style="list-style-type: none"> • The cost is a significant burden for both SSAs. It is very difficult for them to budget accordingly. • Their providers are small/local contractors, and the SSAs are their only client. Therefore, they are uninsured. • If there are issues with the equipment, the snow removal is delayed.

NEXT STEPS

Recommended next steps to implement the Plow the Sidewalks Pilot Program:

- Present working group findings to Committee on Pedestrian & Traffic Safety.
- CDOT, DSS, and DPS develop and release the bid specifications to procure Contractor services for the Pilot.
- The Office of Budget & Management appropriates funding for the Plow the Sidewalks Pilot Program in the Johnson Administration's 2025 Budget.
- The Working Group reconvenes community advocates to advise on issues related to the implementation of the Pilot, including enforcement, community engagement and education, and program evaluation.
- The City of Chicago Plow the Sidewalks Pilot Program launches in 2025 and the focus of the Working Group shifts to program evaluation.
- The City, including the Mayor's Office, departments, and interested Aldermen, should seek to develop partnerships with third parties such as universities, research organizations, and community advocate organizations to conduct a program evaluation throughout the duration of the Pilot.



ACKNOWLEDGEMENTS

The Plow the Sidewalks Working Group would first and foremost like to thank the members of the Plow the Sidewalks Coalition, who have paved the way for this Pilot since 2021. The movement was developed in partnership between Access Living and Better Streets Chicago, both of which played leading roles in providing input and guidance to the Working Group throughout this process. Special thanks to the dedicated staff at Access Living and Better Streets Chicago, including Laura Saltzman, Kyle Lucas, Alex Nelson, and Micheál Podgers, as well as campaign staff member and data scientist Ashley Asmus, for their work to design and recommend the proposed Pilot Zones rooted in equity and accessibility.

The Working Group also thanks the following supporting organizations of the Plow the Sidewalks Coalition for their participation and input throughout this process:

- AARP – Illinois
- Active Transportation Alliance
- AIDS Foundation of Chicago
- BPI
- Center for Neighborhood Technology
- Chicago, Bike Grid Now!
- Chicago Family Biking
- Chicago Jobs with Justice
- Elevated Chicago
- Equiticity
- Free to Move Coalition
- Independent Drivers Guild of Illinois
- Jewish Council Urban Affairs
- Metropolitan Planning Council
- Metropolitan Tenants Organization
- Northwest Center
- Palenque LSNA
- Shared Use Mobility Center
- Southwest Collective
- Urban Environmentalists
- Westside Justice Center

The Plow the Sidewalks Working Group engaged in meetings and multiple correspondences with staff from Chicago Public Schools, Toronto’s Transportation Services agency, and Burlington, Vermont’s Division of Street Maintenance. The Working Group is extremely grateful for the cooperation, communication, and professionalism of these public servants and extends our sincere thanks to them for being so gracious in sharing their time and knowledge with us. The Working Group also greatly appreciates the input and cooperation from Alderman Marty Quinn and his staff.

The Working Group is grateful to Alderman Daniel La Spata, Chairman of the Pedestrian & Traffic Safety Committee, Iris Postma, Chief of Staff for the Committee, Morgan Madderom, Niki Heer, Sophia Mayen, and staff from Alderman Gil Villegas’ office for their partnership, leadership, and tireless commitment to the Working Group process.

Finally, this report would not have been possible without the dedication of the Working Group members:

Tom Carney, Commissioner, CDOT
Mary Nicol, Acting Deputy Commissioner, CDOT
Angela Tovar, Chief Sustainability Officer, Department of Environment (DOE)
Jared Policicchio, Deputy Commissioner, DOE
Mark Chapulis, Deputy Commissioner, 2FM
Kevin Campbell, Director of Maintenance Operations, 2FM
Rachel Arfa, Commissioner, Mayor's Office for People with Disabilities
Clarissa Stanhope, Training Officer, Mayor's Office for People with Disabilities
Sandra Blakemore, Commissioner, DHR
Kathleen Doyle, First Deputy Commissioner, DHR
Jessica Higgins, Assistant Deputy Mayor, Infrastructure, Office of the Mayor
Olivia Ortega, Policy Advisor, Policy, Office of the Mayor (Lead Author)
Aileen Velazquez, Chief Procurement Officer, DPS
Jezieel Cortes, Deputy Procurement Officer, DPS
Cole Stallard, Commissioner, DSS
Luis Zepeda, First Deputy Commissioner, DSS
Erik Colon, Managing Deputy Commissioner, DSS
Nick Lucius, Chief Information Officer, DTI

In addition, the following individuals from the Office of the Mayor were instrumental in the Working Group process:

John Roberson, Chief Operating Officer, Office of the Mayor
Brenda Garcia, Administrative Assistant, Office of the Mayor
Annette Guzman, Budget Director, OBM
Kevin Schuster, Deputy Budget Director, OBM
Alec Kelley, Assistant Budget Director, OBM
William Coscore, Budget Analyst, OBM
Andrew Miller, Recovery Team Program Manager, OBM
Lori Lypson, Deputy Mayor, Infrastructure
Sydney Holman, Deputy Mayor, Intergovernmental Affairs
Erik Martinez, Deputy Director, Intergovernmental Affairs

Emily Melbye, Senior Legislative Assistant, Intergovernmental Affairs

S. Mayumi “Umi” Grigsby, Chief of Policy, Policy

Mara Heneghan, First Deputy, Policy

Jung Yoon, Deputy, Assistant Director, Policy

Olivia Ortega, Policy Advisor, Policy (Lead Author)

Matthew Swalek, Policy Analyst, Policy

Madeleine Pattis, Intern, Policy

Ritwik Bose, Intern, Policy

Nick Chanko, Mayoral Fellow



APPENDIX A: EQUIPMENT & MATERIALS CONSIDERATIONS

The applicability of and compliance with these requirements and recommendations should be considered during the development of the Pilot.

Regulatory Considerations:

The City's operations are regulated by permits and regulations related to stormwater that may be applicable to the Pilot with the use of de-icing materials as a potential stormwater contaminant and source of chloride. Permits include the General National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer Systems (MS-4), and General NPDES Permit No IL G103064 for Chloride Time Limited Water Quality Standard for Discharges to the Chicago Area Waterway System Watershed issued 9/29/2022. The Metropolitan Water Reclamation District issues regulations and standards that may also apply.

Cumulative Health Impact Considerations:

The environmental, climate, and health burdens from pollution are vast and should be accounted for to minimize unintended outcomes. The managing department should account for the following considerations as the specifics of the Pilot are developed:

- **Safety:** Ergonomic shovels should be used to reduce the chance of injury. Conduct a complete Job Hazard Analysis to identify required personal protective equipment which could include high visibility vests, safety glasses, leather gloves, hearing protection, safety shoes and snow cleats.
- **Air emissions:** A USEPA studies show that gasoline powered lawn and garden equipment are a prevalent source of toxic and carcinogenic emissions and contribute substantially to nonroad emissions of benzene, 1,3 butadiene, formaldehyde, carbon monoxide, and fine particulate matter (PM 2.5).²¹ These emissions can affect residents and equipment operators.
 - Use battery-, electric-, or hybrid-powered snow blowers instead of gasoline-powered ones.
 - Only use blowers for large areas that need to be cleared of snow. Though electric products consume energy, they do not consume gas or emit greenhouse gases.
 - Limit the use of gas-powered snow blowers to extremely large areas not practical for battery power and spaces too far for an electrical cord to reach.
 - If gas-powered snow blowers must be used, look for the most fuel efficient with emission controls.
- When power equipment must be used, electric equipment (battery or corded), instead of conventional gas-powered equipment, shall be used wherever practical, with a goal of no less than 20% of all applicable equipment used being electric.

- Develop procedures for waste fuel management at the end of the snow season to save unused gasoline from the blower instead of wastefully burning it off by running the engine.
- Noise: Any equipment must be equipped with noise controls.
- Use of Sand: Sand can be used on the surface of the snow to add traction.

Optimal Products for Sidewalks:

Manual methods to clear ice and snow, such as a high-speed rotary brush, should be used before de-icing products to limit the amount of chemicals needed. If salt must be utilized, the City should be mindful of the following environmental considerations: To protect areas with direct drainage to the City's waterways, the City or its contractors should explore using de-icing products that are free of chloride and meet the Qualified Product List²² (QPL) and U.S. Environmental Protection Agency Safer Choice²³ standards. In other areas, the City or its contractors should use environmentally preferred de-icing products that meet the QPL or Safer Choice standards and do not include sodium chloride or calcium chloride. The City should not use sodium chloride and calcium chloride de-icing products, or when environmentally preferred de-icing products have been ineffective and created potentially dangerous situations. In these instances, all products must meet QPL or Safer Choice standards. The City should develop a procedure for emergency use of these materials prior to the program start.

De-icing Considerations

- Manual methods to clear ice and snow, such as a high-speed rotary brush, should be used before de-icing products to limit the amount of chemicals needed.
- Centralized inventory control is recommended as well as active monitoring of usage to identify any outliers where an excess amount of de-icing material is being consumed. The amount of de-icing product used may be required to be reported to the IEPA on an annual basis pursuant to the MS-4 permit.
- Excess de-icing material may be swept up after the snow event and reused.

Animal & Pet Considerations

- Road salt is not safe for pets.
- Magnesium chloride and CMA de-icing products are pet friendly, but ingestion can cause gastrointestinal issues.
- Education and outreach should be used to inform residents about the risks to their pet from consuming de-icing products and to recommend wiping their feet before entering the house to remove any material that they may lick off their paws.

APPENDIX B: COMPARISONS & CASE STUDIES

Programs from eight political subdivisions that remove snow and ice from some or all sidewalks located in the public right of way were surveyed by OBM to inform the City’s contracted rate estimate. The purpose of this exercise was to survey the costs of outside programs and break them down so they may be used to understand the estimated contracted costs of Chicago’s proposed Pilot Program.

Chicago Public Schools

Program Summary

The Working Group conducted an evaluation of snow clearing efforts of the Chicago Public Schools (CPS) which utilizes a combination of in-house and contractor services for this service. However, CPS has a much higher utilization of contractors to deliver snow clearing.

CPS utilizes a contractor to clear snow and ice from 8,997,406 square feet of sidewalk abutting approximately 600 properties that are divided into nine geographic zones. Contractor compensation is dependent on accumulated snow fall and square feet of sidewalk cleared within a zone. CPS may activate one, multiple, or all zones depending on weather conditions. The cost per square foot is uniform across all zones and ranges from \$0.009 for one-half inch of accumulation to \$0.0225 for up to 14 inches of accumulation. Each inch of accumulation over 14 inches incurs an additional charge of \$0.016043 per inch.

While CPS clears snow on City right of way (ADA curb ramps and sidewalks), there are limitations of this comparison. For CPS, the focus is very much directed at school campuses (e.g., entry stairs, parking lots, or side entrances). This is a significantly different focus than snow clearing at the block level. Due to this focus, snowblowers, shovels, and salt spreaders are relied on heavily to complete the task. It should be noted that the focus on CPS campuses and significant number of locations served requires more labor-intensive snow removal services per square foot than the Working Group anticipates for the Pilot Program.

Chicago Public Schools Bid Range						
Snow accumulation	0.5” – 2”	2.1” - 4.0”	4.1” - 7.0”	7.1” - 10.0”	10.1” - 14.0”	Over 14.0”
Price per sq/ft (Plowed)	\$0.003	\$0.005	\$0.007	\$0.010	\$0.014	\$0.003
Price per sq/ft (Shoveled)	\$0.0900	\$0.0126	\$0.0162	\$0.0198	\$0.0225	\$0.016043

Chicago's 13th Ward

Program Summary

Chicago's 13th Aldermanic Ward operates a program that seniors and persons with disabilities can opt-in to have snow and ice cleared from their sidewalks when accumulation is at least two inches. The program includes approximately 800 households or about half of the 5.25 square mile ward. The bulk of snow and ice is removed by hand laborers and paid drivers using an enclosed utility task vehicle (UTV) with a plow blade attachment, while hand laborers shovel sidewalks that are too narrow for the UTVs. A contractor is also utilized to clear about half of the program area.

Cost Summary

The annual cost for the 13th Ward's program is estimated to be \$160,000, or \$20,000 for eight two-inch snow events²³. This includes in-house labor, materials, equipment, liability insurance, vehicle maintenance, and contracted labor. It should be noted that the program mostly utilizes non-City personnel and is heavily subsidized with non-City funding.

Other Cities

To gain additional operational insights and achieve a thorough, all-inclusive cost-out for the Pilot, the City inquired with a variety of municipalities who administer similar programs. The scale of most U.S. programs and the methodologies failed to be comparable to the scale of programming in Toronto, Ontario. Many programs (e.g., Holland, MI, Syracuse, NY, and Burlington, VT) run their programs as "supplemental," meaning they run programs to help property owners clear their sidewalks, but the municipality is not liable if the sidewalk is not completely cleared. Most of these municipalities focus on their central business districts and treat residential areas as a secondary focus. Toronto's plowing needs are more applicable to Chicago as they apply to multiple residential and business districts. However, significant variances do exist between Chicago and Toronto's current built environment. Most notably, Toronto's parking restrictions on residential blocks, layout of subdivisions, and volume of residential driveways. These variances will make Chicago's efforts different than some elements of Toronto's program, which has grown and evolved over the past 20 plus years.

Three out of the six municipalities OBM contacted had a direct fee/tax increase initiated to pay for some or all the sidewalk plowing program. The remaining three cities (Holland, Burlington, and Toronto) pay for their programs using their city's general fund and did not specify whether general fund increases were used to cover the costs of the program directly.

City	Program Summary
Toronto, Canada	<p>The City of Toronto has a comprehensive winter sidewalk clearing program consisting of 4,932 miles²⁵ of sidewalk.. Sidewalks are cleared and salted when snow accumulation reaches two centimeters or more. Of the 4,932 miles of sidewalk cleared, 3,173 miles are cleared by contractors and 1,759 miles are cleared by in-house staff. Contractors are paid a base or “daily rate” of \$17,400,141 per year for the cost of maintaining equipment, standby operator payroll, and insurance. In addition to the daily rate, contractors are paid an “operating rate” of \$5,631,819 per snow event. The operating rate is the cost to complete one round of snow removal within 12 hours. Costs have been adjusted to U.S. Dollars²⁶ and the United States’ labor market²⁷.</p>
Minneapolis, Minnesota	<p>The City of Minneapolis’ sidewalk snow and ice removal program is limited to properties that are not in compliance with municipal code²⁸ that requires adjacent property owners to remove snowfall within 24 hours after a snow event. If a property owner is found not to be in compliance, Minneapolis first issues a warning, and if still not cleared upon reinspection, a work order is issued for the removal of snow and ice by a contractor. The contractor can expect work orders for up to 250 properties following a snow event with multiple snow events within a week.</p> <p>The contractor is compensated for each property that is cleared each time it is cleared, and the price per property is either \$99 if it is a mid-block lot or \$229 if it is a corner lot. It is assumed that the length of a mid-block lot is 40 feet long and the length of a corner lot is 165 feet long; sidewalk width is assumed to be 6 feet²⁹.</p>
Syracuse, New York	<p>Syracuse’s contract is based on a maximum of 35 clearings per season with a strong emphasis on clearing designated zones near schools, downtown stores, and other city amenities. Programs are run when snowfall exceeds 2.5 inches, and the contractor will eventually clear all 125 linear miles of sidewalk. The city also reimburses all the legal expenses/insurance costs that the contractor incurs. Syracuse’s contract is based on the number of snow events in a given season.</p> <p>One distinguishing factor in Syracuse’s program is that the sidewalk snow plowing program administered by the city is covered by an overall citywide fee that covers the cost of the program along with general municipal sidewalk repair. Introduced in 2023, the special fund generated roughly \$4.5M in revenue over one year.³⁰ The fee for residential and commercial property owners will scale year over year.³¹</p>
Rochester, New York	<p>Sidewalk plowing in the City of Rochester is entirely contracted with deployment occurring when snowfall accumulation exceeds four inches. Each run of plowing is divided into 15-mile sections and typically occurs in the evening or early morning when pedestrian traffic is at its lowest. Contractors are offered a cash guarantee, but runs are not guaranteed per year. Funding for the sidewalk plowing program is generated through an “Embellishment Fund” in which fees are assessed based on property taxes and the front footage of a property³². OBM did not hear back on the total revenue generated from this fund, however, on average the typical home-stead pays \$46.31 in additional fees per year for the sidewalk plowing program specifically³³</p>

City	Program Summary
Holland, Michigan	<p>Holland’s sidewalk plowing program is used as a supplemental program for the residents. They account for 200 linear miles of sidewalk with a clearance threshold of 3-inches. Unlike many of the other municipalities the City inquired with, they run this program entirely in-house with five “trackless” plows driven by five laborers, but this does not include salt, liabilities, or seemingly any other costs. Although they plow all their sidewalks, there is no expectation that all snow will be removed after a first-round pass. Any residual snow or ice from the initial run is the responsibility of the property owner to remove. Holland budgets a total of \$75,000 for the sidewalk plowing program.</p>
Burlington, Vermont	<p>Burlington operates both sidewalk and street plow programming during the winter months. The city has 130 miles of sidewalks, and nine unique sidewalk routes plowed by 17 City workers part of the Division of Street Maintenance. Sidewalk clearing is focused on areas with highest pedestrian use, including schools and business districts. Snow clearance is normally triggered when snow is above ½ an inch. Sidewalks are plowed, scraped, and sometimes salted. Burlington uses multipurpose tractors to plow and sand city sidewalks. Burlington’s Sidewalk Plow Program is operated by the Department of Public Works, specifically under the Street Maintenance Division. The City employs 17 – 18 full-time Street Maintenance workers and two seasonal employees. In times of high need, additional volunteers are incorporated into snow removal services.³⁴ The Program costs \$852,221 annually.</p>



ENDNOTES

- 1 | <https://www.chicago.gov/content/dam/city/depts/mayor/TransitionReport/TransitionReport.07.2023.pdf>
- 2 | Co-governance can be defined as “...Government and communities work together through formal and informal structures to make collective policy decisions, co-create programs to meet community needs, and ensure those policies and programs are implemented effectively.” - Partners for Dignity & Rights
- 3 | (SO2023-0002851) Sponsored by Alderman Daniel La Spata, 1st ward and Alderman Gil Villegas, 36th ward.
- 4 | In 2024, the responsibilities and services provided by AIS were apportioned to the Department of Fleet & Facility Management and the Department of Technology & Innovation, both of which were represented in the Working Group.
- 5 | Once delivered, this report reflects the Working Group’s efforts and will fulfill this requirement.
- 6 | The July 2023 ordinance set a deadline of and no later than May 1, 2025 for this study. It is anticipated that date will need to be amended to allow for sufficient time and number of snow events to evaluate operations under the Pilot.
- 7 | Chicago Municipal Code (Code) specifies that if snow accumulates during the day between 7 a.m. and 7 p.m. businesses and homeowners must remove it as soon as practicable, but no later than 10 p.m. of the same day. If snow accumulates overnight between 7 p.m. and 7 a.m., businesses and homeowners must remove it no later than 10 a.m. of the same day.
- 8 | For the total square feet of sidewalk in each Pilot zone, please see Appendix B: Comparisons & Case Studies.
- 9 | All maps included in this section delineate the boundaries of the pilot zones (orange), the sidewalks (green), and residential properties with four or fewer units (dots) for the purposes of the Targeted Residential approach.
- 10 | The Chicago Health Atlas defines Environmental Justice (EJ) Areas as communities in Chicago most burdened by pollution and most vulnerable to its effects based on a composite score of cumulative impacts. Any census tract with a Chicago EJ Index Score of 75 or greater is designated as an EJ Neighborhood.
- 11 | To measure Density, the Plow the Sidewalks story tool created a Density Matrix weighted to maximize the raw number of people who will experience sidewalk snowplowing service, with attention given to those most likely to use sidewalks regularly (e.g., people who don’t drive or don’t drive often).
- 12 | To measure Disability, the Plow the Sidewalks story tool created a Disability Matrix weighted to maximize the number of people who will experience the benefits of sidewalk snowplowing resulting in greater ease of movement and mobility through the City. The Coalition’s tool pulled data for people with ambulatory
- 13 | Section 10-8-180 (a) (2) Snow which falls or accumulates between the hours of seven a.m. and seven p.m. shall be removed as soon as practicable, but no later than ten p.m. of the same day. Snow which falls or accumulates overnight between the hours of seven p.m. and seven a.m. shall be removed as soon as practicable, but no later than ten a.m. of the same day.

- 14 | Further information and illustrations of these items can be found in the City of Chicago Streetscape Guidelines, the Guide to the Chicago Landscape Ordinance, and the CDOT Construction Standard for Work in the Public Way.
- 15 | The Pilot solicitations and contracts may include base City terms and conditions, detailed specifications for the work, a limitation of contract award if applicable, staffing requirements, equipment parameters, price adjustment language, deployment activation language, estimated quantities, M/W/VBE requirements, default and cure provisions, and guidelines or requirements related to green products/equipment and emissions.
- 16 | Resource Guide – Incentives & Programs_051221.pdf (chicago.gov)
- 17 | For each Pilot area, whether contracted or in-house, \$20,000 is included in the total costs to account for personal injury claims brought against the City that may occur during the Pilot Program. This figure is the median amount for three settlements and judgements related to injuries sustained from slip-and-falls on City properties between 2011 and 2021. Actual settlement and judgement amounts may vary.



- 18 | Clearance threshold and cost are inversely related: the greater the threshold, the lower the costs because there are fewer qualifying snow events. The average number of qualifying snow events for 2-inch clearance threshold is seven; this corresponds to the median number of 2- inch snow events between 2010 and 2022.
- 19 | The Uptown SSA encompasses both Broadway and Sheridan Road from Irving Park Road (4000 N) to Foster Avenue (5200 N), parts of Clarendon Road and Marine Drive, as well as the east-west streets of Argyle, Lawrence, Leland, Wilson, and Montrose.
- 20 | SSA-4 encompasses both sides of 95th Street from Ashland Ave to Western Ave. SSA-20 encompasses both sides of Western Ave from 99th Street to 119th Street (the east part of Western Ave is not covered south of 111th Street).
- 21 | Banks & McConnell, National Emissions from Lawn and Garden Equipment, epa.gov, 2015
- 22 | Qualified Products List - Clear Roads. <https://www.clearroads.org/qualified-product-list/>
- 23 | Search Products that Meet the Safer Choice Standard | US EPA <https://www.epa.gov/saferchoice/products>
- 24 | Figures provided by Ward 13 staff.
- 25 | Converted from kilometers to miles.
- 27 | To adjust for the labor cost location differential the operating rate was increased by 15%. This estimate is based on comparing median hourly wages for select job titles from data published by the national governments of United States (Bureau of Labor Statistics) and Canada (Job Bank)
- 28 | City of Minneapolis, Minnesota Municipal Code §445.
- 29 | Canadian Dollars (CA\$) converted to U.S Dollars (US\$) at a rate of \$CA1.00 to US\$0.76154.
- 30 | “2023-2024” Annual Budget”, City of Syracuse, 2023, pp. 96.
- 31 | For residential properties the fee will start at \$0 for the first year and increase by \$20 until it reaches the max \$100 fee on the sixth year. For commercial properties the fee will start at \$0 for the first year and increase by \$60 each year until it reaches the maximum \$300 on the sixth year.
- 32 | “Embellishment Fees on the Property Tax Bill”, City of Rochester, NY.
- 33 | The value of \$36.24 from 2017, adjusted for inflation using the Bureau of Labor Statistics CPI calculator, is approximately \$46.31 in 2024.
- 34 | See the Burlington Public Works Snow SOP for additional details. <https://www.burlingtonvt.gov/sites/default/files/BURLINGTON%20PUBLIC%20WORKS%20SNOW%20SOP%20Website.pdf>

