Snow plowing of City sidewalks

Transportation & Public Works Committee
October 9, 2018

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Director, Transportation Maintenance & Repair
Chapter 445. Snow and Ice Removal

• 445.20 Duty Elsewhere. (a) The person having the care, custody or control of any building or lot (except one and two family dwellings) adjoining, abutting or bordering on any street located within the city shall within the first 4 hours of daytime after the ceasing to fall of any snow, cause the snow and ice to be removed form the sidewalk adjoining said building or lot.

• The owners, occupants or persons have the care, custody and control of any building that is a one or two family dwelling shall cause the snow and/or ice to be removed from the public sidewalk abutting or adjoining the lot upon which such building is situated, within the first 24 hours after the ceasing to fall of any snow, and shall cause sand to be sprinkled on the sidewalk where there is snow or ice upon the sidewalk that cannot be removed.
Report and Discussion Scope

• This report includes three categories of consideration:
  • Cost estimates
  • Level of Service (LOS) expectations
  • Feasibility

• For all categories, there are two possible tiers of implementation:
  • “Supplemental” plowing service
  • “Continuous” service.
**Cost Estimates**

### Supplemental Plowing

To meet current ordinance timeframes, the estimate is based on completing plowing in one 12-hour shift. It is estimated that it would require 120 plow routes to cover roughly 1,800 miles of sidewalks, meaning 120 plows with operators, plus supervision.

<table>
<thead>
<tr>
<th>Number of deployments</th>
<th>Four to five times per season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual cost (does not include ongoing equipment replacement)</td>
<td>$4.5 to $6.0 million</td>
</tr>
<tr>
<td>Initial start-up and capital outlay costs</td>
<td>$4.5 Million</td>
</tr>
</tbody>
</table>
Cost Estimates

Continuous service

The response time frames, number of routes and resources, and start-up cost would be similar to the supplemental plowing, however operational estimates are significantly higher, as shown below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deployments</td>
<td>18 to 20 times per season</td>
</tr>
<tr>
<td>Estimated annual cost (does not include ongoing</td>
<td>$15 to $20 million</td>
</tr>
<tr>
<td>equipment replacement)</td>
<td></td>
</tr>
<tr>
<td>Initial start-up and capital outlay costs:</td>
<td>$4.5 Million</td>
</tr>
</tbody>
</table>
Rochester, NY Sidewalk Ordinance

• § 104-11 Responsibility for maintaining sidewalks free of obstructions and snow and ice.

• C. The owner of a building or lot must keep the sidewalks adjoining such building or lot free and clear from snow and ice and must not suffer or permit snow or ice to collect or remain on such sidewalk later than 9:00 a.m. if such snow shall have fallen or collected after 8:00 p.m. of the previous evening or later than 8:00 p.m. if such snow shall have fallen and collected after 9:00 a.m. When the snow is removed from sidewalks by City contractors or City employees using plows, it shall be the duty of the owner to remove the snow and ice remaining after such plows have gone through. The portion of the sidewalk required to be kept free from snow and ice is the portion thereof which is paved, if any, and if no portion is paved, a space at least four feet in width shall be kept free and clear as stated above.
Examples of City Plowed Sidewalks

Rochester, NY
- Farmall tractors w/ V-plows
- Some City maintenance tractors as boosters or backup
Plowing Equipment Examples
Plowing Equipment Examples
Examples of City Plowed Sidewalks

Minneapolis

Plymouth

Golden Valley

St. Louis Park
Levels Of Service (LOS)
Levels Of Service (LOS)
Pedestrian Priority Corridors

- Originally developed to identify pedestrian lighting corridors
- Adopted and used as priority corner clearing routes