



MEMORANDUM

TO: Transportation Commission

FROM: Sue McCormick, Acting Public Services Area Administrator

SUBJECT: Potential Winter Maintenance Program Changes

DATE: June 3, 2024

Snow removal on city-maintained streets, sidewalks and pedestrian islands is performed by Public Works and Parks Maintenance staff. These staff members are also tasked with collecting solid waste, urban forest management, maintaining the parks facilities and paths, water distribution, sanitary collection and stormwater conveyance system maintenance. Often, these competing interests reduce the number of staff available to perform snow removal.

Climate change is changing the way that storms are manifested in Ann Arbor. January 2024 received 22.0" of snow, the 17th highest since 1880. Standard Michigan snowstorms from years past typically featured a single blast of snow over a day or two followed by stable mid-range temperatures. What we have experienced more frequently over the last few years are storms that are several day events spread over a week, followed by extremely cold conditions caused by an unstable jet stream. City street maintenance operations are not optimally equipped to handle storms of this nature.

Major snow routes primarily consisting of major roads and school routes are treated to bare pavement each time there is winter precipitation. Unprotected bike lanes on major snow routes are treated in tandem with roads, while protected bike lanes are treated with specialized equipment. City maintained sidewalks and pedestrian islands are plowed and treated in conjunction with parks facilities and paths. Residential plowing is initiated at 4" of accumulation or when deemed appropriate by the Public Works Manager.

Current practices around snow response and treatments were investigated to determine where improvements can be made, and the additional maintenance costs associated with potential changes. Areas investigated for improvement focused on pedestrian facilities and local road maintenance.

The current goal is to have all local roads plowed and hills, curves and intersections salted within 24 hours after snow stops falling. The assignment of trucks to perform this task is limited until all major salt routes have been treated to bare pavement, leaving the residential roads without attention until well after a storm is over. Wind and snow squalls that frequently move through the area after a major snow event also draw resources back out of locals to focus on keeping major routes clear. This delayed response often leads to hard packed snow on residential roads that cannot be removed with plowing alone and can turn to ice with freeze/thaw cycles. The current practice of not treating residential roads with reduced speed and traffic to bare pavement is disappointing to road users, including bicyclists.

A solution to improve traction on local roads is to apply salt to the center of these roads in addition to hills, curves, and intersections when temperatures favor the presence of prolonged ice pack. This limited application will help to clear the center of the road of hard pack snow and ice and offers an additional layer of safety while limiting the environmental impacts of salt overuse. One application of salt at 250lbs per lane mile will cost an additional \$10,000.00 each time it becomes necessary. Some neighborhoods have constituents that do not favor salt use and may push back on this policy change. A survey of similar municipalities showed that many similar sized communities treat the center of the roads with salt when slippery hard pack conditions were present. Additionally, we may wish to explore the use of third party snow clearing services to support our staff capacity in extraordinary circumstances. Though, it is important to note that we would want to broach this issue with AFSCME before any plan is finalized.

The Parks Department maintains 13.5 miles of non-park paths and sidewalks and 65 locations requiring hand work that primarily consist of pedestrian refuge islands or stairways. Snow removal for these locations is in direct competition with parks paths and facility snow removal and does not always meet the current ordinance of 24 hours due to competing interests and staff limitations. This may also be a situation where we would desire to employ third-party services to support staff during extraordinary events.

A significant investment made in FY24 and a request for FY25 to replace snowplow trucks that have reached the end of their useful life will also improve snow removal operations. The replacement vehicles include a chassis addition from SwapLoader USA, Ltd. This component adds additional functionality that will allow staff to change between a dump body, salt spreader and liquid tank, and all components can be swapped between vehicles in the case of a breakdown. City staff can pretreat the roadway before a snow event if needed. Then, within minutes, swap the tanker body for a spreader body and prepare for salting or sanding as needed using the same truck. Three of these trucks will be upgraded from a single axle to a tandem axle with wing plows. These tandem trucks will carry twice the amount of salt, saving return trips to the yard for additional material and wing plows which can clear an additional 9' of roadway with each pass during snow plowing operations. Drivers with wing plows will be at least 20% more efficient when plowing and will save up to an hour of lost time on route

salting by eliminating a return trip to the yard for additional material. All of the trucks will have advanced salt spreading equipment which allows an operator to more accurately spread material where needed. The first order of new trucks is expected just before the winter of 2025/2026.

One additional consideration is to enact a “snow emergency” when local road plowing is necessary. The current ordinance as written states that “the Administrator may declare a snow emergency and put in effect an odd/even parking prohibition on some or all city streets by providing notice of the prohibition in the manner prescribed by this section”. This parking ban would be enforceable between the hours of 12:00am and 8:00pm and until plowing operations are completed. A stronger ordinance would include a parking ban that prohibits all on-street parking until plowing operations are completed. Currently, parked cars create an obstacle in some parts of the city that slow down plowing operations and create frozen ridges of snow once cars are moved from the roadway which Public Works must return to remove. A complete parking ban would provide the opportunity to plow all streets curb to curb without requiring return trips for follow-up work. A “snow emergency” has not been declared by Ann Arbor in recent memory. Staff are working on a proposal to amend the snow emergency ordinance, and an administrative plan for how and when it would be implemented. This could be implemented prior to the start of snow season this winter.

All the above recommendations will offer an improvement over current winter response and provide an improved user experience for the transportation system users.