



Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: November 21, 2016

Re: Snow Priority Routes Report for Winter 2016/2017

Executive Summary

Staff has prepared for Council consideration a report concerning snow priority routes for winter 2016/2017, with a recommendation that no additional centerline miles of new priority routes be added to the priority system list. However, staff intends to pilot a route optimization approach on some streets to improve snow operations for neighborhood streets.

Discussion

After the winter of 2012, Council passed Ordinance 21841 prohibiting parking on signed snow routes when snow is greater than two inches deep. Council also authorized new equipment for snow removal in 2013. The efficiency of snow removal operations improved with these changes.

In October of 2014, based on staff recommendations and Council approval, 10 additional miles of priority streets were added to the current priority system list. During the winter of 2014/2015, there were only two major snowfalls, with several minor events, and staff was able to determine that the additional priority mileage could be accommodated based on the winter weather events.

For the winter season of 2015/2016, an additional 1.8 centerline miles of priority routes were added. There were no major winter weather events during last winter and only two minor events. Staff was able to test some efficiency issues and, as with every year, have evaluated potential improvements. Staff is not yet sure how effective these changes could be and whether we have the resources to fully implement the changes.

Although no additional snow removal equipment has been added to the fleet since FY2014, two new positions were added in Street Operations, increasing efficiency in treating and removing snow from City maintained sidewalks, and providing extra coverage when there are employee vacancies and/or when employees are out sick during the winter months.

Street Operations also replaced two $\frac{3}{4}$ ton trucks with more efficient one-ton trucks as part of the fleet replacement schedule in early 2016. While these trucks are not well suited for dedicated focus on first or second priority routes, they provide beneficial efficiency for neighborhood streets and support for major route operations.

Over the last seven years, Street Operations fleet of pick-up trucks has been replaced with the one-ton trucks in order to assist with snow removal in residential neighborhoods. These trucks are versatile enough for a wide range of uses during the rest of the year and better



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suited for snow operations than the smaller $\frac{3}{4}$ ton trucks. Street Operations now has 13 one-ton trucks, one specifically dedicated to brine application which helps on major routes, curves and intersections.

Staff continually evaluates how response times can be improved, and while every winter event is different, our goal is to get all first and second priority routes (see Attachment B) to a passable condition as quickly as possible. For instance, with a 6-8" snow event, all first and second priority lanes are typically plowed to a passable condition within six hours after the end of the snow event. Generally, all lanes are mostly cleared within 12-16 hours, allowing plows to move into residential neighborhoods.

Snow removal response for neighborhood streets does take much longer. In 2013, response time to clear all subdivision streets to a passable condition for a 6" snowfall took approximately 16-24 hours after the end of the snow event, but this is highly dependent on the rate of snowfall and temperatures. Larger snow events are typically complicated because snow may start out heavy, taper off for a bit and then start falling again. Since the focus is on priority routes until the snow event is mostly over, snow will continue to pile up on residential streets and with vehicles driving on the streets, they become extremely snow packed. The snow pack makes it more difficult for the plows to remove the snow once they do get to the neighborhood streets. Staff has evaluated options to mitigate some of these issues and plans to pilot changing our operational response for some streets this winter.

Similar to Solid Waste collection, optimizing our route response is key to long term success. In an effort to improve our response, staff has identified 13 specific routes throughout the city (see Attachments A & C) that are not classified as first or second priority routes, but that provide a connecting loop to other neighborhood streets. As the one-ton trucks are assisting with priority routes, they will be able to plow a path on these non-priority routes. This path may not be entirely free of snow but should provide some relief for residents more quickly. Doing this will also decrease the amount of snow pack on these streets, easing snow removal operations once plows have moved fully onto neighborhood streets. Staff doesn't recommend classifying these streets as priority routes at this time so vehicles will be allowed to continue to park on the street during larger snow events. As staff evaluates the pilot this winter, we may be able to expand or modify this approach, and will continue to seek ways to reduce issues and enhance our response in neighborhoods. However, for safety of the public, staff will continue to focus on ensuring that first and second priority streets are at passable condition as quickly as possible. Due to limited resources of 21 tandem and single axle trucks to respond to 184 centerline miles of priority routes, the 12 one-ton trucks with plows will continue to support the larger trucks; however, staff believes that plowing these connected roads between priority routes will help to reduce some of the issues some residents are experiencing.

At this time due to limitations in manpower and equipment, no other additional priority routes are recommended; if additional priority routes are desired, staff recommends the same mileage be removed from the priority route system. Priority routes are required to comply



with the no parking requirements when snow is more than two inches deep, so consideration regarding the impact to adjacent property owners should be considered.

Fiscal Impact

Short-Term Impact: No additional costs are expected

Long-Term Impact: Unknown at this time, but funding will be reviewed as part of the annual budget approved by Council.

Vision & Strategic Plan Impact

[Vision Impacts:](#)

Primary Impact: Not Applicable, Secondary Impact: Secondary, Tertiary Impact: Tertiary

[Strategic Plan Impacts:](#)

Primary Impact: Not Applicable, Secondary Impact: Secondary, Tertiary Impact: Tertiary

[Comprehensive Plan Impacts:](#)

Primary Impact: Not Applicable, Secondary Impact: Secondary, Tertiary Impact: Tertiary

Legislative History

| Date | Action |
|------------|--|
| 10/18/1993 | PR174-93A - establishing snow removal policy |
| 10/07/2013 | Ord 21841- prohibiting parking on priority routes when there is 2 inches or more of snow |

Suggested Council Action

For information only.