

Department of Public Works

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November 29, 2011

Memo To: Public Works and Services Committee

From: Thomas M. Eeg
Assistant Commissioner of Public Works / Operations

RE: Snow and Ice Control

As you are aware, we are approaching the winter snow season and I wanted to discuss our winter snow and ice control operations and have included details on the blizzard we had earlier this year.

CURRENT SNOW AND ICE CONTROL OPERATIONS

The City currently has 32 trucks available that are used in the snow and ice control operations for our 260 miles of centerline roadway. We handle snow plowing areas in the following phases of operation:

Phase I – Salt Spreading

This phase covers the salting of our 88.33 miles of connecting highways, arterial streets, collector streets and hills that get salt treatment for safety. This operation has 9 salt routes and typically requires 9 salt spreaders and 1 loader and takes 3 hours to complete.

Phase II – Plowing Operation – 3-Inch Snow Accumulation

This phase covers the plowing of the 88.33 miles of connecting highways, arterial streets and collector streets. This operation has 10 routes that use 2 units per route with the units being 20 tandem plowing units. There are also 5 salting units utilized in this phase which typically requires 4 to 6 hours to complete.

This phase also includes district plowing of approximately 172 miles of local streets. This operation uses 28 plowing units and typically requires 8 to 10 hours to complete.

Phase II-A – District Salting

This phase covers the salting of our 172 miles of local streets, hills, curves and intersections. This operation typically requires 18 salt spreaders and 1 loader and takes 4 to 5 hours to complete.

Phase III – Snow Removal

This phase covers snow removal in metered business district areas, bridges and viaducts, connecting highways and arterial or collector roadways. This operation typically requires 3 front end loaders / snow blowers, 25 dump trucks and 3 loaders with plows

This again is just a broad outline of how we do our snow and ice control in public right-of-ways, which is important to all area citizens since this service is critical for them to get to their designated areas safely and to provide convenient emergency services.

There are times that a “snow emergency” needs to be declared which essentially prohibits parking on arterial and collector streets to provide a better means to clear the roadways during a major snow storm. When a “snow emergency” is declared, it does require notification to all local radio, television and newspaper sites to get the word out to the public and it is something we do post on our website when in effect.

BLIZZARD – FEBRUARY 2, 2011

On February 2, 2011, we were struck with a blizzard that resulted in 23.5” of snow in addition to the 2.5” snowfall we were already servicing. This was a record snowfall for the 22 year term I’ve served with the City and this snowfall also qualified for FEMA reimbursement funds and this is 50% of what our annual average snowfall is for the entire winter season.

The magnitude of this snowstorm brought Public Works into uncharted territory. The snowfall caused us to vary from our typical snow fighting operations.

First and foremost, public safety was our major concern. During the onset of this snowstorm, along with performing our snow operation duties, the Police Department required our assistance in responding to emergency situations and opening pathways to stranded police and fire vehicles. We also assisted the Fire Department on rescue calls to provide access to citizen homes and to the area hospitals which helped provide no losses to the citizens.

Unfortunately, this amount of snow made this very difficult. Our front line snow fighting equipment (5 yard dump trucks) proved to be incapable of moving the massive amount of snow we received in that short period of time. We quickly realized that our 14 Case loaders were our most valuable asset in this snow storm. It became apparent that we needed to pair up the loader with a 5 yard dump truck to achieve the best result. In a typical snow storm, we can spread our equipment throughout the whole City, but in this instance, we needed to pair our equipment up and work in smaller areas of the City, thus taking a longer period of time to accomplish our goals.

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In hindsight, it would have been more beneficial to start the process with the equipment paired up as opposed to our standard operating procedures. What we learned in this case is what the maximum amount of snow each piece of equipment is capable of moving.

Our final assessment is that we set goals throughout the storm and the Goal number 1 was public safety, which we did achieve. Goal number 2 was to open up all main arterials within a 24 hour period, which we also achieved. Goal number 3 was to open all public streets to provide the public access to the City, which we also achieved. At this point, we moved as much snow as our equipment was capable of doing, so the Commissioner of Public Works made a decision to hire contractors to assist the Department of Public Works to remove snow from main arterials. This process took approximately a week and then the City finished it up with their own staff.

Hopefully this shows you what we learned from this heavy snowfall event and what we learned to better handle future major snow events.