# Snow Control Policies and Procedures Manual 



## CHUBBUCK PUBLIC WORKS

(December 2017)


## Contents

## I. INTRODUCTION

Purpose ..... 1
Objective ..... 1
Scope ..... 1
II. POLICIES
Responsibility ..... 2
Training ..... 2
Weather Monitoring ..... 2
Commencement of Operations ..... 2
Priorities ..... 2
Deviations from Policy ..... 3
III. OPERATIONS PLAN
Equipment Resources ..... 4
Staffing ..... 5
Response Plan ..... 5
Continuation and Completion ..... 6
Pre-storm Application of Salt Brine ..... 6
Sanding ..... 6
Materials ..... 6
Salt Storage ..... 6
Bridges ..... 7
Cul-D-Sacs ..... 7
Public Relations ..... 7
Dispatching Request for Service ..... 8
Snow Emergency ..... 8
Authority ..... 8Additional Resources Needed
IV. PUBLIC INFORMATION
On-street Parking ..... 9
Snow Blowing ..... 9
Cul-D-Sacs ..... 9
Sidewalks ..... 9
Residential Driveways ..... 10
Mail Delivery ..... 10
Property Damage Claims ..... 10
Safety Tips ..... 11
V. APPENDICES
Snow Priority Map ..... 12

## I. INTRODUCTION

## PURPOSE

The purpose of this manual is to establish a policy and operational procedures for snow and ice control on public streets under the jurisdiction of the City of Chubbuck.
This policy provides a framework for establishing the priorities and procedures used to mitigate the accumulation of snow and ice on City streets.

## OBJECTIVE

The objective of this policy is to provide adequate traction for vehicles properly equipped for winter driving conditions. Priority is given to streets which carry the largest traffic volume. Limited resources preclude service on lower priority streets until higher priority streets have been completed. The traveling public should expect to encounter snow-packed or icy conditions during storms of high intensity or long duration and during non-regular working hours. Snow and ice control operations will continue during regular hours and/or until all streets have passable surface conditions or when plowing and sanding is deemed no longer effective.

## SCOPE

This policy applies only to all public streets under the jurisdiction of Chubbuck. The City has over 61 miles of arterial, collector and residential streets that it maintains and many of these streets have multiple lanes.

Yellowstone Highway is under the jurisdiction of the Idaho Transportation Department (ITD), however, ITD does not remove snow on the sections of Yellowstone that have curb , gutter and sidewalks within Chubbuck city limits.

Snow removal from City-owned parking areas and sidewalks is provided by the Parks and Recreation Department.

City ordinance assigns the responsibility of sidewalk snow removal from the City to the adjacent property owner. (Chubbuck City Code 8.28.030)

## II. POLICIES

## RESPONSIBILITY

The responsibility for implementing the snow and ice control policy lies with the Maintenance Department Superintendent, or his designee during off hours and the Public Works Director may choose to authorize the use of additional resources when conditions warrant.

## TRAINING

Prior to the start of each snow season, personnel will participate in training activities related to snow control activities. The training will consist of classroom and hands-on equipment training, including the operation of sanders, snowplows and front-end loaders. Drivers will be trained on preferred route directions.

## WEATHER MONITORING

The Maintenance Department supervisor will use the National Weather Service daily forecasts to monitor weather conditions. The supervisor is responsible for placing snowplow crews on "On-Call Status" based on these forecasts.

## COMMENCEMENT OF OPERATIONS

The Maintenance Department will monitor conditions whenever there is danger of ice or snow conditions developing on City roadways. The Police Department also reports icy conditions to the Maintenance Department after regular working hours. When snow or ice begins accumulating on the streets the Street Superintendent, or his designee during off hours, will authorize commencement of plowing and/or sanding operations.

## PRIORITIES

Limited resources and the need to provide the greatest level of safety and benefit to the traveling public, necessitate that priority be given to heavily used streets. Therefore, streets with higher intensity use have a higher priority for snow removal service. Minor streets which require proportionally more time for snow removal for the amount of traffic served have lower priority.

City streets have been divided into the following three (3) snow removal priority categories:

PRIORITY 1: These are arterial and major collector streets with high volumes of average daily traffic. This category includes approximately 13 miles of roadway. These streets are currently identified as East and West Chubbuck Road, Hiline Road, Yellowstone Highway, Hawthorne Road, Philbin Road, Knudsen Blvd., East and West Siphon Road.

PRIORITY 2: These are generally minor collector streets with moderate volumes of average daily traffic. This category also includes streets serving emergency response facilities, schools and streets with hills and sharp curves where traction problems may cause hazardous driving conditions. This category contains approximately 15 miles of roadway.

PRIORITY 3: All other streets not designated as either Priority 1 or 2 streets. These are typically residential streets contained inside subdivisions. This category contains approximately 33 miles of roadway.

Street priority snow removal maps are included in the appendix and are available for review on the City's website.

## DEVIATIONS FROM POLICY

Deviations from standard policies and procedures may occur due to unusual or extraordinary circumstances. Every winter storm has unique characteristics such as storm intensity, duration, wind, temperature and moisture content that influence the methodology used in response to each storm.

Deviations and exceptions from the general priorities and procedures may be made when, in the judgment of the responsible authority, such deviations will best support meeting established objectives and ensuring public safety.

## III. OPERATIONS PLAN

## EQUIPMENT RESOURCES

The Maintenance Department has a variety of equipment to utilize in snow removal activities. Equipment includes four (4) snowplows / sand trucks, one (1) pickup trucks with plows, one (1) salt brine truck, one (1) front end loaders, one (1) backhoe and one (1) motor graders that can be used in snow and ice removal. Whenever plows are active, Fleet Maintenance personnel are on-call as needed to support the operation and to make necessary mechanical repairs.

CHUBBUCK MAINTENANCE DEPARTMENT SNOW REMOVAL EQUIPMENT

| Year | Make | Type | Equipped <br> with <br> Snowplow | Equipped with <br> Sander? |
| :---: | :---: | :---: | :---: | :---: |
| 2003 | Peterbuilt | 6-Wheeler | Yes | Yes |
| 1997 | Kenworth | 6-Wheeler | Yes | Yes |
| 1989 | International | 6-Wheeler | Yes | Yes |
| 1989 | International | 6-Wheeler | Yes | Yes |
|  |  |  |  |  |
| 1999 | GMC 3/4 Ton | Pickup | Yes |  |
|  |  |  |  |  |
| 2001 | Cat IT38 | Loader | Yes |  |
|  |  |  |  |  |
| 2010 | Cat 420 | Backhoe |  |  |
| 2014 | Cat 450 | **Backhoe |  |  |
|  |  |  |  |  |
| 1981 | $140 G$ Caterpillar | Grader |  |  |
|  |  |  |  |  |

** This Backhoe stays in the yard to load sand / salt trucks

## STAFFING

There are 9 employees who work full time for the Maintenance Department. These employees include 7 operators and 2 foreman that are trained to operate plows / sanders, or front end loaders for snow removal.

MAINTENANCE DEPARTMENT SNOW REMOVAL SHIFTS

| Schedule | Shifts | Number of <br> Employees |
| :---: | :---: | :---: |
| Standard Schedule |  |  |
| Monday | Day Shift: 7:00 a.m. - 6:00 p.m. | 4 Employees |
| Tues, Wed, Thur | Day Shift: 7:00 a.m. - 6:00 p.m. | 9 Employees |
| Friday | Day Shift: 7:00 a.m. -6:00 p.m. | 4 Employees |
| Priority 1 Streets |  |  |
|  | 24 Hours On-Call | 9 Employees |

Due to the nature of snow and ice control activities, Maintenance Department supervisors will change schedules as needed to complete snow and ice control activities.

## RESPONSE PLAN

When weather forecasts indicate a pending storm is anticipated to deposit snow within the City, the Maintenance Department will begin applying salt-brine to Priority 1 streets to aid in ice and snow control. This application helps prevent the occurrence of ice buildup on these higher priority streets.

Priority 1 streets are the first streets that receive plowing and sanding. Efforts to complete Priority 1 streets include after-hours snow removal operations. Once Priority 1 streets are deemed safe for travel during or after a snow event focus will shift to Priority 2 streets. Once Priority 2 streets have been addressed focus is shifted to Priority 3 streets. Priority 2 and 3 streets are completed during Normal Daily Schedule hours. If there is a snow accumulation of at least six (6) inches or more on the road, plows will continue snow removal activities on Priority 2 streets during after-hours operations. If during snow removal operations on lower priority streets, conditions deteriorate on higher priority streets, focus will be shifted back to these higher priority streets as necessitated by the snow event.

## CONTINUATION AND COMPLETION

Although no snow event is exactly the same, it usually takes 8 hours AFTER the snow stops falling to plow Priority 1 and 2 streets.

Priority 3 - Residential streets generally take an additional 48 hours to plow, assuming there are no interruptions to move back to Priority 1 or 2 streets.

During major storms, traffic on low-priority streets usually causes the snow to become packed or icy, before it can be plowed. In this case it may take days or even weeks to remove the packed snow and ice from these streets. When snow has become compacted on low-priority streets and plowing is ineffective, nighttime sanding and plowing operations may be discontinued until normal working hours and normal duty schedule resumed.

## PRE-STORM APPLICATION OF SALT BRINE

The Maintenance Department will begin applying salt-brine to Priority 1 streets to aid in snow removal when weather forecasts indicate a pending storm is anticipated to deposit snow within the City. This application can generally be completed within 6 hours. This application helps prevent the bonding of snow and ice to the road surface.

## SANDING

Sanding is generally completed at key locations and intersections in conjunction with plowing in conformance with the priority road response system. Sanding alone is conducted when roads are icy or plowing is ineffective on snow-packed roads.

Once operations have begun, sanding will continue until the selected streets and key intersections have had traction restored. Depending on the weather conditions, arterial and collector streets may receive multiple applications along with other high use intersections or streets with inclines.

## MATERIALS

For sanding operations, salt and sand mixtures will be used in different amounts. Generally, a mixture consisting of two (2) parts sand to one (1) part salt is used.

## SALT STORAGE

The salt storage facility is located in the maintenance yard behind City Hall. This facility has a capacity of approximately 1,000 tons. Orders for salt delivery are regularly made to keep the storage facility at capacity.

## BRIDGES / CANAL CULVERTS

Bridges / canal culverts often become icy before the adjacent streets because the ambient air temperature is lower beneath the bridges than the ground temperature beneath the pavement. Bridges are monitored for icy conditions by Maintenance Department personnel during normal working hours and after-hours by the Police Department.

Salt brine is usually applied to bridge decks before a snow or ice event to prevent the snow and ice from bonding to the bridge deck. If ice is present, a salt and sand mixture may be spread to increase traction and melt ice.

## CUL-DE-SACS

In an effort to become more efficient, crews will make one (1) full pass around the perimeter of the cul-de-sac with a snowplow, pushing the snow to the inside of the cul-de- sac. Snow will remain in the center of the cul-de-sac until weather conditions remove the snow by melting.

## PUBLIC RELATIONS

Providing information to the public is a vital part of the snow removal process. Residents need to know how they can help facilitate snow removal and what to expect in terms of a response by the Maintenance Department to winter storms. Messages sent to the public can range from simple requests to remove parked vehicles from the street, to notification of street closures, or other severe conditions.

Prior to snow season each year, the City will convey information regarding parking restrictions, sidewalk snow removal requirements, prohibitions against throwing or blowing snow on to City streets and snow removal priorities.

During storms, the Maintenance Department office will be staffed appropriately to manage requests for service according to storm intensity.

The Maintenance Department will convey information regarding snow removal activities as needed and to request resident compliance with snow removal parking restrictions.

## DISPATCHING REQUESTS FOR SERVICE

Since snowplow operators are already trained to follow priorities established by policies and procedures contained herein, it is inefficient to respond to individual concerns before allowing operators to respond in accordance with existing policies.

Telephone operators will log requests for service and periodically forward these logs to snow removal supervisors for review and potential action. Supervisors will use these logs to direct operators to areas of concern, after they have achieved the goals established within existing snow removal policies.

Supervisors will be notified immediately of hazardous conditions or new snow accumulation on higher priority streets, roadways impacted by drifting snow or other emergency conditions.

## SNOW EMERGENCY:

When a Snow Emergency is declared in accordance with City Code 10.12 all resources will be committed to snow removal operations. Snow removal effort will NOT follow the Priority 1, 2, 3 system. Efforts will be focused on specific geographic areas to minimize the inconvenience to City residents.

## AUTHORITY

The Maintenance Department Superintendent or his designee during off-hours has the authority to call-out and direct snow removal resources. The Public Works Director authorizes additional resources from within the Department and coordinates press releases and other public information updates. The Public Works Director may also seek assistance from other Departments within the City to provide additional labor to meet the conditions.

## ADDITIONAL RESOURCES NEEDED

- Overtime authorization
- Additional employees from other departments to assist Maintenance Department with calls
- Additional contracted operators \& snow removal equipment as required


## IV. PUBLIC INFORMATION

## ON-STREET PARKING

It is dangerous and difficult to plow narrow streets that are congested with parked vehicles. Plowing around parked cars substantially limits the effectiveness of snow removal activities and may create further hazardous circumstances. Some narrow streets may not be plowed if equipment cannot safely drive down them. The most helpful thing residents can do to facilitate snow removal is to move vehicles off the street and encourage and / or assist their neighbors to do the same.

To facilitate snow removal, City ordinance prohibits on-street parking whenever there is a Snow Emergency. Visit the City website for updates and more information. Any vehicles parked on streets within Chubbuck during a Snow Emergency will be subject to ticketing and towing at the owner's expense in accordance with snow removal parking restrictions. (Chubbuck City Code 10.12)

## SNOW BLOWING

Blowing, throwing or pushing snow from driveways and walks into the street creates additional work for snowplow operators and may create significant traffic hazards. Some businesses and residents have pushed large piles of snow into the street, hoping it would melt quickly. The snow pile is a hazard itself, but the ice created when the melting snow refreezes can make the situation even more dangerous. Property owners should move snow onto landscaped areas in the yard or parking lot. City Code prohibits placing snow upon any public street, sidewalk, easement, right-of-way, or public way, alleyway or sidewalk. (Chubbuck City Code 9.08.020)

## CUL-DE-SACS

There are over 50 cul-de-sacs in Chubbuck. It takes considerably longer to clear snow from cul-de-sacs than other "uninterrupted" stretches of City streets. Because of the high cost-to-benefit ratio, cul-de-sacs and dead end streets have the lowest priority for snow removal. Cul-de-sacs will be cleared, but it will likely be several days after a major storm ends.

## SIDEWALKS

As a standard practice, snowplow operators try to avoid placing snow on sidewalks, but in some instances this may not be practical or possible. The adjacent property owner is responsible to keep sidewalks clear. The City does not have the resources to provide snow removal from sidewalks. If you are not able to do this, please consider making arrangements with a relative, friend or neighbor for help.

## RESIDENTIAL DRIVEWAYS

One of the most frustrating circumstances to residents and snow removal personnel in the removal of snow from public streets is snow being deposited at the approach to residential driveways during plowing operations. As plows travel along streets, the snow accumulated on the plow blade has no place to gobut on to the adjacent street landscaping areas and in driveways. The more snow that has fallen, the greater the problem encountered.

One way residents can help this situation is to pile snow they have shoveled from their driveways on to the right side facing the street, instead of placing it on both sides at the end of the driveway. By doing so operators can avoid carrying snow that has already been removed by the resident from the "upstream" portion of the street back across driveways.

## MAIL DELIVERY

City snow removal operators make every effort to remove snow as close to the curb as practical and to provide access to mailboxes for postal carriers. However, it is not always possible to provide ideal conditions without risking damage to mailboxes considering the size and type of equipment the City operates. Therefore, the final cleaning adjacent to mailboxes is the responsibility of each resident.

If there is an accumulation of snow blocking your mailbox, either remove the snow or set out a temporary suitable container that can be reached by your letter carrier and label it with your address and the words "U.S. Mail."

## PROPERTY DAMAGE CLAIMS

Incidents involving contact between City equipment and private property typically occur within the public right-of-way. Although the public right-of-way is maintained by the adjacent property owner, there are times when the right-of-way is the only available space to store excess snow removed from the roads.

In the event of damage to private property during snow removal, the property owner should file a claim with the City Clerk's Office by calling 237-2400. The claim will then be reviewed to determine if the damage was a result of impact with a plow blade or other piece of equipment. It should be noted that mailboxes should be constructed solidly to withstand the force of snow rolling off a plow.

- When trucks are plowing snow and spreading sanding material, stay back from the vehicle 100 feet to avoid problems.
- Plow trucks often have to back up. There are blind spots in the mirrors. For your safety, do not pull up directly behind them. They may not be able to see you.
- When cleaning driveways or parking lots, do not put snow in the street. This can cause problems for other motorists.
- Never attempt to pass a truck on the right side. Plow trucks generally push snow to the passenger side of the truck (right side when looking at it from the rear) causing much more snow on that side of the vehicle.



## V. APPENDICES

A. Snow Priority Map


