

***CITY OF QUESNEL***

***SNOW OPERATIONS***

## ***TABLE OF CONTENTS***

***INTRODUCTION***

***EQUIPMENT AVAILABLE TO CITY***

***SNOW PLOWING SCHEDULING***

***SNOW PLOWING AREAS & OPERATIONS***

***MAP***

***SNOW PLOWING METHODS***

***SIDEWALK SNOW PLOWING***

***DRIVEWAY CLEARING***

***SNOW PLOWING AND SANDING COSTS***

***WAYS IN WHICH YOU THE PUBLIC CAN  
ASSIST US IN SNOW REMOVAL OPERATIONS***

***SAND TRUCK / PLOW PRIORITY LIST***

***COMMONLY ASKED QUESTIONS  
REGARDING SNOW REMOVAL OPERATIONS***

# ***CITY OF QUESNEL***

## ***SNOW OPERATIONS***

### **INTRODUCTION**

Each winter the City of Quesnel Public Works Department has a responsibility for maintaining, in a safe and passable condition, over 118 kilometres of roads, streets, lanes and at least that many kilometres of sidewalks and trails within the Municipality. We consistently endeavour to accomplish this task in the most cost-effective manner possible while still maintaining a high level of service to you, the Public.

This brochure was prepared to provide you with some basic information on how our Department performs this service, and to answer questions which you may have concerning municipal operations. We hope you find this pamphlet informative and we invite your comments regarding it.

Please remember that snow and ice control is not a substitute for caution and defensive driving practices when operating a vehicle under winter conditions. We wish you a safe and enjoyable winter season and look forward to serving you in the months ahead.

J. Marsh  
Director of Public Works & Engineering

## **SNOW PLOWING EQUIPMENT AVAILABLE TO THE CITY**

The City of Quesnel has the following equipment available to them for snow removal purposes.

- 2 - Road Graders
    - 1 - City owned
    - 1 - Lease Grader
  - 2 - Cat Loaders with hydraulic angle blades
  - 2 - Sand trucks complete with belly plows and sand boxes. One of the trucks is also fitted with a front plow.
  - 2 - Backhoes for clearing intersections and City-owned parking lots
  - 2 - Skid steer loaders for sidewalk clearing and trail maintenance
  - 2 - Loader mounted sicard snow blowers for removing windrows on City streets
  - 1 - 1 Ton truck with a 2 yard sand spreader for sidewalk sanding
  - 3 - Tandem axle dump trucks
  - 1 - 3/4 ton pickup with plow for parking lots and lanes
- A list of tandem axle dump trucks that are available as needed for snow removal.

## **SNOW PLOWING SCHEDULING**

All snow removal done by City crews outside of regular working hours is on overtime hours. This we have found over the years to be more efficient and practical than having to institute shift work. We do have one sand truck that has a regular shift of 4 am – 12:30 pm during the winter months. The second sand truck has a regular shift from 6:00 am – 2:30 PM. There are back-up operators for these trucks to operate them until 4:30 without going into an overtime situation. This we find covers any early morning snow or icy conditions. On weekends and after hours weekdays, call out of the sand truck is left to the Director of Public Works or Deputy Works Superintendent during the week and to the on-call person on the weekends. This on-call person can be reached at 992-2111 which is routed through our answering service. If it should begin to snow after hours during the week or on weekends, our on-call personnel or Supervisors have the responsibility to monitor the changing conditions so that we can respond to any slippery or hazardous conditions immediately. Our first response units in the off hours are our combination sand-plow trucks and their priority is listed below. Any further call-out of snow plowing equipment is at the discretion of the Director of Public Works or the Deputy Works Superintendent.

## **SNOW PLOWING OPERATIONS**

The City of Quesnel is responsible for the plowing, sanding and removal of snow on all streets within the City boundaries with the exception of major highways for which the Ministry of Highways through their contractor, Argo Road Maintenance, are responsible. The following is a list of streets within the City of Quesnel boundaries that are looked after by Argo Road Maintenance:

- Highway 97 North
- Front Street including Moffat Bridge Loop
- Legion Drive
- Carson Avenue and Highway 97 South

The City of Quesnel is responsible for removing the windrows of snow on these streets once they have been plowed.

Generally 4" of snow constitutes a MAJOR Plow which means that all available equipment will start at 4 am and all parts of the City are covered. On weekends only major thoroughfares and hills will be done. The City is divided into 5 snow plow areas as outlined on the map and equipment is assigned as follows:

### **AREA 1 - Johnston Flats and Subdivision, North Star Rd. and Carson Sub Phase II**

This is done with a loader plow and he will begin by doing Johnston Avenue Flats and North Star Road. This is followed by the streets and hills leading to Carson School, from there he works his way through the rest of Johnston Subdivision and over to Carson Subdivision Phase II.

### **AREA 2 - Downtown Core, North Quesnel and 2/3 Mile Flat**

This area is plowed by 2 road graders and 2 backhoes, one of which clears windrows from intersections and one which clears all City-owned parking lots. The graders begin by doing the immediate downtown which includes Reid, McLean, Kinchant, Shepherd, St. Laurent and Barlow. This area must be completed by 8 am so as to beat the downtown traffic. From there the graders complete all other areas of North Quesnel, including Walkem Street.

One grader then continues into the 2/3 Mile Flat area while the other grader and backhoe move to the West side of town to windrow the designated streets over there. eg: Baker, Malcolm, Abbott, Doherty, etc.

### **AREA 3 - All areas east of Baker Creek and west of the Fraser River**

This area is plowed with a sand truck with belly plow and he begins by doing major roads and hills first. (Baker Dr., Enemark, Hoy and Harcourt. He then proceeds in order through the residential streets.

**AREA 4 - All areas west of Baker Creek and North of Anderson Dr. (Uplands - Abbott Heights) including Kivi and McRae Road**

This area is plowed with a loader plow and he begins with major thoroughfares and hills. (Lewis Drive, Flamingo, Perry, Abbott Drive). Once those are complete, he begins plowing the residential areas up on Paley, Picard Crescent and works his way down through Uplands to Hawk, Allard, Avison and back to Anderson Drive.

**AREA 5 - All areas south of Anderson Dr. (Doherty, Rolph, Winder, Robertson)**

This area is plowed with a sand truck with belly plow or if the sand truck is needed for intersection sanding, it is plowed by equipment when finished in other areas.

When the loader plow in Area 1 has completed his route, usually 8 am to 10 am, he returns to the Works Yard and mounts the snow blower on his loader and begins to pick up snow in the downtown core.

If no further snow falls during the day, all streets and most lanes can be plowed in a 12 - 14 hour day. Removing of the windrows from the middle of the road will take a day or two longer.

## **SNOW PLOWING METHODS**

Our snow removal crews employ 3 distinct methods of snow plowing and they are as follows:

- 1) Windrowing - plowing snow to middle of street - This is done on streets that have sidewalks on both sides or no room is available to push the snow off to the side (eg: downtown core and main thoroughfares). This snow is then loaded into trucks with the snow blower and removed.
- 2) Plowing one-way - Where there is a sidewalk on one side of the street, the snow is pulled off the sidewalk and then all snow is taken across to the opposite side. When this is done all driveways are cleared of snow (eg - Lewis Drive, Baker Drive and Johnston Avenue). This will vary on heavy snowfalls and on weekend plowing when the snow will be taken both ways.
- 3) Plowing both ways - Snow is removed from the streets by taking snow to both sides.

## **SIDEWALK SNOW PLOWING**

The two skid steer loaders used for sidewalk cleaning begin at 3:30 am to get ahead of our graders and push the snow from the sidewalk into the street before the grader passes. He begins his plowing in the outskirts of the downtown core and North Quesnel, then proceeding to the West side. They can do all City sidewalks in a 12 hour shift. This leaves, providing no further snow falls, the next day for clearing our River Trails.

The downtown core and all businesses are responsible for snow removal from the sidewalk abutting their property (Bylaw 394 A).

## **DRIVEWAY CLEARING**

If there has been a snowfall of 4 inches or more the City of Quesnel will remove the windrow of snow left in all driveway entrances by the snow plows. This snow is removed with a separate piece of equipment which follows the plows through the route. It usually takes ten to thirty minutes before the windrow is removed from the end of a driveway so please be patient.

## **SNOW PLOWING AND SANDING COSTS**

The cost to the City of Quesnel to do a major plow, which is all personnel and equipment starting at 4 am and working a 12 hr. shift, is about \$14,500. This per-day total escalates substantially on weekends should the need arise to plow on the weekend.

The costs of snow removal *and* sanding over the last five years are as follows:

1998 - \$302,316  
1999 - \$429,835  
2000 - \$349,024  
2001 - \$369,691  
2002 - \$320,541

The average cost through taxation for snow removal and sanding, over the last five years, is about .22 cents per \$1000. of assessed value (residential). On a \$100,000 dollar house, the owner would pay about \$22.00 towards snow removal per year through taxation.

## **WAYS IN WHICH YOU, THE PUBLIC, CAN ASSIST US IN SNOW REMOVAL OPERATIONS**

- 1) Expect minor delays after a snowfall and allow extra travel time.
- 2) Do your part to ensure safe road travel, i.e. use quality snow tires, reduce your speed and only travel if necessary during and after major snowfalls, thus giving our operators more time and room to complete operations.
- 3) When approaching snow equipment give them plenty of room to operate.
- 4) Please do not attempt to flag down our operators to explain a point or request a favour, this only slows down our snow removal process. If you have any questions or suggestions, please call the Public Works Department at 992-6330.
- 5) Please do not shovel snow from your driveway or the windrow in your driveway out into the street. This could cause a safety liability problem should a vehicle hit this accumulation of snow and lose control.
- 6) It would greatly assist us in residential areas if after a snowfall, you would park your vehicles in your driveway so that when the snow plow does your street he can do a neat thorough job.

**The following is our Sanding and Plowing Priority List for call – outs and early starts:**

1. MOFFAT BRIDGE AND APPROACHES ( both ends including North Fraser Drive on ramp)
2. LEWIS DRIVE HILL
3. ABBOTT DRIVE INCLUDING THE TOP HILL
4. FLAMINGO / PERRY STREET
5. MARSH / ANDERSON DRIVE / WEST FRASER ROAD TO RURIC SPRING ROAD
6. ELLIOTT STREET
7. NORTH FRASER DRIVE TO MILLS ROAD
8. FRONT STREET LOOP / LEGION DRIVE
9. JOHNSTON BRIDGE LOOP
10. JOHNSTON AVENUE / NORTH STAR ROAD TO PULP MILL
11. RODEO AVENUE
12. SWORD ROAD TO WELDWOOD JUNCTION
13. LARK AVENUE
14. PIERCE AVENUE TO PICARD STREET
15. PICARD STREET UP FROM PIERCE AVENUE
16. PICARD / PALEY LOOP BELOW PIERCE AVENUE
17. BAKER DRIVE
18. HARTLEY STREET – 7-11 to English for school busses
20. ENEMARK AVENUE, HOY, ENGLISH, HARCOURT
21. BOUCHIE STREET HILL
22. DOHERTY DRIVE
23. WADE AVENUE
24. PINECREST ROAD
25. ROME AVENUE / BROWNMILLER AVENUE
26. NADEAU STREET ONTO HIGHWAY
27. NELSON STREET ONTO HIGHWAY

## **COMMONLY ASKED QUESTIONS REGARDING SNOW REMOVAL OPERATIONS**

- 1) **“Why doesn’t the City clear the snow they put in driveways?”**

The City will remove most of the snow that is windrowed across driveway entrances. This is done with a backhoe, not the snow plow that is plowing the street. There will be a delay of 15 to 30 minutes between when the snow plow completes the street and when the windrow is removed from the driveways. Operators are instructed to only remove the bulk of the windrow without going too deep or wide which may damage driveways or curbs.
  
- 2) **“Will the City repair snow plowing damage to obstructions built on the road right-of-way?”**

The City of Quesnel will no longer accept responsibility for damages that occur within the road right-of-ways if obstructions are not properly marked. The City will no longer be marking obstructions such as retaining walls, planters, shrubs, decorative bricks etc. on the road right-of-ways (area between property line and the road) for snow removal. Residents should mark areas of concern with brightly coloured stakes (4 feet in height) and locate them in front of the driveway obstruction. This is to notify the snow removal crew of hidden items under the snow.
  
- 3) **"Does the City clear the accumulation of winter sand from the boulevards in the spring?"**

No, because of the high cost that would be associated with the operation, but if the residents rake the sand out onto the street the sweeper will remove it for you.
  
- 4) **"Is it alright to allow my children to dig snow caves along roadside snow banks?"**

This should DEFINITELY NOT be allowed. Equipment widening streets or blowing back could collapse a snow cave trapping or seriously injuring children inside. Our operators are constantly watching for children but if hidden in a snow cave a child may not be seen until it is too late.
  
- 5) **"I received more snow in my driveway than the resident across the street."**

Our operators, when plowing, attempt to divide the road in the middle so an equal amount of snow is taken to both sides of the street, but sometimes due to a curve in the street (or parked cars), this is not always possible.
  
- 6) **"The City crews have just widened the street in front of my house and the driveway has not been cleaned."**

The clearing of driveways takes a little longer to complete, so please allow time for the equipment to complete their work.

7) **“Does the City use salt on the roads?”**

The City rarely uses straight salt on the roads. As a rule, straight salt may be used in extreme freezing rain situations. The City does add a small amount of salt to the road sand to keep the sand from freezing into lumps (about 1% salt). The City also uses a magnesium chloride solution to pre-wet the sand as it is being applied to the road. Each sand truck is equipped with a storage tank and applicator system. The sand is sprayed with the magnesium chloride as it leaves the truck. This helps the sand stick to the road.