City of Auburn
Snow and Ice Removal Operations

December 10, 2021

SNOW REMOVAL POLICY

- Can be found on city website www.auburnny.gov
- Three work shifts December through March
- Criteria to begin snow and ice removal
- Safety of plow operators and general public
- Possible suspension of operations
- Plow to minimize traffic and pedestrian obstructions

SNOW REMOVAL POLICY

- Technique: center cuts and then curb cuts
- Four passes for smaller roads, six to eight passes for the larger, four lane roads
- Snow removal from downtown, commercial areas and areas that can create a hazardous condition
- Removal operations dependent upon weather, staffing and budget constraints

SNOW REMOVAL POLICY

- Plowing priorities for streets designated as Priority 1, 2 and 3
- Operations may be suspended if the safety of the staff or equipment is compromised
- Salt use is closely monitored because of its cost and also to minimize its effect on the environment
- Sidewalk plow used to clear snow from city owned bridges, parks, parking lots, buildings, etc.

SNOW REMOVAL POLICY

- Damage does occur: mailboxes, curbing, lawn, driveway approaches, etc.
- From our plowing operations, snow does get deposited at the bottom of private driveways
- At times, it can be significant
- City does not clear private driveways

SNOW REMOVAL POLICY

- We will get as close to the mailbox as possible
- Up to occupant to clear the mailbox so the USPS can deliver the mail
- Alternate side parking in effect
- Concerns and complaints can be reported at 315.253.9554 or www.auburnny.gov, click on the ‘Contact Us’ tab at the lower left

SNOW REMOVAL BUDGET

• A5142.150	Overtime	$35,000
• A5142.250	Other Equipment	$0
• A5142.412	Operating Supplies	$200,000
• A5142.440	Services	$3,000
• A5142.482	Veh. Maint./Repair	$5,500
• A5142.801	Retirement/General	$5,500
• A5142.811	Social Security/Med	$2,678
• A5142.821	Workers' Comp	$4,245
TOTAL		$255,923

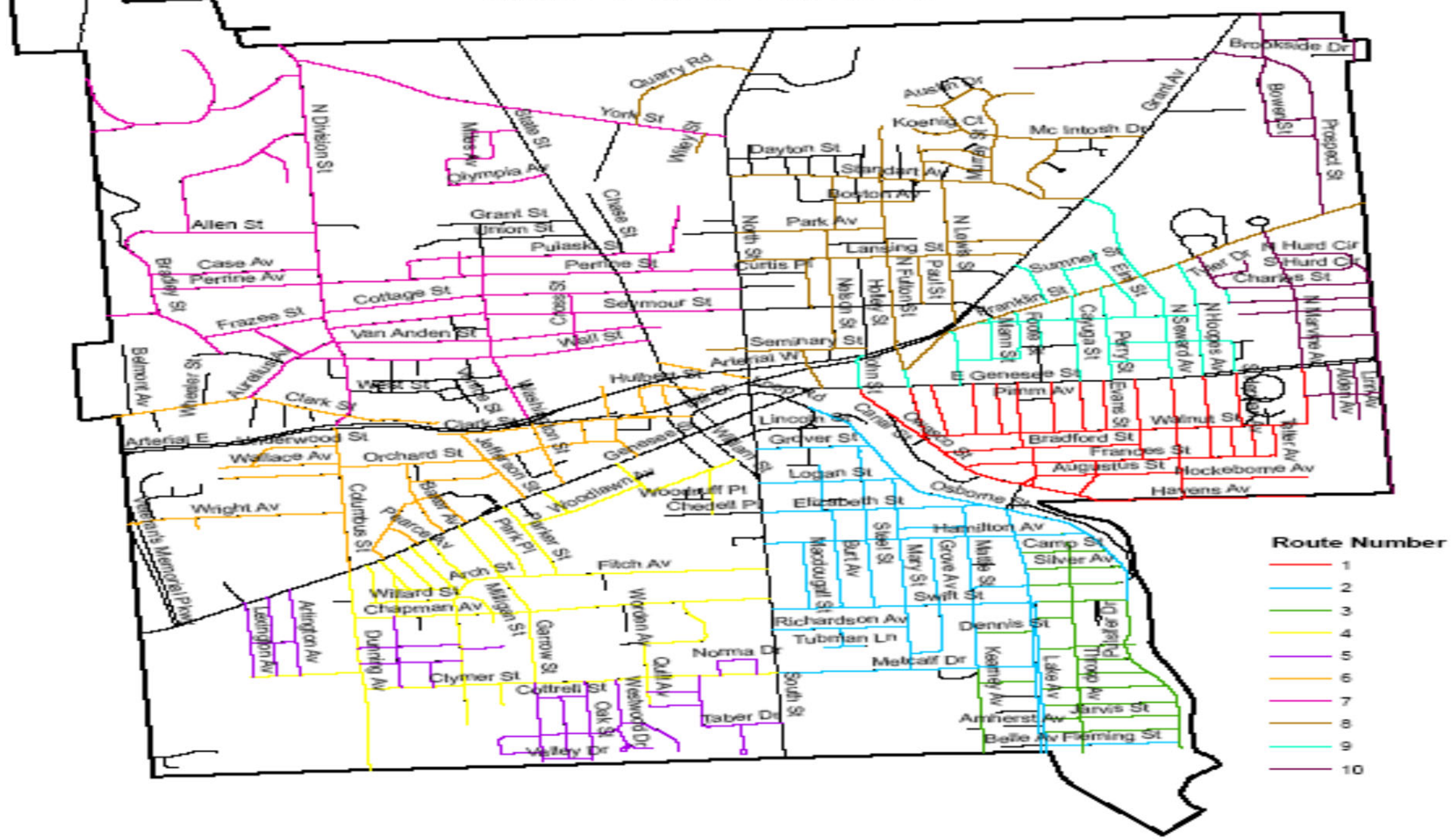
PLOW ROUTES

- City divided into 16 individual plow routes
- Includes main routes, 11 large truck routes, 3 pickup truck routes and city parking lots and sidewalks

THE ROUTES (Large Plows)

Route	# of Streets
1	24
2	20
3	20
4	26
5	28
6	25
7	31
8	26
9	20
10	22
11	10

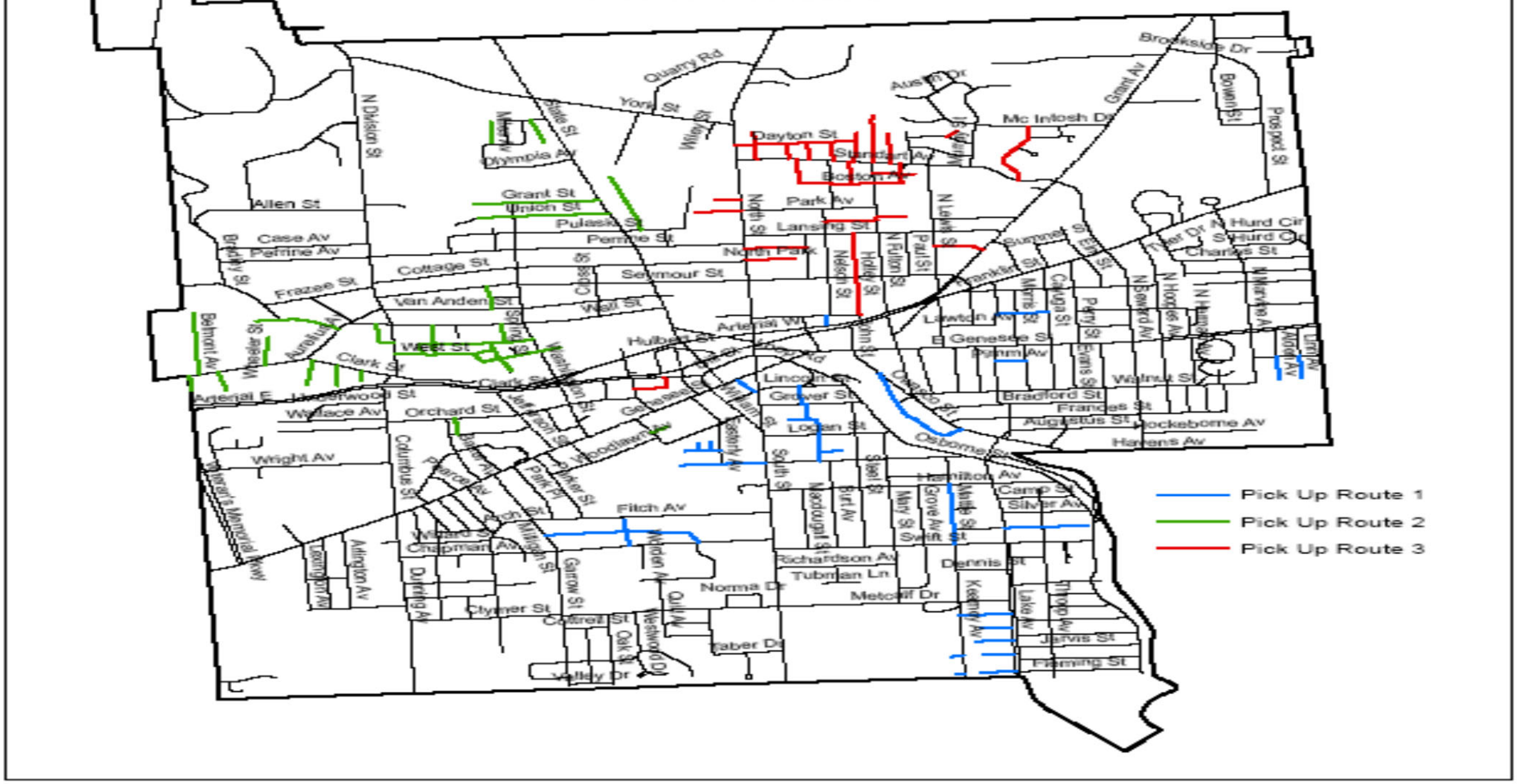
Main Plow Routes



THE ROUTES (Pickup)

Route	# of Streets
PU 1	32
PU 2	34
PU 3	30

Plow Routes

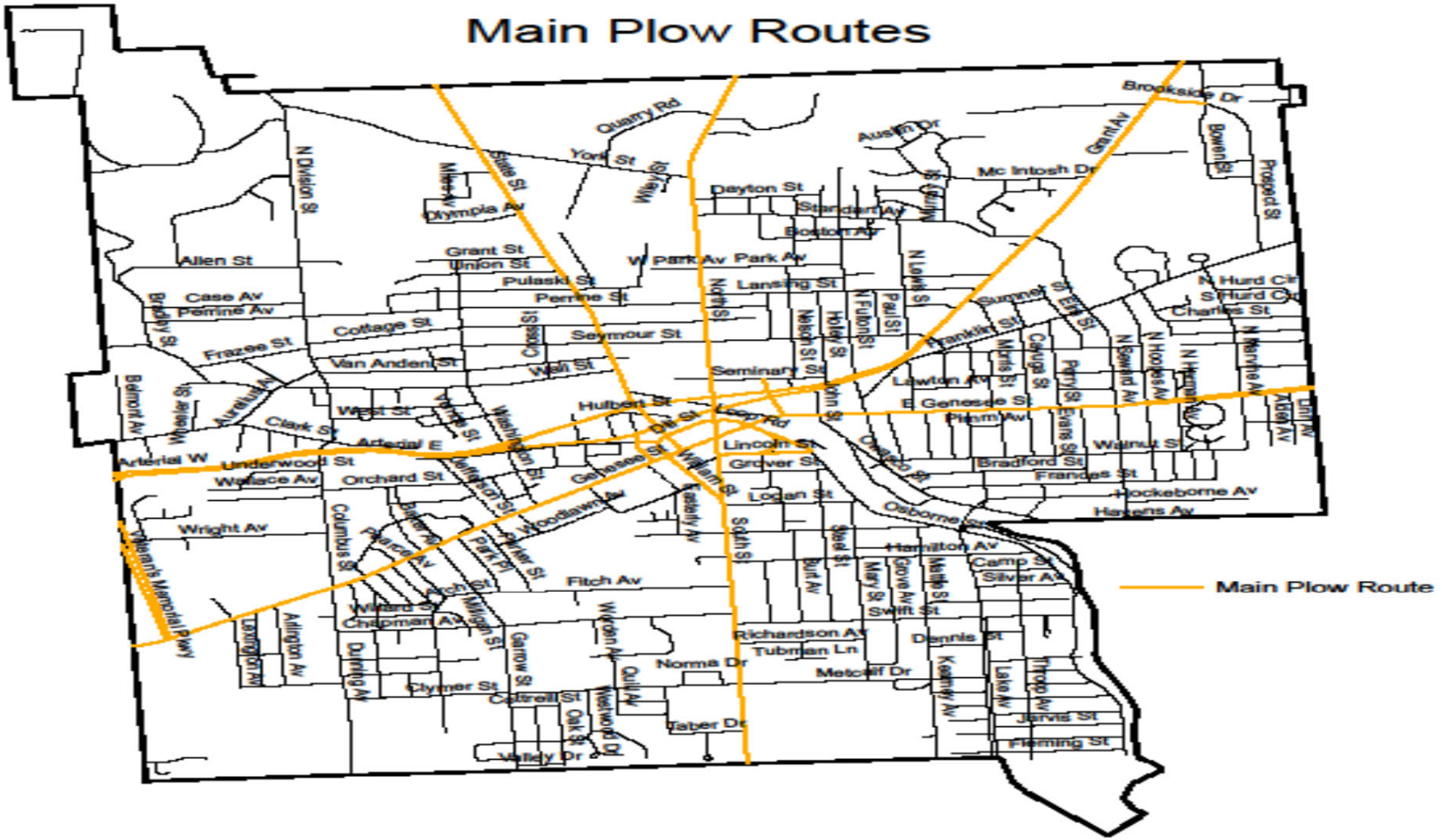


Pick Up Route 1
Pick Up Route 2
Pick Up Route 3
Brookside Dr
Quarry Rd
York St
Austin Dr
Grant Av
Mc Intosh Dr
Dayton St
Standart Av
Boston Av
Park Av
Lansing St
North Park
N Division St
Olympia Av
Grant St
Union St
Pulaski St
Perrine St
Allen St
Case Av
Perrine Av
Cottage St
Seymour St
Frazee St
Van Anden St
Wall St
Belmont Av
Wheeler St
Clark St
West St
Hulbert St
Arterial W
Sumner St
Franklin St
Lawton Av
E Genesee St
Walnut St
Bradford St
Frances St
Augustus St
Rockefeller Av
Havens Av
Lincoln St
Grover St
Logan St
Osborne St
Orchard St
Wallace Av
Wright Av
Columbus St
Woodlawn Av
Fitch Av
Hamilton Av
Camp St
Silver Av
Swift St
Richardson Av
Tubman Ln
Metcalf Dr
Dennis St
Norma Dr
Chapman Av
Clymer St
Cottrell St
Taber Dr
Valley Dr
Jarvis St
Fleming St
Prospect St
Charles St

THE ROUTES (Main Routes)

- Includes:
  - East and West Genesee Street
  - Vets Memorial Highway
  - Arterial East and West
  - North Street
  - South Street
  - State Street
  - Loop Road
  - Lincoln Street Hill
  - Osborne Street Hill
  - William Street
  - South Green Street
  - Clark Street (Arterial to Loop)
  - Seminary Avenue

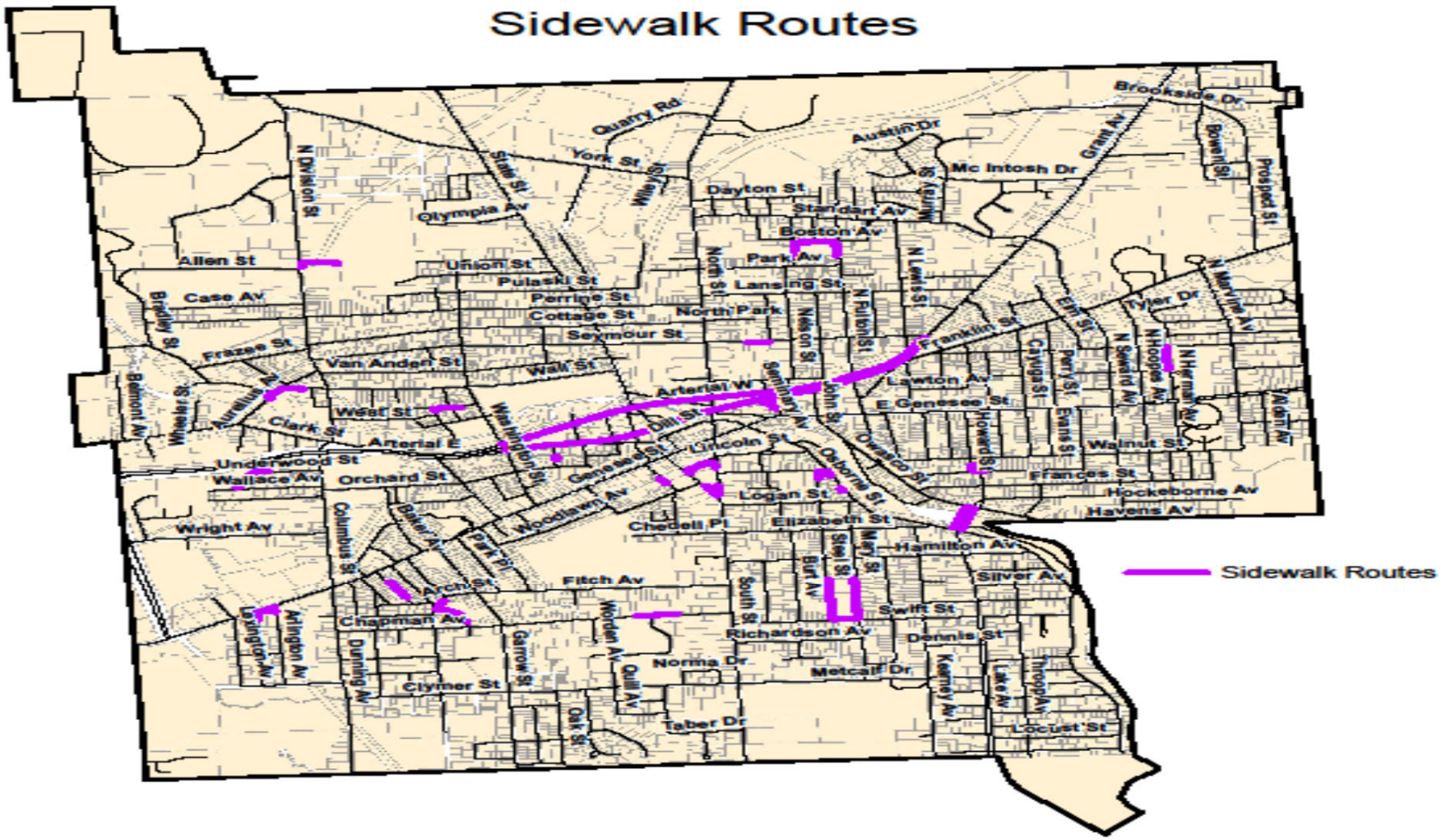
Main Plow Routes



THE ROUTES (SIDEWALKS)

- Includes all sidewalks in front of city buildings, playgrounds, bridges, parking lots, highways
- Sidewalk machine purchased in 2011
- On occasion, snow and ice deposited on the sidewalks of the main routes can force the sidewalk plow into the road. We will then use heavier equipment to open the sidewalks, which is much less efficient and does not clear all the accumulated debris

Sidewalk Routes



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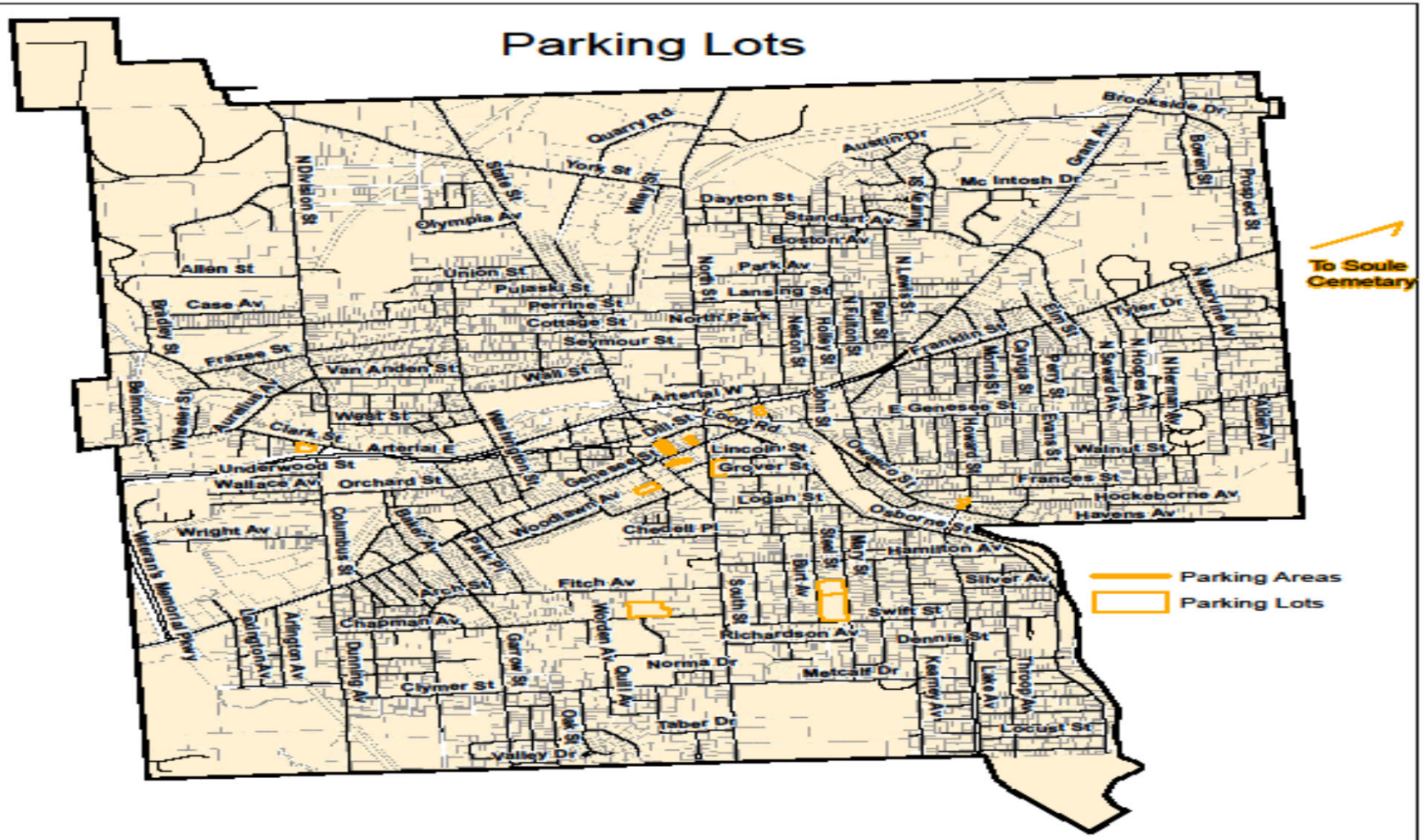
THE ROUTES (PARKING LOTS)

- City Hall
- Parking Garage exit road
- AFD/APD Station 1
- AFD Station 3
- Market Street parking spots
- On street parking spaces, Heritage Center, Genesee Street

THE ROUTES (PARKING LOTS, CONT.)

- Court Street lot
- Dill Street lot (back of Lattimore Hall)
- Seminary Avenue lot
- Clifford Field parking spots
- Soule Cemetery
- State Street One Way

Parking Lots



STAFFING

- To fully staff each snow event and to cover all routes, including mains, streets, pickup routes, parking lots and sidewalks simultaneously, we need 16 plow drivers and 16 operating plows at all times.
- Utilize all departments for plowing: streets, parks, recreation, sewer, water, central garage, urban forestry, landfill

STAFFING LEVELS

- 1 foreman (CDL)
- 4 laborers (pick up routes, parking lots, no CDL)
- 13 MEOs (large plow routes, CDL)
- 4 HEOs (load salt) (CDL)
- 1 tree trimmer (CDL)
- 12 miscellaneous (6 CDLs)

Above includes all at DPW garage

SHIFT STATUS

- During the months of December, January, February and March two drivers will work second shift (3:00pm-11:00pm) and one driver and one laborer and one HEO will work third shift (11:00pm-7:00am). Third shift will operate from 11:00pm Sunday evening until 7:00am Friday morning. One MEO will also work weekends through the winter.

LABOR COSTS

- Most of the trucks are equipped with salt spreaders
- To attain 100% coverage (16 people), the approximate labor cost per hour is:
  - Straight Time — $431 + benefits = $776/hour
  - Overtime — $646 + benefits = $904/hour

MATERIAL COSTS

- Salt barn at DPW holds 3,000 tons of salt by design
- Working capacity of 2,500 tons
- Salt is $54.40 per ton for 2020-2021
- Salt loaded with loader, bucket holds 3 tons
- 3 buckets fill 6 wheel dump truck ($490 cargo)
- 6.5 buckets fill 10 wheel dump truck ($1,061 cargo)

MATERIAL COSTS

- 2020-2021 wintertime fuel costs estimated at $2.35/gallon (diesel mixed with kerosene)
- Fully loaded plow trucks average approximately 3 miles per gallon
- 1 road mile equals 4 road miles of plowing on average (2 plow cuts each direction)
- Each individual plow route contains approximately 10 miles of roadway (40 miles of plowing)

SERVICE COSTS

- A truck will consume approximately 20 gallons of fuel per route
- Including travel time and salt loading (each route will use 1.5 salt loads to complete) the routes average 3.5 to 4 hours to complete
- On average, to complete 16 routes on straight time (4 hours of plowing):

Labor	$3,104
Salt	$12,362
Fuel	$752
Total	$16,218 ($4,055/hour)

SERVICE COSTS

- On average, to complete 16 routes on overtime (4 hours of plowing):

Labor	$3,616
Salt	$12,362
Fuel	$752
Total	$16,730 ($4,183/hour)

- Assuming a snow event will require two passes per route (8 hours of plowing), our labor budget contains enough overtime ($35,000) for approximately 5 overtime events

SALT USAGE (ORDERED)

• 2010-2011	5,315 tons	$201,965.94
• 2011-2012	2,582 tons	$ 98,116.00
• 2012-2013	2,913 tons	$109,779.06
• 2013-2014	4,770 tons	$171,708.93
• 2014-2015	4,406 tons	$188,040.75
• 2015-2016	3,967 tons	$176,095.13
• 2016-2017	3,611 tons	$160,302.94
• 2017-2018	4,066 tons	$183,568.04
• 2018-2019	3,420 tons	$182,614.65
• 2019-2020	3,657 tons	$198,926.45

PLOW EQUIPMENT

- (4) 1 ton pickups (4 with spreaders) – 1 (2015), 2 (2017), 1 (2019)
- (1) International Terrastar (plow and spreader) 2015
- (10) 6-wheel dump trucks:

  (1) 2006
  (2) 2011
  (2) 2015
  (1) 2016
  (1) 2017
  (2) 2018
  (1) 2020

- (3) 10-wheel dump trucks (2 (2014), 1 (2018), 1 (2021) on order)
- (2) front loaders (2015, 2016)
- (1) backhoe with push blade (2009)

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930M CAT

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505
ST 505
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TO
20
TO
5

Rexroth
CS 550
ATTENTION
71
FRONT FLOW
FRONT WING
REAR WING
SLIDER

70

PLOW ROUTE	OLD WARD	TRUCK	OPERATOR	IN	OUT
#1	1				
#2	2				
#3	Belmont				
#4	9th				
#5	Upper 9th				
#6	3rd & 8th				
#7	4th & 7th				
#8	5th & 6th				
#9	10th				
#10	Upper 1st & 10th				
MAINS	MAINS				
PU #1					
PU #2					
PU #3					
LOTS					
SIDEWALKS					

BREAK DOWNS:_____

_____

WEATHER:_____

_____

DATE:_____ **DAY:**_____ **TIME:**_____

CDL trucks: 57 70 71 72 73 86 90 91 104 S-36 W-34 ST-502
NON CDL trucks: 59 60 ST-504 ST-501 P-701 Pickup: ST-503 P-703