

CITY OF NEWTON

IN BOARD OF ALDERMEN

PUBLIC FACILITIES COMMITTEE REPORT

WEDNESDAY, OCTOBER 7, 2015

Present: Ald. Crossley (Chair), Lennon, Albright, Brousal-Glaser, Gentile, Danberg, Laredo, and Lappin

Also present: Ald. Fuller, Johnson, and Yates

City staff present: Lou Taverna (City Engineer), Shane Mark (Director of Operations), James McGonagle (Commissioner of Public Works), and Maureen Lemieux (Chief Financial Officer/Chief of Staff)

#188-15 COMCAST OF MASS petitioning for a grant of location to install 295' ± of conduit in BEACH STREET from Pole #194/1 southerly to Washington Street and continuing 190' ± easterly on WASHINGTON STREET from Beach Street to 701 Washington Street. The petition also includes a request for two 3' x 3' handholes in the sidewalk at the property lines of 723 Washington Street and 709 Washington Street. (Ward 2) [07/22/15 @ 11:08 AM]

ACTION: **APPROVED 6-0 (Danberg, Gentile not voting)**

NOTE: Manuel Furtado, Project Coordinator for Comcast of Massachusetts presented the petition for a grant of location to install conduit from an existing pole in Beach Street to 701 Washington Street to provide service to 723 and 709 Washington Street. The petition includes the installation of two handholes in the sidewalk in front of 723 and 709 Washington Street. The proposed conduit will be installed underground for the requested length of 445'. The public hearing was opened and no one spoke for or against the petition. Ald. Albright moved approval of the petition and the committee voted unanimously to support the motion.

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#225-15 HIS HONOR THE MAYOR requesting authorization to appropriate seven hundred twenty-five thousand dollars (\$725,000) from bonded indebtedness for the purpose of funding the Dedham Street Drainage Improvement Project. [09/01/15 @ 8:46 AM]

ACTION: **APPROVED 7-0 (Gentile not voting)**

NOTE: City Engineer Lou Taverna presented the request for \$775,000 to fund the Dedham Street Drainage Improvement Project. The funds would be used for a two-phased project to improve the flooding on Dedham Street in the area of the Countryside Elementary School. Phase 1 of the project includes the replacement of the undersized 12" storm drain pipe with 36" and 42" reinforced concrete pipe. In addition, the project includes the reconnection of catch basins, the installation of new catch basins and manholes and paving Dedham Street in the area of the project. This work will begin in the spring, as it will not significantly impact traffic in the area.

Phase 2 of the project includes repairing the existing cast-in-place concrete box culvert at Dedham Street at South Meadow Brook. The evaluation of the 62' long culvert found that the culvert is not structurally sound in some areas. The project also includes the installation of a new 42" diameter drainpipe through the south culvert road. The rehabilitation of the culvert will extend its useful life. The work on the culvert would not begin until July or August, as it would affect traffic flow around the Countryside Elementary School.

The plan is to fund the project through bonded indebtedness and pay the debt service from the storm water budget. With that, Ald. Lappin moved approval, which carried unanimously.

Snow Plan Discussion

Chair's Note: The Commissioner of Public Works James McGonagle and Public Works Director of Operations Shane Mark presented the attached Winter 2015 – 2016 Snow and Ice Control Review for the Department of Public Works. The presentation contains detailed information on snow operations within the department. The Committee discussed the next three items (72-15, 82-15, and 48-15) below in conjunction with the snow plan.

Commissioner McGonagle stated that the winter operations plan is in place. He will be providing the Board of Aldermen with a bound copy of the plan by the next Public Facilities Committee meeting. There are a few sidewalk clearing routes and maps that need some tweaking before publication. Commissioner McGonagle expects the snow plan to be a living document and changes through the course of the year. He expects to review the snow plan after every snow event. He expects snow operations to improve throughout the winter. The plan is to provide internal updates to Aldermen on each snow clearing operation.

The goal of the department is to provide uniform, efficient and timely snow and ice control. The Department plans to work together with all departments to improve communication with departments and citizens during snow operations. The Department of Public Works is responsible for all snow operations including the Parks and Recreation Department's contractors for snow removal at the schools. The new plan will apply to everyone involved in snow and ice operations including the Parks and Recreation Department and all contractors. The Snow Control Center will be open and staffed during all winter events this upcoming winter. The Commissioner is also looking at providing a hotline in the Snow Control Center for the Mayor, Board of Aldermen, and emergency personnel to report any issues during storms. Of course, if there is a real emergency the Aldermen should call either the Commissioner or the Director of Operations. The Administration will also promote using the City's 311 system to report any snow related issues.

The department will be using new equipment and materials to better control snow and ice on the roads and sidewalks. The Department has ordered a snow blower attachment for a front-end loader to deal with snow piles and clearing roadways from curb-to-curb. The City has also

entered into a three-year lease for 10 bobcats with v-blade and snow blower attachments for more efficient sidewalk clearing. In addition, there will be strategies to address storms depending on the time of day, day of week, temperature, snowfall, pavement temperatures and predicted weather after the storm. The department has prioritized snow-clearing operations for different types of streets and areas of the City. The main roads and schools are the first priority, local-through streets are second and the safety concerns and known hot spots are the third priority. It was pointed out that the school parking lots are not going to be cleared until the end of a storm but all sidewalks, paths and entryways will be cleared throughout the storm. Representatives of the Cabot PTO joined the Committee to raise their concerns related to clearing snow around the schools. The Commissioner asked that they call 311 this winter if there are any issues.

All employees of the Department of Public Works will be involved in snow and ice removal operations. The Commissioner expects to better manage the use of employee time and equipment during storms to ensure that there are always employees to address any needs during and after a storm. The contractors will also be equipped with GOS tracking devices, as well.

The Public Works Department expects to utilize the snow melter at the Elliot Street Yard throughout the winter. The snow melter is more effective if it is constantly in use. It will be positioned over a storm drain in the yard. The snow will be hauled to the melter but the Commissioner is working to limit the hours of hauling operations, if possible. Commissioner McGonagle also reviewed the proposed snow storage sites that are included in the attachment.

The Public Works Department will be using less salt this year and combining the salt with magnesium chloride. The magnesium chloride solution is an effective tool in de-icing streets. The Commissioner also plans to look at other products and the possibility of making brine on site. It will only be used on the streets and not the sidewalk. The issue of clearing the parking meters was raised. Last year the City lost approximately \$100,000 in revenue due to in accessible meters. The Commissioner explained that the new equipment would allow the department to clear meters on streets, lots and in City centers. If for some reason the meters cannot be cleared with equipment, they will be hand shoveled.

The Commissioner is still working with the School Department on the sidewalk clearing routes. The number of linear miles included in city sidewalk clearing routes is about thirty miles less than last year. The Commissioner would like to be sure that he has captured all of the sidewalks that need to be cleared. He expects to hear back from the School Department in the next week or two regarding the sidewalk clearing routes and may have to adjust the routes. The sidewalk routes are usually done by city employees but if need be the City will supplement the City staff with contractors. The only area of the city that sidewalks are done solely by contractors is the path area in Oak Hill.

The City has a trial ordinance requiring residents to shovel their sidewalks. The trial expires on November 1, 2015. The Administration is recommending that the trial be extended for another year. In order for a sidewalk-clearing ordinance to work, a fine needs to be

established and an enforcement agency determined which has not been yet. Ald. Danberg will docket an item requesting an extension of the trial program.

Aldermen had a number of questions and comments related to the snow plan, which are listed below with answers, if provided.

Will the sidewalk plow operators remove obstacles blocking the path? The operators should remove obstacle if they are in the way of a sidewalk plow.

Are there any plans to help residents remove snowbanks on street corners created by plows? Yes, the Public Works Department will be constantly cleaning-up snow.

What kind of proactive communication will be provided for each snow event? The previously mentioned internal updates on each snow events should provide plenty of information.

What are the financial implications? Implementation of the new plan should not really cost more in terms of operational costs. The additional equipment comes with a cost but it should allow the City to clear sidewalks and streets more efficiently. The number of snow clearing routes and the number of contractors the City hires will not change. The City is buying SUVs to provide appropriate transportation for the chasers. There will be a minimal cost for the additional use of Snow Control Center. There are savings associated with the reduction in the amount of salt used on roads. There has not been a determination of what the cost per inch is going to be but there needs to be some real changes to improve snow-clearing operations. It was pointed out that Public Works employees will be working on snow clearing like cleanup and shoveling during regularly scheduled shifts. In addition, if the City clears the meters some of the additional cost will be offset by revenue collected in the meters.

Could you prove an equipment allocation plan in the report? It will be included in the plan.

What sidewalks have been removed from the sidewalk clearing routes? The Commissioner will provide that information to the Committee.

It is very important that the plows avoid plowing all of the snow onto corners. It is very difficult for residents to shovel the hard packed snow. The Commissioner should look to the chasers to ensure that corners are not plowed in.

What is the plan to identify and locate fire hydrants during and after a snowstorm? Fire Chief Proia is handling the hydrants.

Work on improving the snow page on the City website. It currently does not provide any real information for residents.

Does the City have the costs for last year's storms including claims and parking meter losses? The City has not completed repairing all of the City fences damaged during last winter. There was a request for a one-page assessment of the total costs of last winter's snowstorms.

Why are there salt barrels throughout the City? The Commissioner will check but he believes that they are located at steep intersections to melt ice and give traction to vehicles. He will provide a map of where the barrels are located and look to communicate and educate residents about the barrels.

How many miles of snow can the front-end loader snow blower handle? The Commissioner will include the information in the snow plan book.

How will the department handle potholes? Any potholes should be reported to the 311 system. The Department purchased a new pothole truck to keep the materials for filling the pothole hot. This year the department will be using a synthetic material that works well and is durable to fill potholes.

What would be the cost of the City clearing all sidewalks? The Commissioner did not have the information readily available. One of the options would be to charge residents for clearing the sidewalks. Chief of Staff Maureen Lemieux explained that the City cannot impose any type of fee to its residents without an opt out clause allowing the resident to opt out of the service.

It was suggested that the Commissioner should send a questionnaire to the Aldermen asking them to identify winter hot spots within their wards. The Commissioner agreed to send out a questionnaire.

There were no further questions or discussions and Ald. Gentile moved hold on the three items below, which carried unanimously.

#72-15 PUBLIC FACILITIES COMMITTEE requesting a discussion with the Administration and Department of Public Works about the extent of damage to the City resulting from the recent extreme winter conditions including roadways, sidewalks, infrastructure, buildings and how the City is preparing to cope with the needed repairs. [03/09/15 @ 4:22 PM]

ACTION: **HELD 7-0 (Lappin not voting)**

#82-15 ALD. SANGIOLO requesting the Public Works Department and the administration determine the cost if the City were to undertake complete sidewalk shoveling throughout the City, such costs might be charged back to residents with a fee. [03/12/15 @ 10:38 AM]

ACTION: **HELD 7-0 (Lappin not voting)**

#48-15 ALD. JOHNSON, SANGIOLO & YATES requesting a discussion with the Commissioner of Public Works regarding: (1) short and long term snow clearing of streets and sidewalks, (2) proactive planning relative to potential issues resulting from melting snow, (3) short term plans for addressing potholes, and (4)

how the Department of Public Works will use the data gathered from where potholes need to be filled to guide planning for street repairs. [02/23/15 @ 9:31 AM]

ACTION: **HELD 7-0 (Lappin not voting)**

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#285-15 HONOR THE MAYOR proposing amendments to the City of Newton Revised Ordinances, 2012 Section 11-15. **White goods.** by striking the fee of eighteen dollars (\$18) and replacing it with twenty-five dollars (\$25) wherever the fee is mentioned. [09/28/15 @ 1:43 PM]

ACTION: **APPROVED 7-0-1 (Lennon abstaining)**

NOTE: The Mayor is requesting an increase in the “White Goods” fee to cover the cost increase in the new contract for the per item fee for pick-up and disposal of products that contain cathode ray tubes. The new contract began July 1, 2015. Residents will pay a fee of \$25 per pick-up of one product containing a cathode ray tube and all other white goods. If there are additional items that contain a cathode ray tube, the resident will be charged an additional \$25 for each cathode ray tube item. The current ordinance requires a payment of \$18 per collection of one cathode ray tube item and all other white goods. The City does have the option of going out to bid for white goods pick-up but was not successful the last time it went out to bid with this contract. The current vendor is one of the very few businesses that provide this service. Committee members understood the need to increase the fee and Ald. Gentile moved approval, which carried by a vote of seven in favor and one abstention. Ald. Lennon abstained as he was not prepared to vote on the item and wanted more time to consider the proposed increase.

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#286-15 HIS HONOR THE MAYOR requesting authorization to appropriate three hundred fifty thousand dollars (\$350,000) from bonded indebtedness for the purpose of funding the design engineering and construction services for the replacement of the backstop at the Newton North High School baseball field. [09/28/15 @ 1:43 PM]

ACTION: **APPROVED 8-0**

NOTE: During the Finance Committee’s discussion on the request for design funds for the backstop at the Newton North High School baseball field, it was suggested that it would make more sense to approach the project as a design-build project instead of having one company design and another company construct. By doing a design-build project, one company would have ownership and be responsible for any issues with the project. The Executive Department agreed with the suggestion and is now requesting funding for the design and the construction of the backstop.

The existing backstop and netting are not sufficient to stop some of the foul balls from leaving the premises and hitting cars and neighboring properties. The plan is to increase the height of the backstop and netting behind home plate, add poles to attach the netting, as well as place 100’ of netting along the first and third base lines. It was pointed out that a new backstop will provide needed improvements but would not stop every foul ball from leaving the field.

The City based the estimate for design and construction on the Weston and Sampson engineering study of the back stop. In addition, the school's Athletic Director is knowledgeable about the costs of these types of projects. The cost of the project seems high but the installation of the cement foundations for the netting is expensive. The City will not attempt to recoup any of the money spent on the previous backstop, as it is unlikely it would be successful. The City reuse all materials from the previous backstop at either the school's softball field or at other fields throughout the City.

Ald. Danberg moved approval, which carried unanimously.

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#283-15 **HIS HONOR THE MAYOR** requesting authorization to appropriate one hundred fifty thousand dollars (\$150,000) from bonded indebtedness for the purpose of funding the installation of heat trace wiring for the City Hall roof. [09/28/15 @ 1:43 PM]

ACTION: **APPROVED 3-0-5 (Albright, Brousal-Glaser, Crossley, Lappin, Laredo abstaining)**

NOTE: Chief of Staff Maureen Lemieux presented the request to purchase and install heat trace wiring on the roof of City Hall. The heat trace wiring would run along the bottom of the roofline to prevent ice dams by melting snow and ice. Ms. Lemieux provided the attached photo of a slate roof with heat trace wiring. Last winter, a number of ice dams formed on the edge of roof that likely caused flooding in several offices in City Hall. The hope is that the installation of the heat tape will prevent the development of ice dams, prevent further damage to the building, and protect the City's assets.

The estimate for the heat trace wiring is \$150,000 for the whole perimeter of the building. There is some question as to whether the entire building needs the heat trace wire. There are sections of the building that have never had an ice dam. The City needs to determine whether it makes sense to do the whole building as a proactive measure against ice dams. The heat trace wiring is a reasonable expense that will protect a City's asset. The goal of the Administration is to install the heat trace wire before this upcoming winter.

The Chair has serious concerns about the heat trace wire as a preventative measure. The Chair is familiar with the use of heat tape wire on residential roofs, including slate roofs. She is aware that the intention is to use heat trace wire to melt ice dams but it is her understanding that it is not a reliable system that works in all weather conditions. The Chair also spoke with The Chair of the Design Review Committee Arthur Cohen, who had similar concerns and questions regarding the use of heat trace wiring.

Members of the Committee raised the following questions concerning the heat trace wiring:

- 1) What kind of engineering assessment has the Administration done on the roof to understand where the roof is leaking? The roof is not only leaking at the eaves.
- 2) How is the roof ventilated?
- 3) If the roof were properly insulated, would the heat trace wiring be necessary? There is a large amount of insulation up there that may not be installed correctly. There is a reason why ice dams form, which has to do with a combination of improper ventilation and insulation. A better approach to the roof problems would be to understand where it is leaking and correct those conditions rather than to put the heat trace wiring on it. The wiring is electric resistance wiring, therefore, it builds up current and heat and as long as it can stay ahead of the weather does do some melting but if the roof is leaking, it will also cause leaking. There were probably leaks caused by the ice dams last year that were not there before.
- 4) When is the last time the City had the slate work and flashing evaluated and any necessary repairs done on the roof?

Without all of that information, the Chair is troubled with putting the heat trace wiring on the roof. The wiring is a Band-Aid approach, which does not solve the source of the problem or the bigger problems with the conditions of the roof. She is aware that it would be much more expensive to address the roof but if it is leaking that badly, it should be fixed. The Chair will abstain or vote against the item as she is not comfortable supporting the item without the additional information.

Ms. Lemieux responded that she does not disagree with the Chair but everything that the Administration has looked into regarding repairing the roof is extremely expensive and the City does not have the funds to dedicate to the roof. There are no leaks within the building because of severe rainstorms. The cupola, which was leaking, is fixed. Every winter sheets of snow slide off the roof and is a safety hazard. If the City can do anything to help the snow melt to keep it from sliding off the roof, it would be a benefit. The City does not have over \$1 million to fix the roof or do other projects related to the roof. In addition, there is asbestos around the pipes by the roof, which would have to be abated if the City were to do any work in the area of the pipes. There is no line item in the Capital Improvement Plan for funding the roof repair. It was pointed out that the building is historic and funding may be available from the Community Preservation Act Fund. The Administration will investigate that possibility.

There was a question regarding whether there is any other City building with the heat trace wiring. Ms. Lemieux is unaware of it being used anywhere else but the Commissioner of Public Buildings has been consulting with the City's roof contractor, who is well versed in slate roofs and heat trace wiring. It is important for the Committee to have a better understanding where the wiring has been used, how well it works, what are the advantages, what are the disadvantages and in order to get that information further backup information is required.

It seems that there are many questions that need to be answered before an action can be taken on the item. It would be helpful to have Public Buildings Commissioner Josh Morse attend the Finance Committee's discussion to answer all of the questions raised, if the item is voted out of Public Facilities Committee. If the Commissioner cannot provide answers, the item would be sent back to the Public Facilities Committee for further discussion.

Ald. Lennon moved approval of the item in order to move it forward to the Finance Committee. The motion carried by a vote of three in favor and five abstentions.

Respectfully submitted,

Deborah Crossley, Chairman

Winter 2015 - 2016 Snow and Ice Control Review



Department of Public Works

Agenda

- Introduction
- Statistics
- Goals and Purpose
- Snow and Ice Control Operations

Annual Statistics

- Winter 2014-2015: 26 Events, 106.5", \$7,269,239
 - \$68,256 per inch
- Prior five year average: 14 Events, 54.26", \$3,199,514
 - \$58,966 per inch
- Current five year average: 17 Events, 66.96", \$4,164,825
 - \$62,199 per inch

Goals

Minimize and Reduce

- Life threatening/injury producing conditions
- Interruption to commerce
- Damage to private and public property

Purpose

Guide For

- Citywide uniform snow & ice control
- Coordination of available resources
- Delivering effective services
- Promoting understanding and cooperation

Scope of Operations

Responsibility

- 320 miles of roadways
- 50 plus miles of sidewalks (Including sidewalks over 22 bridges)
- 31 City owned buildings
- 15 public parking lots

Snow Route Prioritization

Priority Street Assignments

- Priority I: arterial and collectors
- Priority II: local-through streets
- Priority III: safety concerns/Hot spots

Snow and Ice Control

Implementation

- Storms are unique
- Strategies used vary

Snow and Ice Control

Determining Strategies

- Time of day/Day of week
- Air temperatures
- Pavement temperatures
- Predicted snowfall rates
- Predicted storm duration
- Projected temperatures
- Predicted weather post-storm

Command and Control

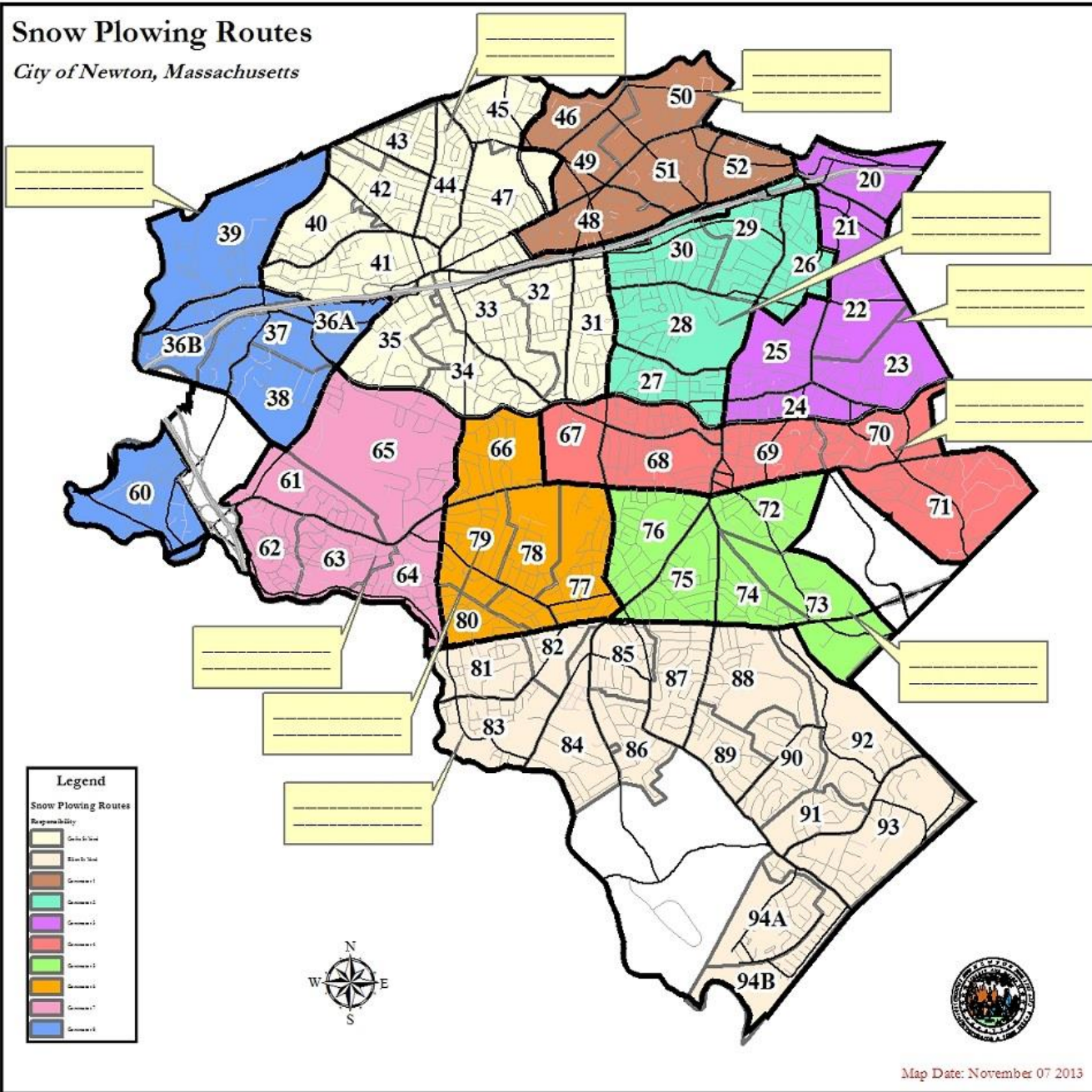
Personnel and Resources

- Superintendents
- Assistant Superintendents
- Snow Chasers
- Snow Control Center

Street Plowing Operations

320 miles/Ten zones

- Two in-house
- Eight private contractor
- 94 routes



Sidewalk Plowing Operations

50+ miles within ten zones

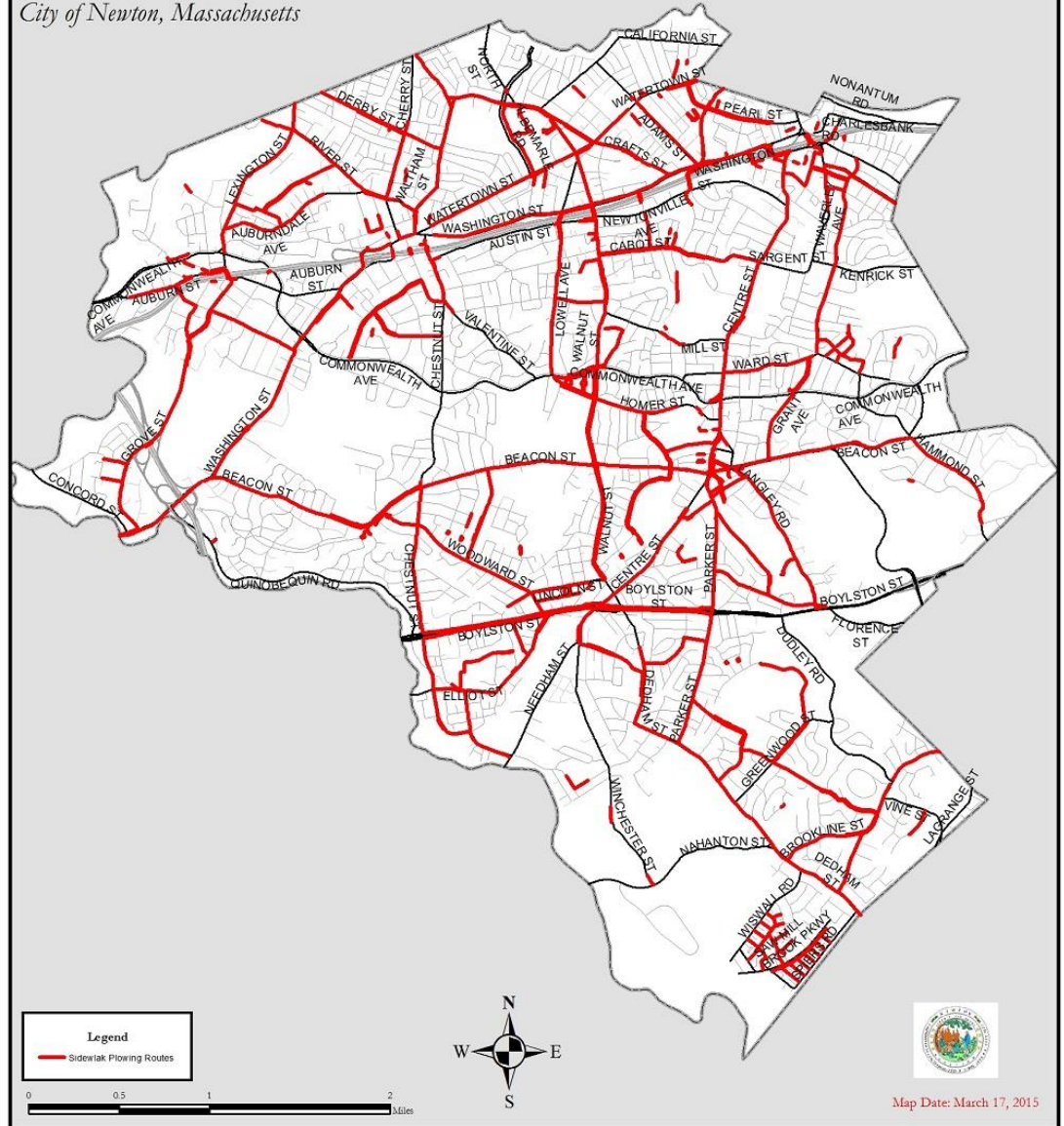
- 6 Routes
 - City owned property
 - Safe route to schools
 - Village centers
 - Transportation nodes
- Minimal width 36"

Sidewalk Plowing

- 50+ miles
- 6 routes
- public properties

Sidewalk Plowing Routes

City of Newton, Massachusetts



Sidewalk Route Review

Considerations

- Safe routes to school
- Transportation nodes

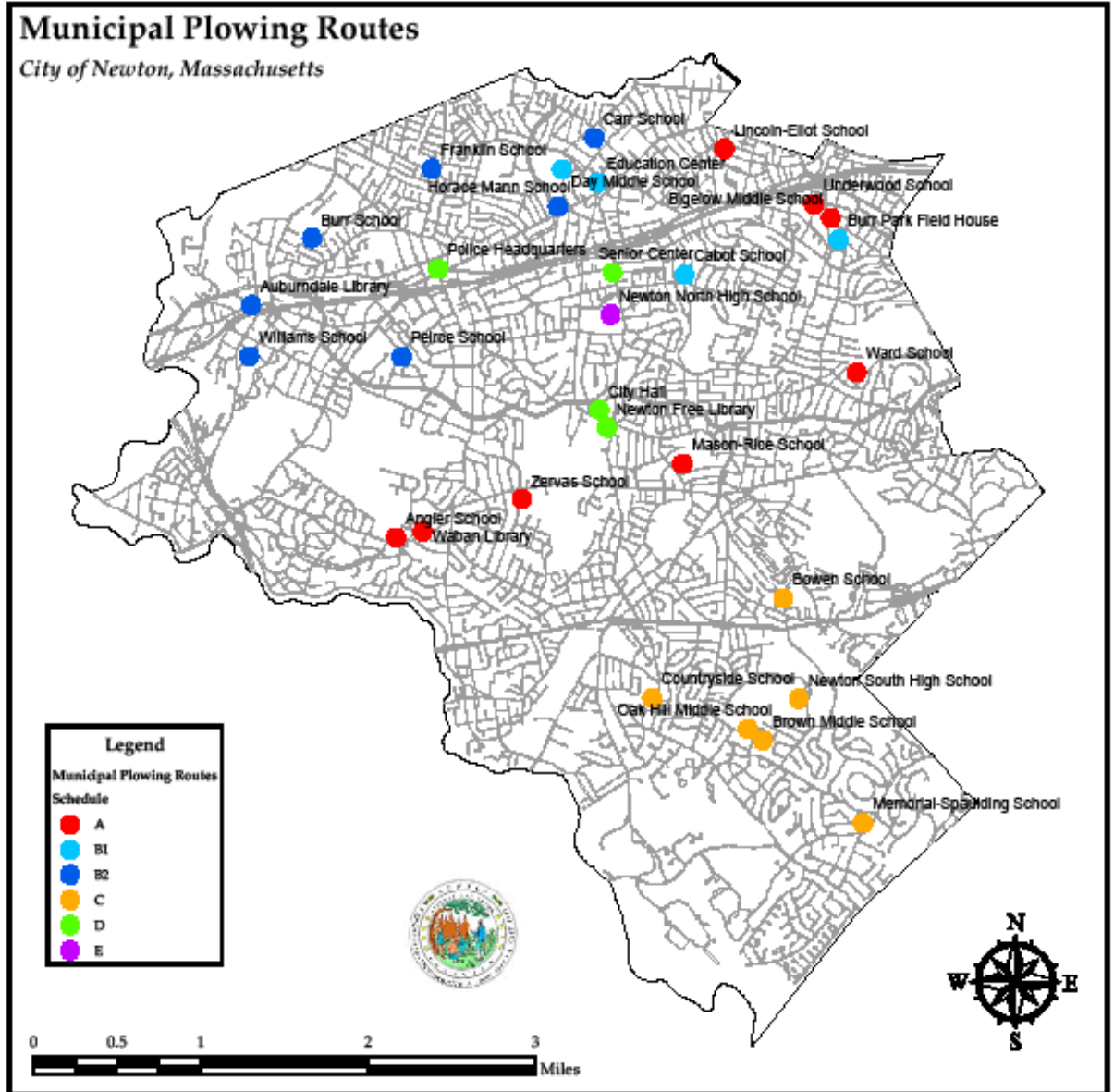
Participants

- Newton Police Department School Crossing Guard Officer
- Newton Public Schools Transportation Director
- Newton Public Schools Operations Director
- Department of Public Works Transportation Director
- Department of Public Works Highway Operations Director
- Department of Public Works Director of Operations
- City of Newton ADA Coordinator



School & Municipal Buildings

- 6 contracts
- 23 school buildings
- 8 public buildings



Snow Hauling Operations

Example Locations

- Village Centers, Key Intersections, Transportation Nodes

Determining Factors

- Snow accumulation
- Prior snow depth
- Post storm temps
- Post storm weather

Snow Storage Sites

Storage Sequence

- Elliot Street Maintenance Yard (90 Elliot Street)
- Rumford Avenue DPW (115 Rumford Ave)
- Forte Park vehicle lot (233 California Street) *Parks and Recreation*
- Auburndale Park vehicle lot (West Pine Street)
- Upper Falls Playground vehicle lot (Chestnut Street)
- Cold Spring Park vehicle lot (Dunklee Street)

Snow Equipment

Department	6 Wheeler	10 Wheeler	1 Ton/Pickup	Sidewalk Machines	Total
Highway	34	7	32	23	96
Utilities	6	3	9	0	18
Parks & Recreation	0	0	8	0	8
Private Contractors	0	0	0	0	86
Total	40	10	49	23	208







Snow and Ice Training

Snow Topics

- Classroom/Hands-on
- Plowing operations
- Sensible salting
- Street/Sidewalk route overview
- Private contractor
- Snow chaser
- Decision making process
- Weather

Facilities

Highway Operations Locations

- Elliot Street
- Crafts Street

Materials and Storage Capacity

Snow and Ice Materials

- Sodium Chloride (Rock Salt)
- Liquid Magnesium Chloride

Materials and Storage Capacity

Location	Salt Capacity	Liquid Magnesium Chloride
Elliot Street Yard	5,000 tons	5,800 gallons
Crafts Street Yard	3,000 tons	5,800 gallons
Totals	8,000 tons	11,600 gallons

Weather Information

Weather Resources

- Daily Fax and email updates from weather provider (Precision Weather)
- Internet
- Radio
- TV
- Snow Watchers

Public Information

Goals

- Disseminate clear and accurate information to internal/external stakeholders
- Use various communication sources
- Respond to media requests

Public Information

Daily Internal Briefs

- Current forecast
- Operations plan
- Points of contact
- Special circumstances/events/etc..

Public Information

Web QA/311 Response Process

- Received
- Investigated
- Prioritized
- Mitigated
- Closed

New Initiatives

- Tablets for field personnel
- Internal Web QA/311 hotline
- GPS tracking upgrades
- Sidewalk snow equipment
- Loader mounted snow blower
- Use of Magnesium Chloride
- Expanded use of SCC
- After action review and report