



**CITY OF NORTHAMPTON, MASSACHUSETTS**  
**DEPARTMENT OF PUBLIC WORKS**  
125 Locust Street  
Northampton, MA 01060

413-587-1570  
Fax 413-587-1576

**Donna LaScaleia**  
*Director*

## Memorandum

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To: Mayor David Narkewicz  
From: Donna LaScaleia, Director of Public Works  
Date: February 28, 2018  
Re: FY2019 Northampton Roadway Improvements

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The Department of Public Works (DPW) has developed a plan to improve the condition of several City streets in FY2019. This memorandum identifies the selected streets, the approximate budget and cost of improvements, and the current schedule for bidding and construction.

For FY2019, as part of your five year Capital Plan, the City will be bonding \$1,500,000 for roadway improvements. We also expect an apportionment of approximately \$1,000,000 in Chapter 90 funds, with the exact amount to be announced by the Commonwealth in late March or early April as is their typical practice. Additionally, we can allocate funding from other sources such as traffic calming or enterprise funds (for utilities) as appropriate and/or necessary. The types of improvements proposed and the streets where the work is planned are described below.

Generally, the DPW uses data and analysis provided through the Vanasse Hangen Brustlin, Inc. (VHB) Pavement Management Program as the primary guide for pavement management selection. In addition, DPW applies our field knowledge of roadway usage, current repair conditions, and consideration of recent and upcoming underground utility projects when developing a list of streets for pavement improvement.

### **CRACK SEALING**

Crack sealing pavement is the process of cleaning out pavement cracks using compressed air and applying a heated, liquefied asphalt-fiber sealant followed by the hand application of boiler slag to prevent pickup of the sealant by vehicles. Crack sealing prolongs the service life of pavement for about five years by reducing the amount of water entering into the pavement. The selection of streets to be crack sealed is intended to maintain newer roads in good condition for as long as possible. The streets to be crack sealed this year were determined by reviewing the pavement condition index (PCI) for City streets and developing an estimated list of 20 - 25 streets that could be crack sealed within the \$50,000 budget for this work. Areas to be crack sealed include sections of North Main Street, Old South Street, Ryan Road, and more.

Crack sealing Schedule: Bid specifications for the crack sealing contract are being prepared and bidding is expected to occur in the spring of 2018. It is expected that the work will occur in late summer or fall 2018.

## **MILL AND OVERLAY**

This process mechanically mills and removes the top 2-3 inch layer of pavement leaving curbing, catch basins and manholes in place. These structures are adjusted as needed to match the final pavement grade. A new top course of pavement is installed after a tack coat of bitumen is applied as a bonding agent with the base course. The expected repair life is typically 12-15 years. The mill and overlay locations are determined by reviewing the streets that fall within the top Benefit Value tier as calculated by the VHB software.

<u>Mill and Overlay Streets</u>	<u>Estimated Cost</u>
Pleasant Street: Main Street to Hockanum Road	\$260,000
North King Street: 220' north of Coles Meadow Road	\$ 4,500
North King Street: 925' north of Coles Meadow Road	\$ 4,500
Nonotuck Street: Per your request, the two speed humps will be milled and replaced with speed tables.	<u>\$ 10,700</u>
	Total \$279,700

Mill and Overlay Schedule: Bid specifications for the mill and overlay projects will be part of a Pavement Contract that is currently being prepared, and bidding is expected to occur in May. The paving schedule for each street will be determined once a contract has been awarded.

## **RECLAIM**

A roadway that is reclaimed is mechanically ground, removing all existing layers of pavement. The material can be used to repair or supplement the road's gravel base as needed. Excess material is stockpiled for use by the DPW. The road base is graded and compacted before base and top courses of new pavement are installed. Structures are adjusted and may be rebuilt if required. The expected repair life is typically 18-22 years. DPW uses information from the VHB asset management to determine what streets are appropriate for reclaiming and we use the VHB benefit value as a guide to prioritizing street candidates for reclaiming.

<u>Reclaim Streets</u>	<u>Estimated Cost</u>
Hampton Avenue: Pleasant Street to Old South Street	\$ 136,000
Fulton Avenue: Pleasant Street to Conz Street	\$ 25,000
Chesterfield Road: Spring Street to Shepards Hollow	\$ 295,000
Burts Pit Road: 66' west of Clement Street to Forest Glen Drive	<u>\$1,429,000</u>
Total	\$1,885,000

Reclaim Schedule: Bid specifications are being prepared for the Chesterfield Road project, which has an anticipated start in the spring of 2018. Bid specifications for Hampton Avenue, Fulton Avenue, and a portion of Burts Pit Road will be part of a Pavement Contract that is currently being prepared. Bidding for the Pavement Contract is expected to occur in May. Due to permitting requirements for proposed culvert replacements, reclaiming of the other portion of Burts Pit Road may need to be postponed until 2019. The paving schedule for each street will be determined when the contracts have been awarded. Specifics of the Burts Pit Road schedule will be communicated to residents as soon as more detailed information becomes available.

## **ROADWAY PAVEMENT MARKINGS**

The double yellow centerlines and white edge lines delineate the travel lane, bikes lanes, and parking lanes. Streets for this contract are generally chosen based on visual inspection. Roads that are heavily used such as King Street or Elm Street are restriped annually. Other streets to be restriped include Hatfield Street, Nonotuck Street, Westhampton Road, Main Street, Bridge Road, and more. Crosswalk markings will be refreshed in areas with high pedestrian volumes. This work is paid from the operating budget of the Highway Division.

Line Painting Schedule: A contract for this work is currently being prepared. Bidding is expected to occur in the spring of 2018. Per your request, the DPW will repaint the rainbow crosswalk prior to May 1, 2018, weather permitting.

## **ONGOING FY2018 PROJECTS**

Remaining work for FY2018 pavement projects is as follows:

- Day Avenue – Final paving and site restoration is anticipated to be complete by June 2018.
- Audubon Road – Final paving and site restoration is anticipated to be complete by June 2018.
- North Farms Road and North Maple Street – A permanent trench patch for the water line replacement is anticipated to be complete by June 2018.
- Hinckley Street – Replacement of utilities, installation of the new drainage outfall off of Riverside Drive, new sidewalk, paving, and construction of a raised crosswalk is anticipated to be complete by the end of the construction season.

## STATE CHAPTER 90 FUNDS PROJECTS

Chapter 90 is a state reimbursement program for projects that involve maintaining, repairing, and reconstructing City streets. Other eligible uses include engineering design services and personnel for site inspection. Several construction and resurfacing projects listed on the previous pages are partially funded using the Chapter 90 program. For FY18, \$1,016,892 was allocated for Northampton. It is anticipated that approximately \$1,000,000 will be apportioned for FY19. Funds for each community are determined by the number of accepted road miles, the population, and employment. The following design projects span multiple fiscal years.

### Other Chapter 90 Projects (Requested Funds)

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#### King Street Corridor Design (\$200,000)

- Fuss & O'Neill has a contract for the design work of King Street between Bright Street and the signalized rail trail crossing. This includes reducing the traveled way to one lane in each direction, realignment of Summer Street towards North Street, reconstructed sidewalks and driveways, bike lanes, a traffic signal at the intersection of Finn Street and State Street, pedestrian signals, and updated traffic signal timings. 25% plans have been submitted to the Massachusetts Department of Transportation (MassDOT) for review. The construction will be federally funded under the Transportation Improvement Program and is planned for 2021.

#### Pavement Management Services (\$12,000)

- The City has an annual contract with Vanasse Hangen Brustlin (VHB) for pavement management services. VHB evaluates the pavement condition for a quarter of the City's streets each year and updates the database. This allows the City to see the condition of all the road segments and to generate a paving list based on this data.

#### Damon Road Right of Way Acquisition (\$225,000)

- Peter W. Sleeper Associates has a contract for right of way acquisition services for takings and easements on Damon Road. This work is being done for the planned reconstruction of Damon Road that will be funded by MassDOT. Greenman-Peterson, Inc. has a contract with MassDOT for the design and right of way plans, but the City is responsible for the cost of property takings and easements.



# City of Northampton

## Paving Projects for FY 2019

Prepared by:  
Engineering Division  
Department of Public Works  
City of Northampton

February 28, 2018

Disclaimer: The information on this map was derived from digital databases from VHB and on the City of Northampton's GIS. Care was taken in the creation of this map. The City of Northampton cannot accept any responsibility for errors, omissions, or positional accuracy. Notification of any errors will be appreciated.

