



CITY OF NORTHAMPTON, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS
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Donna LaScaleia
Director

Memorandum

To: Mayor David Narkewicz
From: Donna LaScaleia, Director of Public Works
Date: March 15, 2019
Re: FY2020 Northampton Roadway Improvements

The Department of Public Works (DPW) has developed a plan to improve the condition of several City streets in FY2020. This memorandum identifies the selected streets, the approximate cost of improvements and the current schedule for bidding and construction.

For FY2020, as part of your five year Capital Improvement Program, the City bonded \$2,500,000 for roadway improvements. We also expect an FY2020 apportionment of \$1,016,820 in Chapter 90 funds, pending final authorization from the Commonwealth. Additionally, we can allocate funding from other sources such as traffic calming or utility enterprise funds as appropriate.

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. In addition, DPW applies our field knowledge of roadway usage, current repair conditions, and consideration of recent and upcoming underground utility projects when developing candidate streets for pavement improvement. The types of improvements proposed and the streets where the work is planned are described below.

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 are 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. The list of streets to be sealed is in development.

Crack sealing Schedule: Bid specifications for the crack sealing contract are expected to be prepared and bid in the summer of 2019. It is expected that the work will occur in the fall of 2019.

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 binder course. The expected repair life is typically 12-15 years.

<u>Mill and Overlay Streets</u>	<u>Estimated Cost</u>
Bridge Road: 100' west of Juniper Street to Hatfield Street	\$ 950,000
Glendale Road: 65' north of the Easthampton town line to a point 1445' south of Brisson Drive	<u>\$ 300,000</u>
	Total \$1,250,000

Mill and Overlay Schedule: Bridge Road and Glendale Road are under one contract and are currently out to bid. The anticipated start is in the spring of 2019. The paving schedule for each street will be determined once a contract has been awarded.

COLD-IN-PLACE RECYCLING & OVERLAY

Cold-in-place recycling is a treatment process where a milling machine grinds up to a 4 inch depth of pavement and is connected to an asphalt paving machine that immediately recycles the milled asphalt with added bitumen and aggregate, laying down a rejuvenated pavement surface. The surface is somewhat open graded and requires a Hot Mixed Asphalt (HMA) overlay to complete the work. The expected repair life is typically 15-18 years. This process can be used on roads that require reclaiming and is a significantly less expensive treatment than reclaiming. However, its application is limited to roadways with few or no utility structures.

<u>Cold-in-Place Recycling & Overlay Streets</u>	<u>Estimated Cost</u>
Chesterfield Road: Kennedy Road to the Westhampton town line	\$500,000
Main Street (Leeds): Dimock Street to a point 535' north of Dimock Street	<u>\$ 90,000</u>
	Total \$590,000

Cold-in-Place Recycling & Overlay Schedule: The cold-in-place recycling and overlay streets contract is set to bid in late April and is anticipated to start in the late spring of 2019.

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 binder 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.

<u>Reclaim Streets</u>	<u>Estimated Cost</u>
Cross Street: Florence Road to Bliss Street	\$ 215,000
Spring Street: Pine Street to Meadow Street and Colonel LaValley Lane to Dimock Street	\$ 945,000
Glendale Road: 230' south of Westhampton Road to a point 1445' south of Brisson Drive	\$ 315,000
Burts Pit Road: 66' west of Clement Street to Forest Glen Drive	<u>\$1,410,000</u>
Total	\$2,885,000

Reclaim Schedule: Bids for the Burts Pit Road project were opened on January 16, 2019, and the contract has been awarded to Palmer Paving. This project is expected to begin in the spring of 2019.

Bid documents are being prepared for Cross Street and Spring Street. Those two streets will be in one contract with Chesterfield Road and Main Street (Leeds). This contract is set to bid in late April and has an anticipated start in the late spring of 2019.

ROADWAY PAVEMENT MARKINGS

Roadways are typically delineated by various types of pavement markings, such as double yellow centerlines, white edge lines, and crosswalks. Streets for this contract are generally chosen based on visual inspection. Main artery streets to be restriped include King Street, Elm Street and Westhampton Road. Additional streets will be restriped as funding allows. Crosswalk markings within a quarter mile of the public schools, Florence downtown, and Northampton downtown will be refreshed. Repainting speed hump markings is also included in this contract. 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 2019.

ONGOING FY2019 PROJECTS

Remaining work for the Pleasant Street, Hampton Avenue, Cooke Avenue, Fulton Avenue and Wright Avenue paving project will be completed in spring 2019. Work includes pavement markings and site restoration.

STATE CHAPTER 90 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. Funds for each community are determined by the number of accepted road miles, the population and employment data. The following design projects span multiple fiscal years:

King Street Corridor Design (\$245,000)

- 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. 75% plans are in progress. 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 road segments.

Damon Road Right of Way Acquisition (\$249,100)

- 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

Dept of Public Works
Engineering Division

Paving Projects for FY 2020

MARCH 2019

Disclaimer: The information on this map was derived from digital databases from VHB and the City of Northampton Department of Public Works' 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.

