

# REQUEST FOR BOARD ACTION

AGENDA ITEM: 3.12



## Engineering & Public Works Department

**SUBJECT:** Crack Sealing Program

**MEETING DATE:** February 25, 2020

**FROM:** [Brigitte Berger-Raish](#), P.E., Director of Engineering and Public Works  
[Dan Manis](#), P.E., Village Engineer  
[Dan Smith](#), P.E., Project Engineer

<b>BUDGET IMPACT:</b>	Contract Cost:	\$50,000
	Budget:	\$25,000
	Over/(Under) Budget:	\$25,000

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### **Recommended Motions**

Move to approve a contract extension in the amount not-to-exceed \$50,000 with Patriot Pavement Maintenance, Inc., Des Plaines, IL, for the 2020 Crack Sealing Program.

### **Background**

This preventive maintenance program consists of sealing cracks on asphalt streets throughout the Village. Crack sealing prevents moisture from entering the pavement, which will extend the life of the street. Streets are selected to be included in the program that have been resurfaced within the last 4 to 5 years when cracks first develop and sealing provides the most benefit.

### **Discussion**

In 2016, the Village was one of nine municipalities participating in the Municipal Partnering Initiative (MPI) crack sealing bid that was led by the Village of Arlington Heights. The MPI allows area communities to collectively bid similar work to take advantage of economies of scale. The other communities participating in the 2016 bid were Evanston, Glenview, Mount Prospect, Niles, Northfield, Rolling Meadows and Skokie. The bid for crack sealing established pricing for three years. Since 2019, Patriot Pavement Maintenance, Inc. has agreed to a contract extension honoring the same pricing from the previous year.

A summary of historical pricing and work completed is as follows:

<b>Year</b>	<b>Crack Sealant (\$/LB)</b>	<b>Centerline Miles</b>	<b>Contract Cost (\$)</b>
2015	\$1.22	0.60	\$10,000
2016	\$1.17	1.74	\$40,000
2017*	\$1.17	4.09	\$40,000
2018	\$1.19	1.27	\$41,200
2019	\$1.19	Deferred	\$42,400
<b>2020</b>	<b>\$1.19</b>	<b>TBD</b>	<b>\$50,000</b>

*\*2017 included Isabella Street which only the north half is Village jurisdiction*

Patriot Pavement Maintenance, Inc. have completed the Crack Sealing Programs for the Village since 2016 with satisfactory results and has agreed to hold unit pricing for 2020. For these reasons, the Engineering and Public Works Department recommends awarding a one-year contract extension for the 2020 Crack Sealing Program to Patriot Pavement Maintenance.

The 2020 award is for two seasons of crack sealing, streets originally scheduled for crack sealing in 2019 will be completed in spring of 2020. The 2019 program was delayed as a result of early winter conditions in November. The inclement weather prevented placement of crack sealing material before the onset of winter due to persistent pavement moisture and low temperatures. Engineering and Public Work Department staff recommends an award amount of \$50,000 to meet current crack sealing needs.

The 2020 Crack Sealing Program will be completed in the early spring.

### **Budget Impact**

The 2020 Crack Sealing Program is allocated to the below account in the General Fund. The proposed contract is above budget for 2020 due to the inclusion of the 2019 Crack Sealing Program. The additional \$25,000 is recommended to be funded by the Engineering Dedicated Revenues Program reserves.

<b>Description</b>	<b>2020 Budget</b>	<b>Contract Amount</b>	<b>Account No.</b>
General Fund	\$25,000	\$50,000	11202035-425240

### **Documents Attached**

1. Extension letter from Patriot Pavement Maintenance dated February 13, 2020
2. CIP Detail Sheets
3. Signed Contract Extension



## **PATRIOT PAVEMENT MAINTENANCE**

825 Seegers Rd. Suite F  
Des Plaines, IL 60016  
847-813-9034  
[www.patriotpavement.net](http://www.patriotpavement.net)  
[kim@patriotpavement.net](mailto:kim@patriotpavement.net)

February 13, 2020

Village of Wilmette  
1200 Wilmette Ave.  
Wilmette, IL 60091

Re: 2020 Crack Sealing Project

Dan,

Patriot Pavement Maintenance will be honoring the unit cost of \$1.19 per pound and \$110.00 per hour for sweeping for the 2020 Crack sealing program.

Please forward the Purchase Order and Street List and we will get you scheduled.

Please let me know if you have any questions.

Best Regards,

Matt Sollars, President  
Patriot Pavement Maintenance



**Pavement Maintenance Program**

Streets, Sidewalks, and Alleys

2020	\$135,600	Operating
2021	\$139,800	
2022	\$144,000	
2023	\$148,300	
2024	\$152,700	

- X Critical
  - Recommended
  - Contingent on Funding
- 

**Original Purchase Date & Cost**

N/A

**Funding History**

See projects below for details.

**Project Description & Justification**

The purpose of this program is to extend the service life of pavement surfaces on streets owned and maintained by the Village prior to resurfacing or replacement. This program includes pavement surface rejuvenation, crack sealing, and pavement area patching (non-utility).

Overall Budget

Year	Pavement Surface Rejuvenation	Pavement Patching	Crack Sealing	Budget Total
2020	\$18,600	\$92,000	\$25,000	\$135,600
2021	\$19,200	\$94,800	\$25,800	\$139,800
2022	\$19,800	\$97,600	\$26,600	\$144,000
2023	\$20,400	\$100,500	\$27,400	\$148,300
2024	\$21,000	\$103,500	\$28,200	\$152,700

Pavement Surface Rejuvenation

*Funding History*

2019 \$16,900 <sup>1</sup> Operating

2018 \$7,600 <sup>2</sup> Operating

2017 \$6,000 <sup>2</sup> Operating

<sup>1</sup> = Not constructed at time of budget preparation.

<sup>2</sup> = Test programs in 2017 and 2018.

*Project Description & Justification*

Surface rejuvenation is the first stage of the pavement maintenance program. The purpose of the surface rejuvenator, Reclamite, is to restore the flexibility of asphalt pavement that is lost to oxidation. This product will help decrease the deterioration rate of asphalt surfaces, which will reduce or delay the need for more expensive surface treatments, such as crack sealing and area patching. The application period for this product is typically 1 to 2 years after paving asphalt, but Reclamite can also be applied to older pavements showing light hairline cracking, light raveling, segregation, light pitting, and dryness.

A pilot program was initiated in 2017 to test the Reclamite on Village streets. The product was applied to some blocks, while other blocks were left to serve as the control group. While it is still too early in the pavement life cycle to notice a substantial difference in deterioration, there are multiple neighboring municipalities and counties that have implemented this program with evident success. The 2019 project represented an incremental approach to an overall pavement management strategy. Going forward, the primary locations for this project will focus on streets resurfaced or reconstructed through the Road Program or other Village Improvement Projects during the previous year.



## Crack Sealing

### *Funding History*

2019	\$42,400 <sup>1</sup>	Operating
2018	\$41,200	Operating
2017	\$40,000	Operating
2016	\$40,000	Operating
2015	\$10,000	Dedicated Revenues
2014	\$10,000	Dedicated Revenues
2013	\$10,000	Dedicated Revenues

<sup>1</sup> = Not constructed at time of budget preparation.



### *Project Description & Justification*

Crack sealing is the second stage of the pavement maintenance program. The purpose of this project is to seal cracks that have developed or expanded on surface of asphalt-paved streets. The goal of this product is to prevent moisture from reaching the base and increasing the rate of pavement degradation.

As of 2018, current funding levels have allowed the Department to seal approximately 0.5 to 1 miles of streets annually, depending on the amount of cracks present. The project focuses on Village streets with 3 to 5-year-old asphalt pavement for the first application of sealant. Engineering staff will then identify streets with 5 to 7-year-old pavement for a second sealing. Pavements that show signs of excessive cracking are excluded from this process because crack sealing is no longer effective.

## **Pavement Patching (non-utility)**

### *Funding History*

2019 \$200,000<sup>1</sup> Operating

<sup>1</sup> Not constructed at time of budget preparation.

### *Project Description & Justification*

Pavement patching is the third stage of the pavement maintenance program. The purpose of this project is to patch localized areas of deterioration in the pavement, on non-brick streets, with hot-mix asphalt or concrete. This work is separate from the program that patches streets due to water main and sewer emergency repairs by the Department.

Throughout the year, crews from the Department will fill potholes, and other failures in the pavement surface, with cold-mix asphalt. While this repair method will immediately eliminate the pavement surface hazards, the cold-mix material only provides a temporary fix. It is not uncommon for crews to refill potholes on an annual or less basis. By utilizing hot-mix asphalt and concrete, these long-term repairs will help extend the service life of the pavement and improve the overall condition of the street or alley.

The patching locations for this project are based on severity and are determined from: pothole locations filled by the Department, incident management complaints regarding pavement condition, and from routine roadway and alley inventory inspections.

In 2019, the Board approved additional budget for this project to account for the substantial increase in pavement failures caused in part by the extreme frigid winter temperatures. The 2020 funding amount is anticipated to complete up to 2,900 SY of 2-inch asphalt patching, depending on the amount of required base repairs.

### **Project Update**

Five year costs have been updated to reflect an annual inflation factor of 3%.

### **Project Alternative**

The alternative to pavement maintenance is doing nothing and waiting for the pavement surface to deteriorate to the point where the street will require resurfacing or reconstruction. However, once the roadway base is impacted from lack of maintenance, the road has to be reconstructed typically between three to four times the costs of resurfacing. These maintenance projects can slow down the decline of the overall pavement condition and improves ride quality.

## Operating Budget Impact

Is this purchase *routine*   X   or        *non-routine*?

NON-ROUTINE	
Maintenance Costs:	No additional costs – pavements will continue to be maintained
Personnel Costs:	No additional cost – the Village currently maintains pavements as deficiencies arise
Training Costs:	None





**VILLAGE OF WILMETTE  
1200 Wilmette Ave  
Wilmette, IL 60091**

**Contract No. 19039-01**

**For:**

**Crack Sealing Program  
Contract Extension No. 01 for Contract No. 19039**

**With:**

**Patriot Pavement Maintenance, Inc.  
825 Seegers Road, Suite F  
Des Plaines, IL 60016**

**Note: This cover sheet is an integral part of the Agreement, as are all of the following documents, and are a part of the Agreement as executed between the Village of Wilmette and Patriot Pavement Maintenance, Inc. Do not detach any portion of this document. Invalidation could result.**



1. This Contract Extension is made by the Village of Wilmette ("Village") and Patriot Pavement Maintenance, Inc. ("Contractor"), Parties to Contract No. 19039 – 2019 Crack Sealing Program ("Agreement").

2. For and in consideration of up to \$50,000.00 and other good and valuable consideration, the sufficiency of which is hereby acknowledged, the Village and Contractor hereto agree to:

- a. Extend the above referenced Contract's \$1.19 price per pound and \$110 per hour for sweeping through December 31, 2020. The work is expected to be performed during the period April 1, 2020 and May 29, 2020.
- b. Provide the Village with Performance and Payment bonds for the contract extension amount.

This Contract Extension is not a guarantee that the Village will request services for the total Contract Extension amount.

3. This Contract Extension No. 01 is incorporated into the Agreement and shall not be effective unless this Contract Extension is also executed by the Parties.

4. Except as set forth in this Contract Extension, the Agreement is unaffected and shall continue in full force and effect in accordance with its terms. If there is conflict between this Contract Extension and the Agreement or any earlier amendment, the terms of this Contract Extension will prevail.

5. The Contract Extension shall be binding on the parties and effective only as of the date fully executed by both parties.

IN WITNESS WHEREOF, the Village of Wilmette, Illinois by Robert T. Bielinski, Village President, and the Contractor have hereunto set their hands to this Contract Extension on the \_\_\_\_ day of \_\_\_\_\_, 2020.

**THE VILLAGE OF WILMETTE, ILLINOIS**

Accepted this \_\_\_\_ day of \_\_\_\_\_, 2020

\_\_\_\_\_  
Robert T. Bielinski, Village President

Attest: \_\_\_\_\_  
Michael N. Braiman, Village Clerk

**FOR THE CORPORATION**

An officer duly authorized by the corporation shall sign here:

Accepted this 19<sup>th</sup> day of February, 2020

  
By (signature)

Matt Sollars  
Print Name

PRESIDENT  
Position/Title

Patriot Pavement Maintenance  
Print Company Name