



**Engineering & Public Works
Department**

SUBJECT: 2019 Asphalt Pavement Patching Program

MEETING DATE: May 14, 2019

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

BUDGET IMPACT: Project Cost \$200,000

Recommended Motion

Move to approve a contract in the amount not-to-exceed \$200,000 with Chicagoland Paving Contractors, Inc., of Lake Zurich, IL, for the 2019 Asphalt Pavement Patching Program.

Background

In 2015 , the Village Board increased funding for infrastructure improvements, including roads, by \$1.25 million, and then in 2017, the Village Board added an additional \$500,000 in funding specifically for roads. This additional investment was aimed at stabilizing the condition of the roads until funding levels increase in 2026 as a result of debt restructuring. Unfortunately, the extreme weather this winter has accelerated the deterioration of pavement necessitating interim treatment. As a result, staff recommends adding a patching program in addition to the annual MFT Road Program.

The scope of work for this program consists of grinding and asphalt patching sections of roadway that have badly deteriorated. This program addresses non-utility pavement failures that cannot be adequately repaired with asphalt pothole filling. The anticipated amount of repairs, in total area, consist of about 7,450 square yards of 2-inch depth patches and about 2,000 square yards of 4-inch depth patches. These repairs are intended to help extend the service life of the pavement surface until the entire street requires asphalt resurfacing.

Discussion

In 2018, the Village of Glencoe led a Municipal Partnering Initiative (MPI) bid with four other municipalities for asphalt patching services. The MPI allows area communities to collectively bid on similar work to take advantage of economies of scale. The other communities participating on the 2018 bid were Golf, Nilcs, Rolling Meadows, and Wheeling. This group received bids from Chicagoland Paving Contractors and J.A. Johnson Paving for this service.

Chicagoland Paving Contractors submitted lower pricing, as shown on the Bid Tabulation (attachment 1).

In 2019, Chicagoland Paving Contractors agreed to extend the 2018 unit pricing with the Village of Glencoe and any partnering groups during the 2019 construction season (attachment 2). In addition, Chicagoland Paving has worked in the Village on past projects and has performed well. For these reasons, the Engineering and Public Works Department recommends awarding the 2019 Asphalt Patching Program to Chicagoland Paving Contractors.

The patching program will begin in July 2019.

Budget Impact

The 2019 Asphalt Pavement Patching Program is not included in the approved 2019 Budget and thus will be funded using reserve funds.

Documents Attached

1. Bid Tabulation
2. Village of Wilmette MPI extension letter dated April 15, 2019

Bid Tab - 2018

			Chicagoland Paving Contractors, Inc.		J.A. Johnson Paving, Co.	
Item	UNIT	Estimated Quantity	Unit Price	Extension	Unit Price	Extension
(N50) CLASS D PATCHES, TYPE 1,2,3,4 - 2"	SY	3150	\$18.00	\$56,700.00	\$29.85	\$94,027.50
(N50) CLASS D PATCHES, TYPE 1,2,3,4 - 4"	SY	1600	\$32.65	\$52,240.00	\$61.25	\$98,000.00
(N50) CLASS D PATCHES, TYPE 1,2,3,4 - FULL DEPTH	SY	150	\$100.00	\$15,000.00	\$120.50	\$18,075.00
(N70) CLASS D PATCHES, TYPE 1,2,3,4 - 2"	SY	0	-	-	\$30.15	-
(N70) CLASS D PATCHES, TYPE 1,2,3,4 - 4"	SY	0	-	-	\$61.80	-
(N70) CLASS D PATCHES, TYPE 1,2,3,4 - FULL DEPTH	SY	0	-	-	\$122.15	-
DRIVEWAY APRON REMOVAL & REPLACEMENT	SY	40	\$25.00	\$1,000.00	\$65.50	\$2,620.00
Total				\$124,940.00		\$212,722.50

Chicagoland Paving Contractors, Inc.

225 Telser Road
Lake Zurich, IL 60047

Phone: 847-550-9681
Fax: 847-550-9684

March 11, 2019

Mr. Adam Hall
Public Works Dept.
Village of Glencoe
675 Village Ct.
Glencoe, IL 60022

Re: MPI Paving Contract
2019 MPI Patching Contract

Dear Mr. Hall:

Attached pricing, upon mutual agreement between the Village of Glencoe and Chicagoland Paving may be extended through the 2019 Paving Season.

Chicagoland Paving would also extend the attached contract pricing (2018) to any partnering groups that wish to jump on the contract this paving season (2019).

Sincerely,



William R. Bowes
Vice President

MPI Patching

18-177

Item #	Items	Unit	Quantity	Unit Price	Total
1	(N50) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 2"	SY	3150	\$ 18.00	\$ 56,700.00
2	(N50) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 4"	SY	1600	\$ 32.65	\$ 52,240.00
3	(N50) CLASS D PATCHES, TYPE 1, 2, 3, 4 - FULL DEPTH	SY	150	\$ 100.00	\$ 15,000.00
4	(N70) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 2"	SY	0		\$ -
5	(N70) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 4"	SY	0		\$ -
6	(N70) CLASS D PATCHES, TYPE 1, 2, 3, 4 - FULL DEPTH	SY	0		\$ -
7	DRIVEWAY APRON REMOVAL & REPLACEMENT	SY	40	\$ 25.00	\$ 1,000.00
				TOTAL	\$ 124,940.00

Chicagoland Paving Contractors, Inc.

225 Telsler Road
Lake Zurich, IL 60047

Phone: 847-550-9681
Fax: 847-550-9684

April 15, 2019

Daniel Manis, PE
Village Engineer
Engineering & Public Works
Village of Wilmette
1200 Wilmette Ave.
Wilmette, IL 60091

Re: MPI Paving Contract
2019 MPI Patching Contract

Dear Mr. Manis:

Upon mutual agreement between the Village of Wilmette and Chicagoland Paving, the attached pricing from 2018, will be extended through the 2019 Paving Season.

Sincerely,



William R. Bowes
Vice President

MPI Patching

18-177

Item #	Items	Unit	Quantity	Unit Price	Total
1	(N50) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 2"	SY	3150	\$ 18.00	\$ 56,700.00
2	(N50) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 4"	SY	1600	\$ 32.65	\$ 52,240.00
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5	(N70) CLASS D PATCHES, TYPE 1, 2, 3, 4 - 4"	SY	0		\$ -
6	(N70) CLASS D PATCHES, TYPE 1, 2, 3, 4 - FULL DEPTH	SY	0		\$ -
7	DRIVEWAY APRON REMOVAL & REPLACEMENT	SY	40	\$ 25.00	\$ 1,000.00
				TOTAL	\$ 124,940.00

Preventative Maintenance Program	2019 \$149,100	Operating
Streets, Sidewalks, and Alleys	2020 \$153,200	
	2021 \$157,500	
	2022 \$161,800	
	2023 \$166,100	

- X Critical
 - Recommended
 - Contingent on Funding
-

Project Description & Justification

This program is designed to extend the life of Village streets by applying one of three methods of preventative pavement maintenance to repair pavement deficiencies that occur over time. The Department will evaluate the streets for deficiencies each year and shall apply this program based on pavement needs.

The three preventative pavement maintenance services include:

Pavement Patching (non-utility)

This service patches localized areas of deterioration in the pavement. The Village currently has a street patching program that focuses only on street patching needed due to water main and sewer repairs performed by the Village, but has no program to address non-utility related patch locations. Many calls are received from residents requesting a more permanent solution than the pothole filling that is performed in-house by Engineering & Public Works. While filling potholes can be an effective procedure for minimally maintaining the pavement, it is only a temporary fix, and residents often call back on an annual basis to address the same pavement area. Sometimes a base repair is also needed for a localized pavement area that requires a patch.

A street and alley patching program will allow the Village to address these localized areas where the roadway or alley does not yet qualify and is over 8 years out from resurfacing or reconstruction. The 2019 funding amount is anticipated to complete up to 2,900 SY of 2-inch pavement patching and increase the overall life cycle of the pavement. Engineering staff has begun to collect an inventory of patch locations from pothole locations performed by Public Works, incident management complaints about pavement conditions, and will expand this further during our road and alley evaluations this year.

The financial model adopted by Village Board in late 2016 provides \$2 million for the Village's Road Program until 2027 at which time the recommended funding level will increase to \$4 million which intends to keep the average street condition in the "good" or better category. However, with funding levels in the past few years being under the recommended target level, the average pavement condition has been declining. A regular patching program would allow

some of these deteriorated areas to be addressed extending the useable life of the roadway before a full reconstruction is necessary.

Due to a growing need for patching and maintenance work related to development projects which impacts the street and alley condition but is not currently addressed through current funding levels, a future consideration can be for an Alley and Street Impact Fee.

Project Update

The funding amount of \$100,000 has been added for 2023 which includes an annual inflation factor of 3%.

Project Alternative

The alternative to pavement patching is doing nothing and waiting for the pavement surface to deteriorate to the point where resurfacing or reconstruction is needed. 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. Patching can slow down the decline of the overall pavement condition and improves ride quality.

Crack Sealing

Original Purchase Date & Cost

N/A

Funding History

2018	\$63,200*	Operating
2017	\$40,000	Operating
2016	\$40,000	Operating
2015	\$10,000	Dedicated Revenues
2014	\$10,000	Dedicated Revenues
2013	\$10,000	Dedicated Revenues
2012	\$10,000	Dedicated Revenues

* not constructed at time of budget preparation

Project Description & Justification

This program is designed to perform preventive maintenance on resurfaced asphalt streets within the Village by sealing cracks that have developed or expanded. The goal of this maintenance program is to extend the life cycle of these pavements. Crack sealing “seals” the pavement surface and prevents moisture from reaching the base, causing further degradation.

The Village currently funds resurfacing of approximately 1 to 2 miles per year of the existing 66 miles of asphalt streets. Crack sealing has been shown to be one of the best and most cost effective preventative maintenance techniques to prolong the lifespan of asphalt pavements.

The 2018 funding level will allow for the sealing of approximately 0.5 to 1 miles annually depending on the amount of cracks being filled. A fully developed crack sealing program is first initiated on roads after 3 or 4 years of age and is repeated every 4 to 5 years until the roadway is usually within 5 to 7 years of the next planned resurfacing, excepting pavements that are showing signs of alligator cracking.

The Village is one of several municipalities participating in the municipal consortium. The benefit of joint bidding with other agencies is to increase the size of the contract with the goal of reducing overall contract cost. The crack sealing program has been part of the municipal consortium since 2010.

Project Update

The funding request of \$47,200 has been added for 2023 which includes an annual inflation factor of 3%.

Project Alternative

The alternative is not to crack seal Village streets, which will result in accelerated pavement deterioration.

Pavement Surface Rejuvenation

Funding History

\$6,000 Test program in 2017

Project Description

Reclamite is a pavement surface rejuvenator that penetrates asphalt pavements and restores pavement surface flexibility that has been lost from the asphalt due to oxidation. Applying Reclamite to new pavement helps decrease deterioration of the asphalt surface dramatically, reducing and/or delaying the need for more expensive surface treatments such as patching or crack sealing. Reclamite can also be applied to pavements showing light hairline cracking, light raveling, segregation, light pitting, and dryness. The application period is typically 2-3 years after new pavement surface installation.

A pilot program was initiated in 2017 and continued in 2018.

An annual inflation factor of 3% is included. The 2019 funding level represents an incremental approach to an overall pavement management strategy. The planned locations for this program going forward is to apply the rejuvenator to the road program asphalt streets two years in arrears.

Project Alternative

The alternative to funding this project is to continue maintaining pavements with higher usage of crack sealing and non-utility based patching until they are resurfaced.

Overall Program Budget

Program Budget				
Year	Pavement Surface Rejuvenation	Pavement Patching	Crack Sealing	Budget Total
2019	\$16,900	\$89,800	\$42,400	\$149,100
2020	\$17,400	\$92,200	\$43,600	\$153,200
2021	\$17,900	\$94,800	\$44,800	\$157,500
2022	\$18,400	\$97,400	\$46,000	\$161,800
2023	\$18,900	\$100,000	\$47,200	\$166,100

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