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From: Trustee Andrews

Sent: Wednesday, September 11, 2019 8:26 PM

To: Pavlicek, Cara; Shelley, Lisa

Subject: Bluestone Sidewalks

Please pull item L. From consent, and place on regular agenda.

For the meeting I would like the following:

1. The amount of Bluestone sidewalks we have in town, however they are measured- square foot, etc.
2. Total maintenance cost per measurement unit, per year, for Bluestone
3. Total maintenance cost per measurement unit, per year, for concrete.

Thanks!!

Best regards,

Deno J. Andrews

Trustee, Village of Oak Park

**Staff Response: Bill McKenna, Village Engineer**

1. The amount of Bluestone sidewalks we have in town, however they are measured- square foot, etc.  
[There is currently approximately 90,190 square feet of bluestone sidewalk that the Village maintains.](#)  
[See the table and image below for approximate areas and locations.](#)

Location		Area (sq ft)	Notes
Area 1	North Marion	18,000	
Area 2	South Marion	40,000	
Area 3	Lake @ Target	2,700	
Area 4	Westgate	4,300	
Area 5	North Blvd	750	
Area 6	Vantage	10,500	
1000 Lake Street	Albion	4,125	Already sealed
1133 South Blvd	Lincoln	7,475	Already sealed
147 N Euclid	District House	2,340	Already sealed
	Total Bluestone	90,190	



## 2. Total maintenance cost per measurement unit, per year, for Bluestone

The only bluestone maintenance the Village has performed is sealing the block of North Marion Street from North Boulevard to Lake Street and the adjacent Westgate sidewalks in 2012 for \$16,885. The approximate area of bluestone sealed under this contract was 40,000 square feet which equates to a cost of \$0.42 per square foot. There has not been an annual maintenance cost for bluestone besides this one time cost. If you divide this \$0.42/sq ft by the 7 years we have gotten out of the sealer that equates to an annual maintenance cost of \$0.06 per square foot of bluestone per year.

The proposed contract for pressure washing and sealing of the bluestone sidewalks with .W.S. Environmental, Inc. is \$91,815 and includes cleaning and sealing approximately 76,250 square feet of bluestone sidewalk which equates to a cost of \$1.20 per square foot. The manufacture's recommendation is to reapply the sealer approximately every 5-years. Dividing the \$1.20 by the 5-year lifespan of the sealer gives an annual maintenance cost of \$0.24 per square foot of bluestone per year.

Staff estimates that the bluestone would be ready for reapplication of the sealer again in 2025. After this 2<sup>nd</sup> application of the sealer staff estimates the time period between reapplications of the sealer will get extended beyond the 5-year time frame (possibly to 7-10 years) due to the sealer which has remained embedded in the stone and the natural sealing of the stone with dirt and oils. This would be similar to how stone kitchen countertops need repeated sealing early in their life and over time sealers become less needed.

The Public Works Department annually cleans sidewalks in many of the commercial areas which includes both concrete and bluestone cleaning. Costs are on an hourly rate basis and are not broken down per square foot of sidewalk for cleaning nor by sidewalk material. Annual costs for sidewalk cleaning in commercial areas for the last three years have been as follows: 2017=\$23,253, 2018=\$16,093, and 2019=\$20,000 (estimated)

## 3. Total maintenance cost per measurement unit, per year, for concrete.

The Village has approximately 220 miles of public sidewalk, mostly made of concrete. The approximate area of the concrete sidewalks is 6,191,328 square feet. The Village annually replaces sidewalks that have deteriorated or been displaced and create a tripping hazard. Annual costs for sidewalk replacement are below. Sidewalks are also replaced as part of various street resurfacing and water & sewer projects. Costs for those sidewalk replacements are not shown below since they would need to be compiled from numerous project sources.

2017=19,190 sq ft of sidewalk replacement with a cost of

\$164,065 (\$24,497 CIP and \$139,568 CDBG) =\$8.54/sq ft

2018= 24,420 sq ft sidewalk replacement with a cost of

\$225,409 (\$25,409 CIP and \$200,000 CDBG) = \$9.23/sq ft

2019 (estimated) = approximately 36,000 sq ft of sidewalk replacement

with a cost of \$325,000 (\$25,000 CIP and \$300,000 CDBG) =\$9.02/sq ft

If this is calculated on cost to maintain overall concrete sidewalks on a yearly basis this averages out to an annual cost of \$238,158 for sidewalk replacement divided by 6,191,328 sq ft of sidewalk for an annual maintenance cost of \$0.04 per square feet of sidewalk.