

To: VPTA Board

Fr: VPTA Maintenance Committee

Date: May 3, 2024

Subject: Briefing Document - Repairing the Pavement Cracks on VPTA Roads, Sealing Driveways

This draft document is from the VPTA Maintenance Committee. Dwight Fellman and David Doth have put this material together. The Maintenance Committee will discuss it further next week, but believed the Board should have this draft. We understand that FSR will manage this project; however, the Maintenance Committee wanted to understand the issues and choices and share the information with the Board.

Background:

- The paved roads in VPTA are the responsibility of the Association.
- The pavement project – including full depth milling and removal of the existing asphalt was done October, 2020
- The entire cost of the project was \$384,903 and came from VPTA reserves.
- The paving portion of the project was \$339,775. The curb replacement was \$45,128.
- The driveway replacement was part of the project.
- Following a competitive solicitation, Minnesota Roadways performed the work.
- During this project, the storm sewers were also camera inspected and cleared.
- Ken Braun interfaced with FSR and the contractor on behalf of VPTA.

Current issues:

- “Bituminous or blacktop pavement by design is flexible to accommodate the freeze/thaw cycle of our climate. Cracking will occur in relatively new pavement and continue throughout its life due to age, traffic, weather, etc.” (Bloomington PW website).
- We have seen cracks starting to appear in the VPTA pavement. As an asset protection strategy, we need to address the cracking.
- In March, 2024, Dwight Fellman and David Doth did a walk-around and visual inspection of the VPTA and found:
 - About 29 cracks in the pavement ranging from four to twenty feet in length
 - The edges of the cracks looked okay and had not started to collapseA summary of this inspection is attached to this document (Attachment).
- The time to best address these cracks is when the street pavement is not expanded, but cooler and contracted - - end of September or late Spring. It should not be done in summer months.

Some considerations about pavements and driveways:

- The appearance of the cracking in the VPTA pavement is not unusual.
- Filling the cracks should be a priority. If the cracking is properly addressed, the pavement should last 20 years. There will likely be no need to seal-coat all the streets.
- The Bloomington PW website distinguishes between filling and sealing: “Crack "filling" is the placement of a liquid asphalt emulsion into the void, coating the newly exposed internal surface of the pavement to limit further deterioration. Crack "sealing" is the placement of a rubberized sealant in the crack that will provide a protective coating and seal out water.”
- Filling the cracks involves (1) Routing or grinding the edges of the cracks to assure a good bond with the filler, and (2) With a wand introducing the filler and fill the crack.

- The driveways were also replaced in October 2020 and need seal coating. Such sealing is designed to prevent oxidation and extend the useful life of the driveway asphalt. This sealing is not ornamentation, but a preservation and should be done once every 6 – 8 years. It keeps the driveway pavement from getting brittle. It's like waxing a car.
- The general opinion among our informants is that sealing/spraying the edges of the roadways might be useful, but there are some collateral problems that should be discussed.

A note about filler selection:

- The choice of fill material is important. In managing the solicitation and reviewing the responses, the Board and FSR needs to understand the choices. MnDOT has a page on their website showing approved crack fill material: [Certified Sources for Hot-Poured - Approved/Qualified Products - MnDOT \(state.mn.us\)](https://www.mn.gov/transportation/roadwork/crack-repair)
- *For their contracted crack projects, the City of Minnetonka specifies a crack seal of: Hot Poured Elastic Type – Spec 3723*

Vendors:

- As experienced project managers, FSR has a vendor list who might bid on this work.
- Here are some other asphalt companies that have done crack filler and contract seal work for the City of Minnetonka:
 1. Astech: [Asphalt Services | Saint Joseph, MN | Asphalt Surface Technologies Corp. \(astechmn.com\)](https://www.astechmn.com)
 2. Fahrner Asphalt: [Asphalt Sealing, Repair and Maintenance – Fahrner Asphalt Sealers \(fahrnerasphalt.com\)](https://www.fahrnerasphalt.com)
 3. Allied Blacktop: [Asphalt Paving Contractor - Allied Blacktop Co - Minneapolis, MN area \(alliedblacktopmn.com\)](https://www.alliedblacktopmn.com)
- The Three Rivers Park District is currently doing replacement and crack filling on the bike trail by Victoria Way. The vendor doing the work is: [Diversified Paving: \(dpi paving.com\)](https://www.dpipaving.com)

Next steps:

The Board should discuss the issue and make a decision on moving forward.

Questions: Contact David Doth or Dwight Fellman

Endnote:

This document reflects in part information gathered from several knowledgeable informants including Will Manchester - Public Works Director, Minnetonka; Lee Gustafson - Retired Public Works Director and current industry consultant; and Karl Keel - Public Works Director, Bloomington. We appreciate their help.

ATTACHMENT: Inventory of road cracks needing repair

Ref. No.	ADDRESS	Large (16ft +)	Small (> 5ft)	COMMENTS
<u>Victoria Circle</u>				
1	7815 -7810	X	x	
2	7808			
3	7811-7806	X		
4	7802-7807		x	
5	7802-7807	X		
6	7800-7801	X		
7	7800-North of Pond 1	X		
8	7705	X		
9	7701	X		
<u>Victoria Way</u>				
10	7815		x	
11	7850	X		
12	7900	XX		Two cracks
19/20	8054		xx	Two cracks
21	8052	X		
22	8050	X		
26	7950	X		
<u>Victoria Lane</u>				
23	8011		x	
24	8010		x	
25	8010 (Parking)		x	
26	7950	X		
25	7901	X		
<u>Victoria Curve</u>				
13	7902-7903	X		
14	7905-7906	X		
15	7914	X		
16	7917	X		
17	7923	X		
18	7927	X		