

**Town of Riverview**  
**COUNCIL REPORT FORM**

Presented to: Mayor & Council

Department: Engineering & Public Works

Date: March 20, 2024

Subject: Contract No. 24-01  
Asphalt Concrete Patching (Utility and General)  
Various Streets.

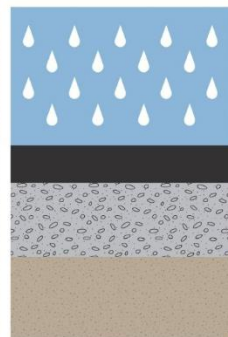


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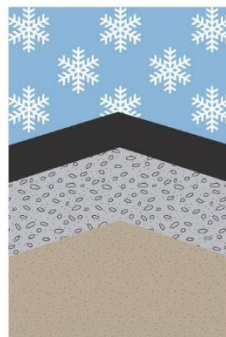
**BACKGROUND**

In light of the shocking 2024 unit-price increases in asphalt patching, I wanted to provide some information to Council prior to award of contract No. 24-01 - Asphalt Concrete Patching (Utility and General) – Various Streets.

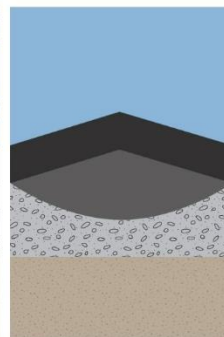
As you know, the spring season brings nicer weather and potholes. Potholes are a result of freeze-thaw weather patterns and often combined with rain. Potholes are formed when the surface of a road becomes weakened and eventually breaks down due to a combination of factors. These factors can include heavy traffic, exposure to moisture and water, and the freeze-thaw cycles that occur during late winter and early spring and made worst during mild and often frequent freeze-thaw weather events.



Water from melting snow and ice seeps into the pavement and softens it.



During repeated cold spells, the water in the pavement refreezes and expands, breaking up the pavement, on and below the surface.



When the ice melts, it leaves gaps inside the pavement, and the moisture further softens it.



The soft, fractured asphalt cannot support the weight of passing vehicles, and begins to break up, creating the hole in the highway.

When the surface of the road becomes weakened, it can't support the weight of vehicles passing over it. As a result, the road starts to break down, forming small cracks. Over time, if these cracks aren't addressed via the crack sealing program, these cracks become larger and deeper. As the water from melting snow and ice seeps into these cracks in the road, it can freeze and expand, causing the road surface to weaken and eventually break apart and just like that, a fresh new pothole is born!

Unfortunately, patching potholes is a necessary evil. In the world of asset management, it is often referred to as “stop-gap” because it serves no improvement in the life of the asphalt. In the spring, patching of potholes is currently done by contractors.

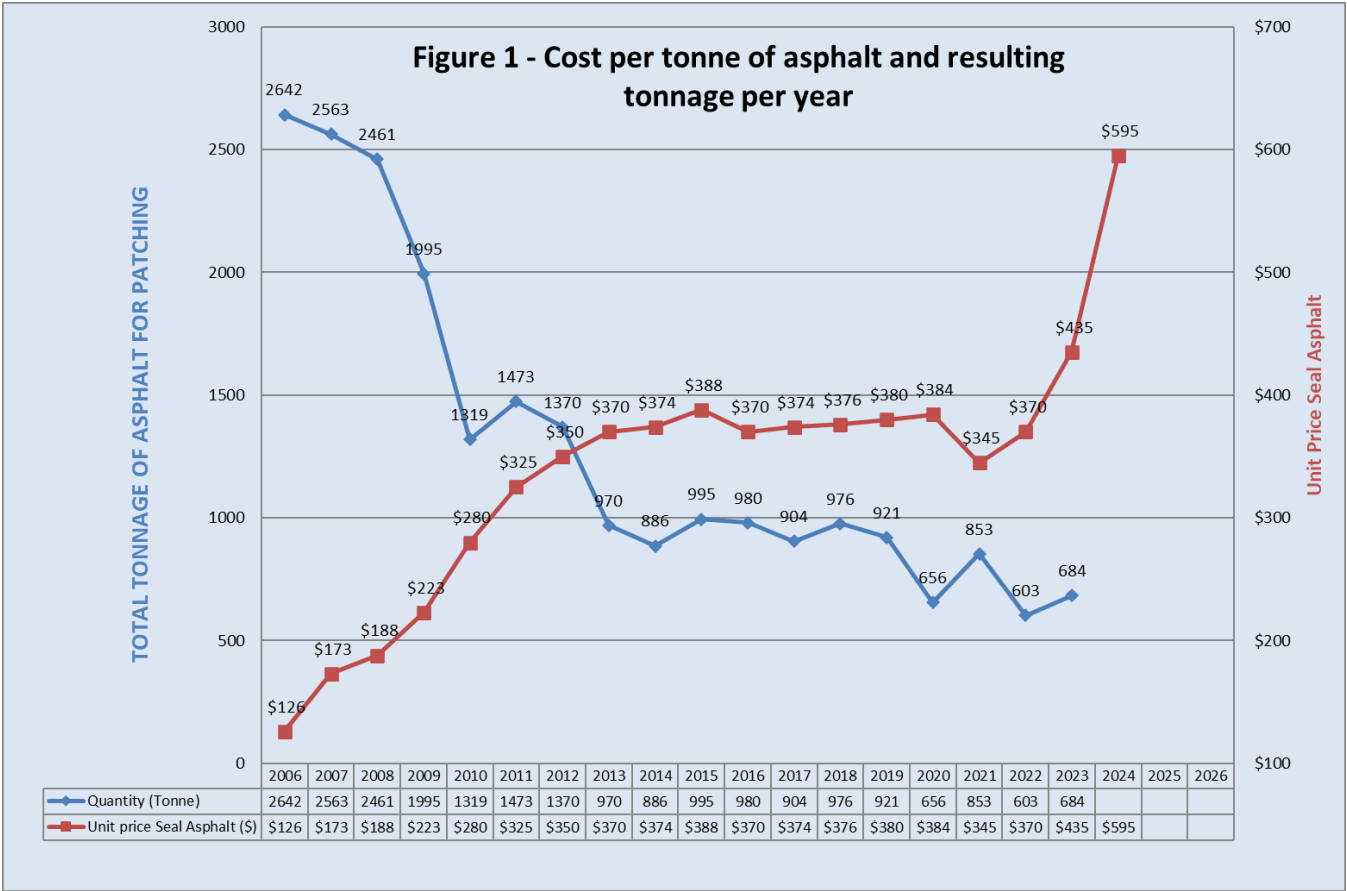


Figure 1 shows the unit price per tonne of asphalt and the amount of tonnage for each year. As you can see in Figure 1, the price per tonne of asphalt has increased over the years, however, the quantity of asphalt used to patch our streets have diminished over the years. For comparison, if we were to use the same amount of asphalt prior to the start of the 2010 Street Pavement Management Program (approx. 1650 tonnes), the cost of this work would now be over \$1,000,000 per year!

Figure 1 also shows the large increases we experienced from 2006 to 2012 before the price stabilized from 2012 to 2022.

In light of the effects of the significant increases experienced in the construction industry, this correction in the industry and new reality of the cost to perform this work may lead to changes in how we invest in pavement management. We currently own and operate an asphalt recycler. Although this has very limited capabilities, we will be exploring opportunities to increase our ability to be self sufficient and the

department anticipates bringing options for Council’s consideration in future budget deliberations. Some of the items for consideration will be:

- Increasing the capital resurfacing budget.
- Accelerate the capital local improvement program.
- Exploring new pavement management techniques, including increasing the crack sealing budget
- Dedicated resource to pavement management

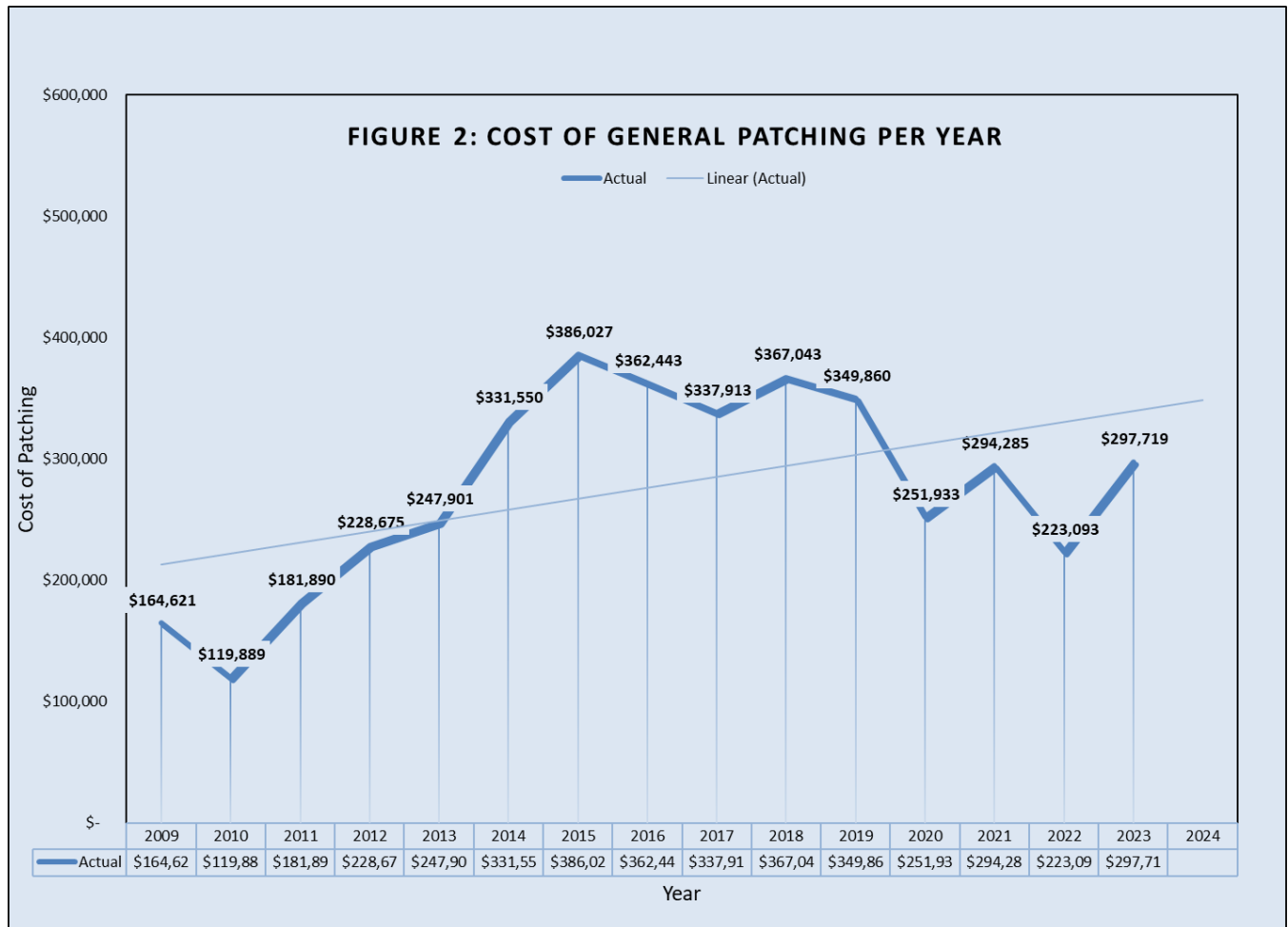


Figure 2 shows how the overall budget has fluctuated over the years. It shows since 2010 how Council’s investment in street reconstruction, local improvements, pavement management, crack sealing program, and resurfacing as well as better management of the patching activity has led to significant savings in the overall patching amount and resulting cost (budget).

Proper management of this contract will be more important now than ever before, we will continue to track quantities used by day and by important streets. The daily work sheets will allow us to develop

historical data to be used to identify street with significant need for patching. This data will supplement our street pavement management program.

## **CONSIDERATIONS**

### **Financial:**

The submission represents **an increase of 37%** compared with last year's cost and **55% increase since 2020**.

The department has little ability to makeup this significant difference in the budget by managing other expenses alone. We are proposing instead a combination of:

1. Reduction in quantities.
2. Recognizing the fact that we may be over budget on this work.

We propose to track quantities on a daily basis while aiming to keep the patching quantity to a minimum. In order to stay on budget, we will need to reduce the quantities from 725 tonnes to 500 tonnes, a reduction of 31%. This is a significant reduction in quantities. As we did last year, we are proposing to conduct an initial pass on every street. Once the first pass is completed, we will be able to assess the quantities remaining and the condition of certain streets.

### **Interdepartmental Consultation:**

This was reviewed and discussed with the Department of Finance & Information Technology. The budget for general patching was increased by 7% from \$280,000 in 2023 to \$300,000 in 2024. Director Parlee noted that with the management techniques noted above, the other option would be to consider using some operating reserves to cover the cost if the quantities remain. She noted that the cost for this patching is split over both the General and Utility Funds, therefore must be financed accordingly in both reserves. A combination of closely tracking the project to steer it on budget, as well as use of these funds will be important. Continual and clear communication on the project between both departments will be key and has been clearly set out in expectations to manage this project.

### **Communication Plan:**

N/A

## **RECOMMENDATION FROM STAFF**

We recommend that council direct staff to proceed with the award of contract No. 24-01, Asphalt Concrete Patching (Utility and General) – Various Streets.

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