# Media Coverage & Supporting

16 May 2015 - Dreschel
28. July 2017 - O'Leilly
28. Jan 2018 - O'Leilly
29. July 2018 - "
30. Oct 2018 - "

#### Scratching the surface for answers on Red Hill paving

'ews Jan 15, 2018 by Nicole O'Reilly (/hamilton-author/nicole-o-reilly/8FDADEF7-07A0-4911-ACB2-71604CB7BBEB/) (mailto:noreilly@thespec.com) The Hamilton Spectator

The City of Hamilton has hired a consultant to test the asphalt on the Red Hill Valley Parkway — results expected to show once and for all whether there is a problem with the material.

The parkway has been the subject of complaints regarding slippery pavement since it opened in 2007. Friction testing done in December 2015 was inconclusive, and a consultant recommended further testing; instead the city opted to repave ahead of schedule starting later this year.

"We don't know why they feel that it's slippery," said Gary Moore, director of engineering. "That's all part of (why the city is doing) the testing."

The testing includes samples that were collected before Christmas being sent to Ireland for specialized analysis. The city needs a comprehensive look at the asphalt mix to know if it can be recycled during repaving using a new technique being explored by the city, he said.

Slippery roadways have been among the concerns expressed by the grieving families who have lost loved ones in crashes along the parkway.

But the major rallying point has been a call for median barriers along the Red Hill and the connecting Lincoln Alexander Parkway, to prevent crossover crashes where cars travel through the median onto the other side.

After an emotional appeal from families in October, the city agreed to study the issue further. However, a report going to the public works committee Monday says harriers are not being considered right now. Instead, staff is recommending holding off until the parkways are expanded. However, there is no clear timeline for when that may happen and any parkway expansion is contingent on the connecting Highway 403 and QEW expanding first.

Ontario Minister of Transportation Steven Del Duca told the city that environmental assessments are ongoing and there is no set timeline for expanding the highways here.

For the families who have been fighting for barriers, the report is not surprising, but "very disappointing," said Corey and Léony Hastings.

Their daughter and stepdaughter Jordyn Hastings died in a crossover crash on the parkway May 5, 2015, alongside her best friend, Olivia Smosarski, Both girls were 19.

The crash occurred between the King Street East ramp and Greenhill Avenue — one of two particularly crash-prone stretches on the parkway.

The Hastings point out the city still has done nothing to address these "hot spots." And the other measures to reduce speed "still won't prevent crossover fatalities," they said.

Crossover crashes represent a small percentage of overall crashes on the Linc (5 per cent) and Red Hill (3 per cent), the report notes. But statistics also show crossover crashes are 50 per cent of the dozen fatalities on the two parkways.

Other "collision counter measures," include better signage, plans to study lowering the speed limit and (depending on provincial legislation) a push to look at possible photo radar.

"The installation of barriers would greatly reduce the likelihood of crossover incidents occurring; however there are other potential impacts that may arise," the report says,

Experts say barriers can increase the number of crashes, but tend to decrease the severity — namely they can prevent deadly crossovers.

"In addition, the installation of barriers does not directly address the primary root cause of the collisions, speeding, aggressive and distracted driving," the report says,

The city's transportation staff declined to comment before the report was presented to councillors.

Both parkways have experienced higher than expected traffic volume and statistics show speeding remains the top factor in all crashes.

However, a Spectator investigation published this summer found the Red Hill had more than twice as many crashes than the connecting Lincoln M. Alexander Parkway over the last five years, despite lower traffic volumes.

Crashes there are most likely in curvy parts of the road, when the ground is wet.

Sarah Warry-Poljanski, a community activist who previously sought the provincial Conservative nomination in Hamilton Mountain, helped organize the delegation for the families who pleaded with council in October.

She accused the city of focusing too much on driver behaviour, particularly speeding, which was not a factor in many fatal crashes. Missie Sholer, whose 25-year-old brother, Michael Sholer, died in a crossover crash on the RHVP Jan. 25, 2017, agreed.

"From this report I gather ... the city's main concern is money," Warry-Poljanski said, later adding that she believes most people would accept spending money to install safety measures.

When the Red Hill Valley Parkway was built, it was one of the first in Ontario to use perpetual pavement—a design that uses multiple layers that last longer. The Linc, which does not use a perpetual pavement design, was last repaved in 2011, and is expected to be repaved again in 2020.

The city is exploring using a newer technology for resurfacing the Red Hill that includes a train of machines that moves over the asphalt — heating, scraping up the first 50 millimetres, mixing it with new material and then laying it back down, Moore said.

The technology is popular in British Columbia and is getting a test run in Ontario near Thunder Bay, he added.

Moore said if they are able to make use of the newer technology it will save time and money.

The repaving work will also include adding cat-eye reflectors along all of the parkways and shoulder rumble strips on the Linc.

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#### City of Hamilton studies widening Red Hill

Opinion May 25, 2015 by Andrew Dreschel (/hamilton-author/andrew-dreschel/BFA7BF9E-9F9E-4B10-AA9E-B1D3032AF5AA/) (mailto:adreschel@thespec.com) The Hamilton Spectator

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The good news is the eight-kilometre four-lane highway is built to be seamlessly expanded to six lanes of traffic.

The bad news for Coun. Doug Conley — who argues the road is already too packed at rush hour — is the report won't be ready for a year.

"To have a plan a year from now is fine, but that means it's another four or five years before we do it.

"Maybe I'm a little anxious, but I can see gridlock all over the place."

The Ward 9 councillor first raised the issue of enlarging both the Red Hill and Lincoln Alexander parkways to handle growing traffic volumes at a recent committee meeting.

Conley says the residential development boom in the upper Stoney Creek portion of his ward and neighbouring Binbrook is only going to make a bad situation worse.

"With all this construction going on, I don't know where we're going to put all the cars."

According to city manager Chris Murray, widening the sister highways, which connect the QEW to the 403 across the Mountain, is part of the ongoing review of the city's transportation master plan, which is expected to be finished in the next 12 months.

The report will provide recommendations on the time frame for expansion.

City engineering director Gary Moore figures widening both highways would cost \$80-\$100 million, a significant challenge given that the city is currently spending about \$48 million a year on road work when it should be spending \$180 million to meet its needs.

Still, there's no question the \$245 million Red Hill expressway, built under a cloud of environmental and fiscal criticisms, has proven a roaring success.

When the highway opened in 2007, the city expected it to be used by 40,000 to 45,000 vehicles a day.

Shortly after the opening, those numbers were closer to 65,000 vehicles. It now handles about 80,000 vehicles day.

Meanwhile, the Linc, which opened in 1997, is handling about 90,000 vehicles a day.

Given rush hour slowdowns, Conley is concerned both roads are rapidly approaching capacity. He thinks it's time to have a serious discussion about it.

"Let's get it out in the open," he says. "If I had my druthers, I'd say let's have a plan now for the Red Hill and Linc to do six lanes."

Moore acknowledges rush hour congestion presents some capacity challenges. But he notes what may seem slow is still "relatively good" movement compared to roads with traffic lights such as Rymal and Concession.

"You don't rebuild roads until they become saturated for long periods — like all day long — with that volume of traffic."

When widening is needed, Moore notes all the storm water runoffs, overhead sign structures and bridges on Red Hill are designed for six lanes. The grass median would be taken out and the two new lanes would be placed in the middle with a concrete barrier separating the north-south lanes.

The Linc is similarly capable of being expanded with the exception of the overhead signs, which would have to be replaced.

As far as a time frame, Moore points out that the Linc was resurfaced last year, while Red Hill will probably need resurfacing by 2022 or 2025, which would be a good opportunity for widening.

The question is, will that be too late to get ahead of growing traffic volumes?

Again, the revamped transportation master plan should provide answers. Besides looking at travel patterns and trends, the \$500,000 review is studying changing demographics, complete street polices, parking and public transit strategies.

The latter in particular could have a significant impact on reducing vehicle trips across the board.

Andrew Dreschel's commentary appears Monday, Wednesday and Friday. <a href="mailto:adreschel@thespec.com">adreschel@thespec.com</a> 905-526-3495 @AndrewDreschel

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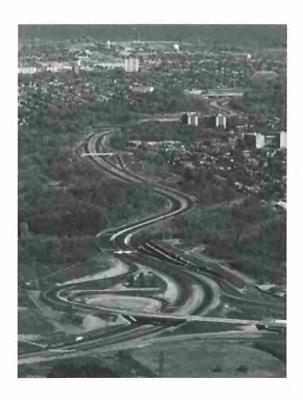
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The Red Hill Valley Parkway is an eight-kilometre four-lane highway which was built to be seamlessly expanded to six lanes of traffic. - Barry Gray, The Hamilton Spectator file photo

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#### Highway traffic tragedies: Why are there so many crashes on the Red Hill?

News Jul 17, 2017 by Nicole O'Reilly (/hamilton-author/nicole-o-reilly/8FDADEF7-07A0-4911-ACB2-71604CB7BBEB/) (mailto:noreilly@thespec.com) The Hamilton Spectator

The Red Hill Valley Parkway had more than twice as many crashes than the connecting Lincoln Alexander Parkway over the last five years, despite lower traffic volumes.

While there is no single cause or easy solution, City of Hamilton statistics show many of the crashes happen in curvy parts of the road between King Street East and Greenhill Avenue and hetween Dartnall Road and Mud Street, Crashes are more common when it's dark and the ground is wet. Speeding is the most frequent factor in fatal crashes.

Those crash "hot spots" saw around 200 collisions over five years, more than 100 crashes over the next highest location. No interchange on the Linc saw more than 51 crashes during that time frame.

Rumour and speculation about the RHVP being slippery have plagued the parkway since it opened in 2007, and now the city is planning to repave the road's surface, starting next year. The work, at least a year ahead of schedule, will pre-emptively address a question staff cannot answer: is the Red Hill too slippery?

The city has done limited friction testing on the road, but refuses to make the results public, saying only they were ultimately inconclusive.

Of the 994 crashes on these two municipal parkways between 2012 and 2015, 668 were on the Red Hill and 326 on the Linc. While about 58,000 vehicles drive daily on the RHVP, there are nearly 96,000 daily on the Linc, according to the most recent annual averages.

The crashes on the two parkways include 11 deaths since 2012, seven on the RHVP and four on the Linc — each bringing a fresh wave of anger and questions about road safety.

For the mothers of Olivia Smosarski and Jordyn Hastings, 19-year-old best friends who died in a crossover crash when their car crossed the grassy median on the RHVP May 5, 2015, that stretch of the road between King Street East ramp and Greenhill Avenue appears flawed.

"Call it a gut feeling, call it what you want ... I just know," said Smosarski's mom, Belinda Marassato. "There is something funny about that road."

Six of the deaths were crossover collisions, leading families to call for continuous median barriers along the parkways.

The city has been updating the roads from a list of safety improvements recommended in two 2015 engineering reports. Most of the work to date has been smaller, less expensive projects — everything from new signage to trimming vegetation.

The 14 "short-term safety improvements" total \$1.4 million and are expected to be done by the end of the year, said David Ferguson, superintendent of traffic engineering. The hope is they will curb speeding and improve safety.

However, barriers and end-to-end lighting, which are both recommended to be studied in the engineering reports, are not on the table.

"At this time, barriers are not being considered," Ferguson said.

The repaving work is the first big ticket item being tackled.

It's expected to cost \$4 million a side, with upbound lanes set for next year and then downbound the following year, said Gary Moore, director of engineering.

The RHVP was originally paved with stone mastic asphalt — a more expensive mix that's supposed to last longer. It is known to be slightly more slippery (though still meeting provincial standards) in the first few months, but typically has better friction once the road is worn down.

Yet that 2015 engineering report found crashes when the road is wet are inexplicably going up, not down, and recommended the city study friction.

And the city did test friction later that par, The Spectator has learned. But the results were never made public.

There is no official report, Moore said, only an informal chart sent in an entail in December 2015. The friction testing was not fulsome and the results were "inconclusive," he said.

But instead of doing further testing, as was recommended, the city has decided to repaive.

"All we got was an indication that we should do further work," Moore said. "It was moot when we decided to go ahead with (repaving)."

The city refused to share that chart with The Spectator.

"No one ever releases (that type of) information ... because it's the first thing anybody (would use in a) lawsuit," Moore said.

It's not exactly clear when staff decided to push for repaying, or how and no corm over friction was a factor, but the work will be requested in next year's budget. The repaying will include "shaving and paying" the top layer, work that was supposed to happen 12 to 15 years after initial paying.

Ward 4 Coun, Sam Merulla said he understands the road meets provincial standards, but given the high traffic volume and driver behaviour such as speeding, the repaving work is intended to exceed those standards.

He called it an "enhancement."

Moore said "safety reviews" have shown more cracks and humps believed to be because of higher-than-anticipated use, including more transport trucks.

While the bottom layer of asyhalt will remain intact, the new top layer is expected to be a superpave mix — 12.5 FC2 — that is known for "high-level friction," Moore said, adding that stone mastic asphalt is not being considered again, in part, because it's more expensive.

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He wouldn't say whether concerns over friction also played a role in deciding what povement to use.

The roads were never designed as 460-series highways, yet the city complains they are frequently treated that way by drivers, with speed nated as the tap contributing factor in fatal crashes on the parkways — at 37.5 per cent, according to a report released by Hamilton police easter this year. The next factors in fatal crashes were impairment and driver inattention, both at 25 per cent. Both parkways have a posted speed limit of 90 km an hour, yet the city says the average speed is 110 km an hour.

When Smosarski and Hastings died they were not speeding, the families say police told them.

Merulia maintains unsafe and sometimes illegal behaviour on the roads is at the heart of most crashes.

"We have a problem in our society with errotic and impulsive drivers," he said, later adding that everyone is "rushing to get nowhere."

"There isn't a road in the world that can save them from themselves."

Olivia Smesarski and Jordyn Hastings were hest friends who seemed to bring out the hest in each other. They went to different high schools. Smesarski to Bishop Tonnes, and Hastings to St. Thomas More. They became especially close after graduating.

Smosarski was "the protector," feisty and fumpy, with a "wicked big smile," said Marassate.

She was planning to travel to South Africa that August to work in a monkey reliab sanctuary, before deciding where she would go to post secondary school. She was considering journalism.

"She would say outrageous things just to sheek you ... she was just like a dynamo walking through the door," Marassato said, adding that now the house, even with her three other children, is quiet.

Hastings was the opposite: quiet, level-headed, compassionate and family-oriented, said her mom, Tandra Henderson.

"Jordyn was the kid. I would pull into the driveway and her car would be there and I would be excited to see her ... I told her I never wanted her to move out."

She was supposed to start a business program at Sheridan College that September.

Just days hefore her death Hastings, her sister — just 18 months younger and "like a twin" — and their stephrother had returned from a 10-day trip to Paris and Amsterdam. When they got home, Jordyn pushed past her sister, jumped into her mom's arms, wrapped her legs around her and whispered, jokingly, "I know I'm your favourite, Mommy."

Together Henderson and Smosarski were silly, always giggling and making funny videos, leaving their families smiling pictures that both remind them of the love they had and have lost.

"I knew Livi and Jordyn were together, hew awful it was, but also a little peaceful," Henderson said. "I know how much they loved each other."

On the night of May 5, 2015 the girls stopped at Hastings's house to drop of her dog, Lily. They were going to visit a friend in Ancaster and said they'd be home in an hour. It had been raining.

lastings was an experienced driver who drove the RHVP regularly to her work at a restaurant and as a lifeguard.

When Henderson woke around 1:30 a.m. and Hastings wasn't there, she told herself to relax. When she woke again around 3 a.m. and she still wasn't there, Henderson was worried. Looking at her phone, she saw missed calls from her daughter's boyfriend, who had tracked Hastings's phone to the area where the crash happened.

Henderson called her daughters' father in Burlington, but police were already at his house (the car was in his name). When she asked, he told her their oldest daughter was gone.

It took a little longer for police to find Marassato's home, as the family had just moved.

When detectives knocked on the door around 4:20 a.m., she thought someone was trying to break in. Eventually, after they flashed their badges, she opened the door and the rest is a bit of a blur.

They know from police that the car was travelling around 90 km/h in the right-hand lane, when for an unknown reason, they lost control.

Skid marks showed that three times Hastings tried to correct the wheel, but they kept moving toward the centre, the mothers said. The car crossed through the grassy median and was hit by an oncoming car in the southbound lanes.

The moms feel strongly their daughters' deaths could have been prevented if there had been a centre median (instead of the grassy centre). Even when speed, impairment, or distracted driving are factors, they believe the road can be made safer for everyone, including the other drivers who unwittingly become ensuared in crashes.

"We're really concerned with that twisty, dark, windy area ... that stretch has a lot of crashes," Marassato said.

When the environmental assessment was done for the RHVP, it recommended minimal lighting, so the city only has lights at "decision points," which are exit ramps, Moore said. There are four lights at each exit, two more than were provincially mandated.

There are currently no plans to add more lights, Moore said.

There were no witnesses the night Henderson and Smosarski died, save the woman who hit them and then the flurry of 911 calls from people who came upon the horrific scene.

Ultimately, police closed the investigation into the crash as inconclusive on May 12, 2015, said police spokesperson Const, Hamah Carter.

"I'm going to talk about the unthinkable ... I always relive the last seconds, what they must have thought as that car was coming toward them," Marassato said. "Even if it's just a split second, it's a split second too long ... the terror."

The city's traffic department is constantly watching and working on ways to improve the road's safety. Management says they are deeply upset when there are fatal crashes, but also say there is no panacea, especially when people continue to speed.

"I have a huge amount of sympathy and empathy for the families," so'd Martin White, somager of traffic sperations and empireering.

\* One of the most difficult things in our job is to deal with the emotion of what happens on infrastructure."

Yet there are rarely simple fixes. White cautions that median barriers would be a very expensive and perhaps difficult project because they would need to be carefully engineered to not cause their own problems with drivers bouncing off them.

Then there is the question of whether the road will ever be expanded in the future — if that happens, it makes sense to wait to engineer any barriers to match those needs, he said,

Typically, when a barrier is installed, it will reduce the severity of crashes, but will also increase the number of collisions, said Eric Hildebrand, a professor of civil engineering at the University of New Brunswick and road safety expert.

"It's a balance or a trade-off," he said. "It's not an easy thing to figure out."

Deciding when and where barriers should be installed "can't be a politician promising grieving families," rather it needs to be carefully studied and hased off of an engineering report.

There are many factors to consider, he said.

For instance, roads with less than 20,000 cars a day, with speed limits 70 km an hour or less or roads with grassy medians that are at least 8-10 metres wide are typically seen as not needing barriers. The Red Hill and the Linc would meet that threshold on speed and traffic, but not on median width.

However, crash history and curves in the road are also factors to consider, Hildebrand said.

And along with causing more crashes, there are also other trade-offs, including impeding snow clearing and storage, making emergency vehicle access more difficult and the maintenance cost of continually having to fix barriers that are damaged by crashes, Hildebrand said.

There are a number of different types of barriers — from concrete, to steel, to cable — to consider, along with the possibility of installing barriers only at particularly vulnerable or crash-prone stretches.

Hildebrand said it's often hetter to spend the millions a harrier can cost on other safety improvements.

When the Red Hill Valley Parkway was built, it was one of the first in Ontario to use perpetual pavement — a design that uses multiple layers — with the goal of having a road that lasts longer and requires less work. The bottom layers are supposed to last at least 50 years.

The Linc, which does not use a perpetual pavement design, was last repaved in 2011, and is expected to be repaved again in 2020.

The stone mastic asphalt (SMA) mixture used on the Red Hill is more expensive than other asphalt mixes because of the high quality of aggregate used and use of more wet asphalt (think of it like the glue that holds the aggregate together), says Hassan Baaj, a University of Waterloo associate professor of civil and environmental engineering and pavement expert.

"When well designed, SMA makes a good surface," Baaj said.

Once the road is "polished" by use after a few months it can have better friction and is supposed to last longer.

le cannot comment on the specific mix used on the Red Hill, but said generally that problems, including with friction, can arise if the aggregates used in a mix are not good quality.

Other design issues on the road can impact friction, such as improper drainage that makes water pool on a road. Tire quality and not quickly clearing snow or ice are other factors that have nothing to do with the pavement but affect friction, he said.

Stone mastic asphalt continues to be used on the highest volume stretches of 400-series highways, with different superpave mixes being used on lower-volume parts of the highways, said Ministry of Transportation spokesperson Bob Nichols.

The 2015 engineering report on the RHVP studied crashes on the road between January 2008 and July 2015, including 131 "median-related collisions," 17 of which were crossover collisions. More than half of these crashes happened when the road was wet.

Studying barriers and end-to-end lighting remain on the longer-term road safety improvement list for the parkways. Council has not given direction to make those studies a priority.

Mayor Fred Eisenberger declined comment on this story.

However, Merulla said it would be "irresponsible" to rush to put up barriers simply as a public relations exercise.

He believes there is political will to study whether barriers are a good idea at some point but doesn't know if they'll ever be installed.

Staff are "working diligently" to make the road safe, Merulla said.

"I'm confident from an engineering and infrastructure standpoint that we've done all that is humanly possible."

Upcoming updates also include adding recessed reflective markers (cat's eyes) and to the rest of the RHVP, installing permanent pavement markings (plastic instead of paint) and modifying the Mud Street/Upper Red Hill Parkway/Stone Church exit to a single lane.

This will happen at the same time as repaving.

This year, the city began sharing information with police from data collected at overpasses about where speeding happens most frequently, so the service can target enforcement. They are also studying whether speed limits should be lowered.

Merulla raised the issue again during a committee meeting this week, saying the speed limit on the RHVP should be reduced to 80 km/h.

He's also asked the province to allow the city to make the roadway a designated community safety zone, so the city can install photo radar.

"I keep getting asked is the Linc an AVP) safe and my answer always is, if you drive it properly," White said.

Every new death, including two crossover crashes that killed two young men on the Red Hill in January and February of this year, brings a new wave of frustration and grief.

Henderson and Marassate say it brings them back to that moment they knew their girls were gone. They know the unique horror the families will face.

"It's a club you don't want to he in," Marassato said.

There is no clear path out of grief,

Adarassate had a friend drive her to the scene the morning of the crash, Henderson couldn't face the road for two months, and her younger daughter still won't drive on it.

Both moms say they are torn with wanting to protect the children they have left, but also understanding they can't keep them in a hubble.

It's hard to find closure when they feel there is more the city could be doing to prevent similar deaths, they said.

"Unfortunately, no one gets it until your child dies," Marassato said.

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#### City testing asphalt on Red Hill Valley Parkway

"ws Jul 19, 2018 by Nicole O'Reilly (/hamilton-author/nicole-o-reilly/8FDADEF7-07A0-4911-ACB2-71604CB7BBEB/) (mailto:noreilly@thespec.com) The Hamilton Spectator

The City of Hamilton is gethering more samples from the Red Hill Valley Parkway to test the quality of its asphalt and see what would be needed to recycle the material during planned repaying.

The eight-kilometre-long parkway has been fraught with speculation that it's too slippery since opening in 2007, but two other times the city has tried to test the road, the results have been "inconclusive."

The southbound Red Hill Valley Parkway will be closed Sunday night into Monday morning to collect samples ahead of repaying slated to begin next year.

With this latest testing, the hope is to get the green light to recycle the top layer of asphalt using a technique called "hot in place" that involves scraping, mixing and then repaving in one continuous chain, said Gord

"We're taking three good-sized samples on the southbound lane," he said. "We will be doing the northbound lanes in the next month, as well."

If the recycling technique can't be used, the repaying work is expected to cost around \$6.75 million a side, he said. "Hot in place" would save time and money.

Last December, the city took smaller samples of the asphalt to test the viability of recycling. At the time, the city's former engineering director said they were aware some people felt the RHVP was slippery; that was part of the motivation for testing the asphalt.

McGuire said those test results came back "inconclusive," but the city believes "hot in place" is possible.

In December 2015, friction testing on the Red Hill also came back as "inconclusive," with the consultant recommending further testing, Instead, the city opted to move ahead with repaving ahead of schedule.

An <u>award-winning investigation by The Spectator published last year (https://www.thespec.com/news-story/7424349-highway-traffic-tragedies-why-are-there-so-many-crashes-on-the-red-hill-/)</u> found that the Red Hill had more than twice as many crashes than the connecting Linc. Most of the RHVP crashes happened on curvy stretches between King Street East and Greenhill Avenue, and between Dartnall Road and Mud Street. Crashes were most common when it was dark and the ground wet, with speeding the most frequent factor in fatal crashes.

There has been a vocal chorus from the loved ones of those who have died on the Red Hill and Linc in recent years. In particular, the families who lost people in "crossover" crashes, where a vehicle travels through the grassy median into oncoming traffic, have been calling for centre median barriers. The city has said these will only be considered if the parkway is widened.

`ere have been other safety upgrades on the parkway, including better signage and more speeding enforcement.

The city is spending more than \$100,000 to replace "cat's eyes" on the Red Hill Valley Parkway this month. Earlier reflective lane markers were installed in 2015, but became ineffective.

An update on the repaying plan for the Red Hill is expected to go to city council this fall.

#### **RHVP** closure

The southbound lanes of Red Hill Valley Parkway will be closed Sunday at 5 p.m. until Monday at 6 a.m. from Barton Street East to Dartnall Road so the city can collect asphalt samples.

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#### \$15-million resurfacing of Red Hill Valley Parkway planned for summer

Views Oct 25, 2018 by Nicole O'Reilly (/hamilton-author/nicole-o-reilly/8FDADEF7-07A0-4911-ACB2-71604CB7BBEB/) (mailto:noreilly@thespec.com) The Hamilton Spectator

The City of Hamilton doesn't know if something is wrong with the asphalt on the Red Hill Valley Parkway, because it hasn't been thoroughly tested.

Despite the extensive sampling — which produced inconclusive results — the city is expediting plans to resurface the 11-year-old parkway to the tune of \$15 million.

The seven-kilometre parkway has been the subject of controversy since opening in 2007, seeing crash hot spots and complaints that the road is slippery. Taxpayers may never know what, if anything, was behind the apparent troubles on the road.

Friction testing in 2015 was inconclusive. So too was testing from asphalt samples collected (https://www.thespec.com/news-story/8072227-scratching-the-surface-for-answers-on-red-hill-paving/) in December 2017. Yet when the city collected three large — one metre by six to nine metre — samples from the parkway this summer (https://www.thespec.com/news-story/8751852-city-testing-asphalt-on-red-hill-valley-parkway/), they did not test the quality of the aggregate used in the mix. At least one expert suggested such tests would be expected.

The tests looked at whether the city could use a technique called "hot in-place," that recycles asphalt during resurfacing. The cost-saving technology involves scraping up the top layers of asphalt, mixing and then repaving in one continuous chain.

But the city has opted not to use this because there isn't enough information that it works in Ontario, said Gord McGuire, Hamilton's director of engineering services.

The tests showed significant cracking in the top layers of the road, so the city is fast-tracking plans to resurface the parkway — a \$15-million project. The work is expected next summer, with \$7 million in funding coming from this year's budget and the balance from next year.

"We're going to expedite resurfacing," McGuire said.

The work, which will involve scraping down about 50 millimetres (two inches) and repaving with new asphalt, is considered expected "maintenance" work.

McGuire said the testing done involved adding new material to the old to see if it could be used to resurface the road. The testing did not involve breaking the material apart.

The city did not see the need to test the quality of the asphalt because the decision had already been made, because of the cracking, that the road needed to be resurfaced, he said.

When asked whether the city would consider testing the asphalt quality as a way to see if it could have been a factor in any crashes, McGuire said he couldn't comment.

"Sometimes if asphalt is very aged or severely cracking and damaged, it may be better to not recycle," said Hassan Baaj, an associate professor of engineering at the University of Waterloo and director of its Centre for Pavement and Transportation Technology. He spoke generally and not specifically about the RHVP.

There are several factors that can cause cracking in a road, including stress from traffic, harsh winters, excess water, and problems with the mix of asphalt such as poor-quality aggregate.

This can all be tested.

For instance, cracks caused by heavy traffic show particular patterns on the pavement that can be measured, Baaj said. And asphalt can be broken down in the lab, separating the minerals, to look at the quality of the aggregate used.

If the objective is to see if asphalt can be recycled, you need to test to see if the existing pavement is compatible, he said. This would include taking samples to the lab to analyze.

"We need to have a full picture," he said.

The RHVP was designed using perpetual pavement — a technique that involves deeper layers that is supposed to protect the foundation of the road from cracking and lengthen its lifespan to around 50 years. It also used stone mastic asphalt — a higher-end mix that is used on high-volume roads.

When the parkway opened the city estimated 12 to 15 years before resurfacing would be needed. And the base of the road appears to be holding up, with the current cracks being top-down.

Since opening, the parkway has experienced a higher volume of traffic --- particularly truck traffic --- than expected. However, the city says traffic has levelled off and is expected to stay consistent.

An <u>award-winning investigation by The Spectator (https://www.thespec.com/news-story/7424349-highway-traffic-tragedies-why-are-there-so-many-crashes-on-the-red-hill-/)</u>published last year found there were twice as many crashes on Red Hill than on the connecting Lincoln Alexander Parkway, with most happening in curving parts of the road when the ground is wet.

Families of loved ones who have died on the road have been calling for improvements. Around \$1.5 million in upgrades have happened in recent years, including improved signage and replacing "cat's eyes" lane

One of the most passionate requests from families has been to install centre-median barriers that would prevent crossover crashes, but the city has said these will only be considered if the parkway is widened.

McGuire said the city may look at using the "hot in-place" technology on a different road once it's more established.

It's been seldom used in Ontario. In 1999, the Ministry of Transportation successfully used it on a trial on Highway 401, west of Sweaburg Road just outside Woodstock, said MTO spokesperson Bob Nichols.

A 60-kin metre project started this year on Highway 11, sustside Thurder Bay, he said. About a third has been completed, but due to poor weather they've had to shut down early and won't faish up motif next year.

"Hot in-place" recycling is expected to last about 10 years, compared to conventional repaving that lasts about 12 years, Nichols said. However, a road's lifespan varies depending on design, climate and traffic.

https://www.thespec.com/news-story/8986977--15-million-resurfacing-of-red-hill-valley-parkway-planned-for-summer/

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#### Hot, sticky mess: Red Hill reopens after liquid asphalt spill

Jews Nov 23, 2018 by Nicole O'Reilly (/hamilton-author/nicole-o-reilly/8FDADEF7-07A0-4911-ACB2-71604CB7BBEB/) (mailto:noreilly@thespec.com) The Hamilton Spectator

After nearly a full day of clean up, all lanes of the Red Hill Valley Parkway are reopen for the Friday commute.

While most of the 44,000 litres of liquid asphalt that spilled onto road and median areas has been cleaned up, there are still some repairs and clean up that will continue into next week, the city said in a release late Thursday.

A transport truck spilled thousands of litres of liquid asphalt onto The Red Hill Valley Parkway in an early-morning crash Thursday that closed the major roadway all day for significant cleanup work.

The transport truck, filled with the sticky liquid asphalt used to bind aggregate together in cement mix, crashed around 4:30 a.m. The truck was northbound when for an unknown reason it hit an overpass at King Street East and rolled, landing sideways against the centre guardrail.

The parkway was initially closed completely in both directions and by late morning it was closed southhound between Queenston Road and Greenhill Avenue, and northhound between Stone Church Road and King Street Fact

This closure was expected to remain in place until at least after the afternoon rush, into Thursday evening.

Following the crash, two people in the truck were rescued by firefighters using an aerial ladder and taken to paramedics.

The driver, a 34-year-old man, and a 47-year-old male passenger, were transported to hospital for treatment of minor injuries, said Const. Jerome Stewart.

Hamilton Fire's hazardous materials (HAZMAT) team contained the leaking asphalt and set up containment systems along the road and median, said Hamilton Fire Chief Dave Cunliffe.

The City of Hamilton public works and Ministry of the Environment were called to the scene, along with CP Rail who assessed the overpass and train track and found it wasn't damaged.

The cold weather helped the cleanup because the sticky asphalt quickly froze, instead of running down the road "like a little river," said Edward Soldo, director of roads and traffic for the City of Hamilton. In some areas the asphalt hardened five centimetres thick.

The city redeployed contractors working on other construction jobs in the city to the site, he said.

The crews used a front-loader to scoop up the hardened asphalt and soil in the grassy centre median, and a Bobcat to scrap off the spilled asphalt and shave the top couple of inches off about 100 metres of road.

The spill mostly affected the northbound lanes. The shaved down road is being resurfaced with fresh pavement.

Soldo said the resurfacing is necessary because when temperatures rise the asphalt will become liquid again and sticky.

There was also damage to the steel quardrail from the impact of the collision and because it was sprayed with asphalt, he said. This is also being replaced.



The collision happened near a crash hot spot on the parkway, revealed in an award-winning Spectator investigative project (https://www.thespec.com/news-story/7424349-highway-traffic-tragedies-why-are-there-so-many-crashes-on-the-red-hill-/) that found the Red Hill has more than twice as many crashes as the connecting Lincoln Alexander Parkway. We at all the crash as happen in curved parts of the winding and hilly road.

The road has been dogged with controversy since it opened in 2007, including speculation that the road is too slippery. Yet friction (https://www.thespec.com/news-story/8072227-scratching-the-surface-for-answers-on-red-hill-paving/) and asphalt tests (https://www.thespec.com/news-story/8751852-city-testing-asphalt-on-red-hill-valley-parkway/) have come back inconclusive.

The city had already been planning a \$15-million resurfacing project (https://www.thespec.com/news-story/8986977--15-million-resurfacing-of-red-hill-valley-parkway-planned-for-summer/) on the parkway next summer after tests showed significant cracking on the top layer of the roadway.

The cost of Thursday's repair work is not yet tallied, but it's expected to be "significant," Soldo said. Once that full cost is known the city will work with its risk management section to look at recouping costs from the trucking company.

Meanwhile the city has emergency detour routes in place, redirecting the approximately 75,000 vehicles that drive on the Red Hill daily.

Most of that traffic is being rerouted along Centennial Parkway, but the closure was expected to cause congestion at both ends of the city.

An updated traffic control system allows staff from the traffic control centre to alter traffic lights and monitor traffic volumes from some cameras.

Hamilton police are investigating the cause of the crash and say no charges have been laid.

Anyone with information is asked to contact Const. Bill Kreamer at 905-546- 2937. To remain anonymous contact Crime Stoppers at 1-800-222-8477 or <a href="mailton.com">crimestoppershamilton.com</a> (http://www.crimestoppershamilton.com).

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Recent Timeline -Staff Actions

- 1. We are expediting the repaving plan and will use conventional technology that we already use and know the project will be out for tender soon, and the repaving will happen next summer.
- 2. Our initial assessment of hot-in-place technology is showing that it does not look to be the best option for the RHVP given the timeframe and current condition/age of the road however we are looking at this technology in a pilot environment somewhere else
- 3. We are still testing hot-in-place technology, but will not use it on the RHVP in order to ensure that we can repave the road ASAP and avoid further decline of the infrastructure
- 4. We are working with the Ministry of Transportation to examine the hot-inplace technology – not just under review in Hamilton, also under a pilot project in Thunder Bay

#### If required:

- We have heard reports of poor performance in wet weather, one of the reasons we are working to expedite the repaving of the roadway to happen next summer
- We will have a comprehensive communications strategy to notify residents and motorists driving through Hamilton about the repaving project, because it will require closures of the RHVP, likely on weekends during the summer months

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