

Jul 15, 2008

## Pothole poker

### Unwary drivers, cash-strapped communities pay the price each season

#### GETTING AROUND

By Oliver H. Cox SPECIAL TO THE TELEGRAM & GAZETTE

What's the cost of a pothole?

There is no average price. The cost depends on location, size, traffic, weather. The two big costs are the price the state or municipality pays to fix a pothole and the amount drivers pay to fix damage to their cars. State and municipal workers, private contractors, car damages — even the price of crude oil — affect the bottom line in fixing one of those irritating road divots.

But based on interviews with people who know potholes, figure the price at somewhere between a relatively minor \$34 and several thousand dollars.

How do the experts determine those costs?

Their explanation requires an understanding of potholes.

Fluctuating temperatures, freezing and thawing the road, help create potholes during the New England winter and spring. Pavement expands during warm temperatures and contracts in cold, causing cracks. Small amounts of water seep into the cracks, and when the temperature falls below 32 degrees, ice pushes apart chunks of asphalt, causing bigger cracks and eventual potholes.

There are two ways to fix a pothole: cold patch, the quick fix that can be applied in winter at any temperature, and hot-mix asphalt, the more permanent fix, that involves applying new pavement to the affected area. Hot-mix cannot be applied in winter.

Potholes fixed with cold patch often reappear and need to be refilled more permanently. When inclement weather clears out long enough to lay asphalt, towns and cities start hiring contractors to fill the cracks with hot-mix.

More than a third of the major roads and highways in Massachusetts have pavement in poor or fair condition, according to a June report from TRIP, a national nonprofit transportation research group. Nine percent were rated in poor condition and 27 percent in fair condition, it reported.

"Roads in poor condition often have significant rutting, potholes or other visible signs of deterioration," and typically need resurfacing or reconstruction, the report noted. The roads include interstates, highways, connecting urban arteries and key urban streets maintained by state or local governments.

According to Kenneth Kalinowski, director of the Southbridge Department of Public Works, there are priorities on potholes. Southbridge has about 84 miles of roads, almost all of them town roads. While Mr. Kalinowski says Southbridge fixes every pothole that is called in, he says a pothole in a very heavily traveled location will be fixed before any small back-road pothole.

But potholes don't get fixed one at a time. "If we send somebody out, it's not for one pothole. It would be cost-ineffective," Mr. Kalinowski said. "We compile a list, and when we get a sufficient number, we send out a crew, and they patch them all, depending on the weather and the size of the potholes."

Asphalt is a petroleum-based substance that comes from the bottom of the refining tanks. Its price fluctuates

with the price of oil, which it at an all-time high.

Mr. Kalinowski says the town is feeling the pinch. Since the price of asphalt has risen quickly and substantially, Mr. Kalinowski said, the Southbridge DPW stockpiles limited quantities. "We don't have the luxury of buying large volumes in bulk, budgets being what they are," he said.

Uxbridge, a town of about 12,600 with about 114 miles of public roads, including 110 miles of town roads, devotes 1,200 man-hours per year to patching potholes — that's strictly cold patching, hot-mix not included. If patching potholes in Uxbridge were one person's job, that person would spend half the year out patching.

Irving A. Priest, superintendent of the Uxbridge Department of Public Works, said the town uses 150 to 200 tons of cold patch per year. Cold patch costs Uxbridge \$82 a ton when picked up by the town; one DPW man-hour, with benefits, costs about \$26. Simple math shows that between labor and materials, not counting gasoline or equipment costs, Uxbridge spends \$43,500 to \$47,600 a year on cold patch alone. Mr. Priest believes that the cost of cold patch will double next year "with the way asphalt and oil prices are going."

Scott Colby of Aggregate Industries, an asphalt and cement company whose Northeast region is based in Saugus, says that a ton of cold patch is usually enough to fill 10 standard potholes.

With that number, it could be deduced that the materials used on an average pothole cost somewhere around \$8 (based on Uxbridge's cost per ton, though the town buys its cold patch in Connecticut). Patching a single pothole based on one Uxbridge man-hour could make the cheapest pothole fill-in about \$34. This rarely is the case, however. Usually after a complaint has been filed, towns send out road workers to investigate the pothole. Workers assess how much material and time will be needed to patch it up, and a repair date is scheduled, all the while on the clock. It adds up.

The other cost brought on by potholes comes from auto repairs.

And, while trying to figure out the average cost of a pothole is hard, trying to determine its potential damage is even harder. Damage to vehicles from potholes usually involves popped tires and bent rims, along with the occasional strut and spring blow-out. The most common pothole-related repair is resetting alignment.

The large, expensive wheels that have become fashionable are at greatest risk. Because many automakers have put larger rims on newer cars, especially high-end vehicles, the tire sidewall must shrink to make up for the additional aluminum. These small sidewalls provide less padding to the rim, making potholes even more dangerous.

Andrew Voellings of Auburn Midas says that this year has been particularly bad. Mr. Voellings says at least 30 cars with pothole damage have come through the Midas where he works so far this year. Most come in with wheel damage or need to be realigned. New tires aren't cheap, and neither are most rims. It costs a couple of hundred dollars for a new wheel with a tire.

If a vehicle hits a pothole or another defect in a state highway, the owner can be reimbursed for personal injury — up to \$4,000 under state law — but not for property damage.

Massachusetts spends about \$1.3 million each year on pothole repair for state highways, said Klark A. Jessen, a spokesman for the Massachusetts Highway Administration.

At Midas Auto Service Experts at Coes Square, in Worcester, Manager George Rondeau says that the most costly repair he has done this year was steering that needed to be replaced, for \$570.

Some auto centers, such as Gerardi's Service Center in Worcester, appreciate the business potholes bring in. "Being in the automotive business, having them around is not a bad thing," Bruce Gerardi said. "I personally don't care for them, but business-wise, they're not a bad thing."

While the winter-related pothole season has ended, spring and summer storms bring on their own potholes.

"After a day with downpours, there will be another rash of them, where the rain washes them out," Mr. Kalinowski, of Southbridge, said. "Water is the driving force behind potholes in general. If there is weakness in the pavement, water will exploit it, eating away at the edges of the pavement."

Potholes are often reported after causing damage to a vehicle. So the low figure of \$34 ignores the higher cost of damages.

On top of that, cold patch is rarely a permanent fix, so it is very likely that the pothole will reform, and the road will need to be fixed with hot-mix for an additional price.

At its worst, the price of a pothole can range up to thousands of dollars if multiple cars have their rims, tires and struts destroyed and their alignment thrown off by the same pothole.