



Pothole Patching – Article #2 April 14, 2008

The topic of this article tends to have a negative connotation attached to it. However, it is a popular topic of discussion this time of year. We are all thinking about it. So let's just get it out of our system. Let's talk about "pot holes" and repair of such.

I recently accompanied city street department staff, Rick and Theresa, to observe the process of patching pot holes.

First of all, how are they formed? MDOT does a good job of explaining this malady. Snow or rain seeps into the soil below the road surface. The moisture freezes when temperatures drop, causing the ground to expand and push the pavement up. As temperatures rise, the ground returns to normal level but the pavement often remains raised. This creates a gap between the pavement and the ground below it. When vehicles drive over this cavity, the pavement surface cracks and falls into the hollow space. This leads to the "birth of a pothole".



So off we went to South Haven Place. Which led to another question: Who or what determines the streets that should be repaired first? The Street Department crews drive the city streets every work day and are aware of the locations of potholes. However, they do not drive every street every day. They rely on the citizens to call or email the Public Works Department to report locations of potholes they have encountered. Work orders are then created.



I am sure you have seen the truck about town – the one pulling a trailer with a kettle mounted on top (as seen in photo at left). The kettle holds the "cold patch" – the hot, sticky asphalt-mix substance used to fill the potholes. Don't get confused. "Cold patch" can be applied hot or cold. Even though it may be hot, it is still termed "cold patch". The heat makes it easier to handle. The kettle temperature is kept around 80 degrees. Much higher than that and the cold patch will lose its stickiness. The kettle holds 3 yards (10,000 lbs) and it only takes about two hours to use it up. The city owns one kettle at this time. However, another crew can be out filling potholes without the heat.

The cold patch mixture is delivered via dump truck and stored in a room at the Department of Public Works created specifically for this substance. It is then transferred to the kettle by means of front-end loader. This is done carefully. A person can easily get burned on cold patch.





On the day I went out, it was cold and snow was forecasted for the next two days. Both Theresa and Rick said it didn't matter what the weather report said. They can go out in any weather. Incidentally, the snow plows must continue to go out even on those streets that have been recently patched. It is possible the snow plow might pull the cold patch out, but if patching is not done routinely, the potholes will get larger. Most of the potholes were filled with water. Rick explained to me that it is best to remove the water but it is very time consuming to

remove it all. So, he has a technique he uses: place the pile of cold patch on the hole's edge and scoop over the hole while pulling the water out.

Sometimes a street is in such bad condition that a large area must be cut from the surface. This repair is a different process and a different consistency of patch. The City contracts this out. The best example of this is at the intersection of Lovejoy and Kalamazoo Streets. On particularly large holes, Rick uses a device called a tackler. He uses this to walk around the hole applying a glue-like substance which makes the cold patch stick better. It takes about 2 yards of cold patch to cover a large area (two-thirds of the kettle's contents). Approximately 70 to 80 tons of cold patch has been used since mid-February.

Two Street Department personnel work together to complete pothole patching - one drives the truck while the other fills the potholes. If there are several potholes in one area, the driver assists as well. Mostly, the driver remains in the truck and keeps an eye out for traffic entering the work zone. Theresa, the driver during this time, said that her biggest fear of this job was the traffic. Often vehicles drive by too fast or the drivers are not paying attention. I was a witness to this in the short time I was out there. It is advised that drivers use caution when coming upon a work zone. Always slow down and be aware. This is truly a dangerous, messy, dirty job. The crew is very conscientious and accepts words of



encouragement. Remember, they are doing their job to make the streets better for us!

Remember, you may view this article on the city's web site at:

<http://www.south-haven.com>

I am looking forward to sharing my next experience with you. If you have suggestions for topics, you are welcome to email me at:

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Until next time,

Deb Davidson