



# Hit the Road

By Henry Jansen, P.Eng., ACCI



With summer just barely behind us, what's the rush in reminding the board it needs to be making paving decisions, now? The reason of course is the board missed the fall deadline for the asphalt plant's closing last November, and had distractions this spring not allowing early action this year.

The pot holes, sunken sewer hole covers, and expanding pavement cracks will not heal themselves. Before the property manager calls the paving contractor(s) it is best to remember the methods of repairs.

**1. Throw 'n' Roll:** This is a temporary pot hole repair where liquid asphalt fills a hole and is then rolled over with heavy equipment to compact it.

**2. Semi-permanent repair:** This is similar to the Throw 'n' Roll except it is more deliberate with the hole properly cleaned and the hole trimmed to sound

pavement. The asphalt is then compacted using a vibrating roller or plate.

**3. Spray-injection method:** This repair uses special equipment to spray a tack coat of asphalt into a cleaned hole and then blowing asphalt and aggregate into the hole. This method does not require compaction.

**4. Full-depth roadway replacement:** This method rebuilds the pavement by pulverizing the old asphalt and mixing it with cement and water to form a base for a final asphalt surface. This method of course is the most expensive but the best.

**5. Infrared repair:** This method uses equipment emitting infrared heating to melt the damaged surface and remove defects with new asphalt on the surface. Patches become seamless with less chance of future potholes. This method is often more cost effective than large patch jobs.

So, let us start with the basics. Asphalt pavement is also called bituminous concrete. It is called 'concrete' because

like cement-based concrete, bituminous concrete has a mineral aggregate of stone and sand. This aggregate is held together with a binder of petroleum derivative asphalt. Different soil conditions (i.e., sandy subsurface versus clay) will warrant a different mix of asphalt paving but this will be addressed by whoever creates your bid documents and specifications. For planning purposes, your board should assume paving will last about 20 years.

For purposes of discussion we will assume to be dealing with existing asphalt paved roads, parking areas and/or driveways. Typically, roadways have a sub-base of 100 to 200 mm (4 to 8 inches) of a well-drained, compacted soil and gravel mix. The first layer of paving is called the binder course and it is 38 to 50 mm (1 ½ to 2 inches) thick. This is covered by a topping coat of 38 mm (1 ½ inches).

If it were not for the sun and water,



(in Ontario only)

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