

## Frequently Asked Questions (FAQ)

When will the road I live on get re-paved?

Although this sounds like a relatively easy question to answer; in actuality, it is quite the contrary as the city's roadway rehabilitation program is multi-faceted, comprised of a number of rehabilitation and maintenance techniques. The existing condition of the roadway is taken into consideration in the process of program development as is the need for utility improvements. The ultimate goal of improving our infrastructure revolves around our desire to follow planned utility improvements so that roadway surface improvements are the final piece of the construction process. To do so requires a great deal of coordination with all utility companies who own facilities within and below our city's rights of way, inclusive of gas, water, sewer and storm drainage. The results of these collaborative efforts are numerous as they decrease the chances and likelihood that a new pavement surface might be cut for purposes of repairing a utility service main. Although we can plan for upgrades, we cannot plan for emergencies; we, therefore, can never then completely eliminate the need to cut into a roadway but we can and have minimized them. A well-planned and well-coordinated program leads to a more comprehensive and fiscally responsible system overall. This system has proven to be working well, in fact, it has been highlighted by National Grid during statewide interagency meetings as an example model/municipal program. Time and time again, working collectively and collaboratively yields the best results possible which has proven true in this system development process as well.

What type of roadway improvement techniques are used in the City of Newport?

The simplest and earliest technique to administer to a roadway is crack sealing which is performed early on in a pavement's life cycle when reflective cracking begins to appear at the surface. The technique involves injecting hot liquid asphalt into the cracks in order to decrease the ability for water to penetrate to the base layer of the pavement's structure. Decreasing the likelihood for water penetration increases the overall integrity of the pavement.

A few years after a pavement has been crack sealed, other maintenance techniques will become necessary while they may include thin layer surface processes such as chip sealing which seals a roadway's entire surface area with a rubberized liquid asphalt before rolling a small layer of chip stone into the surface. This type of surface completely seals the roadway from water penetration while helping to preserve its lifecycle.

Pavement rehabilitation techniques also vary and might include the cold plane/overlay method where it is only eligible for use on roadways that have a thick existing surface. The process removes a portion of the thickness and replaces that top surface with a new surface of asphalt. During this process, geotextile fabrics may also be placed between the old and new pavement layers in order to add structural integrity to the structure.

Partial depth reconstruction would involve removing and replacing the existing asphalt from a roadway in its entirety or full depth where a roadway is completely reconstructed from its base layer through its surface layer. There is also the pavement reclamation technique in which the existing pavement and sub-base layer are pulverized and ground together before being re-compacted to form a new roadway base layer before paving the roadway.

These many techniques are utilized throughout the City of Newport and research into other pavement rehabilitation and maintenance techniques continues in order to assist in our overall program development.

Why do potholes form?

A pothole is formed when water that lies beneath a base layer of asphalt freezes and thaws during the winter and early spring. As you know, as water freezes, it expands (think of the process of ice cubes in your freezer.) As the water freezes beneath the asphalt, significant pressure is created which thereby pushes against the flexible materials that comprise asphalt until a void/hole is created. The need to decrease water's ability to penetrate roadways is thereby evident.