

TOWN OF SOUTH KINGSTOWN



PAVEMENT MANAGEMENT

FREQUENTLY ASKED QUESTIONS (FAQs)

July 2021

Each year the Town receives calls from residents about its pavement management program and in particular, its stone sealing (a/k/a chip sealing program).

The following FAQs are intended to provide clarification on the rationale for the different methods of pavement management for Town roads:

Q: How many miles of Town road are there?

A: There are approximately 150 linear miles (300 lane miles) of paved Town roads.

Q: The Town began reconstruction and paving a number of roads many years ago. What was the rationale for this?

A: The Town conducted a Transportation Improvement Plan (TIP) in 2000, which analyzed all Town roads and assigned a condition ranking, road category and use. The TIP recommended that roads in poor condition, especially arterial/ collector roads be reconstructed and re-paved with bituminous concrete (asphalt).

Q: How many miles of Town roads have been reconstructed/ repaved since 2000?

A: Approximately 50 miles (or 1/3) of the Town's municipally owned road network have been repaved since 2000.

Q: Is the Town planning on paving any more roads?

A: Yes. Each year the Town develops a Capital Improvement Program (CIP) budget that delineates roads scheduled for repaving in the next six (6) years. However, this list is dynamic and can change from year to year based upon road performance through the winter months.

Q. How much does it cost to repave a road?

A. It costs approximately \$500,000 per mile to reclaim a road to substrate base material and repave the road with a binder course and finish course of asphalt.

Q. How much would it cost to repave the remaining Town roads?

A. Assuming a cost of approximately \$500,000 does not change (although pricing does change due to the volatility of asphalt emulsion commodity pricing), it would cost approximately \$50,000,000 to repave the remaining Town roads that have not been paved to date.

Q. Wouldn't it be cheaper for the Town to simply overlay its existing roads with pavement without removing existing pavement?

A. Yes. It would be significantly cheaper. However, any cracking in the existing road surface pavement would reflect through the new pavement within a short period of time. This is called "reflective cracking". A general rule of thumb is that existing pavement cracks will reflect through any new pavement based within two (2) years for each inch of new pavement that is placed. In other words, if 1-1/2" of new pavement were placed over an existing road, any existing pavement cracks will reflect through the new pavement within 3 years.

Q. Why does the Town stone seal and crack seal roads?

A. Stone seal and crack sealing are considered pavement preservation techniques and are not intended to replicate the finish of a brand new paved asphalt road. Paved roads are subject to cracking based upon vehicle loads, vehicle counts and the freeze/ thaw cycle that occurs in the colder climates such as Rhode Island. It is imperative to seal cracks to the greatest extent possible to prevent pavement damage during the winter months when water freezes and expands in roadway cracks.

Q. How much does stone sealing cost as compared to paving roads with asphalt?

A. It costs approximately \$26,250 per linear mile to stone seal a road as compared to \$500,000 per linear mile to pave a road with bituminous concrete (asphalt). Because stone seal can extend the life of a road indefinitely depending on use, after 50 years a roadway could cost up to \$1,000,000 (repave twice in 50 years) to repave, but only \$130,000 to stone seal (stone seal five times in 50 years) for the same 50 year period.

Q. How much does the Town budget each year for stone sealing and crack sealing?

A. The Town typically budgets \$210,000 per year for stone sealing (which will result in treating 8 miles of roadway) and \$50,000 for crack sealing.

Q. Why is the Town stone sealing roads (ex.: Rose Hill Road, Stoney Fort Road, etc.) that were previously paved with asphalt?

A. Even newly paved roads require some type of pavement preservation to prevent them from deteriorating to a condition which would require full reclamation and paving far sooner than would be expected.

Q. Why can't the Town simply repave all roads in lieu of stone sealing?

A. Pavement management methods is a function of funding. All roads can be paved with asphalt, but the cost would be significant and would have to be paid for by the taxpayers. The Town tries very hard to balance the tax burden on property owners and the municipal services it provides, including its Transportation Improvement Program. Increasing funding to the Town's TIP without significantly increasing property taxes would result in cuts to other Town services (ex.: schools, parks, police, senior services, etc.)