



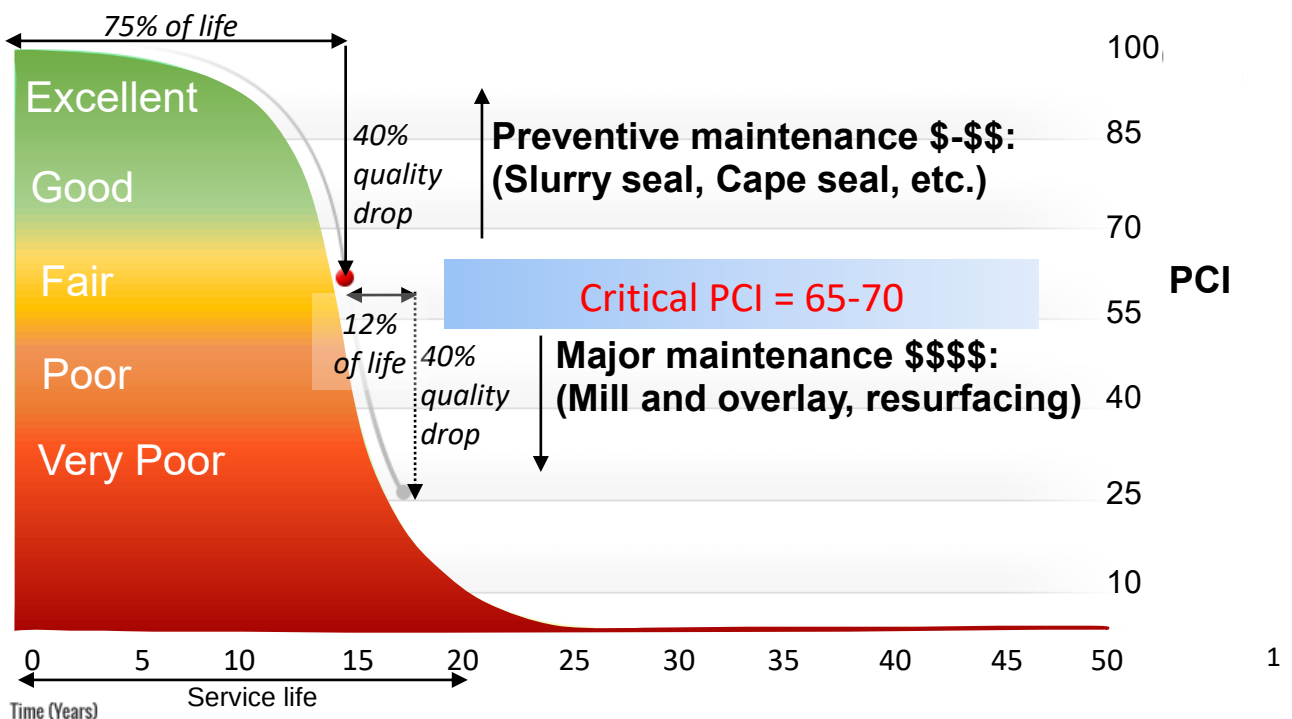
Pavement Preservation Program

“RIGHT treatment to the RIGHT pavement at the RIGHT time”

Pavement preservation program involves applying a series of low-cost treatments to a road, at a minimum in fair to good condition, to halt further deterioration. These methods prolong pavement life, avoiding high future costs of reconstruction or rehabilitation through the expenditure of lesser amounts of money at critical points in a pavement’s life. Pavement preservation pays off in both the short and long term. Experience shows that spending a dollar on pavement preservation can eliminate or delay spending \$6 to \$10 on future rehabilitation or reconstruction costs.

Preventive maintenance treatments: These treatments applied to pavement in relatively good condition to extend pavement life. A planned strategy of cost-effective treatments to an existing roadway system (with relatively fair to good condition) and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system. Example methods: Slurry Seal, Cape Seal.

Major maintenance treatments: This type of maintenance is performed when the pavement is in need of major repair, and is usually more costly. Activities performed in response to the development of a deficiency or deficiencies that negatively impact the safe, efficient operations of the facility and future integrity of the pavement section. Major maintenance activities have much more costs rather than preventive maintenance activities. Example methods: Mill and overlay, Resurfacing.



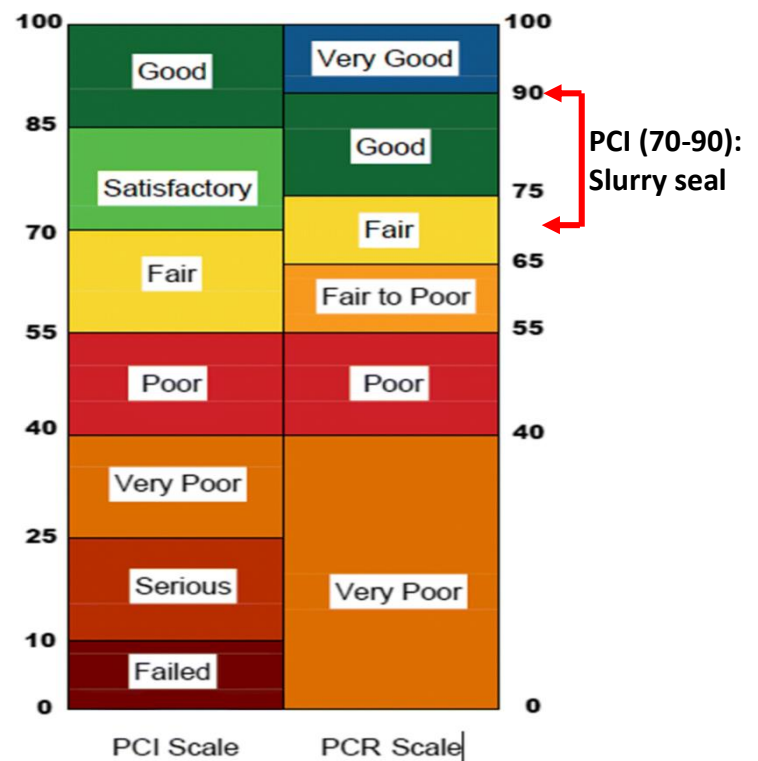
Slurry Seal - \$:

A Slurry Seal is a cold, mixed asphalt slurry. It consists of emulsified asphalt, graded fine aggregate and additives. It provides a uniform black durable surface over deteriorated surface. A blend of fine aggregate and asphalt emulsion that is mixed onsite during the lay down process. Slurry Seal is a fast-moving process with a rapid curing time that offers minimal inconvenience to the traveling public.

Slurry Seal treatment falls into the category of **Preventative Maintenance Strategy**, which can address minor issues before they become serious issues. Slurry Seal is effective in extending the service life of pavements with fair to good conditions (**PCI 70-90**) and is used to slow the rate of pavement deterioration. Raveling and minor cracking of surfaces (alligator, longitudinal, transverse) are controlled by Slurry Seal treatment.

Benefits:

- Properly applied, slurry seal extends the life of the existing pavement up to 5-7 years by protecting it from oxidation and deterioration.
- Provides a new wear surface over structurally sound asphalt
- Reduces the need for costly repairs
- It costs much lower than asphalt overlay.
- Treats aged and raveled pavements by filling minor cracks,
- Restores surface texture by providing a new skid-resistant wearing surface



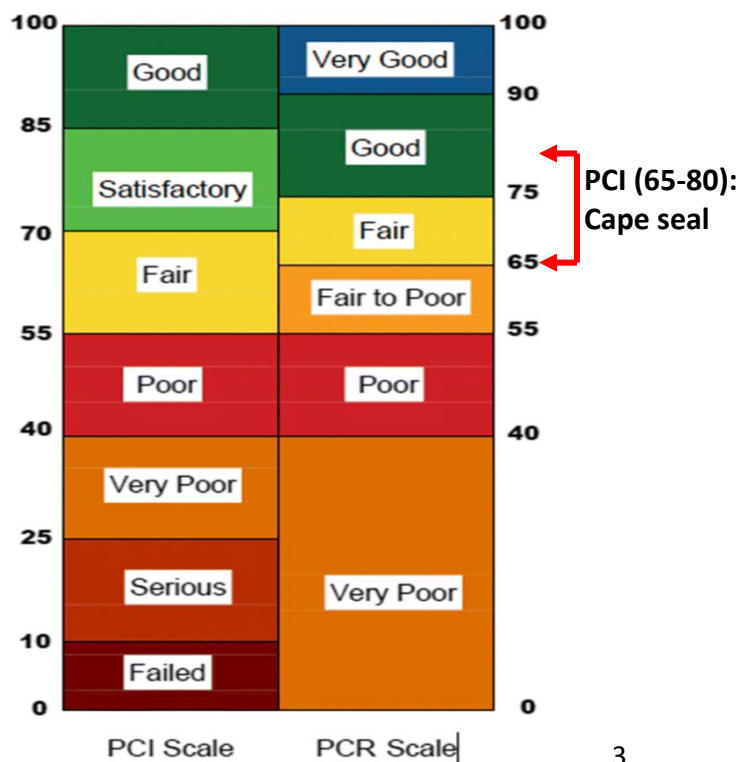
Cape Seal - \$\$:

A Cape Seal is a 2-step treatment process consisting of a Chip Seal covered with Slurry Seal at a later date. **Step 1: Chip Seal** (small rocks are placed on top of a liquid asphalt blend and be rolled) is sprayed on top of pavement surface; **Step 2: Slurry Seal** is then applied to the top of Chip Seal. Cape Seals provide a similar ride to asphalt overlay and a durable skid resistant surface which holds up well to traffic. Technically, this treatment provides the advantages of two preventive maintenance methods (Chip Seal and Slurry Seal). Cape Seals can be placed on pavements with higher levels of distress than normally recommended for a Slurry Seal.

Cape Seal treatment falls into the category of **Preventative Maintenance Strategy**, which is effective in prolonging the service life of pavements with fair to good conditions (**PCI 65-80**) can address moderate issues before they become serious issues. Cape Seal corrects moderate surface distresses such as cracking, raveling and friction loss and by protecting the underlying pavement structure.

Benefits:

- Cape seal adds the life of the existing pavement up to 8-10 years by protecting it from oxidation and deterioration.
- Provides a new wear surface over structurally sound asphalt
- Treats aged and raveled pavements by filling moderate cracks and surface imperfections
- It costs much lower than asphalt overlay.
- Restores surface texture by providing a new skid-resistant wearing surface
- Protects the structure from moisture intrusion
- Restores skid resistance and aesthetic appeal



Asphalt Overlay (Resurface) - \$\$\$\$:

Asphalt overlay is plant-mixed combination of asphalt binder and aggregate that involves placing fresh asphalt surface in depths of $\frac{3}{4}$ to $1\frac{1}{2}$ inches over an existing surface. Asphalt overlay provides a solid surface similar to what was there years ago when the original asphalt was applied. Asphalt overlay is a costly treatment (even higher when surface milling is also required) that limits the application due to budget constraints. This treatment can be applied over pavements with higher levels of distress than normally recommended for preventive treatments (Cape Seal/ Slurry Seal).

Asphalt overlay treatment falls into the category of **Major Maintenance Strategy**, which is effective for greatly aged pavements with poor to fair conditions (**PCI 50-70**). Asphalt overlay seal repairs moderate/major surface deficiencies such as cracking, rutting, aging, raveling, disintegration, and oxidation.

Benefits:

- Asphalt overlay adds the life of the existing pavement up to 10-15 years
- It is durable that it can handle heavy pressure and traffic.
- Effective in correcting all major surface distresses
- It can restore the ability of a pavement to resist skidding.
- Treats aged and raveled pavements by covering cracks and surface imperfections
- Protects the structure from moisture intrusion

