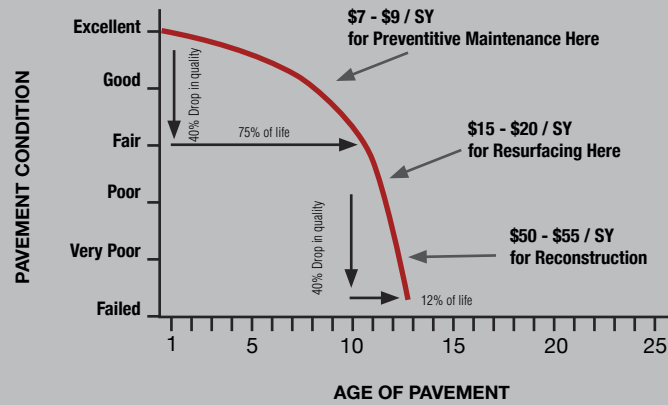


WITH LONGER-LASTING ROADS USING LIGHTWEIGHT AGGREGATE CHIP SEAL.

Lightweight Aggregate (LWA) made from expanded shale, clay and slate is economically used on all types of roads, rural highways, city streets and busy interstates. The U.S. currently uses over 10,000 lane miles of LWA chip seal annually because its costs are competitive with normal weight aggregate chip seals and it provides many more advantages.

PAVEMENT CONDITION INDEX



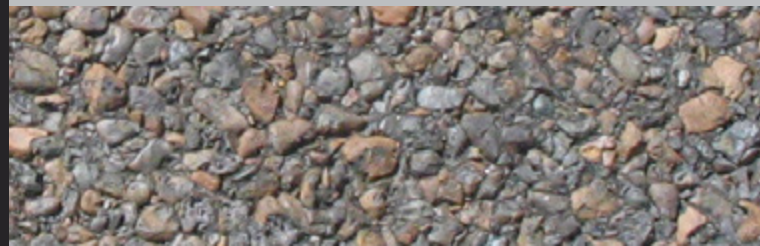
For more information, visit www.escsi.org



Expanded Shale, Clay and Slate Institute
Rotary Kiln Structural Lightweight Aggregate

#5600.3

MAKE YOUR TAX DOLLARS GO FURTHER...



Expanded Shale, Clay and Slate Institute
Rotary Kiln Structural Lightweight Aggregate



LIGHTWEIGHT CHIP SEAL IS THE MOST ECONOMICAL WAY TO PRESERVE ASPHALT PAVEMENT AND PROVIDES:

- A 20% longer service life compared to conventional chip seals.
- A superior bond with emulsion and will not peel off the road.
- Little to no flying particles and due to its lower density, flying LWA does not break windshields.
- Increased safety on wet or dry roads. LWA provides superior skid resistance and will not polish as it wears.
- A tight mat and smoother feel, which cyclists prefer.

Cost Savings in Transportation and Construction

- Aggregate transport costs are reduced because LWA weighs about half of natural aggregate. LWA allows larger aggregate volumes per truckload resulting in fewer trucks needed.
- LWA is applied in a uniform single layer with a lower application rate resulting in less material being swept off the road.

OTHER LWA MAINTENANCE TREATMENTS

Slurry Seal & Micro-Surface: Micro-surfacing applications are useful in stopping the deterioration of oxidized asphalt by resealing the surface. Fine-graded LWA works well in slurry seals and micro-surfacing, improving skid resistance and creating a tight, smooth mat.

Squeegee and Scrub Seals: Squeegee and scrub seals are used to repair streets that are cracked and porous. Because of its affinity to asphalt emulsions, LWA helps reduce current and future pavement cracking as well as improving skid resistant properties. This makes LWA the ideal choice for these applications.

Cold Mix – Pothole Patch: LWA's superior bond with asphalt emulsions produces a superior product in patch-mix applications.



Standard Weight Chip

LWA Chip

Road maintenance is crucial and LWA provides the maximum use of limited road budgets. In pavement maintenance applications, LWA offers extended performance for an economical price.

The March 2011 issue of *Better Roads* stated,

“Spending \$1 on Pavement Preservation can eliminate or delay spending \$6 – \$10 on future rehabilitation or reconstruction costs.”

The common 5–10 rule is:

Increase road life by 5–10 years, for 5–10% of the cost of new pavement.