

# COOL ROADWAYS FACT SHEET

Pavement accounts for roughly [one-third](#) of a typical city's surface area. Most paved streets and parking lots utilize dark materials that absorb [80-95%](#) of sunlight and warm our cities.



## THE COOLER OPTION

- Cool pavements can **lower surface temperatures** by [10-12°F](#) and contribute to **cooler air temperatures** when deployed at scale. Lower temperatures reduce energy use, improve air quality, and build heat-resilient communities.
- In addition to lower heat gain, permeable pavements have an added benefit of improving stormwater quality, recharging groundwater, and **reducing flood risk**.

## BETTER ROADS

- Pavements with cooler surfaces undergo less thermal expansion, leading to a **longer service life** than traditional dark pavements.
- Cool pavements reflect light more effectively, increasing **visibility and driver safety** and reducing the need for street lighting at night by [more than 30%](#).

## COOL PAVEMENT TYPES

Cool pavements refer to a range of technologies that can mitigate urban heat islands and protect road surfaces. These paving materials cool cities by reflecting solar energy or allowing for evaporative cooling through permeability.

- Asphalt sealcoats
- Chip seals
- Pavement rejuvenators
- Whitetopping
- Light-colored aggregates
- Permeable pavement (i.e., porous asphalt, pervious concrete, and pavers)
- Conventional concrete or concrete with additives (i.e., slag, fly ash, white cement, and calcined clay)

## PART OF THE URBAN COOLING SOLUTION

Paired with trees, solar PV shade canopies, and other measures, **cool pavements** are a key part of an integrated approach to improving the resilience of urban communities to heat.