

## THE CITY OF PHOENIX'S COOL PAVEMENT PILOT PROGRAM MAKES STRIDES IN THE FIGHT AGAINST CLIMATE CHANGE WITH COOLSEAL BY GUARDTOP

*One year after starting the program, the City of Phoenix and Arizona State University researchers have released impressive findings about the effectiveness of CoolSeal.*

**Dana Point, Calif. (2021)** – Last year, the City of Phoenix Street Transportation Department and Office of Sustainability teamed up with Arizona State University researchers to begin the Cool Pavement Pilot Program, aimed at cooling down neighborhoods and saving energy costs. In a virtual presentation and panel discussion on September 14, the City of Phoenix [released the results](#) of the first year of this innovative program. The study, performed by scientists at ASU's Global Institute of Sustainability and Innovation, Healthy Urban Environments, and the Urban Climate Research Center, found that the reflective pavement surface temperatures of [CoolSeal by GuardTop](#) are considerably lower than traditional roadway pavement.

In the study, the CoolSeal cool pavement had an average surface temperature 10.5 to 12 degrees Fahrenheit lower than traditional asphalt at noon and during the afternoon hours. [ASU Researchers discovered](#) that CoolSeal's cooler pavement coating reflects a higher portion of the sunlight that hits it, absorbing less heat. Thanks to this higher reflection, the coating can potentially offset rising nighttime temperatures in the region.

So far, the study has revealed that the nighttime air temperature at six feet of height was on average 0.5 degrees Fahrenheit lower over cool pavement than on the non-treated surfaces. According to David Sailor, Director of the Urban Climate Research Center at ASU, even one degree can make a big difference.

“A single degree Fahrenheit reduction in air temperature during the summer could save

residential ratepayers about \$15 million per year in avoided air-conditioning costs,” [explains Sailor](#).

The study also revealed that sub-surface temperatures averaged 4.8 degrees Fahrenheit lower in areas treated with CoolSeal. According to Davis Koleas, GuardTop’s Sustainability Project Manager, this means that the depth of the asphalt was almost five degrees cooler, not just the surface, which shows that the asphalt is staying softer and not hardening or cracking. This is great news for municipalities, since it proves that CoolSeal is lasting longer, which will reduce future maintenance costs.

Ultimately, reducing surface temperatures can result in cooler air temperatures, which, as Sailor [points out](#), can have significant implications for heat-related illness, air quality, water use, and energy use.

Researchers will continue working in partnership with the Phoenix City Council to work toward launching the second phase of the Cool Pavement Pilot Program in the future.

“The effects of Urban Heat Islands can be felt by everyone and greatly impact our ecosystem and day to day life,” said Sustainability Project Manager Davis Koleas. “Phoenix and ASU both invested time and money into effectively working to reduce the harm that has already been caused. We are confident residents and visitors alike will reap the benefits and find increased comfort all around.”

### **About GuardTop, LLC**

Since 1983, GuardTop has been committed to providing superior asphalt-protection products. With an ever-growing product line and commitment to sustainability, GuardTop has become an internationally-trusted asphalt-based sealcoat manufacturer. A family-owned company with strong values rooted in safety and environmental

compliance, GuardTop goes the extra mile to ensure all customers and employees are treated like family.

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