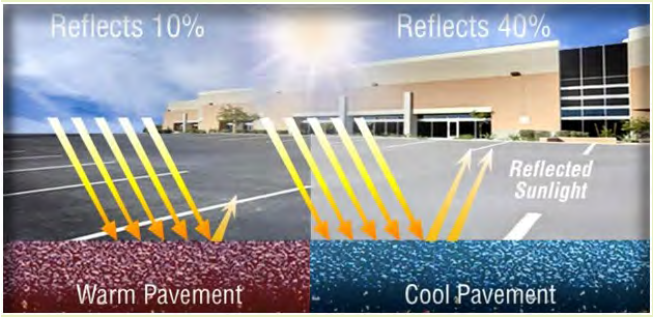
SPOTLIGHT

IF WE'RE GOING TO PAVE PARADISE, LET'S PUT UP A GREEN PARKING LOT



Can you imagine if our roads and parking lots were painted yellow or maybe a light blue? It would challenge our concept of a typical blacktop, but according to research, "cool pavement" seems like the way of the future. Pavements from streets and exposed parking lots make up a large percentage of surface area in our growing communities. And it is easy to feel the heat that is absorbed in those dark pavements. As pavement surface heats up, local air is also heated and aggravates urban heat islands—urban areas that become warmer than their surrounding areas. To address this issue, the Heat Island Group of Lawrence Berkeley National Laboratory has been experimenting with "cool pavement" technologies. Similar to the way lighter-colored roofs have a cooling effect by reflecting the sun's energy, cool pavements also have the same ability. Cool pavements can be made from traditional pavement materials that are lighter in color and therefore have a higher solar reflectance, or can consist of cool-colored coatings for asphalt surfaces. Because sealcoats are commonly used as asphalt pavement structures degrade over time, when roads do need to be repaved or patched up, cities may want to opt for these new technologies. The benefits of cool pavements will not only help local ambient air, but can also impact global warming and energy loads. Dark roofs and dark pavements both contribute to warming temperatures as they absorb large amounts of solar energy and then radiate that energy back into the atmosphere in the form of heat.