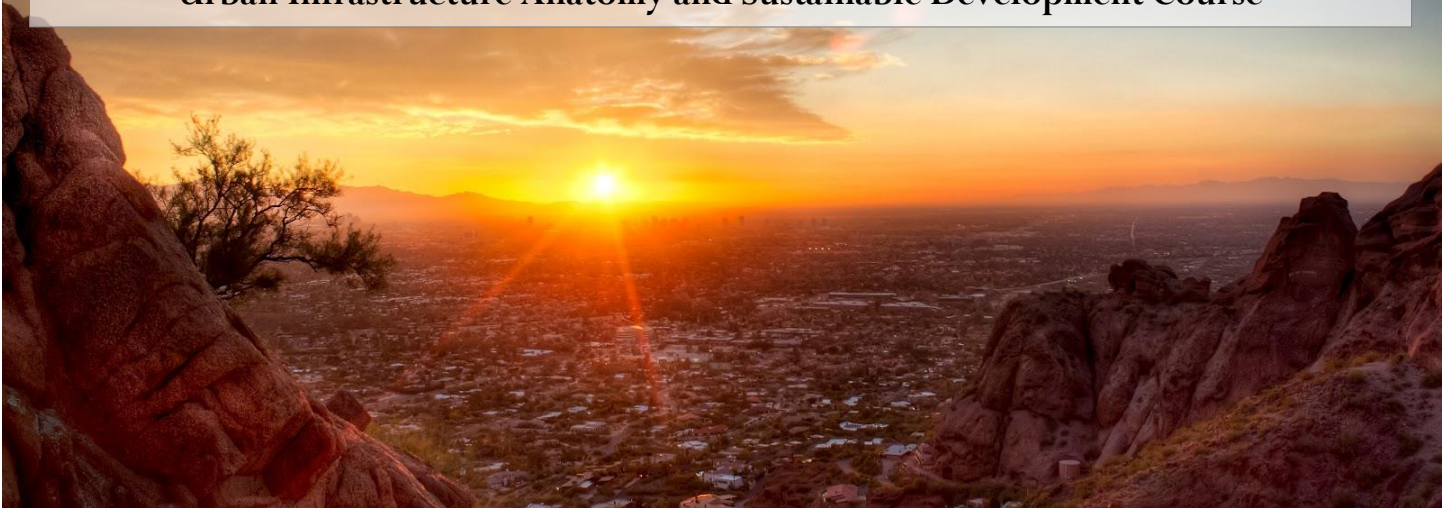


URBAN INFRASTRUCTURE DESIGN & HEAT VULNERABILITY

RETHINKING INFRASTRUCTURE IN MESA, ARIZONA

A project and presentation by ASU's **Spring 2015**
Urban Infrastructure Anatomy and Sustainable Development Course



Tuesday, April 28, 2015, noon to 1pm
Wrigley Hall 481 – Open to the Public

As the number of heat waves are expected to increase significantly into the future in the U.S. Southwest, new insight is needed into how urban infrastructure can be repositioned to protect people. In the Phoenix metro area infrastructure have largely been deployed over the past half century, during a time when climate change was not a concern. Now, as the county struggles to protect people from heat, there is a need to reassess how existing and new infrastructure can be positioned to reduce health impacts while improving sustainability. Using a neighborhood in Mesa,

Arizona as a case study, we assess how changes to transportation infrastructure, building infrastructure, and landscaping can reduce heat exposure. A number of strategies are considered including the optimal deployment of heat refuges, deploying less convective surface materials, and deploying more thermally preferable building materials. The suite of strategies could be considered by cities throughout the Phoenix metro area.

urbansustainability.lab.asu.edu