



Recommendation for Action

File #: 23-2162, **Agenda Item #:** 80.

6/8/2023

Posting Language

Approve a resolution authorizing the submittal of an application to the United States Department of Transportation Federal Highway Administration for the Development and Deployment of Innovative Asphalt Pavement Technologies grant to improve pavement performance, reduce urban heat island effect, and improve air quality.

Lead Department

Transportation and Public Works Department.

Fiscal Note

Funding in the amount of \$200,000 is available from the Fiscal Year 2022-2023 Transportation and Public Works Department Operating Budget.

For More Information:

Richard Mendoza, Interim Director, 512-974-2488; Pirouz Moin, Assistant Director, 512-974-8769; Angela Johnson, City Engineer, 512-974-8779; Gilda Powers, Administrative Manager, 512-974-7092.

Additional Backup Information:

The Transportation and Public Works Department (TPW) is applying for a United States Department of Transportation (US DOT) grant to pilot use of an innovative roadway treatments known as “cool pavement.” The ARA-1 Ti treatment is a water-based asphalt treatment that can reduce spikes in temperature by reflecting more sunlight and absorbing less heat. This pilot project will install a pavement rejuvenation maintenance treatment that offers additional sustainability benefits. TPW will also continue our partnership with the University of Texas to monitor the performance and measure outcomes of the same ARA-1 Ti material on Meinardus Drive near our South Austin Service Center.

ARA-1 Ti is a pollution-reducing, energy reflecting, asphalt rejuvenator with Titanium Dioxide (TiO₂). The asphalt rejuvenator revitalizes aging asphalt, restores flexibility, and reduces pavement cracking. The TiO₂ reflects solar radiation to reduce surface temperatures and heat absorbed by the asphalt. ARA-1 Ti also creates a roadway surface that breaks down nitrogen oxides (NO_x), volatile organic compounds (VOC) and other pollutants from vehicular exhaust to improve ground level air quality.

The asphalt treatment is safe to use and does not contain harmful chemicals.

The Federal share of the cost of this grant project shall be 80 percent with the City providing a 20 percent share of total project cost. Thus, we will be highly leveraging our pavements funding with maintenance, sustainability, and community health benefits.

An area in District #2 in southeast Austin around East William Cannon Drive has been selected for this project.