

MS-GIST Projects Spring 2023

Wednesday, April 26

** There will be 5 minute breaks between each back-to-back presentation to facilitate transitions in Zoom.*

*** Zoom links are available on request. Please contact Andrew Grogan - atgrogan@arizona.edu*

Date/Time	Presentation Title	Student Name
04/26/23 01:00 - 01:25 PM	Building a GIS Dashboard to Support TUSD Capital Improvements Bond Initiative	Pamela Keane

Building a GIS Dashboard to Support TUSD Capital Improvements Bond Initiative

Pamela Keane
pkkeane5@gmail.com

04/26/23, 01:00 - 01:25 PM

Abstract:

Many enterprises responsible for multiple facilities and a large number of assets use dashboards to visualize their operations data. Building an informative GIS dashboard for property operations and asset management requires one to consider the needs of the company administrators, combine spatial and non-spatial data from various sources, design an informative, multi-component layout, and ensure the result successfully conveys the required information to the user. This paper describes the process of building such a GIS dashboard for a particular purpose: to support a capital improvements bond initiative for Tucson Unified School District, the largest school district in Tucson, Arizona, with nearly 100 school campuses covering an area of 230 square miles. A capital bond initiative is a voter-approved measure that can provide additional financial support for major building and infrastructure repairs and maintenance for public school districts whose budget capacity for such needs has been reduced due to economic downturns and/or a lack of state-level financial support for education. Public approval is, therefore, essential. This GIS facilities' asset and real property management dashboard will be one part of TUSD's effort to inform the public. Spatial data (polygon and point feature classes) that map the neighborhoods and schools across the district and non-spatial data in the form of financial estimates, facility condition indices, and annual maintenance costs will be combined and organized in this GIS dashboard to visually engage and inform the public. This case study demonstrates how effective GIS dashboards can be for asset and property management and support.

Keywords: dashboard, GIS, facilities, management, TUSD