



Item X

**FY23 SMART Grant**  
**ELP AIRPORT CITY LAB**  
**INNOVATION ZONE: Phase I**

Goal 7: Enhance & Sustain El Paso's Infrastructure Network  
Goal 1: Cultivate an Environment Conducive to Strong, Economic Development



September 12, 2023



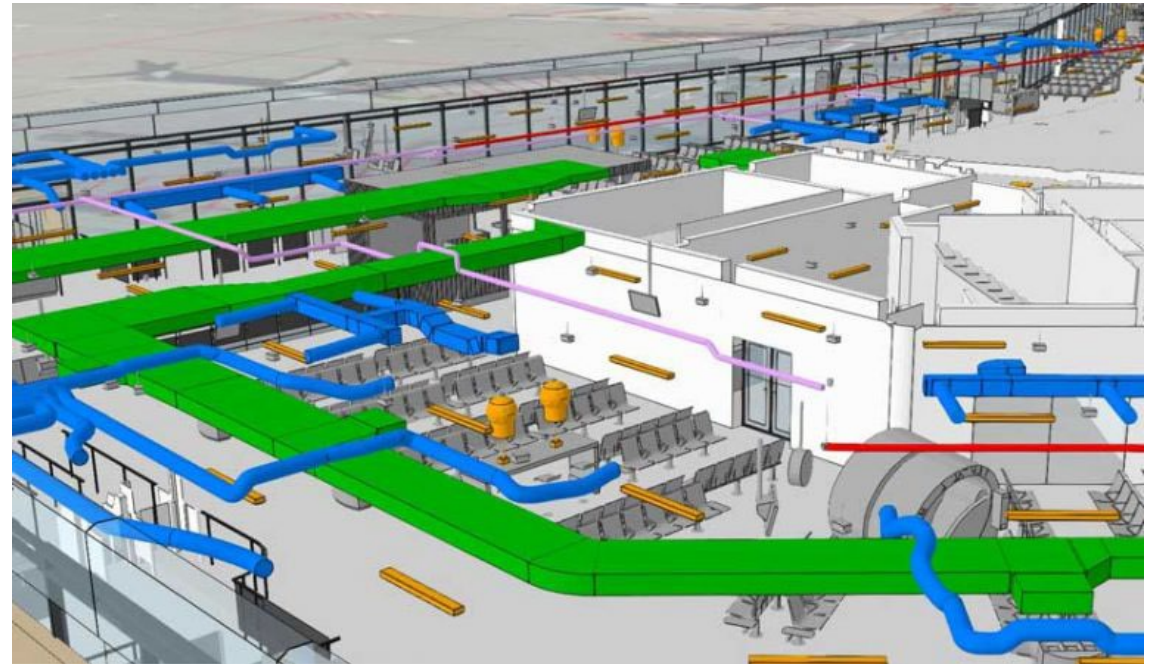


# OVERVIEW

- FY23 SMART Grant
  - Scope of Work
  - Benefits to City
  - Council Action

# Council Requested Action

City Council support for the submission of ELP Airport City Lab Innovation Zone Project to the FY23 Strengthening Mobility and Revolutionizing Transportation (SMART) federal discretionary grant program.



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# FY23 SMART Grant Program

Up to **\$2.0M** grant for phase I planning and prototyping for projects focused on advanced smart city or community technologies and systems to improve transportation efficiency and safety

**Total Funding Authorization:** \$500M

**FY23 Funding:** \$100M

**Cost-Share:** 0%

**Deadline:** October 10, 2023

## Eligible Activities:

- Coordinated Automation
- Connected Vehicles
- Intelligent Sensor-Based Infrastructure
- System Integration
- Commerce Delivery and Logistics
- Innovative Aviation Technology
- Smart Grid
- Smart Technology Traffic Signals
- Digital Twinning





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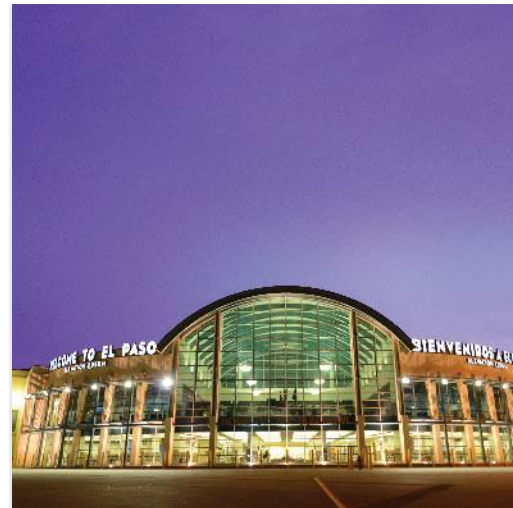
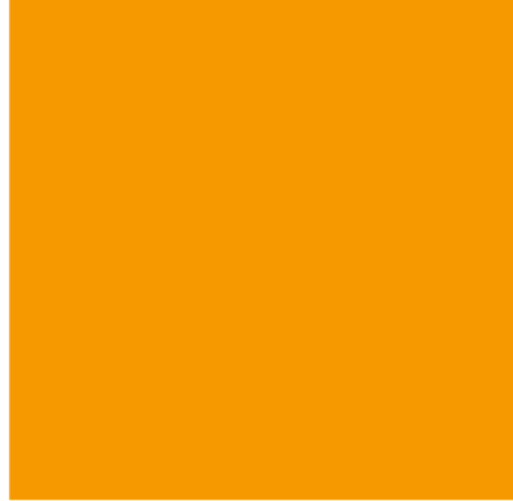
Project:  
**ELP Airport City Lab  
Innovation Zone: Phase I**

**Budget: \$2M**

**Request: \$2M (max allowed)**

**Local Match: \$0**

**Local Match Funding Source: N/A**







# Scope of Work

**ELP Airport Innovation Zone:** a designated 7,000 acre area selected to test, deploy, and scale transportation solutions for all of El Paso

## Phase I Planning and Pilot Testing:

- **Task 1: Deploy digital twinning applications** to connect existing and upcoming planning, electrification, automated vehicle, and ITS assets
- **Task 2: Expand Airport energy resiliency initiatives** to reach Biden Administration goal of [zero-carbon aviation sector](#) by 2050
- **Task 3: Improve connectivity to ELP** to increase safety, reduce traffic, and inform land development

## Project Partners



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# Project Deliverables

## Task 1: Deploy digital twinning applications

1. Develop an airport microgrid digital model connecting energy generation and storage to spatial models of airport owned buildings, leased land, and vacant land
2. Develop growth scenario models for public transit, road and highway connectivity, and land growth and utility requirements utilizing ESRI ArcGIS Urban (or alternate tech solution)
3. Evaluate transferability of ITS and energy resilience solutions to other City operations and private sector partners

## Task 2: Expand Airport Energy Resilience

1. Develop a Microgrid Asset Management Plan
2. Implement strategies in Airport Resilience Plan
3. Assess electric vehicle to grid energy storage solutions in partnership with private sector partners

## Task 3: Improve Connectivity to ELP

1. Plan and design Airport Intelligent Transportation Systems
2. Perform an Airport Service demand analysis (origin destination)
3. Integrate ITS into Sun Metro Routes (routes to and from airport)
4. Integrate International Port of Entry ITS
5. Feasibility review for Downtown to Airport BRIO Express



# Benefits to City

## Improved Planning Capacity

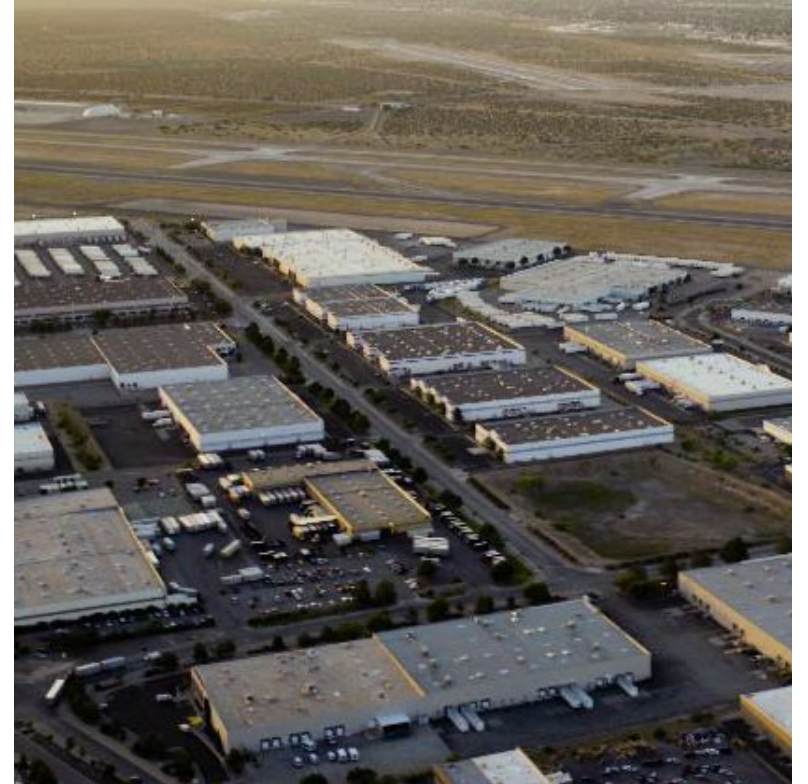
- Digital twin: avoidance of critical situations
- Energy resilience: Achieving zero-carbon goals

## Safety and Access

- Synergy with TxDOT projects
- Improved access to Airport and Fort Bliss

## Economic Development

- Support business attraction and site readiness





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# Texas Innovation Alliance (TIA)

**The Texas Innovation Alliance:** statewide voluntary professional society of public agencies, researchers, and educators that was created the Texas Department of Transportation (TXDOT) in 2016.

- Technology transfer
- Collaborative grant pursuit
- Idea exchange and dissemination



# TIA Invitational Competition

- Team El Paso is receiving TxDOT assistance for FY23 SMART grant application
- TIA Invitational Final Pitches & Innovation Zone Awards – September 19, 2023



Team El Paso

# ELP Transportation City Lab + Innovation Zone

Omar L. Martinez  
Grants and Strategic Initiatives Manager  
City of El Paso

**Target Grants:** FY23 SMART

**Technology Areas:** Digital Twinning, Intelligent Transportation Systems, Energy resilience

**Partners:** City of El Paso, El Paso International Airport, El Paso International Bridges, Sun Metro, University of Texas at El Paso (UTEP), TxDOT El Paso District, El Paso MPO, Fort Bliss, Private Sector





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## Mission

Deliver exceptional services to support a high quality of life and place for our community



## Values

Integrity, **R**espect, **E**xcellence,  
**A**ccountability, **P**eople



## Vision

Develop a vibrant regional economy, safe and beautiful neighborhoods and exceptional recreational, cultural and educational opportunities powered by a high performing government

