



FLORIDA DEPARTMENT OF TRANSPORTATION - DISTRICT VI
TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSM&O)



District Six Transportation Systems Management & Operations

Florida Automated Vehicle Summit – 2019



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Agenda

□ **District Six Overview**

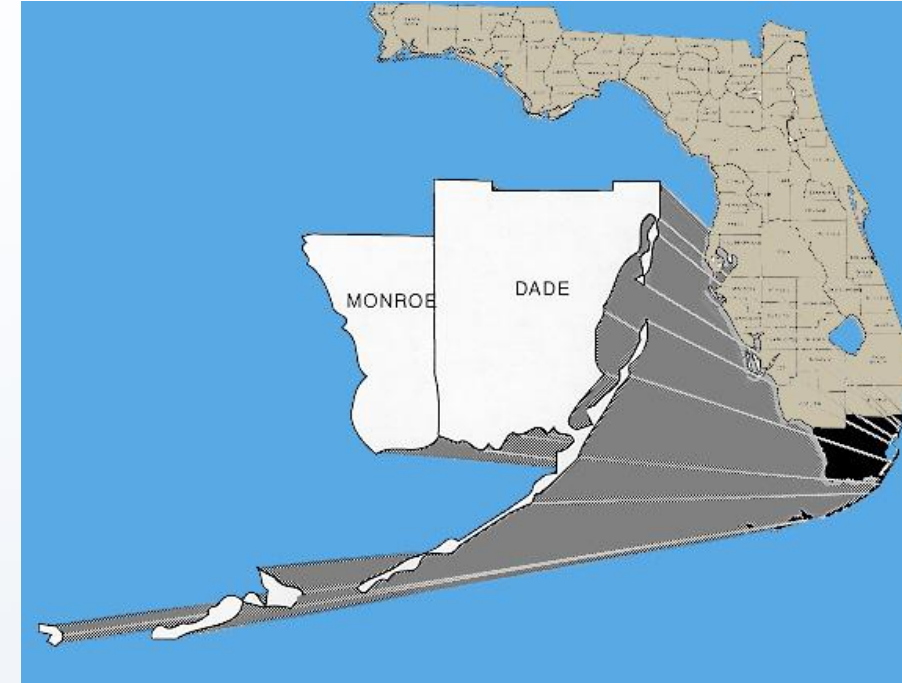
□ **District Six TSM&O Program Update**

□ **District Six Connected and Automated Vehicle Efforts and Future Opportunities**

District Six Overview

□ Miami-Dade and Monroe Counties

- Population:
 - 2.8 million residents in 2018
 - 16.9 million visitors in 2018
- Coverage:
 - 700 centerline miles
 - 270 centerline miles of ITS coverage



□ **7 Actively Managed Limited Access Facilities and Roadways**

□ **Miami is one of the Top Ten Most Congested Cities in U.S.**

District Six Overview

☐ SunGuide Transportation Management Center (TMC)

- Command and Control Center
- Collocated Agencies
- 24/7/365 Operations
- Services:
 - Freeway Management
 - Arterial Management
 - Incident Management
 - Traveler Information



District Six TSM&O Program Update

- **Operations Experiencing Year-Over-Year Growth**
- **On-Going Regional Express Lanes Network Expansion**
- **Expanding Services to Support Arterial Operations**
 - ASCT Pilot Projects
 - Traffic Signal Operations and Maintenance
- **Early Stages of Connected and Automated Vehicle Deployments**
 - Keys Connecting Overseas to Advance Safe Travels (Keys COAST)
 - Advanced Freight Mobility Solutions (AFMS)
 - Other Opportunities

Keys COAST

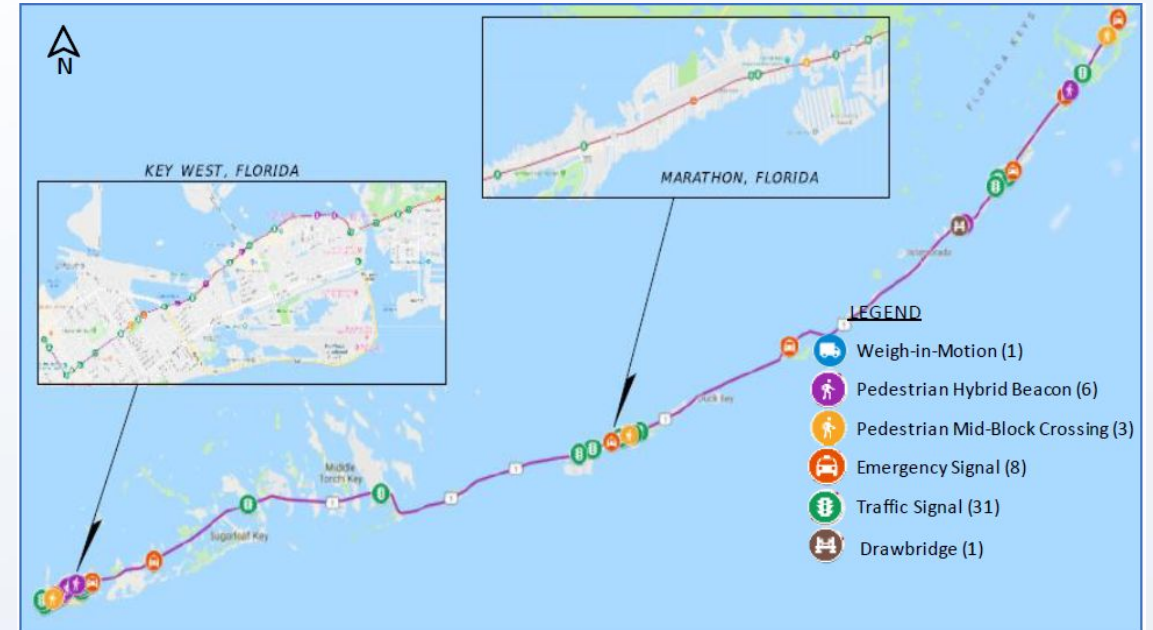
Project Overview

- **US 1 from Key West to Monroe County/Miami-Dade County line**

- **112.5 mile corridor**

- **Average Annual Daily Traffic (AADT)**
 - 11,000 to 32,000 vehicles per day

- **Average truck traffic 7% to 12%**



Florida Keys Transit Services

□ Miami-Dade Transit Bus

- Route 301 – Dade Monroe Express
- Florida City to Marathon Key (MM 50)

□ Key West Transit

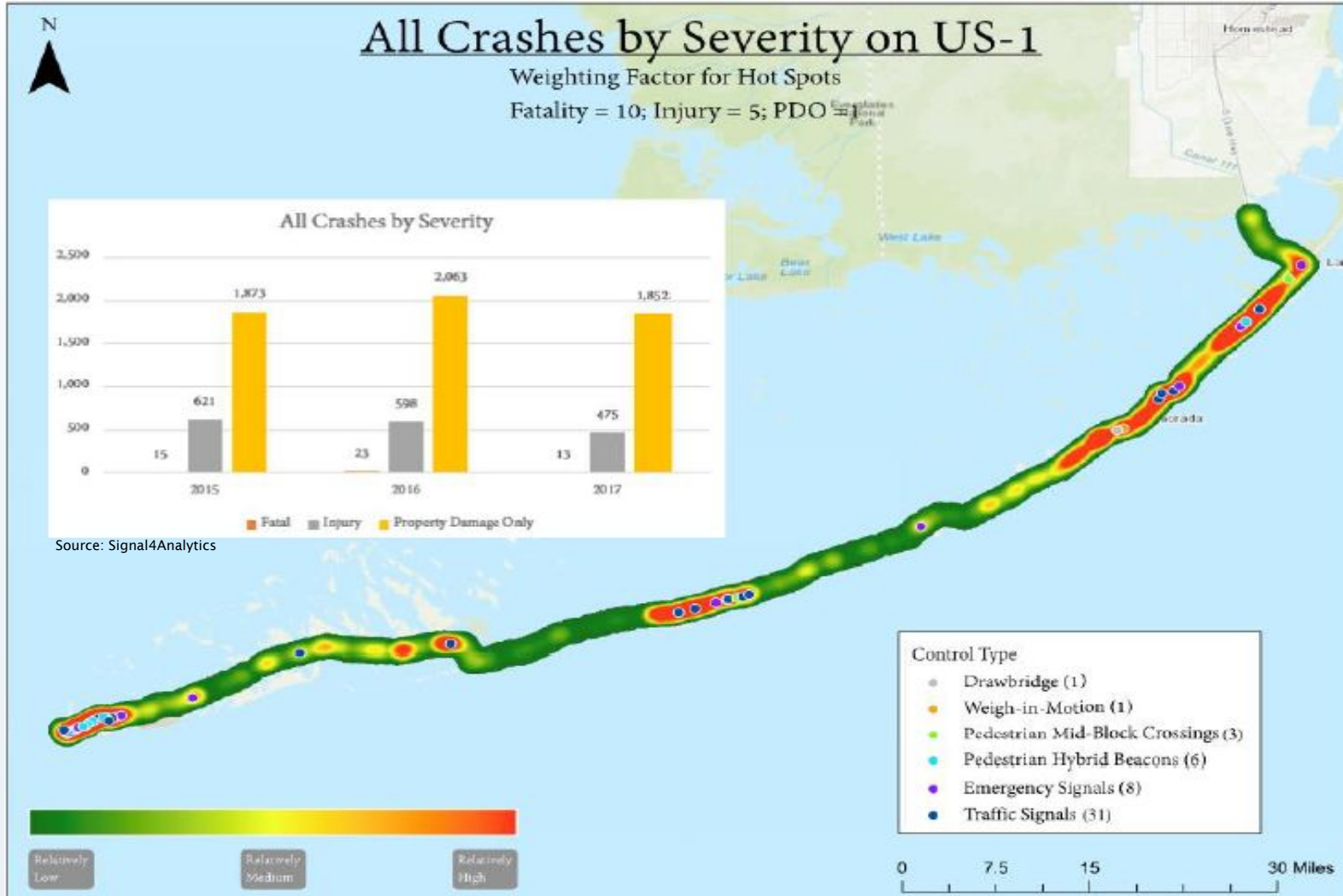
- Lower Keys Shuttle
- Other routes - Blue, Orange, Green, Red and Duval Loop



Freight Trip Generators

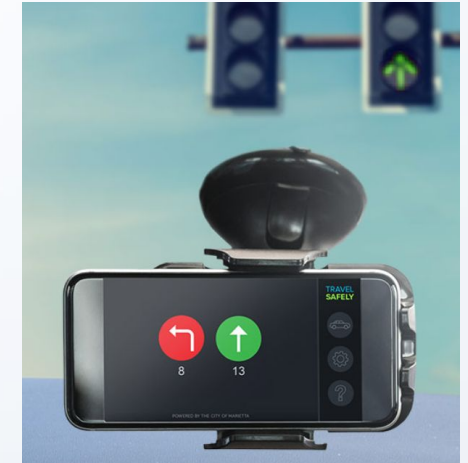


Crashes by Severity

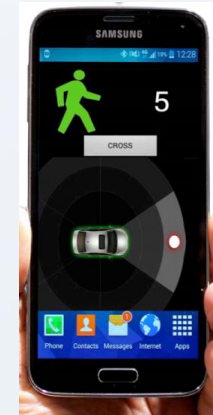


Proposed Project ARC-IT Service Packages

- CV Traffic Signal System - TM04
- Pedestrian and Cyclist Safety - VS12
- V2V Basic Safety - VS02
- Drawbridge Management - TM18
- Transit Signal Priority - PT09
- Emergency Vehicle Preemption - PS03
- Freight Signal Priority - CVO06
- Smart Roadside and Virtual Weigh in Motion (WIM) - CVO08

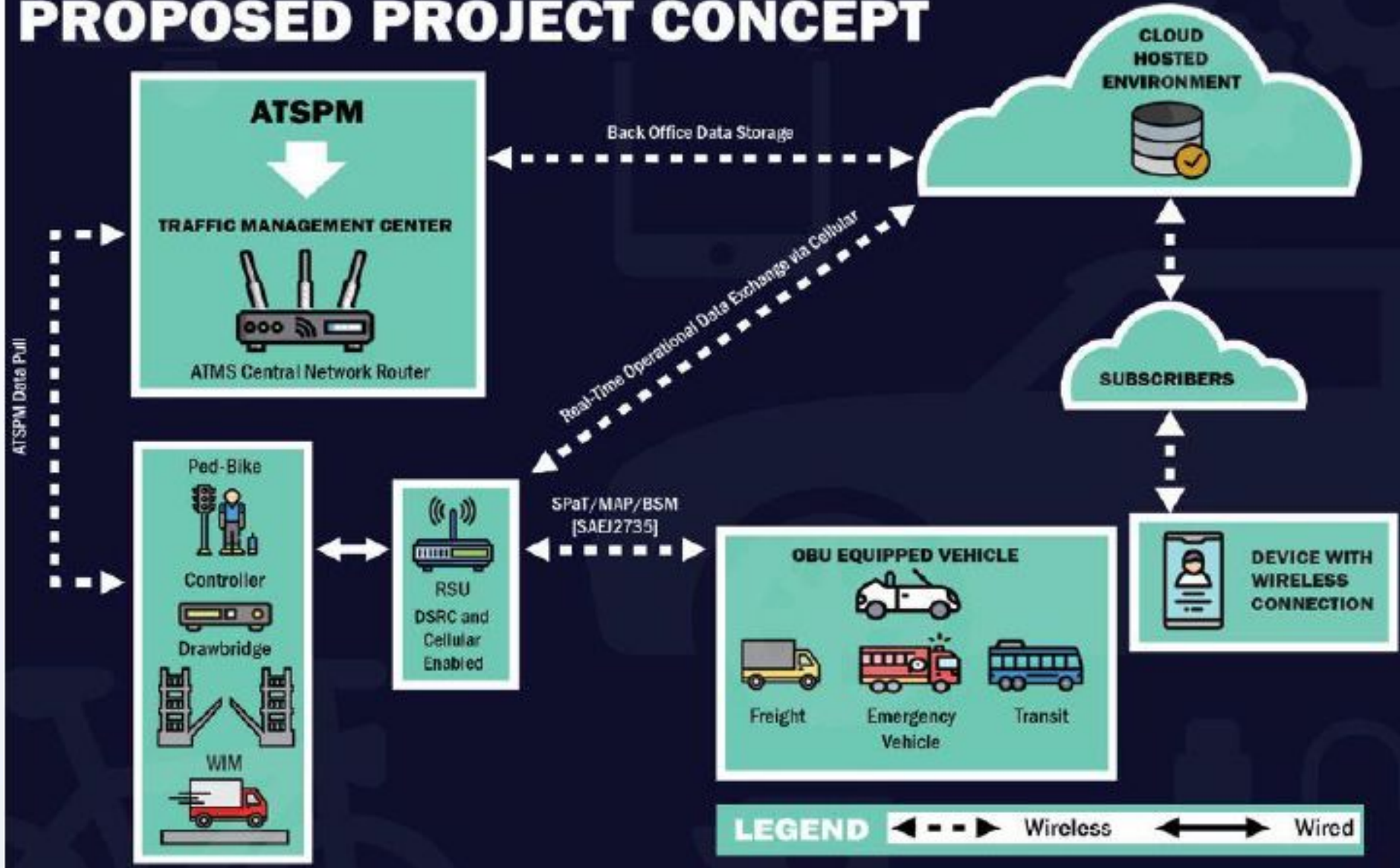


Source: Applied Information



Source: Savari

PROPOSED PROJECT CONCEPT



Cost

□ Estimated Project Cost \$ 9.02 Million

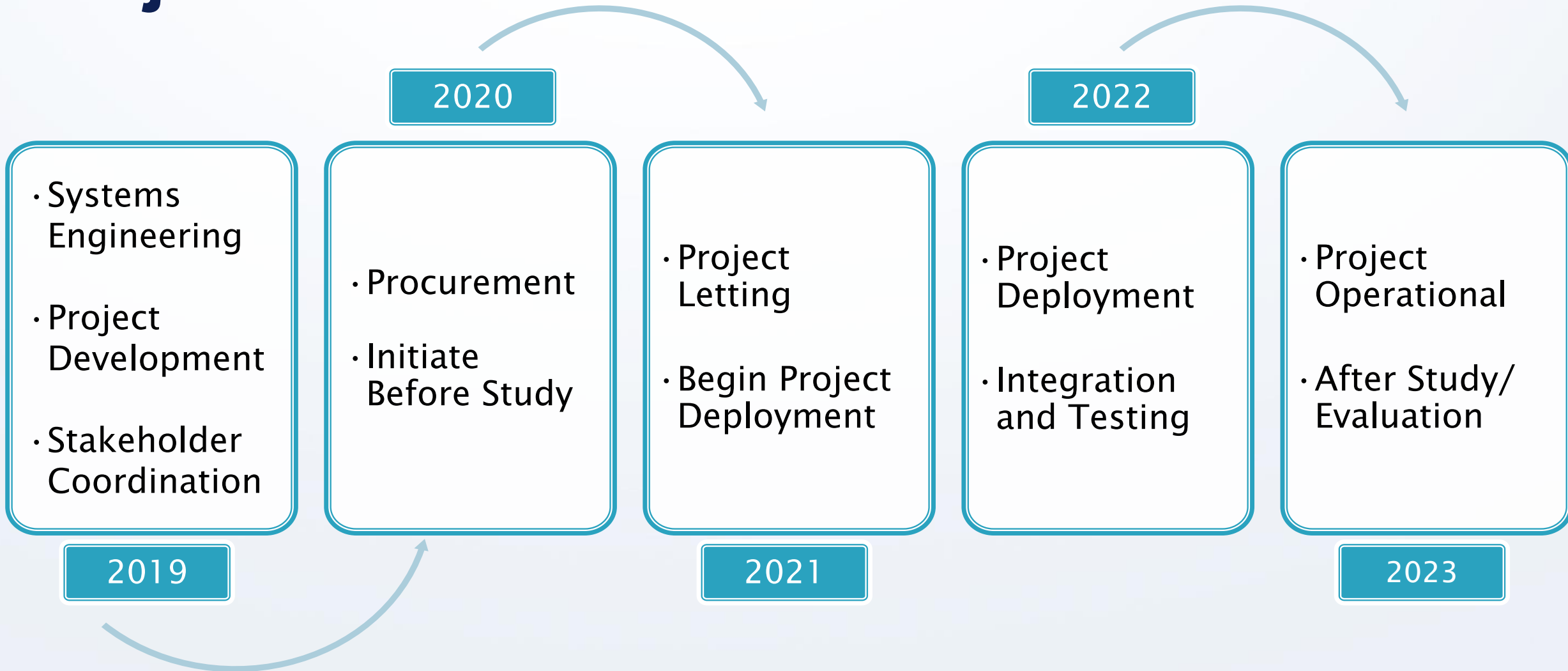
- RTMC Upgrades
- Field Upgrades
- Application Development
- Roadside Units
- On-board Units
- Before-After Evaluation

□ Partial Funding Secured \$ 4.9 Million

□ Leveraging Other District Six Contracts to Advance Project Components

Note: visit www.sunguide.info for additional project details

Project Timeline



Next Steps

- **Continue to Refine Concept**
- **Continue Stakeholder Coordination**
- **Develop Partnering Arrangements**
- **Develop RFP for Design-Build Procurement**

Advanced Freight Mobility Solutions (AFMS)

Project Goals

- Reduce congestion in the project area and leading to the National Highway Freight Network (US 27)
- Enhance economic competitiveness of the freight industry
- Reduce environmental impact of freight shipping
- Improve roadway safety
- Leverage existing & planned assets

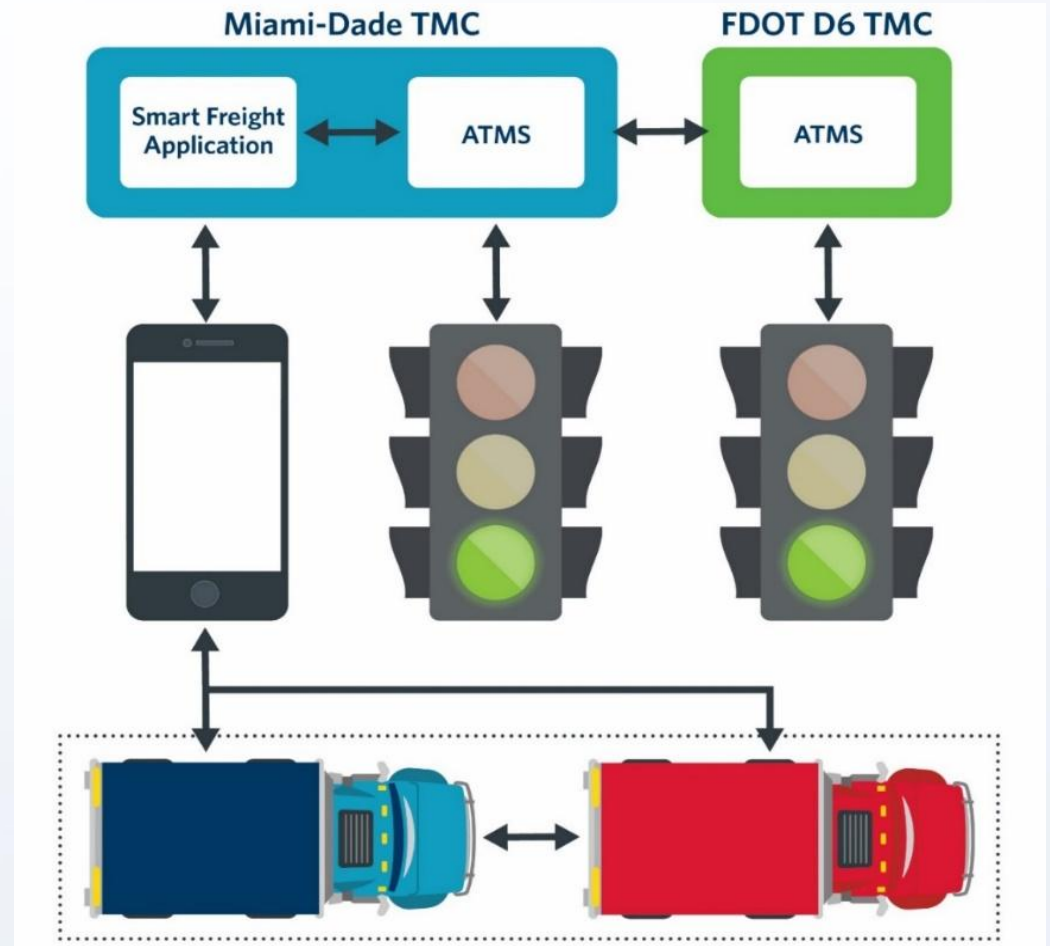


Proposed Project Approach

- **Connected Vehicle for Urban Freight Mobility in Miami-Dade County**
- **3 Phase Approach**
 - Measure existing operations
 - Baseline truck travel times and operations study through some of the project corridors completed summer 2019
 - Stakeholder engagement & deploy CV technology
 - Prioritize trucks during non-peak hours to reduce truck travel times through multiple corridors

Proposed Technologies

- Freight Signal Priority
- Connected Vehicles
- Applications
- Truck “Platooning”



Next Steps

- **Project Planning & Development**
- **Stakeholder Engagement – Private Trucking Firms
and Local Businesses**
- **Technical Technology Discussions with District Six
& Miami-Dade County**

Other Opportunities

On-Going and Future Projects

- **NW 119 Street from west of NW 32 Avenue to NW 5 Avenue**
 - Phase: Construction
 - Goal: Model TSM&O Corridor (Testbed)
 - ASCT System
 - 2070 LX Controllers
 - ATMS Central Software
 - Fiber Optic Cable
 - Support future Signal Phase and Timing (SPaT) and CAV technologies

- **Interstate 95 (I-95)**
 - Work Zone Management
 - Traffic Incident Management

Questions?