

# **SR 710 Connected Vehicle Readiness Project FM# 446551-1**



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# Agenda

FDOT's Connected Vehicle Program

District Four Project

Project Process Overview

Timeline

Key Considerations

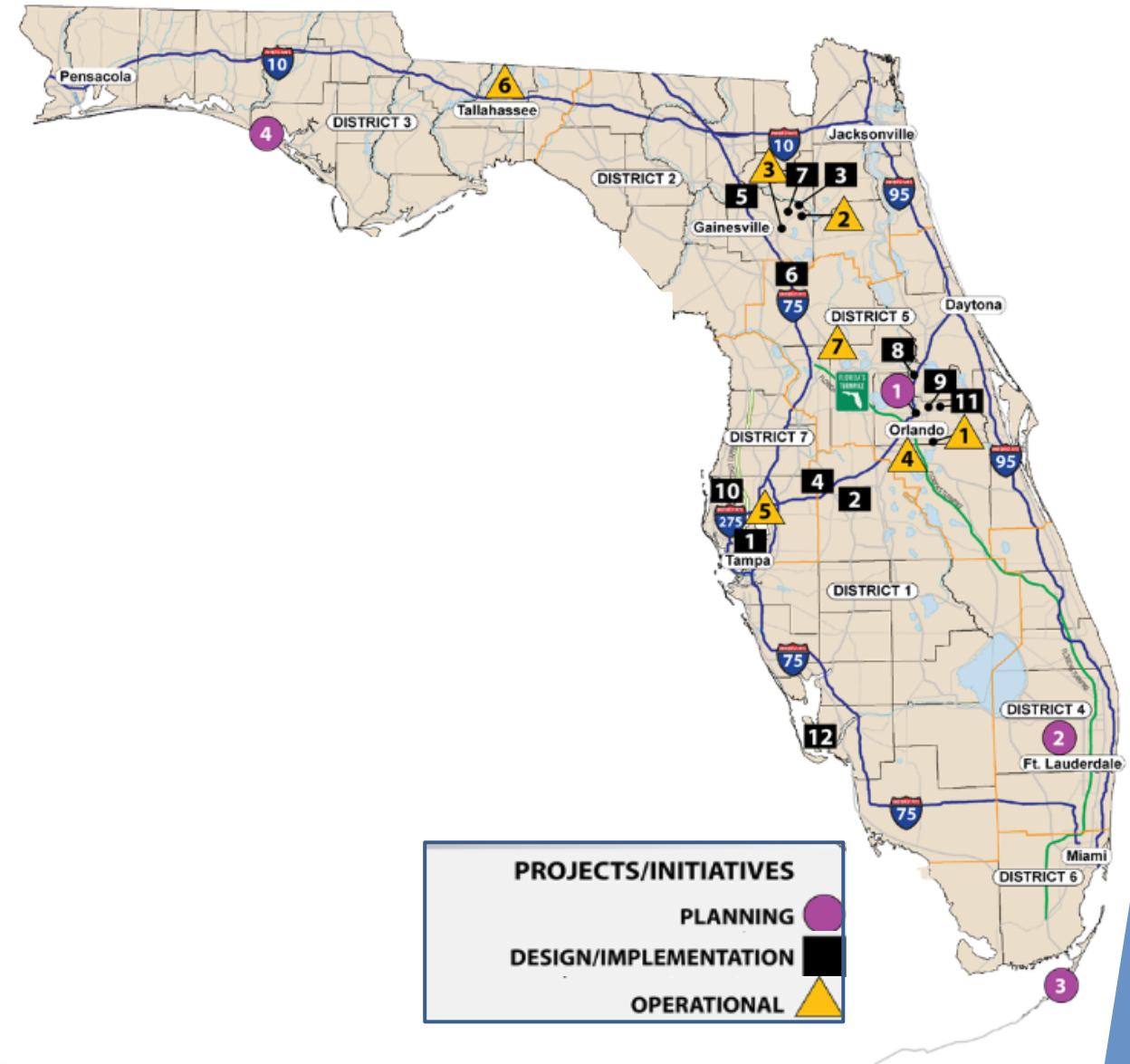
Unknowns

Next Steps

# Connected Vehicle Projects in Florida

“Connected vehicles (CV) use vehicle-to-vehicle, vehicle-to-infrastructure, and infrastructure-to-vehicle communication to exchange information between vehicles, drivers, the roadside, bicyclists, and pedestrians. The Florida connected vehicle project map is shown.”

*FDOT CV Project Deployment Website*



# Project Objective

Expand the monitoring and traffic management capabilities along SR 710 within Palm Beach County to improve:

- Travel time reliability
- Safety
- Throughput
- Traveler information

# Project Location



SR 710 From Old Dixie Highway to Palm Beach County Limits

# Project Scope

Deploy infrastructure necessary to upgrade the ATMS network along SR 710 in PBC:

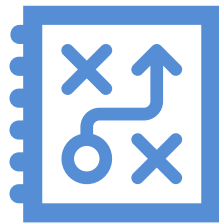
- Additional Fiber Optic Cables
- Upgrade Controller Cabinets
- Deploy other technologies that can assist with traffic monitoring where appropriate and funding allows (i.e. detection devices, digital messaging signs)

# Project Schedule



STEP 1

Outreach



STEP 2

Planning



Concept of Operations  
Systems Engineering Plan



STEP 3

Procurement



STEP 4

Design



STEP 5

Construction



STEP 6

Operations  
Hand-off



STEP 7

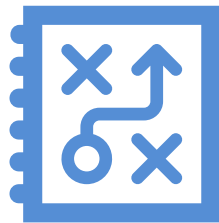
Post-  
Construction  
Assessment

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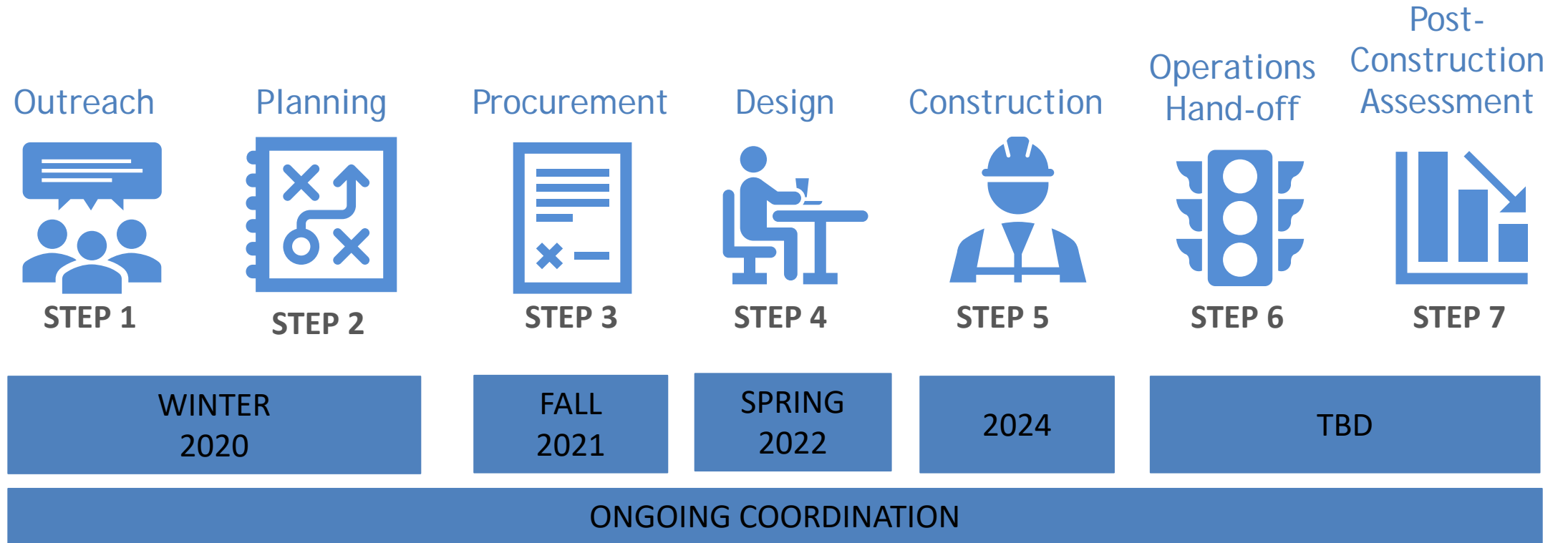
Post-  
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PBC  
PB TPA TAC  
North County Neighborhood Coalition  
Veterans Hospital  
Freight Stakeholders  
...



# Project Schedule



# Future Potential

Project makes upgrades necessary to bring this portion of the ATMS network to the next level.

## *Short Term*

Expansion of monitoring capabilities of SR 710 which begins connection of the Glades Region

## *Long Term*

Platform for Connected Vehicle applications in Palm Beach County. For example:

- Connected Freight
- Infrastructure to Vehicle Applications

# CV Platform in Palm Beach County

Establish a platform on which future Connected Vehicle (CV) applications could be enabled and implemented and evaluated overtime.

## *How*

- transmit traffic flow information from traffic signal systems and roadside sensors to a centralized location for dissemination
- real-time information on travel times in the corridor for both recurring and non-recurring congestion
- On-board units could contribute to more information available on each traffic signal the driver approaches to help with traffic harmonization (reduced stops and starts replaced by smoother flow to help motorists “arrive on green”) and potentially reduce red-light running
- Other opportunities (Cellphone Apps) could also be explored

## *What*

- Explore the potential for connections to on-board units for various fleets (e.g. Connected Transit)
- Navigation systems in private vehicles(e.g. Connected Freight).

# Pareto Optimum State

Defined as...

*A state in which no economic changes can make one individual better off without making at least one other individual worse off*

*Purely theoretical!*

# Project Unknowns

The planning phase will evaluate the following:

- Exact specifications of additional infrastructure is needed
- How to successfully integrate *new* infrastructure with *existing* infrastructure
- Specifics of Intergovernmental Agreements (MOUs and MOAs are typical of state funded transportation technology projects)
- CV platform potential
  - Ensure the **entire network is 'better off'**

# Next Steps

- ▶ Conduct the planning phase
- ▶ Document key requirements
- ▶ Continue Coordination with partners and *other projects in the area*
- ▶ Develop agreements between FDOT and PBC for operations and maintenance of system elements.

# What should we know about this route?

- ▶ What are your thoughts ?
- ▶ How can we best coordinate with you over the course of this project?
- ▶ Who else should we coordinate with that might not be present at this meeting?