

June 18, 2018



## AGENDA ITEM 7A

### CONGESTION MANAGEMENT PROCESS PLAN UPDATE

TYPE OF ITEM: Discussion

#### **STATEMENT OF ISSUE**

The consultant team for the Congestion Management Plan (CMP), RS&H, has completed an evaluation of numerous data sources to identify courses of action to address congestion and/or safety concerns identified within the area of the Capital Region Transportation Planning Agency (CRTPA). Having also met with the Technical Resource Committee for the project, RS&H is now ready to present a refined list of potential projects for inclusion within the CMP (**Attachment 1**) by the CRTPA Board.

#### **CRTPA COMMITTEE ACTIONS**

On June 5, the CRTPA's two (2) committees (Citizen's Multimodal Advisory Committee (CMAC) and Technical Advisory Committee (TAC)) received a presentation on the proposed projects within the CMP.

#### **RECOMMENDED ACTION**

Option 1: For Discussion.

#### **BACKGROUND**

As a Transportation Management Area, Federal law requires that the CRTPA develop a Congestion Management Process Plan (CMPP). This document serves to measure the system performance of transportation facilities within the planning boundary, and identifies various low-cost strategies that could be employed to improve safety, alleviate congestion, and/or maximize the mobility options available (such as operational improvements).

A final outcome of the CMP study is a prioritized list of projects that the CRTPA recommends to address the safety and congestion problems in the CRTPA area. The CRTPA local governments utilize the CMP when making decisions regarding the investment of resources in the transportation

infrastructure of the region, and the C RTPA utilizes the document to identify potential solutions to congestion that can be accomplished as a companion to the adopted Regional Mobility Plan.

The consulting for the CMP project, RS&H, has spent the last several months analyzing congestion and crash data within the C RTPA area. Trends and issues that were identified were then shared with C RTPA staff, the CMP's Technical Resource Committee, and the C RTPA Advisory Committees for their input and consideration.

#### **RECENT ACTIVITY**

A Draft list of potential CMP Projects were presented to the C RTPA Advisory Committees for review and consideration at their June 5, 2018 committee meetings. This initial list is not prioritized, but instead, organized by County and type of project – Safety or Congestion.

#### **NEXT STEPS**

Subsequent to the June Board Meeting, the Technical Resource Committee for the CMP and the C RTPA's Advisory Committees (CMAC and TAC) will meet to recommend approval of a prioritized list of projects for inclusion with the CMP. These meetings will take place over the months of June-August, with a final recommendation of approval taking place at the September C RTPA Advisory Committee and C RTPA Board Meetings. Final documentation of the CMPP will be provided to the Board following adoption of a prioritized list of CMPP projects.

#### **ATTACHMENT**

**Attachment 1:** C RTPA Congestion Management Project List

**Attachment 2:** DRAFT Presentation

CRTPA Congestion Management Projects: DRAFT  
SAFETY: FATALITIES

County	Location	Project/Strategy	Supporting Data
LEON	Springhill Rd. near Bice Rd.	Addition of approximately 1 mile of guardrail approxmately 3.3 miles south of Capital Circle SW	2 fatalities; 7 other lane departure crashes; "Curve Ahead" warning present
	Tennessee St. (Monroe St. to Capital Circle SW)	1. Exclusive bicycle/scooter accommodation west of Ocala Street 2. Bicycle-Pedestrian-Driver Education	9 fatalities: 3 scooter/motorcycle vs. Vehicle.; 1 bicycle vs. vehicle; 2 pedestrian vs. vehicle
	Crawfordville Hwy. at Shelfer Rd.	1. Lighting Study 2. Bicycle-Pedestrian-Driver Education	2 Pedestrian fatalities at night
	Pensacola St. (Appleyard Dr. to Ocala Rd.)	1. Lighting Study 2. Coordinate with StarMetro on stop location 3. Bicycle-Pedestrian-Driver Education	1 fatality and multiple serious injuries
	Woodville Highway (in Woodville)	Lighting Study	3 fatal accidents at night including one pedestrian
GADSDEN	US 90/SR 10 (West of Leon County Line)	1. Addition of rumble striping and increased signage 2. Addition of inside shoulder	4 fatalities due to lane departure near curve
WAKULLA	Spring Creek Highway at MLK Blvd.	Increased signage	3 fatalities - angle accidents
JEFFERSON	SR 20/Apalachee Pkwy at Leon/Jeffersn County Line	1. Addition of inside shoulder 2. Cross slope correction 3. Evaluation of curve radii	3 fatalities due to lane departure

SAFETY: INTERSECTION AND SEGMENT CRASHES

County	Location	Project/Strategy	Supporting Data
LEON	Calhoun St. (Thomasville Rd. to Tennessee St.)	Evaluate intersection for further need of traffic control devices	Multiple sideswipe and angle crashes near interssections and vehicles traveling over the posted speed
WAKULLA	US 98/Coastal Highway at Woodville Highway	1. New striping and improved pavement markings 2. Illuminate bicycle/multi-use path 3. Evaluate the lighting needs of the intersection	ADT: 4750 vehicles Crash Rate: 2.307 crashes/million entering vehicles
	US 98/Coastal Highway at Bloxham Cutoff Rd.	1. Addition of "CROSS TRAFFIC DOES NOT STOP" sign for Bloxham Cutoff Rd. 2. Evaluate horizontal geometry	ADT: 2100 vehicles Crash Rate: 2.174 crashes/million entering vehicles
	US 98/Coastal Highway at US 319/Sopchoppy Highway	Increase advanced warning signage for each intersection leg	ADT: 9700 vehicles Crash Rate: 2.165 crashes/million entering vehicles

CONGESTION: SEGMENTS			
County	Location	Project/Strategy	Supporting Data
LEON	Gaines St.	Projects from SW Area Study currently underway and Orange Ave improvements	V/C Ratio Buffer Time Index: Eastbound AM Peak - 2.0
	Betton Rd.	Origin/Destination Study to evaluate additional access point for Betton Hills	V/C Ratio Buffer Time Index: Westbound PM Peak - 2.71
	US 27/N. Monroe St. (John Knox to I-10)	Study feasibility of capacity improvements from Callaway Rd. to John Knox Rd.	V/C Ratio Buffer Time Index: Southbound AM Peak - 1.4
	Old Bainbridge Rd. (Tharpe St. to Macomb/Tennessee St)	Designated canopy road Land use coordination; access management	V/C Ratio
	Thomasville Rd. (Kerry Forest Pkwy to Capital Circle NE)	Thomasville Road Planning Study (Metropolitan Blvd. to Bannerman Road and Capital Circle from Raymond Diehl Road to Thomasville Road) and interchange improvements	Buffer Time Index: Southbound AM Peak - 1.39 Northbound PM Peak - 1.44
	Orange Ave. (Springhill Rd. to Monroe St.)	Southwest Area Study underway; Orange Avenue PD&E	Buffer Time Index: Eastbound PM Peak - 1.4 Westbound PM Peak - 1.58
WAKULLA	Crawfordville Rd. (Ivan Church Rd. to Harvey Mill Rd.)	Right-of-Way acquisition underway	Buffer Time Index: Northbound AM Peak - 0.62

CONGESTION: BOTTLENECKS - RECURRING CONGESTION			
County	Location	Project/Plan of Action	Supporting Data
LEON	US 90/Mahan Dr. at Capital Circle NE	Specific study to address intersection congestion; flyover included in 2040 Cost Feasible Plan	Average Daily Bottleneck Duration - 53 min
	Thomasville Rd. at N Monroe St.	Evaluate N Calhoun St. and Thomasville Rd intersection for accessibility issues and queue length problems; signal timing optimizaiton; coordination/integration of traffic information systems	Average Daily Bottleneck Duration - 28 min
	Monroe St. at Gaines St.	Signal timing optimization; coordination/integration of traffic information systems	Average Daily Bottleneck Duration - 42 min
	Monroe St. at Tennessee St.	Signal timing optimization; coordination/integration of traffic information systems	Average Daily Bottleneck Duration - 40 min
	Tennessee St. at Capital Circle NW	Signal timing optimization; access management; coordination/integration of traffic information systems	Average Daily Bottleneck Duration - 20 min
	Orange Ave at Monroe St. (Orange Ave Eastbound)	Addition of right turn lane	Average Daily Bottleneck Duration - 21 min

CONGESTION: BOTTLENECKS - NON-RECURRING CONGESTION EXAMPLE			
LEON	US 90/Mahan Dr. at Capital Circle NE	<b>Example:</b> Fatal accident on I-10 resulting in closure of I-10 westbound between Exits 203 and 209. Traffic diverted to US 90 to US 319 to I-10. Resulting bottleneck lasted from 3:10 PM until 5:10 PM with peak queue length of 4.3 miles	Continue coordination and integration of traffic information systems during events





## CONGESTION MANAGEMENT PROCESS

*CRTPA BOARD*

*JUNE 18, 2018*



# What is a Congestion Management Plan?

- Federally Required Process for MPOs with >200,000 Population
- Evaluate Congestion within the MPO Area
- Identify Recurring and Non-Recurring Congestion on Critical Corridors

# The Congestion Management Plan Will:

- Develop Tools and Strategies
  - Reduce Peak Hour Vehicle Miles of Travel
  - Improve Connectivity between Employment Centers and Areas with Concentrations of Transportation Disadvantaged
  - Support Access to Jobs
  - Reduce Congestion
- Specific, Project-based Solutions Identified to Address Congestion

# CMP Approach

- Goals and Objectives

RMP Goals	CMP Objectives
Connectivity	<ul style="list-style-type: none"> <li>Develop congestion management measures</li> <li>Reduce non-recurring congestion duration</li> <li>Evaluate travel time reliability</li> <li>Consider the full range of congestion management strategies and improve system reliability and resiliency through implementation</li> <li>Achieve acceptable LOS E</li> <li>Identify crash hotspots and strategies to improve safety</li> <li>Implement alternative access improvements</li> <li>Coordinate with land use to minimize trip lengths</li> <li>Promote multimodal connectivity through facility enhancements</li> </ul>
Accessibility	
Economic Development	
Resource Protection	
Safety and Security	
Land Use	
Public Health	
Multimodal	



# CMP Projects

- Projects on the CMP Network
  - Based on roadway functional classification
    - Includes arterials and collectors
- Data Collection and Analysis for Project Identification
  - Safety
  - Congestion
- Data Sources
  - Florida's Integrated Report Exchange System (FIRES)
  - State and Local Government Agencies
  - National Performance Management Research Data Set (NPMRDS)

# CMP Safety Projects: Fatalities

- Leon County

Location	Projects/Strategies	Supporting Data
Springhill Rd near Bice Rd	Addition of approx. 1 mile of guardrail 3.3 miles south of Capital Circle SW	2 fatalities; 7 other lane departure crashes; curve ahead warning present
Tennessee St. (Monroe to Capital Circle SW)	<ol style="list-style-type: none"> <li>1. Exclusive bicycle/scooter accommodations west of Ocala Rd</li> <li>2. Bicycle-Pedestrian-Driver Education</li> </ol>	9 fatalities: 3 scooter/motorcycle vs vehicle; 1 bicycle vs. vehicle; 2 pedestrian vs. vehicle
Crawfordville Highway at Shelfer Rd	<ol style="list-style-type: none"> <li>1. Lighting Study</li> <li>2. Bicycle-Pedestrian-Driver Education</li> </ol>	2 pedestrian fatalities at night
Pensacola St (Appleyard Dr to Ocala Rd)	<ol style="list-style-type: none"> <li>1. Lighting Study</li> <li>2. Coordination with StarMetro on stop location</li> <li>3. Bicycle-Pedestrian- Driver Education</li> </ol>	1 fatality and multiple serious injuries
Woodville Highway (in Woodville)	Lighting Study	3 fatal night crashes including 1 pedestrian

# CMP Safety Projects: Fatalities



## • Gadsden County

Location	Projects/Strategies	Supporting Data
US 90/SR 10 West of Leon County Line	1. Rumble striping and increased signage 2. Addition of inside shoulder	4 fatalities due to lane departure near curve

## • Wakulla County

Location	Projects/Strategies	Supporting Data
Spring Creek Highway at MLK Blvd.	Increased signage	3 fatalities – angle accidents

## • Jefferson County

Location	Projects/Strategies	Supporting Data
SR 20/Apalachee Pkwy. at Leon / Jefferson County Line	1. Addition of inside shoulder 2. Cross slope correction 3. Evaluation of curve radii	3 fatalities due to lane departure

# CMP Safety Projects: Intersection and Segment Crashes



## • Leon County

Location	Projects/Strategies	Supporting Data
Calhoun St (Thomasville Rd to Tennessee St)	Evaluate intersection of Calhoun and Brevard for further need of traffic control devices	Multiple sideswipe and angle crashes near intersections and vehicles traveling over the posted speed

## • Wakulla County

Location	Projects/Strategies	Supporting Data
US 98/Coastal Highway at Woodville Highway	<ol style="list-style-type: none"><li>1. New striping/improved pavement markings</li><li>2. Illuminate bicycle/multiuse path</li><li>3. Evaluate intersection lighting needs</li></ol>	ADT: 4,750 vehicles Crash rate: 2.307 crashes/million entering vehicles
US 98/Coastal Highway at Bloxham Cutoff Rd	<ol style="list-style-type: none"><li>1. Addition of "CROSS TRAFFIC DOES NOT STOP" on Bloxham Cutoff Rd.</li><li>2. Evaluate horizontal geometry</li></ol>	ADT: 2,100 Crash rate: 2.174 crashes/million entering vehicles
US 98/Coastal Highway at Sopchoppy Highway	Increased advanced warning signage for each intersection leg	ADT: 9,700 Crash rate: 2.165 crashes/million entering vehicles

# CMP Congestion Projects: Segments



- Leon County

Location	Projects/Strategies	Supporting Data
Gaines St	Projects from SW Area Study currently underway and Orange Ave improvements	V/C Ratio BTI: Eastbound AM Peak: 2.0
Betton Rd	Origin/Destination study to evaluate additional access point for Betton Hills	V/C Ratio BTI: Westbound PM Peak: 2.71
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Old Bainbridge Rd (Tharpe St to Macomb/Tennessee St)	Designated Canopy Road Land use coordination; access management	V/C Ratio
Thomasville Rd (Kerry Forest to Capital Circle NE)	Thomasville Rd Planning Study and interchange improvements	BTI: Southbound AM Peak: 1.39 Northbound PM Peak: 1.44
Orange Ave (Springhill Rd to Monroe St)	Southwest Area study underway; Orange Ave PD&E	BTI: Eastbound PM Peak: 1.4 Westbound PM Peak: 1.58

- Wakulla County

Location	Projects/Strategies	Supporting Data
Crawfordville Rd (Ivan Church Rd to Harvey Mill Rd)	Right of way acquisition underway	BTI: Northbound AM Peak: 0.62

# CMP Congestion Projects: Bottlenecks



- Recurring Congestion

Location	Projects/Strategies	Supporting Data
US 90/Mahan Dr at Capital Circle NE	Specific study to address intersection congestion; flyover included in 2040 Cost Feasible Plan	Average Daily Bottleneck: 53 minutes
Thomasville Rd at N. Monroe St	Evaluate N. Calhoun St and Thomasville Rd for accessibility issues and queue length problems; signal timing optimization; coordination/integration of traffic information systems	Average Daily Bottleneck: 28 minutes
Monroe St at Gaines St	Signal timing optimization; coordination/integration of traffic information systems	Average Daily Bottleneck: 42 minutes
Monroe St at Tennessee St	Signal timing optimization; coordination/integration of traffic information systems	Average Daily Bottleneck: 40 minutes



# CMP Congestion Projects: Bottlenecks

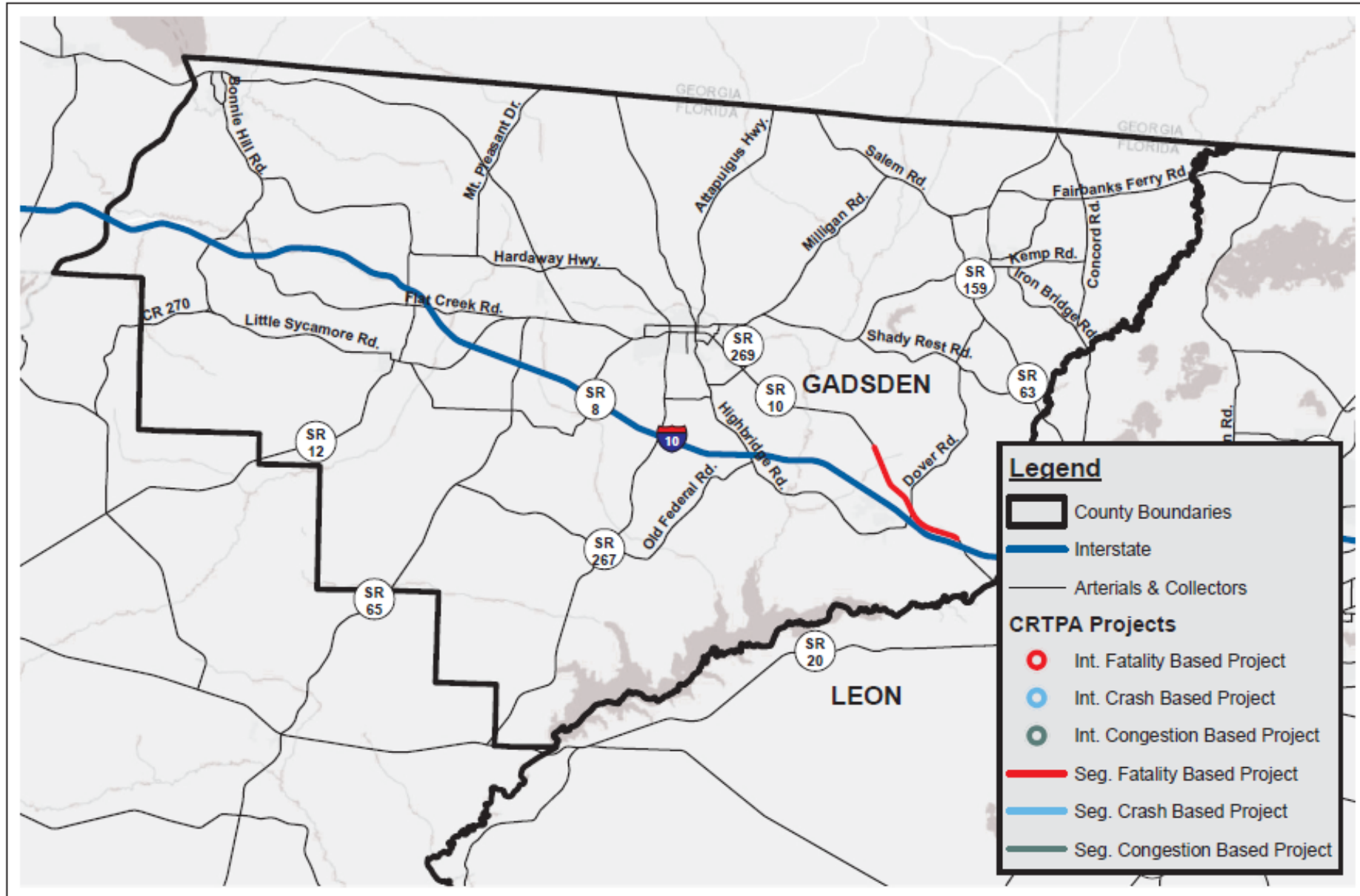
- Recurring Congestion

Location	Projects/Strategies	Supporting Data
Tennessee St at Capital Circle NW	Signal timing optimization; access management; coordination/integration of traffic information systems	Average Daily Bottleneck: 20 minutes
Orange Ave at Monroe St (Orange Ave Eastbound)	Addition of right turn lane	Average Daily Bottleneck: 21 minutes

- Non-recurring Congestion Example

Location	Example	Strategy
US 90/Mahan at Capital Circle NE	Fatal accident on I-10 resulting in closure of I-10 westbound between Exits 203 and 209. Traffic diverted to US 90 to US 319 to I-10. Resulting bottleneck lasted from 3:10 PM until 5:10 PM with peak queue length of 4.3 miles	Continue coordination and integration of traffic information systems during events

# CMP Congestion Projects: Gadsden Co.



Created: 5/31/2018

Page: 1 of 4



**RS&H**

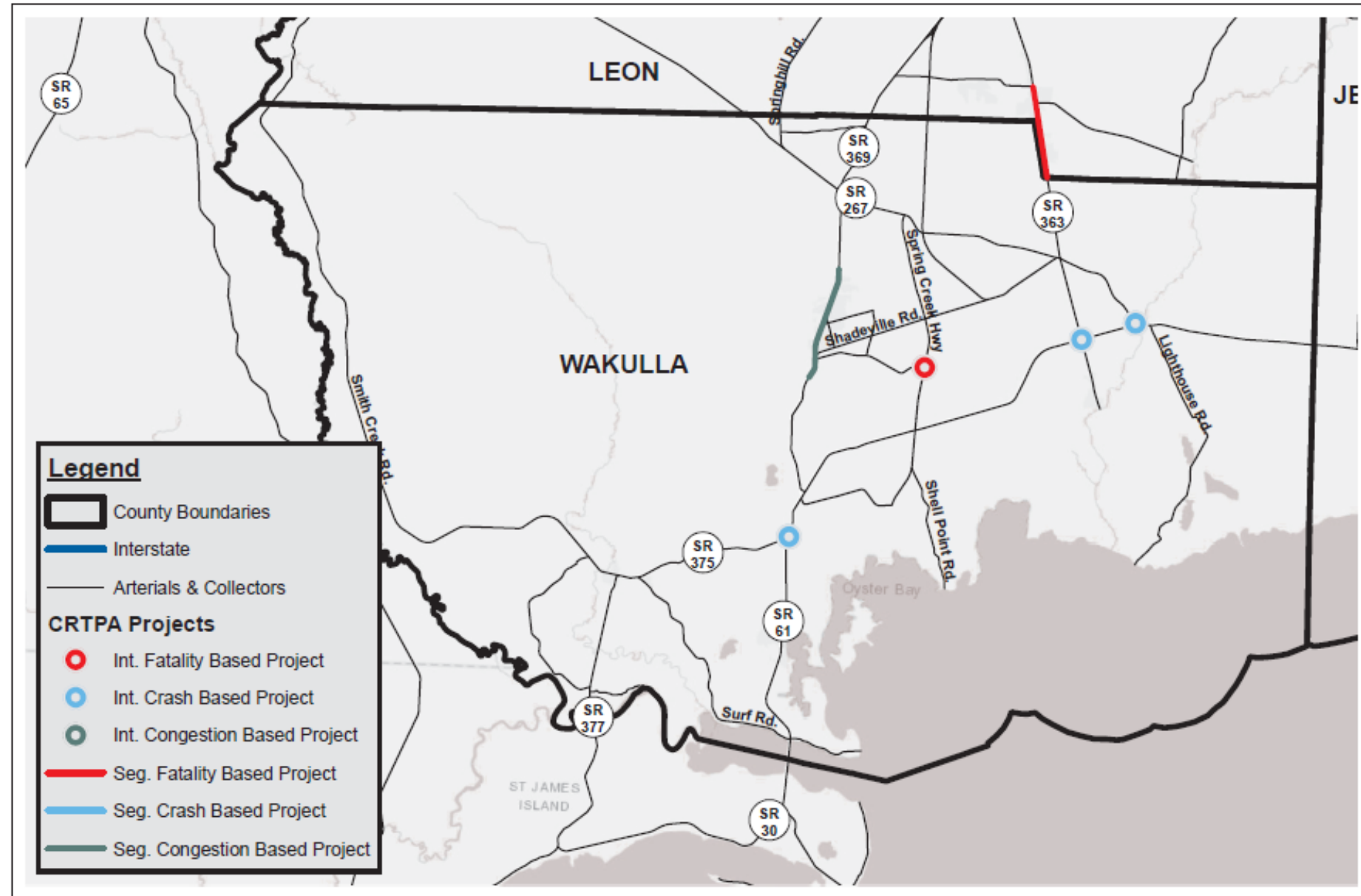


**CRTPA Congestion Management Projects**

0 2.5 5 10 Miles

Gadsden County, FL

# CMP Congestion Projects: Wakulla Co.



Created: 5/31/2018

Page: 2 of 4



**RS&H**

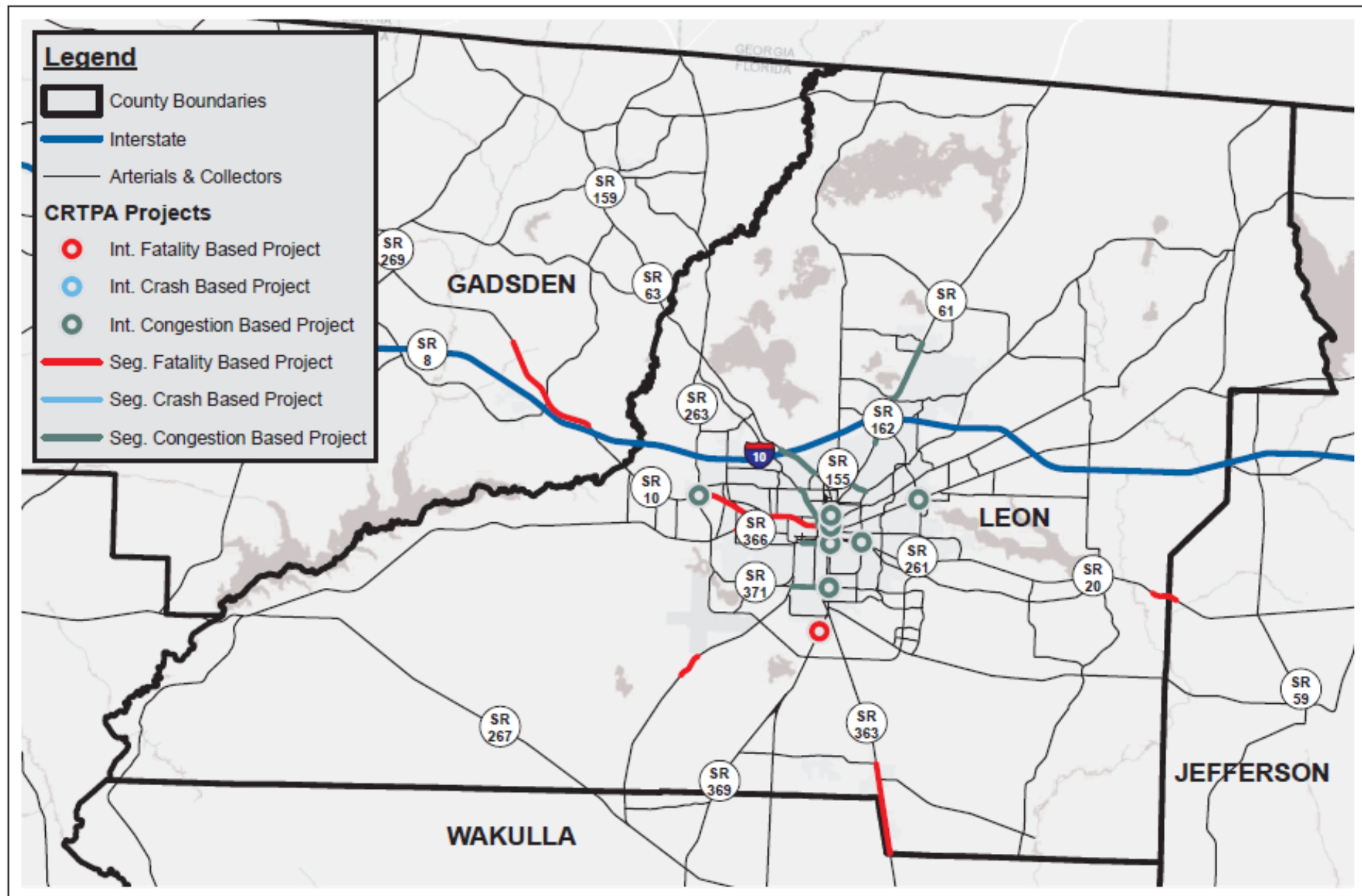


**CTRPA Congestion Management Projects**

0 2.5 5 10 Miles

Wakulla County, FL

# CMP Congestion Projects: Jefferson and Leon Co.



Created: 5/31/2018

Page: 3 of 4



**RS&H**



**CTRPA Congestion Management Projects**

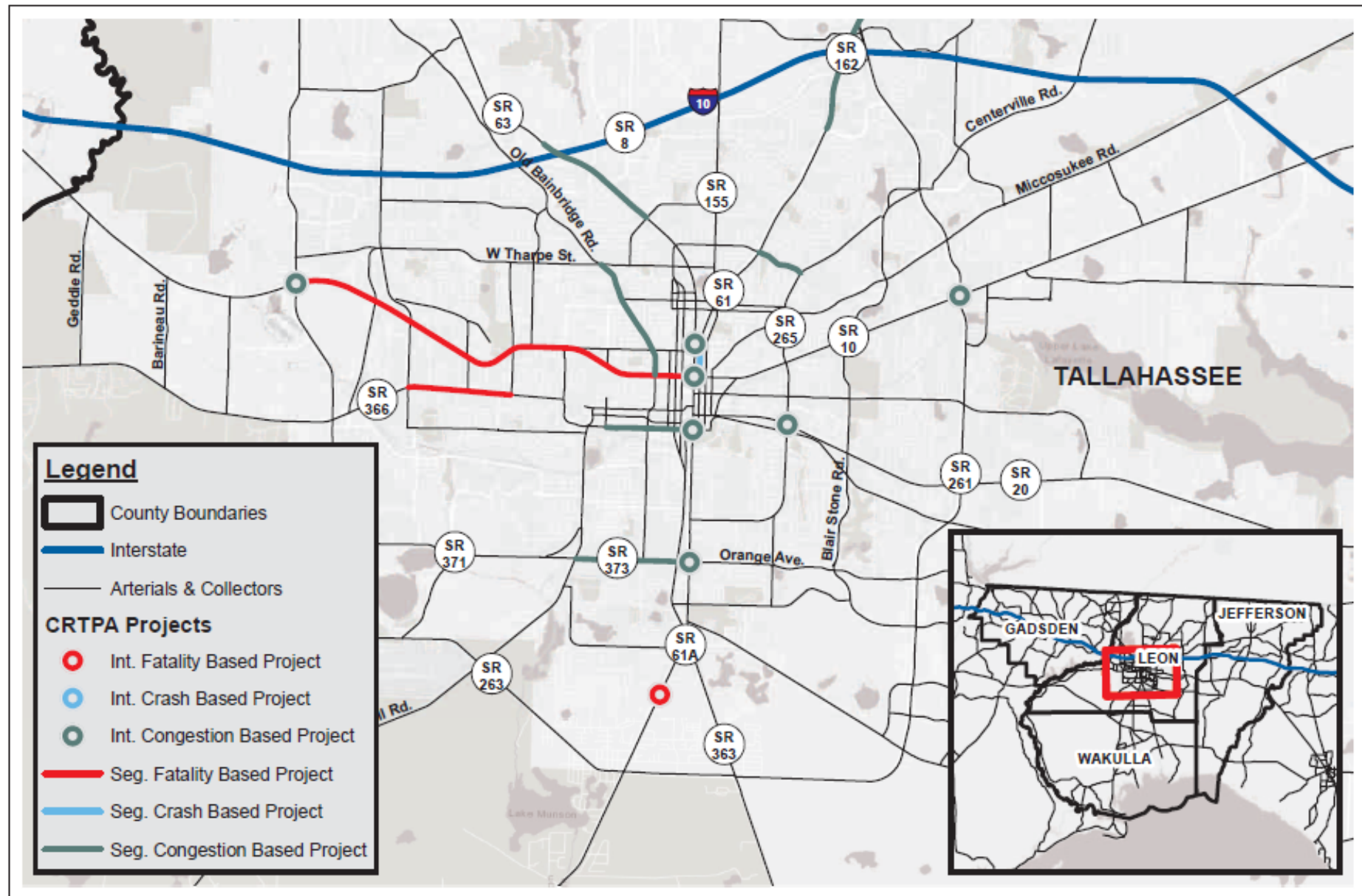
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Leon/Jefferson County, FL



# CMP Congestion Projects:

## City of Tallahassee



Created: 5/31/2018

Page: 4 of 4



**RS&H**



**CTRPA Congestion Management Projects**

0 0.75 1.5 3 Miles

Tallahassee, FL

# Next Steps

- Review/Refine Draft Project List
- Develop Project Cost Estimates
- Identify Project Benefits vs. Costs
- Prioritized and Finalize Project List
- Complete Documentation



*QUESTIONS?*

