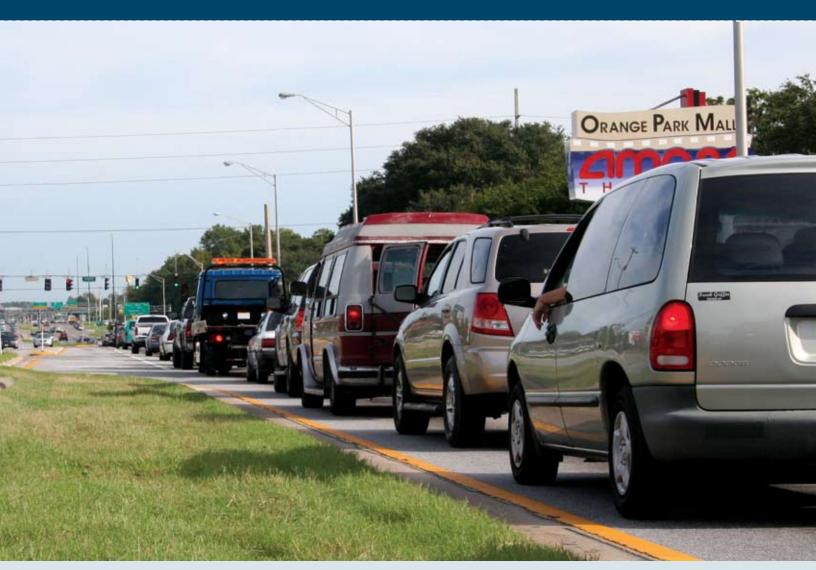
# **CLAY COUNTY ITS FEASIBILITY STUDY**



**Summary of Recommendations** 



## Present

#### Overview

Clay County commuters know the perils of driving to and from work on Blanding and Roosevelt Boulevards. Even though Branan Field Chaffee Road has provided some relief, there are no other alternatives for north-south travel and these congested roads don't have enough right-of-way to expand. Frustrated drivers have even been calling 911 just to ask why traffic was backed up!

As this situation became more and more dangerous, with the potential to affect emergency service response times, the Town of Orange Park sought help from the First Coast MPO to find solutions. We needed to find a way to maximize the efficiency of the existing road system and provide drivers with information to make informed choices. Intelligent Transportation Systems (ITS) use technology to collect and analyze traffic data, and provide helpful traffic information to the public.

A steering committee was formed including Orange Park City Manager John Bowles and representatives from the Clay County Planning Department Traffic Operations, Florida Department of Transportation, Orange Park Police Department, NAS Jacksonville and the Clay County Commission. The study goals were to:

- Evaluate Short-term Traffic Management Strategies
- Enhance Traveler Information Services
- Improve Efficiency Of Emergency Services By Reducing 911 Calls

## **Current Projects**

- This year the Florida Department of Transportation launched the traffic and travel information system in Northeast Florida. By calling 511 from your cell phone or landline, you can obtain up-to-date traffic information including accidents, congestion and construction for I-295, I-95, I-10 and I-75, as well as alerts for incidents on major roadways. The jax511.com web site provides this information on a map along with camera images that are refreshed every five minutes.
- Traffic cameras that send live images to the Orange Park Police Department were just installed on US 17 at the north and south-bound ramps for I-295, Wells Road, Loring Avenue Stiles Avenue and Kingsley Avenue. These cameras help the police respond quickly to accidents and will be integrated into the 511 system by the end of 2008.
- Traffic camera installation on I-295 from I-95 South to I-10 is in process and expected to be completed by the end of 2007. These cameras will be available on jax511.com.



## **Study Recommendations**

The study recommendations are divided into two phases: Phase 1 Strategies are short term recommendations than can be implemented over the next one to two years and Phase 2 Strategies are longer terms solutions.

### **Phase 1 Short Term Strategies**

#### **Targeted Public Information/Education Program**

Develop a program to increase awareness of traffic information available on the 511 phone and web systems through outdoor advertising, mailing inserts, print ads and public service announcements targeting Clay County commuters.

## **Traffic Team Probe Vehicle Program**

If you've driven in the Orlando area, you may be familiar with the SunPass™ transponders that are used by drivers on the express-ways to pay tolls without stopping. In fact, more than three million transponders are already being used by Florida drivers. When sensors are installed at intervals along a road, these transponders can also be used to provide point-to-point travel times that can be reported to the public. To provide travel time information for Roosevelt and Blanding Boulevards, we would give away 1,000 transponders to volunteers who commute on these roads and want to be part of the "Traffic Team" solution. Participation would be private and confidential, and the data collected would be anonymous.

#### **Emergency Vehicle Preemption**

With Orange Park Medical Center at the epicenter of traffic congestion, it is critical that improvements be made to help emergency vehicles to reach it as quickly as possible. Emergency vehicle preemption would allow emergency vehicles approaching an intersection to communicate with the traffic signal controller and extend the green time or interrupt the cycle to change the light to green. This allows first responders to arrive faster and saves lives and property.

#### Portable Traffic Management System

A portable traffic management system that provides traffic counts, cameras and message signs radio is a temporary cost-effective solution and allows testing to determine the best locations for permanent installation. This portable system could also be quickly deployed in case of emergencies or to manage traffic for special events.



## Phase 2 Long Term Arterial Management System

#### Fiber Optic Cable Network

To support the bandwidth needed for dynamic message signs, traffic cameras and other communications technologies, the fiber optic cable network must be expanded.

#### **Message Signs**

You may have already seen the overhead signs on the interstate alerting you to congestion ahead or giving travel times. The message signs for Blanding and Roosevelt Boulevards would be smaller than the interstate signs and designed to fit in with the area. They would be permanently installed at approximately eight locations based on the testing results from the portable traffic management systems.

#### **Traffic Cameras**

In addition to the cameras currently installed on Roosevelt Boulevard, and in the process of installation on I-295, cameras would be a valuable tool on Blanding Boulevard to detect accidents and congestion, ensure message signs are working properly and provide the public with camera views on the jax511 site and other web sites.

## **Automated Red-light Enforcement**

The steering committee and the public have raised red-light running as a cause of gridlock and accidents. Automated red-light enforcement is used in other cities and is sometimes controversial. This technology involves cameras at intersections taking photos of those running red lights and transmitting license plate data to generate a ticket mailing. The program could be self-funded through a contractor who would share in the ticket revenues, however there would need to be further discussion and consensus-building before this type of program could be implemented.

#### Integration with Regional Transportation Management Center (RTMC)

In the next one to two years, the Florida Department of Transportation and Jacksonville Transportation Authority will begin constructing a regional transportation management center. The center will house traffic, transportation, law enforcement and emergency services personnel in one location to better coordinate efforts across disciplines and jurisdictions. It is recommended that Clay County invest in the necessary hardware, software and communications required for integration to benefit from the regional coordination of emergency and operations management.

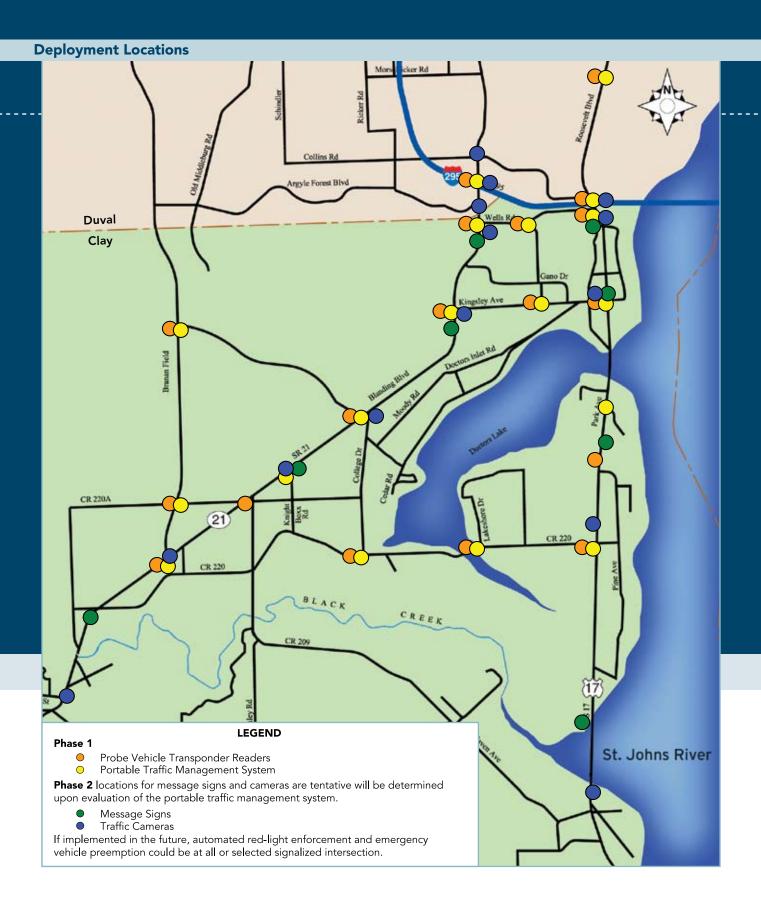
#### **Motorist Assistance Patrols**

The Florida Department of Transportation "Road Rangers" patrol interstates, providing free assistance to disabled motorists and helping the Florida Highway Patrol at accident scenes. A similar service could be developed for northern Clay County to remove accidents more quickly, resulting in fewer secondary crashes and delays. Having these patrols staged to serve Blanding and Roosevelt Boulevards would require coordination with service providers and face the challenge of reaching accidents scenes with few shoulders or ways to bypass traffic.

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To implement the recommended strategies, funding sourcesmust be identified. Once funding has been secured, project planning, design and construction will be staged as the funding becomes available.

Element	Capital Costs	Annual Operating &				
		Maintenance Costs				
Short Term Recommendations						
Targeted Public Information Program	\$100,000	\$15,000				
Traffic Team Probe Vehicle Program	\$500,000	\$40,000				
Emergency Vehicle Preemption	\$560,000	\$64,000				
Portable Traffic Management System	\$606,000	\$215,000				
Subtotal Phase 1 Program	\$1,766,000	\$334,000				
Long Term Solutions						
Communications Improvements	\$819,000	\$39,375				
Message Signs	\$600,000	\$48,000				
Traffic Cameras	\$316,000	\$8,500				
Automated Red Light Enforcement	\$700,000	\$25,000				
Engineering	\$365,250					
Construction Engineering	\$365,250					
Integration with RTMC	\$365,250	\$35,000				
Contingency	\$487,000					
Motorist Assistance Patrols		\$350,000				
Subtotal Phase 2 Program	\$4,017,750	\$505,875				





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