

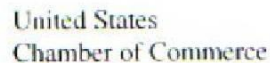


Saving lives  
through research  
and education

# Florida Transportation Commission

October 1, 2008



The logo for America's Transportation Award features the words "AMERICA'S" in red and "transportation award" in blue, with a red star and a rainbow arc.

# FLORIDA DEPARTMENT OF TRANSPORTATION: Winner for *On Time* – Small Project

## Winner for “On Time”—Small Project Florida Department of Transportation Bird Road & Homestead Toll Plazas Open-Road Tolling, Miami-Dade County

Florida’s Turnpike Enterprise, a business unit of FDOT, modified two toll plazas on Florida’s Turnpike in Miami-Dade County to accommodate “open-road tolling lanes.” Such lanes allow SunPass transponder users to zoom through the toll area at regular freeway speeds. Project development and construction was completed in only seven months at the Bird Road and Homestead toll plazas.

The addition of three express toll lanes in each direction at Bird Road and two lanes at Homestead improved safety and provided better service to SunPass customers, allowing them to whiz through the toll plaza without having to slow down.

“I am very proud of our team and our partners for completing this important project in less than one year,” said Jim Ely, the turnpike’s executive director. “This project significantly reduces congestion on the turnpike, moving Floridians and our visitors more effectively.”



*Florida’s Turnpike Enterprise modified two toll plazas to accommodate “open-road tolling lanes.”*



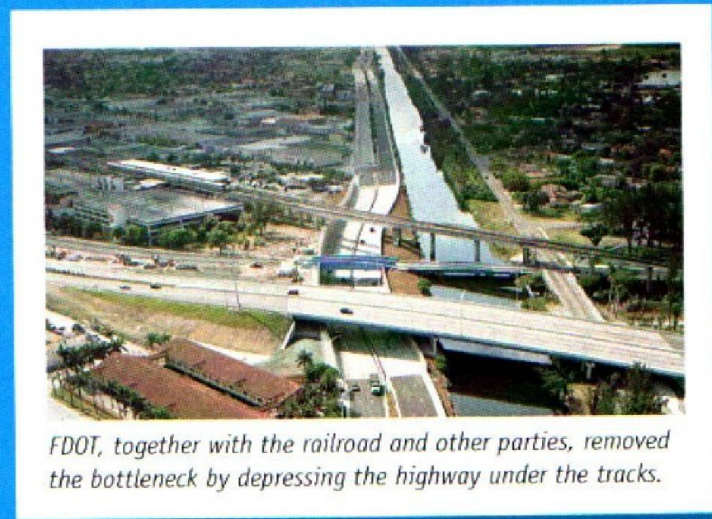
# FLORIDA DEPARTMENT OF TRANSPORTATION: Winner for *Innovative Management* – Medium Project

**Winner for “Innovative Management”—Medium Project**  
**Florida Department of Transportation**  
**SR 25 (Okeechobee Road) Depressed Section, Hialeah**

State Road 25 (Okeechobee Road) is a major east/west corridor in Miami-Dade County. An active Florida East Coast Railroad grade crossing between West 12th Avenue and West 19th Street in Hialeah, with up to 26 train crossings per day, created substantial traffic congestion. FDOT partnered with the railroad, Miami-Dade County Transit, the city of Hialeah, and other parties to remove the bottleneck by depressing the highway under the train tracks.

The \$37 million project rebuilt a quarter-mile section of SR 25, adding one new lane in each direction in addition to sinking the road to allow trains to pass overhead. Significant improvements in traffic flow on this important corridor have been realized thanks to the project’s completion.

“Innovative projects such as this one allow us to achieve our mission of providing a safe and efficient transportation system for the people of Florida,” said FDOT Secretary Stephanie Kopelousos.



# AAA Auto Club South

- Founded in 1938 at Tampa Motor Club with 97 members
- Now the 4<sup>th</sup> largest AAA affiliate in North America serving 4.1 million members in Florida, Georgia, West & Middle Tennessee and Puerto Rico
- Part of Auto Club International, Inc. – holding company comprised of AAA Auto Club South and CAA Quebec
- Public purpose is, “To protect and advance freedom of mobility and improve travel safety.”





# AAA Foundation

- Established in 1947
- 501(c)(3) Not-For-Profit
- Research affiliate of AAA/CAA
- North American Focus





# Mission

- Identify traffic safety problems
- Foster research that seeks solutions
- Disseminate information and educational resources

# RESEARCH PLANS





“Safer drivers in safer vehicles on safer roads”



## Imagine a day when...

- State and local authorities are able to allocate resources based on real world risks
- Safety conscious consumers who purchase 4-star cars can identify and choose to drive on 4-star roads
- A motorist will get a map or program their in-vehicle navigation system that shows the safest route from A to B

## Road Assessment Programs

- EuroRAP began in Europe 2000
  - consortium of auto clubs and highway agencies
  - focuses on safety of national and international highway systems
  - now involves over 20 countries
- AusRAP began in Australia in 2003
  - formed by auto clubs
  - monitors national highway network and some state systems
  - recently expanded to New Zealand (KiwiRAP)



## Road Assessment Programs

- usRAP began in 2004
  - sponsored by AAA Foundation for Traffic Safety
  - pilot testing underway to adapt RAP concepts for application in the U.S.
  - nearing end of testing stage in 2008
  - a Canadian RAP program (CanRAP) is under discussion



## Road Assessment Programs

- iRAP organized in 2005
  - coordinates EuroRAP, AusRAP, and usRAP activities
  - implements RAP programs in low and middle income developing countries

## usRAP Background

- Unacceptably high socio-economic toll from traffic crashes
- Culture of complacency
- Under-investment in safety
- Road safety management can be enhanced with more money & new tools
- Politics vs. evidence-based decisions

## usRAP Background

- Data limitations in many agencies
- Variation in analysis & evaluation tools
- Insufficient appreciation of relative contribution of vehicle, operator & road factors
- No national system to assess road safety risks
- Little transparency

## usRAP Objectives

- Help cut death and serious injury rates through systematic risk assessment
- Ensure that strategic decisions are linked to risk assessment
- Forge partnerships among those responsible for a safe road system
- Better information and guidance to motorists
- Improved crash data record systems

## usRAP Pilot

- Initiated in 2004
- Phase I pilot report (IA & MI) released 2006
- Phase II (FL & NJ) completed 2007
- Phase III 2007-2008
  - Continued expansion
  - RPS development
  - Risk communication

## usRAP Team

- Sponsor:
  - ✓ AAA Foundation for Traffic Safety
  - ✓ FIA Foundation for the Automobile & Society
  - ✓ iRAP
- Research Team:
  - ✓ Midwest Research Institute
  - ✓ Iowa State University



## usRAP Advisory Panel

- AASHTO
- AHU & RSF
- ATSSA
- Auto clubs
- FHWA
- ITE
- NACE
- Local highway agencies
- State highway agencies



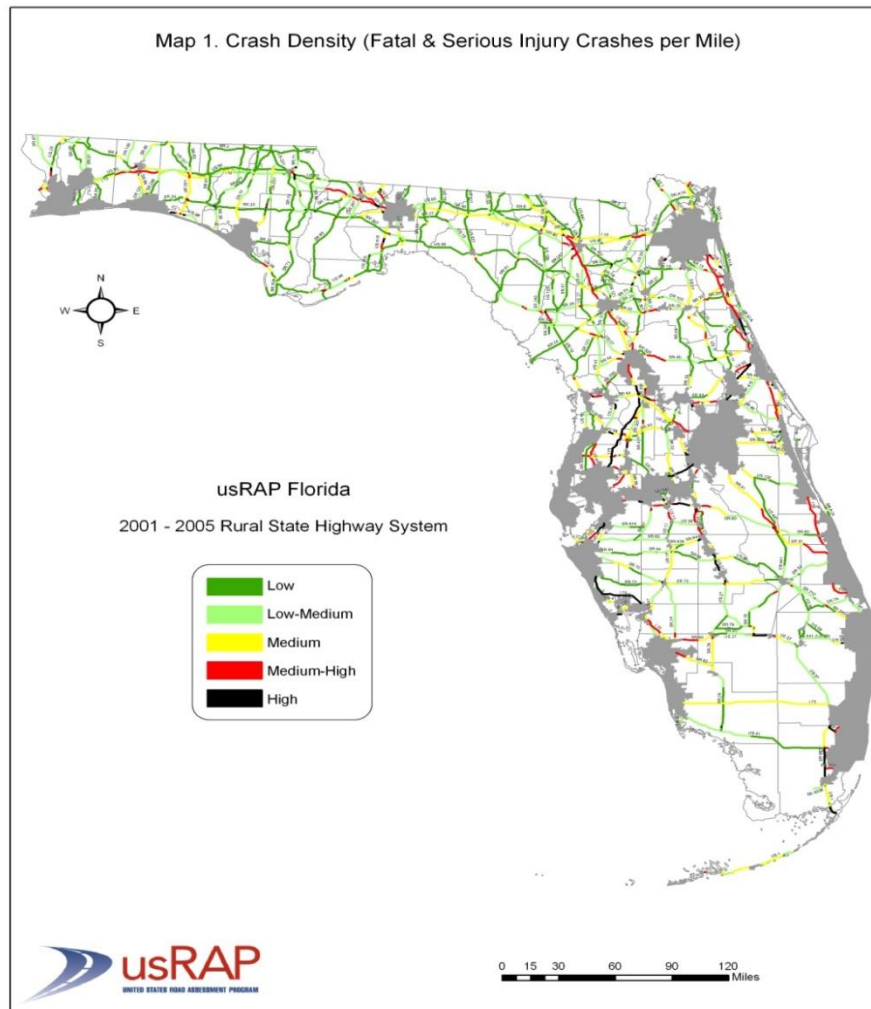
## usRAP Protocols

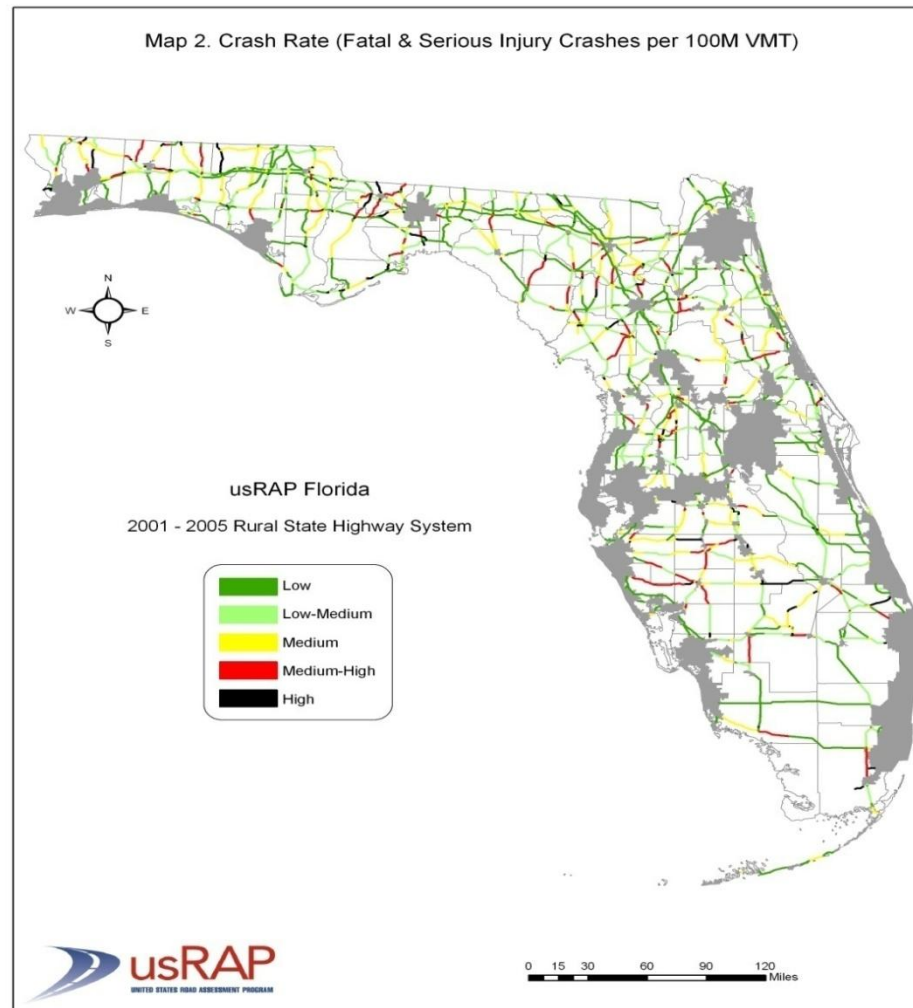
- Risk Mapping
  - ✓ Maps of death and serious injury risks for road users
- Road Protection Score
  - ✓ Star rating based on inspecting road features
  - ✓ Countermeasure options
- Performance Tracking
  - ✓ Comparisons of safety performance for roadway segments over time

## Risk Levels

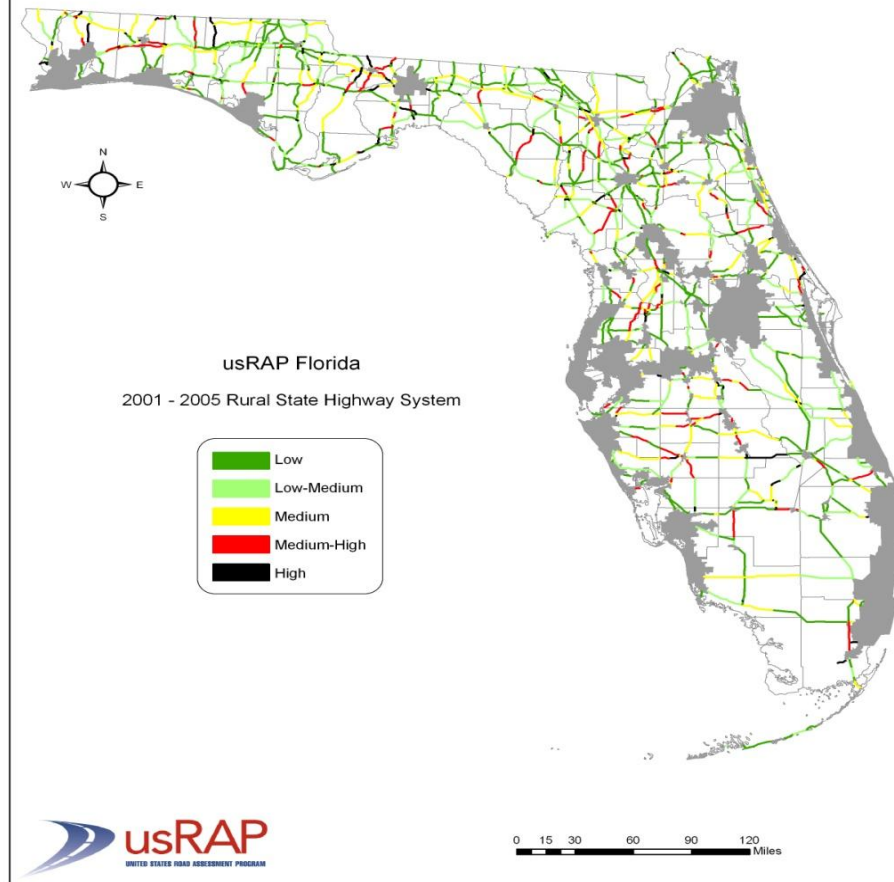
- LOWEST RISK
- Dark green (40% of roadway length)
- Green (25% of roadway length)
- Yellow (20% of roadway length)
- Red (10% of roadway length)
- Black (5% of roadway length)
- HIGHEST RISK

Map 1. Crash Density (Fatal & Serious Injury Crashes per Mile)

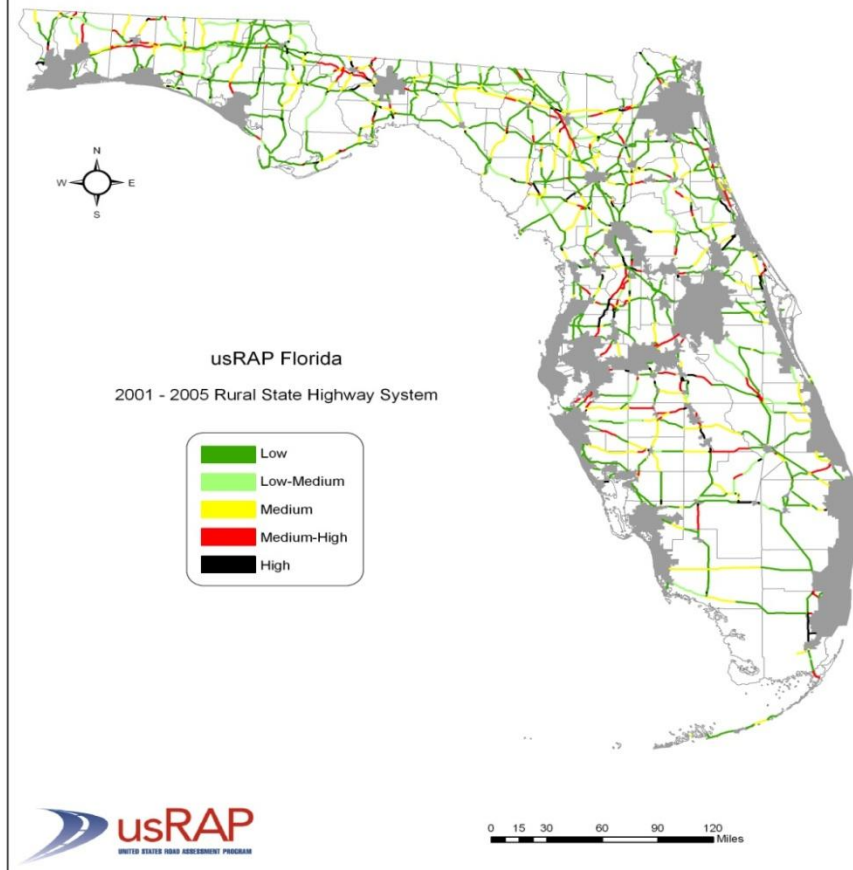




Map 3. Crash Rate Ratio (Crash Rate Compared to Average for Similar Road Types)



Map 4. Potential Crash Savings (in Fatal & Serious Injury Crashes)



## Specialty Maps

- Unbelted - occupants
- Older drivers
- Novice drivers
- Alcohol
- Speed
- Lane Departures
- Commercial Vehicles

## Star Ratings based on Road Protection Score

- Identify differences in safety features of roadways related to crash likelihood and crash protection
- Provide star ratings based on safety features of specific sites
- Can supplement and explain risk maps
- Useful when crash data are limited
- Identifies countermeasure options

## Star Ratings based on Road Protection Score

- Star rating based on features related to:
  - head-on crashes
  - run-off-road crashes
  - intersection crashes
- More research needed to adapt EuroRAP, AusRAP, and iRAP tools to U.S. conditions – currently underway

# Applications for Risk Maps

- Effective safety management by highway agencies
- Better public understanding of highway safety needs
- Influence motorist route choice
- Influence motorist behavior on higher risk roads

## What's in it for the Florida DOT?

- Support statewide highway safety plans
- Implement and supplement ongoing road safety programs
- New analysis tools
- New perspectives on road safety problems
- Assist with future 5% reports and high-risk rural roads programming



# What's in it for the Florida DOT?

- Benchmark against other states
- Build additional public support and investment in road safety
- Demonstrate leadership



For more information, go to:

[AAAFoundation.org](http://AAAFoundation.org)

## Questions?

Kevin Bakewell

[kbakewell@aaasouth.com](mailto:kbakewell@aaasouth.com)

(813) 289-5057

*Rhonda Mendoza, Executive  
Assistant*

[rmendoza@aaasouth.com](mailto:rmendoza@aaasouth.com)

(813) 289-5903

