Intersection Safety Study
SR20/US27 (Apalachee Pkwy) at CR 265 (Magnolia Drive)

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Presentation Overview:

- Purpose of Study
- Introduction/Location
- Data Collection
  - Crash History
  - Pedestrian/Bicycle Counts
- Qualitative Assessment Overview
- Recommendations / Design Concept
- Project Funding & Status
This intersection study has been conducted on behalf of FDOT District Three Safety Office to address Vulnerable Road User safety concerns.

**Vulnerable Road Users** = Pedestrians & Bicyclists

- Recent sidewalk improvements along Apalachee Parkway
- Need for marked crosswalks on all four legs of urban signalized intersections
- Connectivity/coordination with adjacent sidewalk/trail improvements planned through Leon County.
Introduction/Location

SR20/US 27 (Apalachee Pkwy) at CR 265 (S. Magnolia Drive):

- Urban Divided roadways
  - Four and Six Lanes plus turn lanes
- AADT = 45,000 vehicles per day
- Posted Speeds:
  - Apalachee Pkwy: 45 MPH
  - Magnolia Drive: 30/40 MPH
- Adjacent Commercial/Retail, Recreational
Introduction/Location

Study Location Map
Brief overview of crash stats:

- 111 Total Crashes from 2009 – 2013
- 48 Injury and no fatalities reported
- Typical crash patterns for urban signalized intersection

Study Analysis focused primarily on pedestrian and bicycle involved crashes
Crash History (2009-2013)

• 2009 – 2013:
  – No reported Pedestrian or Bicycle involved crashes at the intersection.

• In 2008:
  – One Bicycle Fatality (crossing against traffic; bicyclist reported Intoxicated)
  – Two (2) pedestrian involved crashes 400-feet & 900-feet east of intersection
Pedestrian/Bicycle Counts

- Pedestrian/Bicycle crossings
  - Data collected 11am – 8pm
    - Total of 120 Pedestrians & 17 Bicyclists
    - West side has most usage (about ½ of total)
    - East side also has recorded usage (no marked crosswalk)
  - Highest volume around lunchtime (11am-1pm)
  - Data indicates moderate pedestrian/bicyclist usage for the intersection
Qualitative Assessment

- A qualitative-based review of existing intersection conditions during peak period
  - Intersection Operations, queuing, conflict movements
  - ADA accessible pathways/ramps
  - Visibility and
  - Roadway conditions
Qualitative Assessment

Figure 4 – At SW Corner Service Road Crosswalk (Looking West)

Figure 5 – At SE Corner - Change in Grade at ADA Ramp

Figure 6 – At SE Corner - Change in Grade at ADA Ramp

Figure 7 – No Backplates for EB/WB Right-Turn Signals

Figure 9 – Conflicts: Turning Vehicles (Blue) and Pedestrian Crossings (Red)
Recommendations developed:

- To add missing crosswalk on east leg
- Address field conditions to enhance pedestrian/bicyclist experience
- Encourage or increase proper usage of crosswalks and crossing devices
- Reduce driver and pedestrian/bicyclist confusion at the intersection
Recommendations from Study

- Recommendations Included:
  - Upgrade pedestrian signal equipment
  - Upgrade signal equipment
  - Add signal heads for NB approach
  - Upgrade to LED blank out signs for NO RIGHT TURN
  - Add lighting on NW corner
  - Reconstruct ADA ramps
Recommendations from Study

• Recommendations Included:
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  – Upgrade signal equipment
  – Add signal heads for NB approach
  – Upgrade to LED blank out signs for NO RIGHT TURN
  – Add lighting on NW corner
  – Reconstruct ADA ramps
  – Realign existing crosswalks
  – Add crosswalk on east leg
    • Analysis performed
    • Three (3) alternatives developed
  – Public Education on new traffic devices (new technology!)
  – Enforcement and Measurement
Primary Goal:
Add East Leg Crosswalk

Secondary Goal:
Avoid/Minimize Impacts to driveway

Requires relocation of access point

Florida Department of Transportation
Create full-length turn lane to access road

Relocate Access Throat; Add crosswalk

Maintain direct Right-In/Right-Out access
Project Funding & Status

• Coordination with planned resurfacing/restoration (3R) project on US 27 (Apalachee Pkwy)
  – To include upgrade of ADA ramps, pedestrian signal equip., pavement markings

• Currently developing options to implement crosswalk concept for east side and other signal upgrades
Thank you.

Questions?