Implementation of Flashing Yellow Arrow (FYA) for Left Turns in Palm Beach County

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Technical Advisory Committee (TAC)
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PRESENTATION OVERVIEW

1. What is the Flashing Yellow Arrow (FYA)?
2. What are the benefits of the FYA?
3. Overview of phase 1 of FYA deployment in Palm Beach County
4. Next Steps
FLASHING YELLOW ARROW DEPLOYMENTS

- Included in the 2009 edition of the MUTCD
- Deployed in all States
- Implemented in many cities and counties throughout Florida
- Is a standard in FDOT D7, Pinellas County, and in other States such as Georgia, South Carolina and Virginia

Cities and Counties that have FYA
BENEFITS OF FLASHING YELLOW ARROW FOR LEFT TURNS

Road Capacity Benefits

- Additional options for signal phasing patterns
  - Provides more opportunities for left turns that are currently prohibited because of shared signal head
- Improves signal synchronization
- Provides the option for protected left turn based on time of day
  - Time of day protected left based on crash history, volumes

https://youtu.be/w9coalmuzqk
Safety Benefits

- FYA found to have a high level of understanding and correct response by left turn drivers
- Improves pedestrian safety in crosswalks
- FHWA has established the FYA reduces crashes
- Provides flexibility to not allow permissive left turns during times with higher probability for left turn crashes
- FYA is in alignment with TPA and other municipalities’ Vision Zero
INITIAL PHASE LOCATIONS

- 8 intersections along Congress Avenue
- 22 4-section signal heads with arrows (protected permissive)
- 2 3-section signal head with arrows (permissive only)

<table>
<thead>
<tr>
<th>Signal ID #</th>
<th>E/W Roadway</th>
<th>N/S Roadway</th>
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</thead>
<tbody>
<tr>
<td>45501</td>
<td>Catalina Dr./Renaissance Dr.</td>
<td>Congress Ave</td>
</tr>
<tr>
<td>45598</td>
<td>Boynton Beach (BB) Mall D</td>
<td>Congress Ave</td>
</tr>
<tr>
<td>45599</td>
<td>BB Mall E</td>
<td>Congress Ave</td>
</tr>
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<td>45600</td>
<td>Old Boynton Rd</td>
<td>Congress Ave</td>
</tr>
<tr>
<td>46300</td>
<td>Ocean Dr</td>
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<td>47499</td>
<td>SW Congress Blvd</td>
<td>Congress Ave</td>
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<tr>
<td>48200</td>
<td>Golf Rd</td>
<td>Congress Ave</td>
</tr>
<tr>
<td>46148</td>
<td>Boynton Beach Blvd.</td>
<td>Winchester Park Blvd.</td>
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PURPOSE OF THE INITIAL PHASE

- Determine design and implementation schedule needs of the FYA in Palm Beach County
- Determine cost of implementation
- Update Palm Beach County standards to include FYA
- Use phase 1 as a baseline to coordinate with FDOT and the TPA for planning and funding future deployments
  - Plan to seek TPA grants and FHWA safety grants to fund future phases
IMPLEMENTATION

Public Outreach

Published informational video, tip card and press release on Engineering & Public Works Department webpage

- Shared press release, informational video and tip card with the news media
- Deployed Changeable Message Signs as part of activation

Activate phase 1 FYA over 3 weekends in November / December, 2019
Design Standards

The FYA for left turns is now a standard design feature in Palm Beach County

- Existing signals are also converted when left turn signal phasing is modified
- Consideration for conversion of existing protected-only single-lane left turn signals to protected / permissive with FYA

Seeking funding for countywide conversion:

- Two independent projects / applications for signals on SHS and County roads
- Total of more than 900 signalized intersections