



FLETCHER AVENUE PEDESTRIAN AND BICYCLIST BEHAVIOR CHANGE FORMATIVE RESEARCH PROJECT

"EXTENT OF CHANGES IN PEDESTRIAN AND BICYCLIST ATTITUDES AND BEHAVIORS DIRECTLY AFTER A COMPLETE STREETS PROJECT IN FLORIDA"



PRESENTED BY

- Dr. Amy Lester
Research Associate
Center for Urban Transportation
Research at the University of South
Florida
- Julie Bond, MPA
Senior Research Associate
Center for Urban Transportation
Research at the University of South
Florida

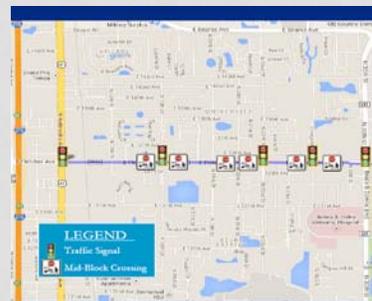


PRESENTATION OBJECTIVES

- Understand how the “Five E” approach to make streets safer and enjoyable for all road users (Education, Enforcement, Engineering, Encouragement, Evaluation) complement each other
- Define Complete Streets
- Learn how Journey Mapping is utilized
- Understand behavior change is complex

PROJECT BACKGROUND

- **Fletcher Avenue, Tampa, FL**
 - Hillsborough County Complete Streets Project
 - Between Nebraska Avenue and Bruce B Downs Boulevard
 - One of the highest pedestrian crash rates in Hillsborough County
- [County unveils Fletcher Avenue designs](#)



COMPLETE STREETS

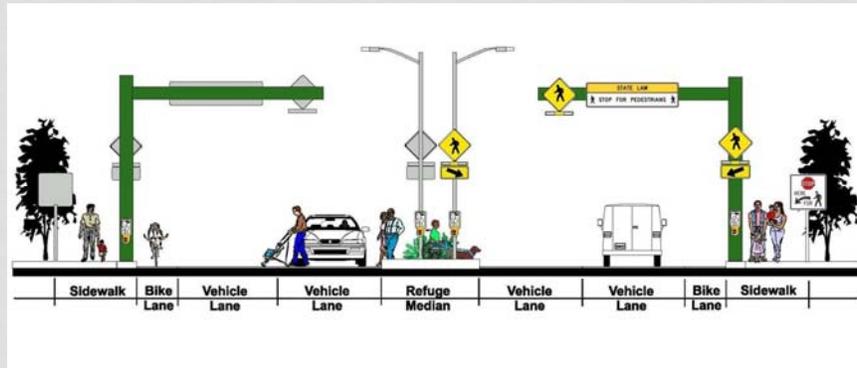
- **Complete Streets are streets for everyone.** They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

• Source: Smart Growth America (2015) Retrieved from: www.smartgrowthamerica.org

FLETCHER AVENUE COMPLETE STREETS PROJECT

- Five midblock pedestrian crossings incorporating Rectangular Rapid Flashing Beacons
- One mid-block pedestrian crossing with traffic signal (by Walmart)
- Raised concrete pedestrian refuge islands
- Raised concrete traffic separators
- Bike Lanes
- Energy Efficient LED Street Lighting
- Enhanced Landscaping
- Lowered speed limit from 45 MPH to 35 MPH

FLETCHER AVENUE COMPLETE STREETS PROJECT RENDERING



FIVE "E" APPROACH

- **Engineering** – Hillsborough County Complete Streets Project
- **Education** – WalkWise Tampa Bay presentations
- **Enforcement** – Hillsborough County Sherriff
- **Encouragement** – Partnerships with local businesses
- **Evaluation** – Hillsborough County

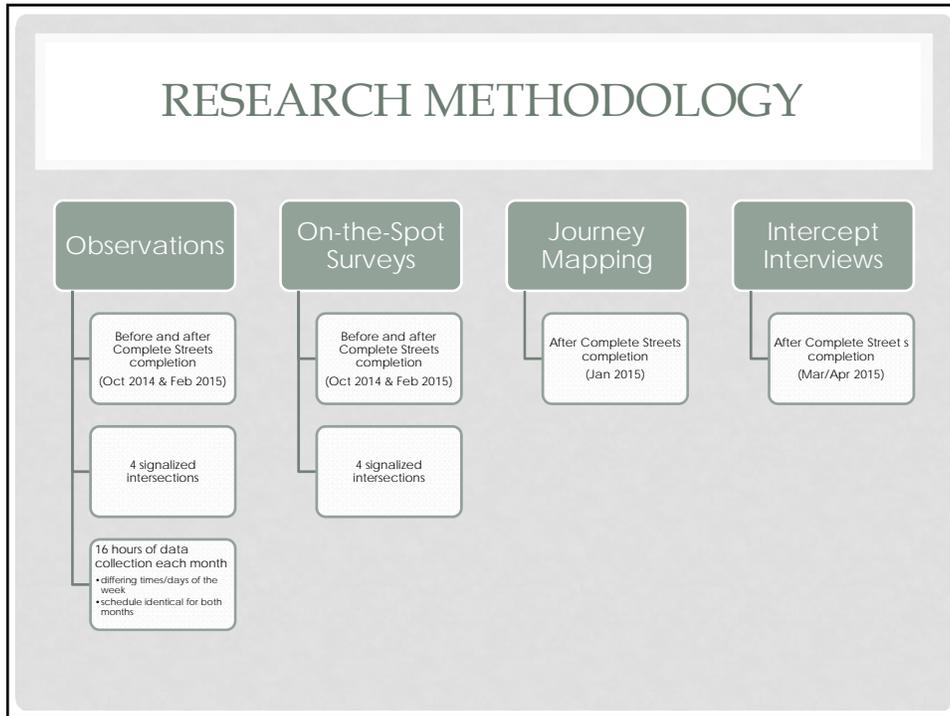


PURPOSE OF RESEARCH

- To study perceptions, attitudes and behaviors of walking, biking and safety along Fletcher Avenue
- To see if attitudes and behaviors changed directly after the completion of the Complete Streets Project
- To determine the most effective way to educate the users of Fletcher Avenue

RESEARCH PROJECT OBJECTIVES

- Formative research with individuals who regularly cross Fletcher Avenue was used to clarify:
 - (1) how individuals currently cross Fletcher Avenue (current behavior)
 - (2) the willingness of individuals to properly use the crosswalks
 - (3) opinions about crosswalks, including motivators and barriers to using crosswalks (cost/benefit)
 - (4) barriers individuals experience related to not properly using the crosswalks (e.g. safety, time) that they would like to overcome (competition)
 - (5) the marketing channels that individuals would respond to the best



SAMPLE CHARACTERISTICS

	Observations Aug 2014 (n = 867)		Observations Feb 2015 (n = 1,198)		On-the-Spot Survey Aug 2014 (n = 173)		On-the-Spot Survey Feb 2015 (n = 175)		Intercept Interviews Mar/Apr 2015 (n = 98)	
	Count	%	Count	%	Count	%	Count	%	Count	%
Mode										
Pedestrian	606	69.8%	899	75.1%	123	71.1%	142	81.1%	83	84.7%
Bicycle	245	28.3%	282	23.5%	50	28.9%	32	18.3%	14	14.3%
Wheelchair	16	1.9%	17	1.4%	0	0%	1	0.6%	1	1.0%
Age										
	NA		NA		NA		NA		Mean 42.4 years	
Gender										
Male	NA		NA		NA		NA		72	73.5%
Female									26	26.5%
Access to a Private Vehicle										
Yes	NA		NA		53	30.8%	58	33.1%	32	32.7%
No					120	69.2%	117	66.9%	66	67.3%
Residence Distance from Fletcher Avenue										
Within ½ mile	NA		NA		81	47.1%	59	33.9%	58	59.3%
Greater than ½ mile					92	52.9%	116	66.1%	40	40.7%
Homeless					NA		NA		8	8.2%

OBSERVATIONS

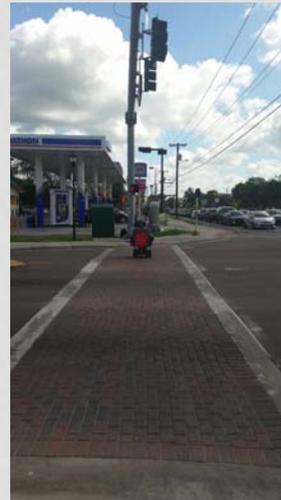
Before Completion Oct 2014

- Pedestrians
 - 76.6% used crosswalk
 - 38.2% crossed on white
 - 44.0% pressed signal button
 - 18.1% distracted

After Completion Feb 2015

- Pedestrians
 - 72.7% used crosswalk
 - 47.6% crossed on white
 - 51.2% pressed signal button
 - 14.2% distracted

OBSERVATIONS - PEDESTRIANS



OBSERVATIONS

Before Completion Oct 2014

- Bicyclists
 - 97.8% not wearing helmet
 - 84.8% riding on sidewalk
 - 57.1% of those riding on road riding with traffic

After Completion Feb 2015

- Bicyclists
 - 95.5% not wearing helmet
 - 77.7% riding on sidewalk
 - 88.1% of those riding on road riding with traffic

OBSERVATIONS - BICYCLISTS



ON-THE-SPOT SURVEYS

Before Completion Oct 2014

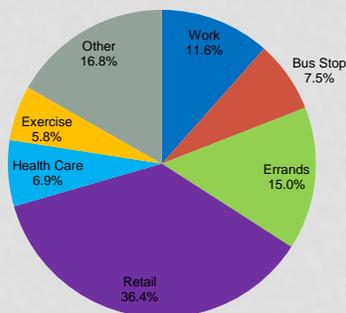
- 69.2% no vehicle access
- 54.3% walks/bikes every day
- 19.1% walks/bikes a few times per week

After Completion Feb 2015

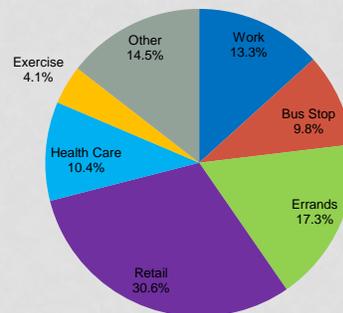
- 66.9% no vehicle access
- 56.3% walks/bikes every day
- 22.4% walks/bikes a few times per week

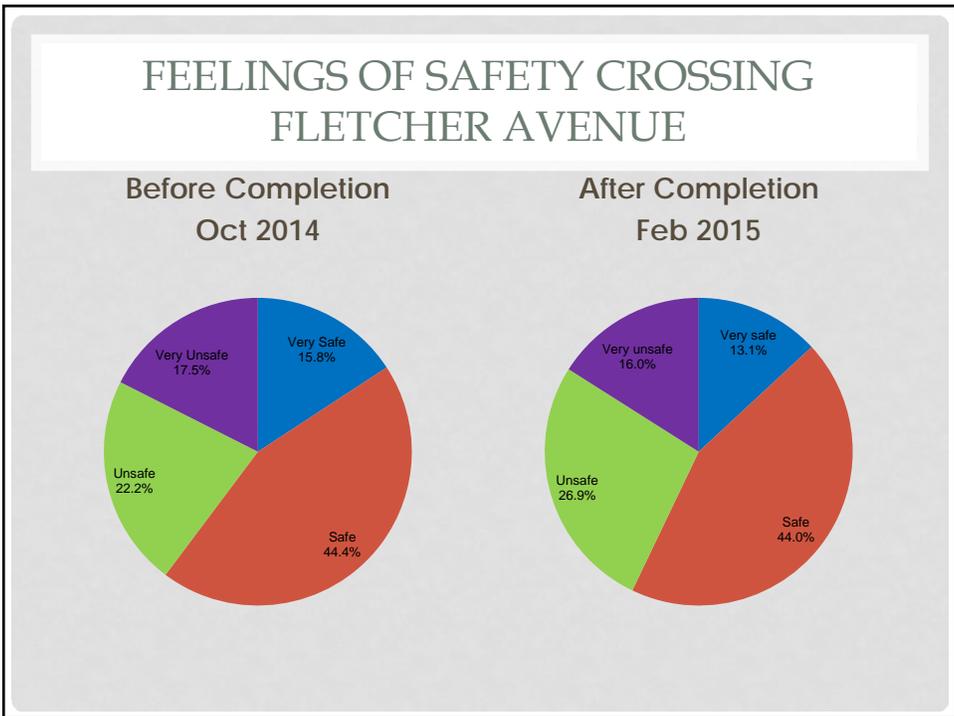
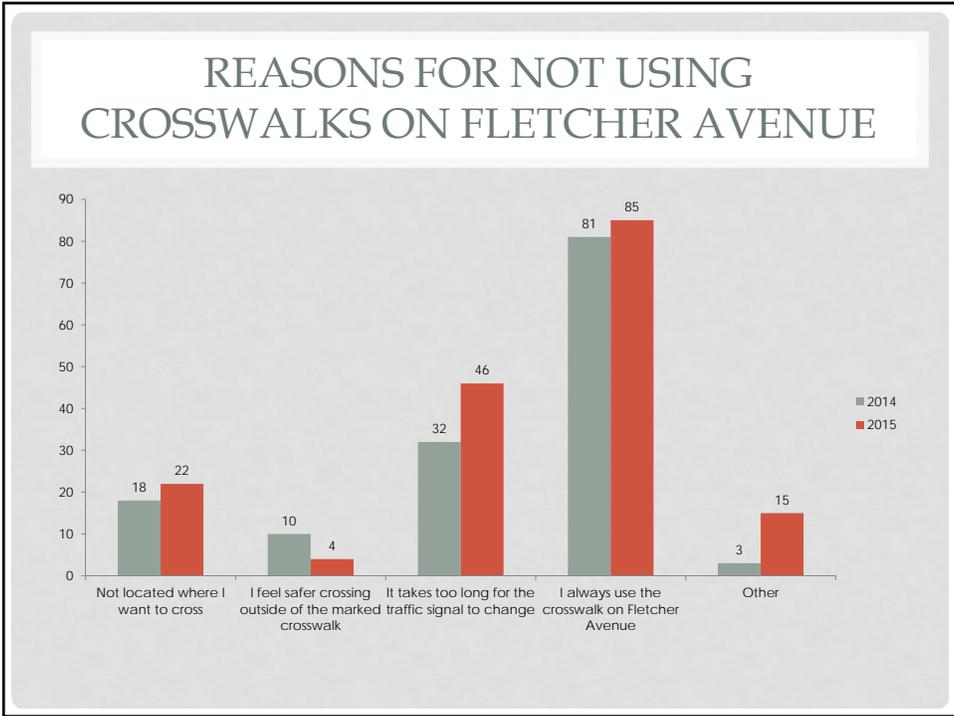
REASON FOR TRAVELING ON FLETCHER AVENUE

Before Completion Oct 2014



February 2015 After Completion





FLETCHER AVENUE JOURNEY MAPPING

- “Walk in their shoes” to gain a customer point of view



ACTUAL JOURNEY ALONG FLETCHER AVENUE

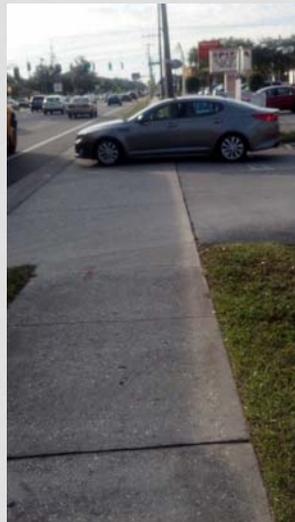
- Walked round-trip along Fletcher Ave from Walmart to Revere Landings Apartments



FIRST CROSSING - WALMART



SIDEWALK BLOCKED



CROSSWALK SIGNAGE



BUS STOP



WAITING FOR SIGNAL TO CHANGE



LIMITED VISIBILITY AT CROSSWALK



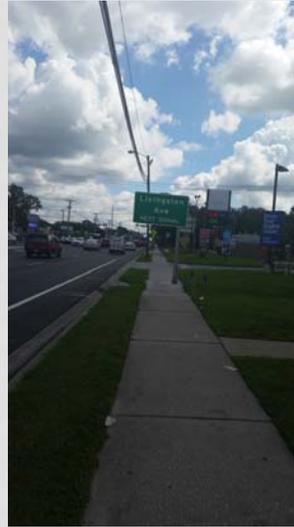
FLASHING BEACONS



SIDEWALK MESSAGE



SIGNS



DRIVERS BLOCKING CROSSWALK



PEDESTRIANS ON FLETCHER AVENUE



JOURNEY MAPPING EMOTIONAL EXPERIENCE

Steps	Walk to crosswalk	Push crosswalk button	Wait for signal to change	Cross	Walk to next crosswalk
Positive	X	X		X	X
Neutral					
Negative			X	X	X
Problems or Improvement Opportunities			Pedestrian signals at intersections could change automatically	Not sure if traffic lights are operational; safety - driver behavior	Some sidewalks blocked; safety

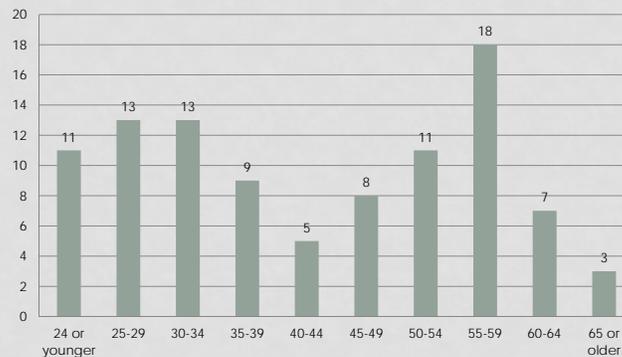
INTERCEPT INTERVIEWS

- March/April 2015 – after Complete Streets completion
- 98 participants
 - 83 walking
 - 14 bicycling
 - 1 wheelchair
- 67.3% no access to vehicle
- 85% walk daily or several times per week on Fletcher Avenue
- 59.3% live within ½ mile of Fletcher Avenue
 - 8 participants homeless

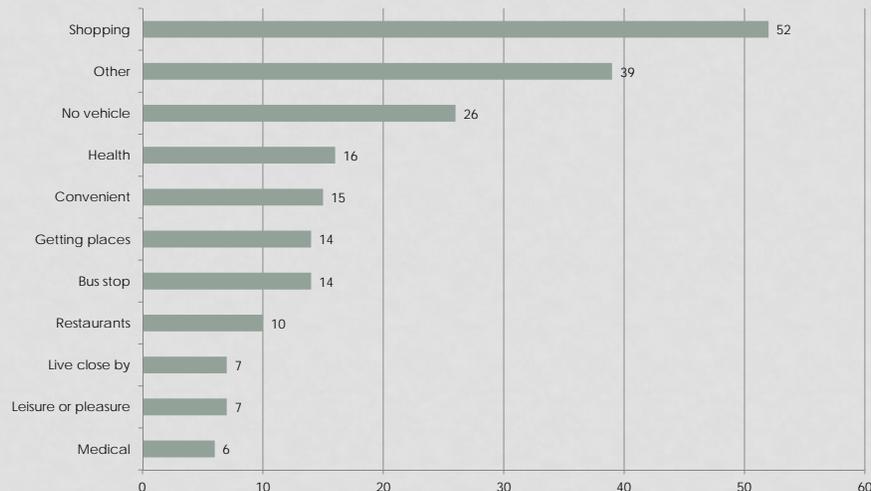


INTERVIEWEE DEMOGRAPHICS

- 73.5% male
- Average age = 42.4 years



REASONS FOR WALKING/BIKING ALONG FLETCHER AVENUE



PERCEPTIONS OF SAFETY ON FLETCHER AVENUE

- "No [I do not feel safe]; cars don't want to stop. Only about forty-five percent of cars stop at the [RRFB] lights, they feel the pedestrians abuse it. They don't want to stop and be inconvenienced."
- "I don't feel safe, I feel cautious. You do right of way but drivers don't care. Seventy percent of drivers don't know [pedestrians have] right of way, are distracted, or have no signal and are turning. [Drivers] have tinted windows and you can't make eye contact. [Drivers are] concerned that the car behind will blow the horn."

RECTANGULAR RAPID FLASHING BEACON (RRFB)



WAYS TO STAY SAFE ON FLETCHER AVENUE

- "Look before you cross. Be very careful and watch for cars because they don't stop. Be cautious, look both ways and take a second look."
- "Pay attention to surroundings. Be aware. Just because you are paying attention doesn't mean others are."

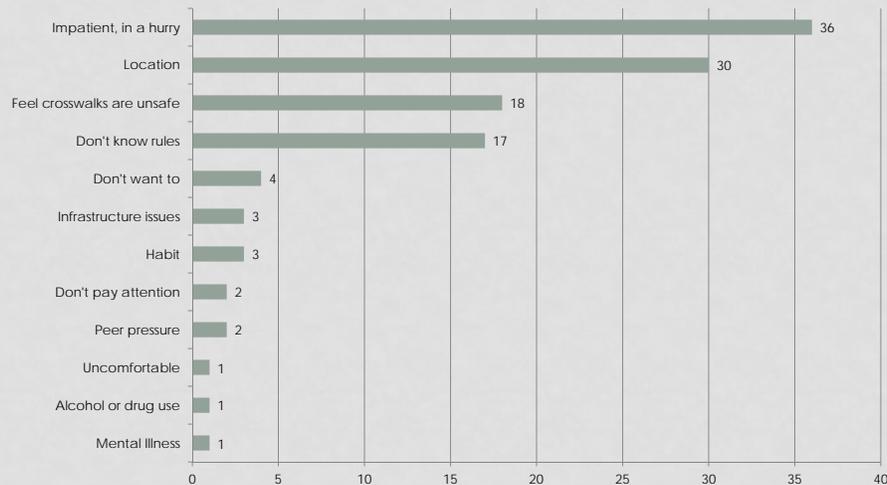
FLETCHER AVENUE SIGNALIZED INTERSECTION



PERCEPTIONS OF FLETCHER AVENUE CROSSWALK USERS

- "Elderly are more careful than young teens."
- "Children with them, families [use crosswalks]."
- "Kids and teens and men don't use [crosswalks] and when they do use [crosswalks], they don't wait for the light to change."
- "Younger don't understand life itself, [they] take more chances which is how people get hit."

BARRIERS TO USING CROSSWALKS ON FLETCHER AVENUE



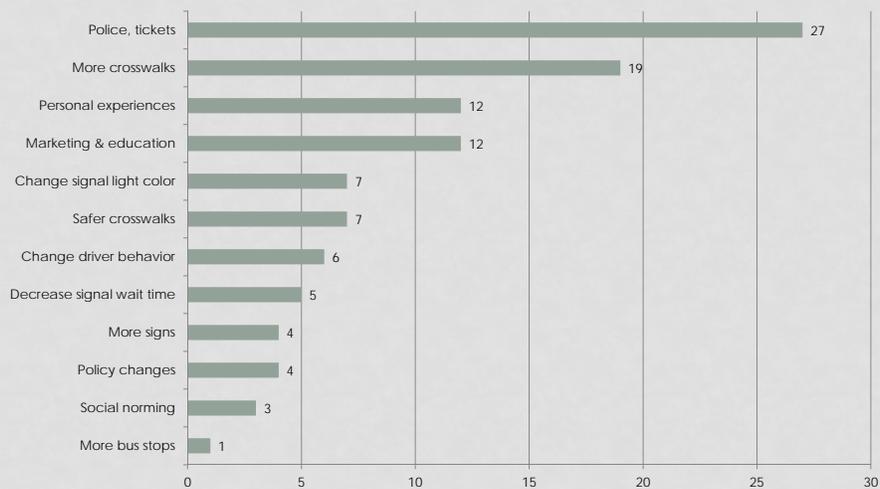
BARRIERS TO USING CROSSWALKS ON FLETCHER AVENUE

- "It is not always convenient to walk to the crosswalk. This is the only reason I can think of why someone would avoid safety."
- "Lack of convenience. When trying to get to the Family Dollar and the laundry mat, there is no crosswalk nearby."

FAMILY DOLLAR/LAUNDRY MAT



MOTIVATORS TO USE CROSSWALKS ON FLETCHER AVENUE



FLETCHER AVENUE MID-BLOCK CROSSING



TALKING ABOUT SAFE WALKING & BIKING

- "Outreach; public outreach by walking the streets and open promotion."
- "What you are doing – talking, walking, by the same people every day."
- "Do what you are doing. Give out safety items, vests, and lights."

HILLSBOROUGH COUNTY'S FLETCHER AVENUE SAFETY BROCHURE

HEY! I'm WALKING here!

How They Work

Rectangular Rapid Flashing Beacons (RRFB)

PAY Attention • READ the Signs • LEARN the Rules

- 1** PRESS button to activate flashing lights, warning drivers
- 2** CHECK that vehicles stop before entering crosswalk
- 3** STOP in median
- 4** PRESS button to continue across the street
- 5** CHECK that vehicles stop before entering crosswalk

Safety Tips

Pedestrians Always:

- Cross only in a crosswalk
- Look left, right, then left again and make eye contact with drivers before crossing
- Use pedestrian for signals, where provided
- Walk defensively, you never know when a car will fail to stop at a crosswalk

Bicyclists Always:

- Obey all traffic signs, signals, and markings
- Ride in the same direction of traffic on the street or in a bike lane
- Use lights at night

Drivers Always:

- Be alert and reduce speed to meet with crosswalks
- STOP if pedestrians are in the crosswalk or preparing to cross
- Wait until pedestrians safely exit the road of the median or curb before resuming travel

Get in Touch with Us, Improve Safety

For more information on Hillsborough County's Pedestrian and Bicycle Safety Initiative, visit HillsboroughCounty.org/CrossSafe or call (813) 635-5400. Request a free pedestrian safety presentation for your community or organization at walkwithapoboy.com or call (813) 974-3120

CONCLUSIONS

- To influence behavior change, it is important to completely understand the problem, and identify what the important barriers are that people are facing.
- Dangerous behaviors continue to exist after completion of the Fletcher Avenue Complete Streets project.
- Approximately half of users still feel unsafe.
- A Five "E" approach is critical to encourage safe driver, pedestrian and bicyclist behaviors.
- Continuing education is important after Complete Streets are in place.

QUESTIONS

Amy Lester, PhD, MPH

Research Associate, TDM Program
Center for Urban Transportation Research
University of South Florida

alester1@cutr.usf.edu

Julie Bond, MPA

Senior Research Associate, TDM Program
Center for Urban Transportation Research
University of South Florida

bond@cutr.usf.edu