



Statewide Non-Motorized Traffic Monitoring Program

Webinar #2

January 2020

FDOT


Welcome!

FDOT Transportation Data and Analytics (TDA) Team

Ed Hutchinson – TDA Office Manager

Steve Bentz P.E. – Transportation Monitoring Program Manager

Joey Gordon – Transportation Data Analysis Supervisor

Eric Griffin – Transportation Data Collection Manager

Victor Johnson – Transportation Data Coordinator

Consultant

Marlin Engineering Inc.

MARLIN STAFF ON THE CALL



Elizabeth "Liz" Stolz
Director of Traffic
Data Programs
MARLIN Engineering Inc.



Eric Katz, AICP
FDOT Statewide Non-
Motorized Traffic Monitoring
Program Coordinator



Agenda

- Program At-a-Glance
- TRB / National 2020 Update
- Program Update
- Questions and feedback from the audience
 - Statewide Meeting



The background of the slide is a light gray color. It features a faint world map in the upper right quadrant. Overlaid on the map and the rest of the background are various white lines and shapes representing a circuit board or network diagram, including straight lines, right-angle turns, and small circles. In the bottom left corner, there is a dark gray diagonal shape that resembles a road with white dashed lines. On this road, there is a white arrow pointing upwards and to the right, with the word "CART" written vertically next to it. The title "Program At-a-Glance" is centered in a white rectangular box with a thin white border.

Program At-a-Glance

**STATEWIDE
CONTINUOUS
COUNT
PROGRAM**

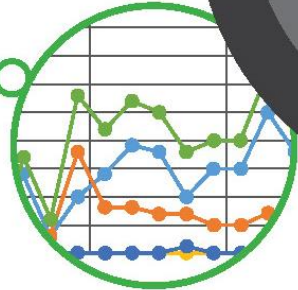


**STATEWIDE
SHORT-TERM
COUNT LOANER
PROGRAM**



FDOT
**NON-MOTORIZED
TRAFFIC MONITORING
PROGRAM**

**STATEWIDE
REPOSITORY**



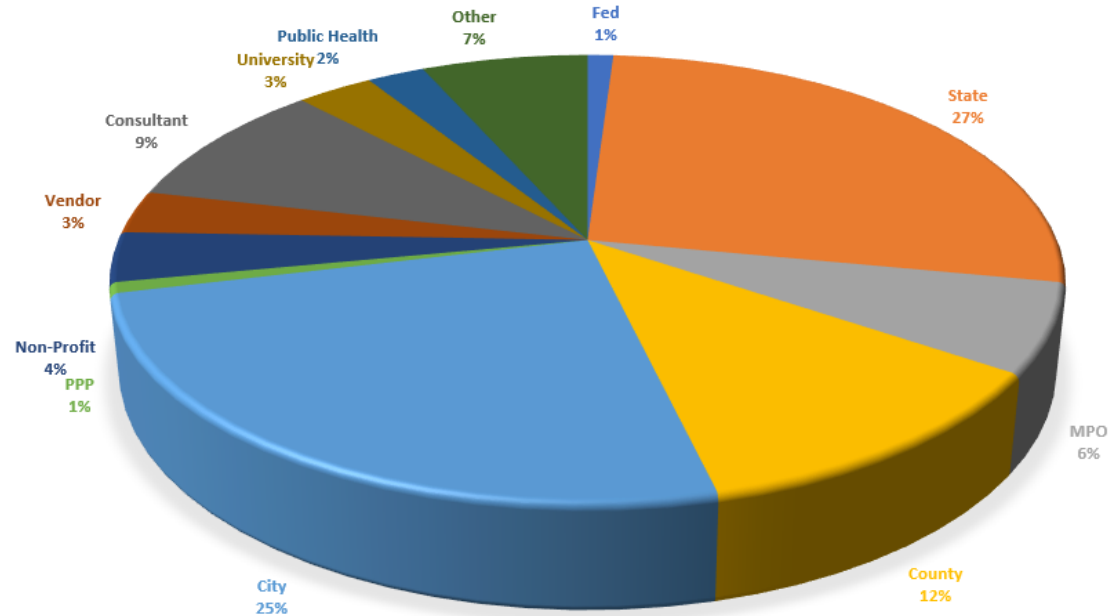
**STATEWIDE
OUTREACH**



Quick Facts:

- 1-year ½ old Program
- 199+ registered for webinar
- 400+ coalition members
- 1,500+ visited our map/webpage
- 500+ proposed sites
- 144+ evaluated sites
- 4 NMTM Continuous Counters installed statewide so far

FDOT NON-MOTORIZED TRAFFIC MONITORING COALITION



NMTM Goals 2020

“Year 1 involved a lot of research, pilot testing, and Federal to Local coordination. Year 2 is all about counting, counting, counting!”

- Keep short-term counters off the shelf, and in the field
- 15 Continuous Count station installs statewide
- Data Repository up and running
- Continue building statewide data coalition

THANK YOU FOR YOUR PATIENCE!

The graphic features a dark blue header at the top and a dark blue footer at the bottom. The main background is light gray with a faint map of the United States and a network of white lines and nodes. On the left, a dark gray diagonal shape contains a road with dashed white lines and a white arrow pointing up and right, with the text 'Out' written vertically. A white rectangular box with a thin border is centered horizontally, containing the text 'National Update' in a bold, dark blue font.

National Update

Transportation Research Board - Update

- Link: www.trb.org
- Annual Meeting
Registration: <http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>
- 2021 Theme: Launching a New Century of Mobility and Quality of Life
- DATES: January 24-28, 2021



TRB Update

- 2020 – Reorganization of all Committees
 - ABJ35 – Highway Traffic Monitoring is now ACP70
 - Moved from Statewide Data to Safety and Operations Section
- 2021 – TRB's 100 Year Existence
- 2021 – Workshop focused on Bike/Ped (Sunday slotted workshop)

Bicycle and Pedestrian Data Subcommittee

- Ongoing research
 1. NCHRP 17-87 – Enhancing Pedestrian Volume Estimation and Developing HCM Pedestrian Methodologies for Sustainable Communities
 2. FHWA bicycle facility inventory project - Oakridge Lab is under contract to develop a National Bicycle Network
 3. NCHRP 20-05 – Availability and use of Pedestrian Infrastructure Data to Support Active Transportation Planning
- Conversations with Colleagues (CwC) – Webinar Series with 3/4 webinars/year contact: Sarah O'Brien, Chair at swobrien@hsrc.unc.edu
- 2021 Call for Papers – Suggest Topics to Sarah O'Brien

NaTMEC

NaTMEC - www.natmec.org

- 2020 - Raleigh, North Carolina
June 1 – 4, 2020
- 2022 – Boise, Idaho
June 13 – 16
- 2020 – Workshops (2)
 1. Nonmotorized Statewide Traffic Data Programs and Public Engagement
 2. Getting executive level support when developing nonmotorized volume data programs
- Bike/Ped Data Subcommittee
- Highway Traffic Monitoring

NaTMEC
NATIONAL TRAVEL MONITORING
EXPOSITION AND CONFERENCE

[SPONSORSHIP](#) [EXHIBITORS](#) [AGENDA](#) [REGISTRATION](#) [TRAVEL](#) [HISTORY](#)



**Registration
Now Open**
Raleigh, NC
June 1-4, 2020

NaTMEC 2020

**Connecting Travel Monitoring to Transportation System Safety and
Mobility**

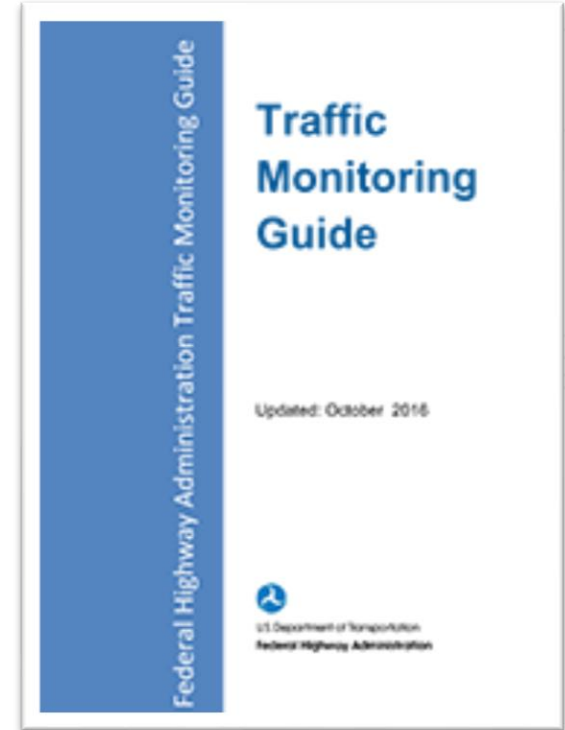
*** REGISTRATION NOW AVAILABLE ***

JUNE 1-4, 2020

RALEIGH, NC

Traffic Monitoring Guidebook (TMG) Update

- Current 2016 TMG Link
<https://www.fhwa.dot.gov/policyinformation/tmguide/>
- Update Project: ARA/Case Engineering/Marlin Engineering under contract to update the TMG Guidebook Bike/Ped Chapter to be fully integrated into the guidebook
 - Currently 450 pages, plan to reduce content
 - TMG Review Panel - 18 Subject Matter Experts across the nation
 - Steven Bentz – Florida Department of Transportation
 - Rodney Chatman – Forward Pinellas



The background features a dark grey road on the left side with white dashed lines and a white arrow pointing upwards. The rest of the background is light grey with a faint world map and a network of white circuit lines and nodes. A white rectangular box with a thin border is centered horizontally, containing the text.

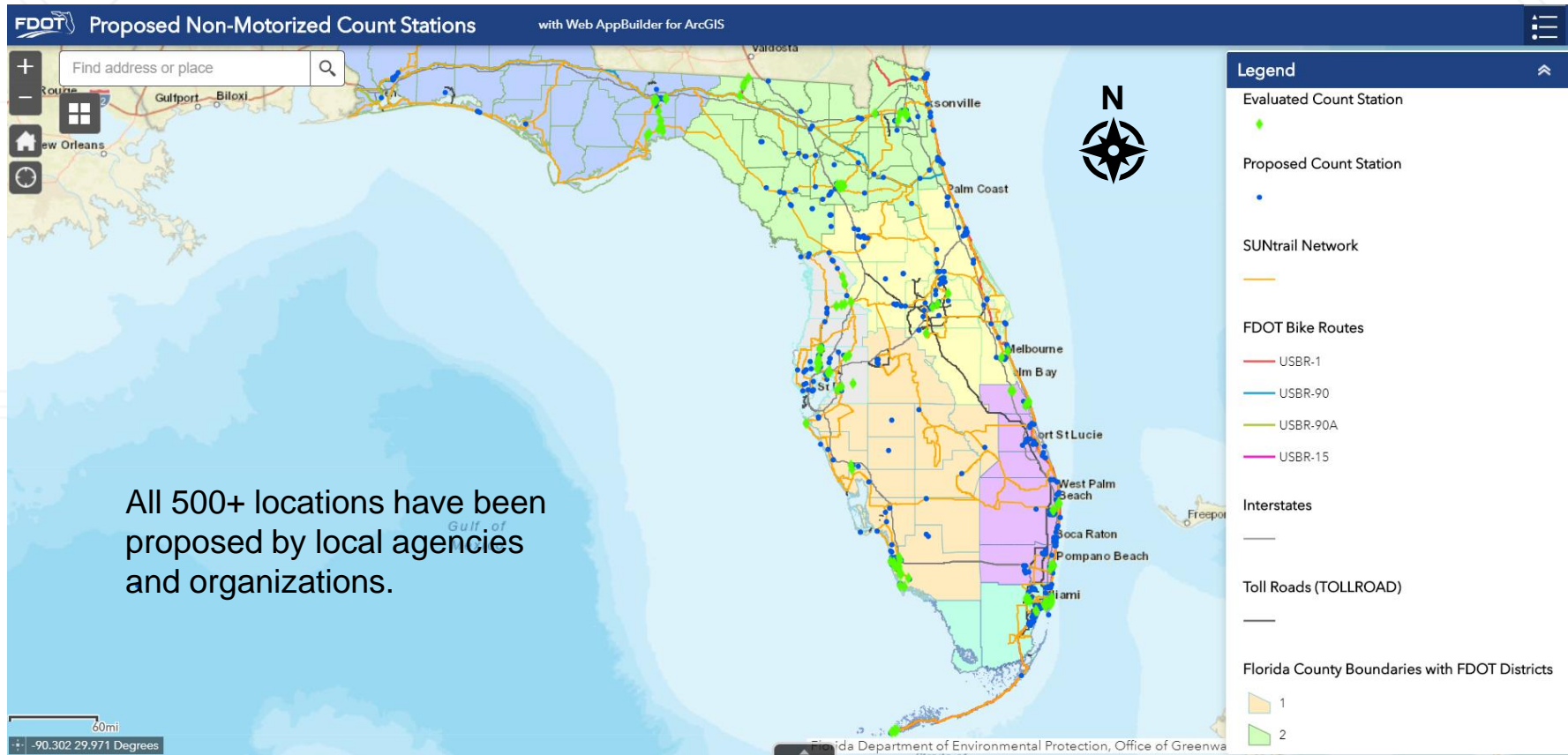
Program Update

Non-Motorized Data Repository

Transportation Data Management System (TDMS)

- Motorized and Non-Motorized Data Migration is underway
- New TDMS is expected to go Live Mid - 2020
- All Non-Motorized Traffic Monitoring (NMTM) Program counts will be displayed on TDMS platform
- Current Manual process
 - Data storage
 - Data handling
 - Spreadsheets
 - Manual graphs
 - Limited QA/QC ability

Non-Motorized Repository Location Database



Data Sharing

Thank you to
following agencies!

We are overwhelmed!



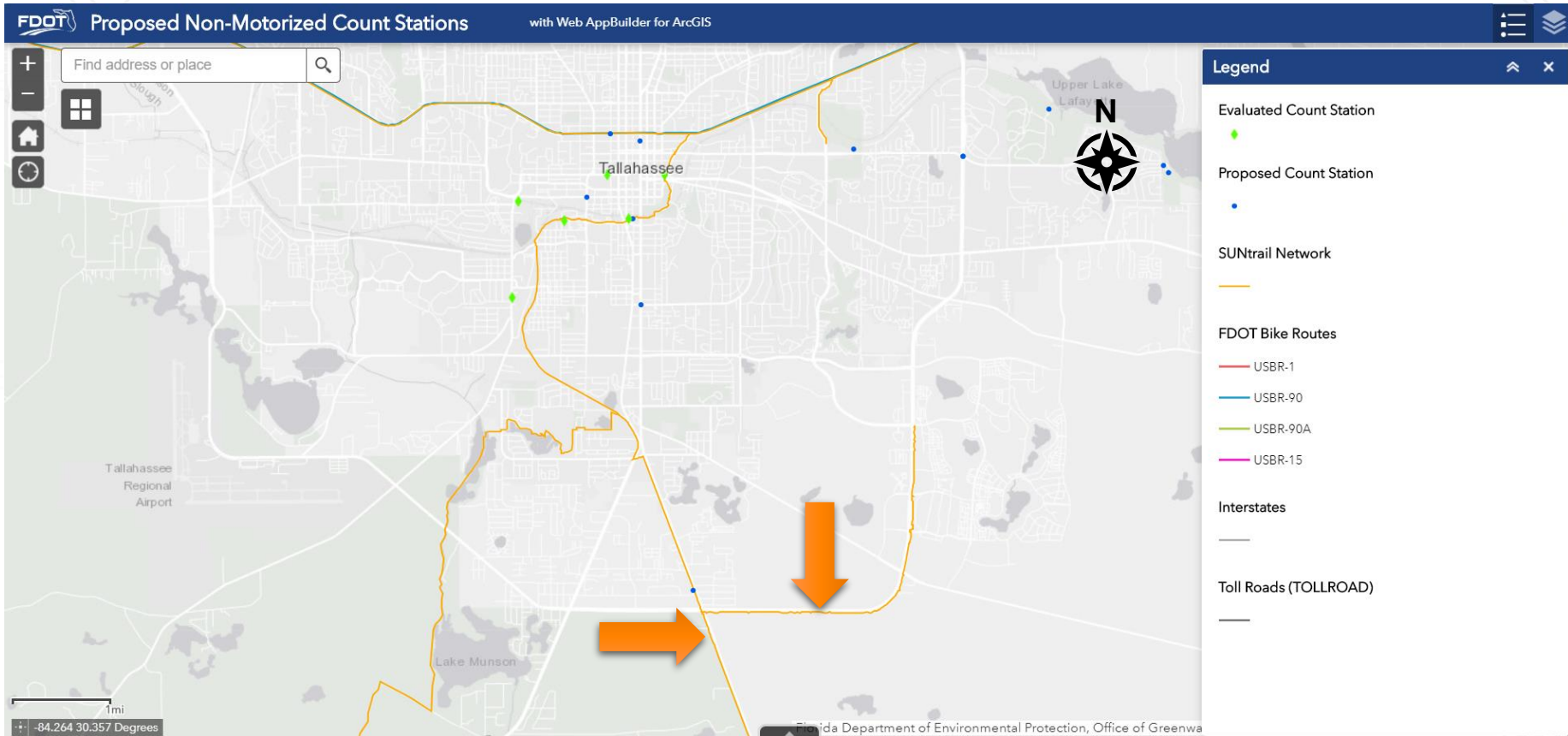
MIAMI BEACH



Continuous Counts



City Scale



Continuous Counts - Test Site

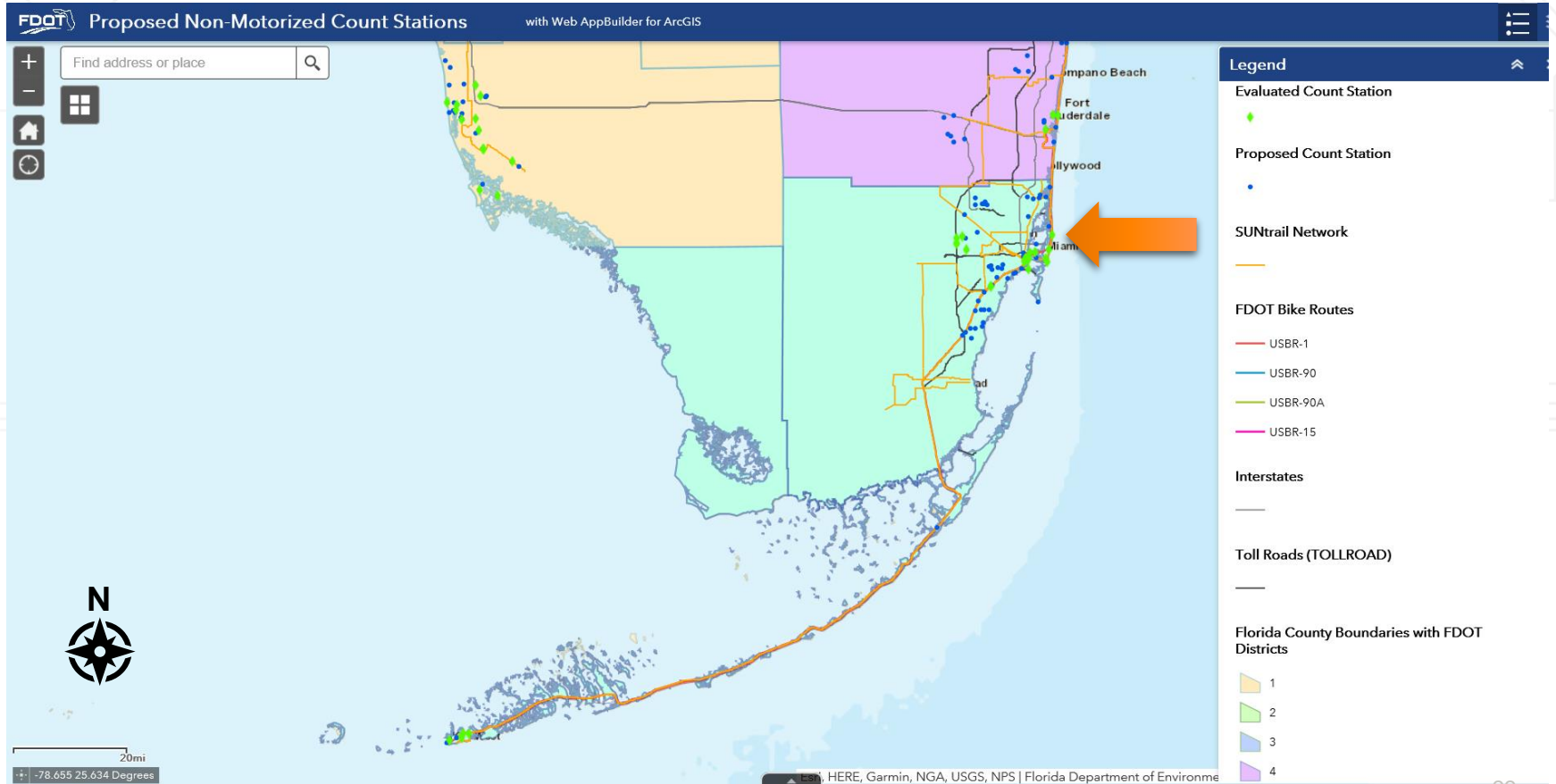


Continuous Counts - St. Marks Trail

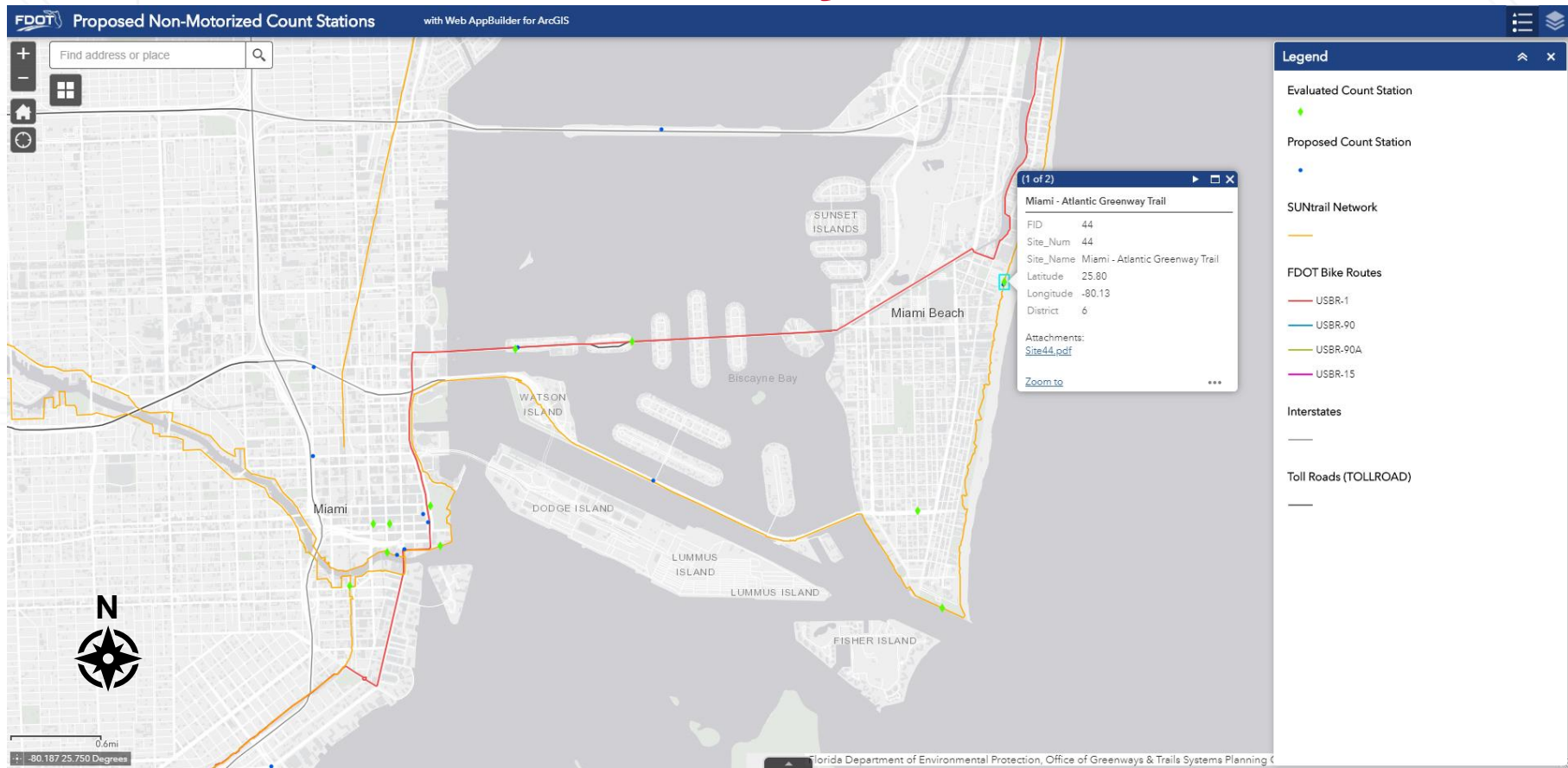
THANK YOU!



Counter Location – District 6 Scale



Counter Location – City Scale

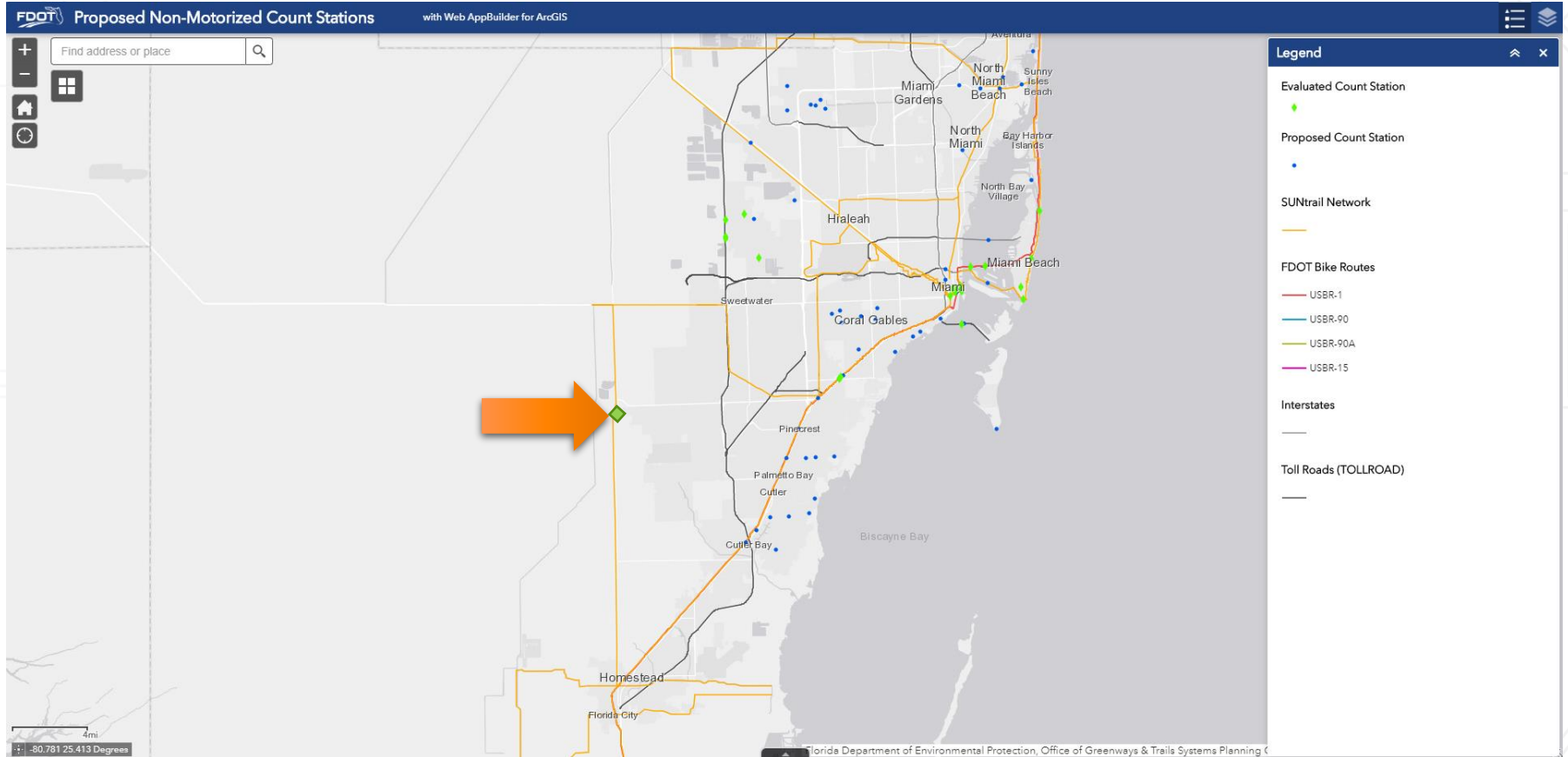




THANK YOU!
MIAMI BEACH



County Scale



Continuous Counts – District 6

THANK YOU!



District 6

Healthy West Kendall

Powered by West Kendall Baptist Hospital

Baptist Health South Florida



NOTES:

- Pole Height = 15' (Typical).
- Overhead Sensor Height = 12' (Typical).
- Overhead Sensor Centered Above Bicycle & Pedestrian Path.
- Solar Panel = 40W - 60W (Typical).
- Solar Panel Oriented South.
- Cabinet Height = 4' (to Center) from Ground.
- Piezo = BL Class III, Length Varies Depending on Width of Bicycle & Pedestrian Path.
- Piezo Spacing = 1' (Typical).
- Piezo Depth = 3/4" (Typical), Varies Depending on Thickness of Bicycle & Pedestrian Path.

SITE SKETCH

DESIGNED BY:	DAVIS STRACK, EI	<i>Davis Strack</i>
REVIEWED BY:	TERRY ROBINSON	<i>Terry Robinson</i>
AS-BUILT		
QA INSPECTOR:		
CREW LEADER:		



SOUTHERN TRAFFIC SERVICES
2911 WESTFIELD RD.
GULF BREEZE, FL 32563

BICYCLE & PEDESTRIAN COUNTER: OVERHEAD
Krome Path Towards SW 130th Street
Miami, FL 33196

DATE:
11/7/2019



SCALE:
NTS



PAGE:
2 OF 3

State Transportation Innovation Council (STIC)

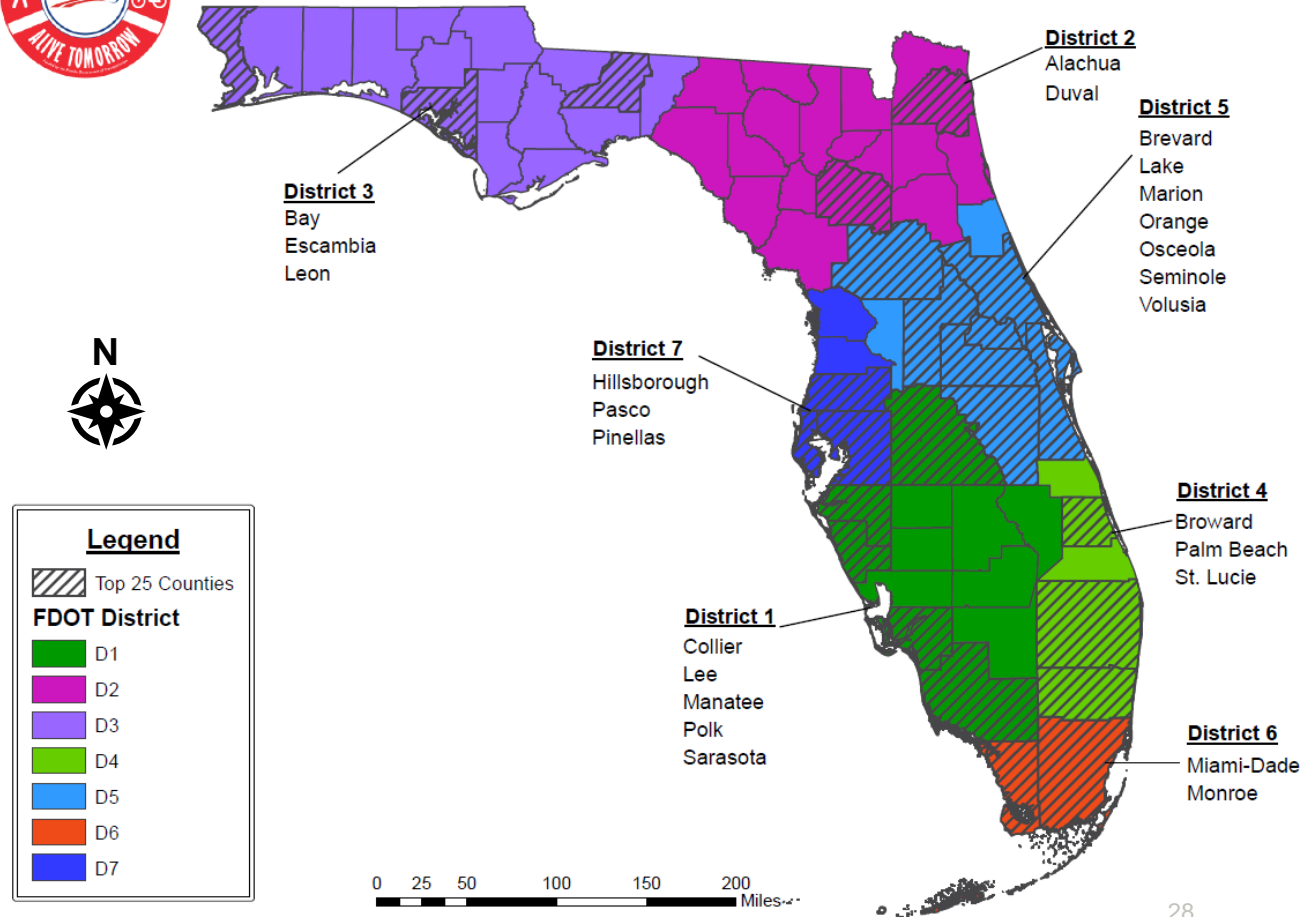
FHWA STIC Grant Award

- Awarded \$100,000 toward procurement and installation of 8 continuous counters, 1 per FDOT District
- Sites selected based on Safety Data
- Partnering with Safety Office, FDOT Districts, and Local agencies

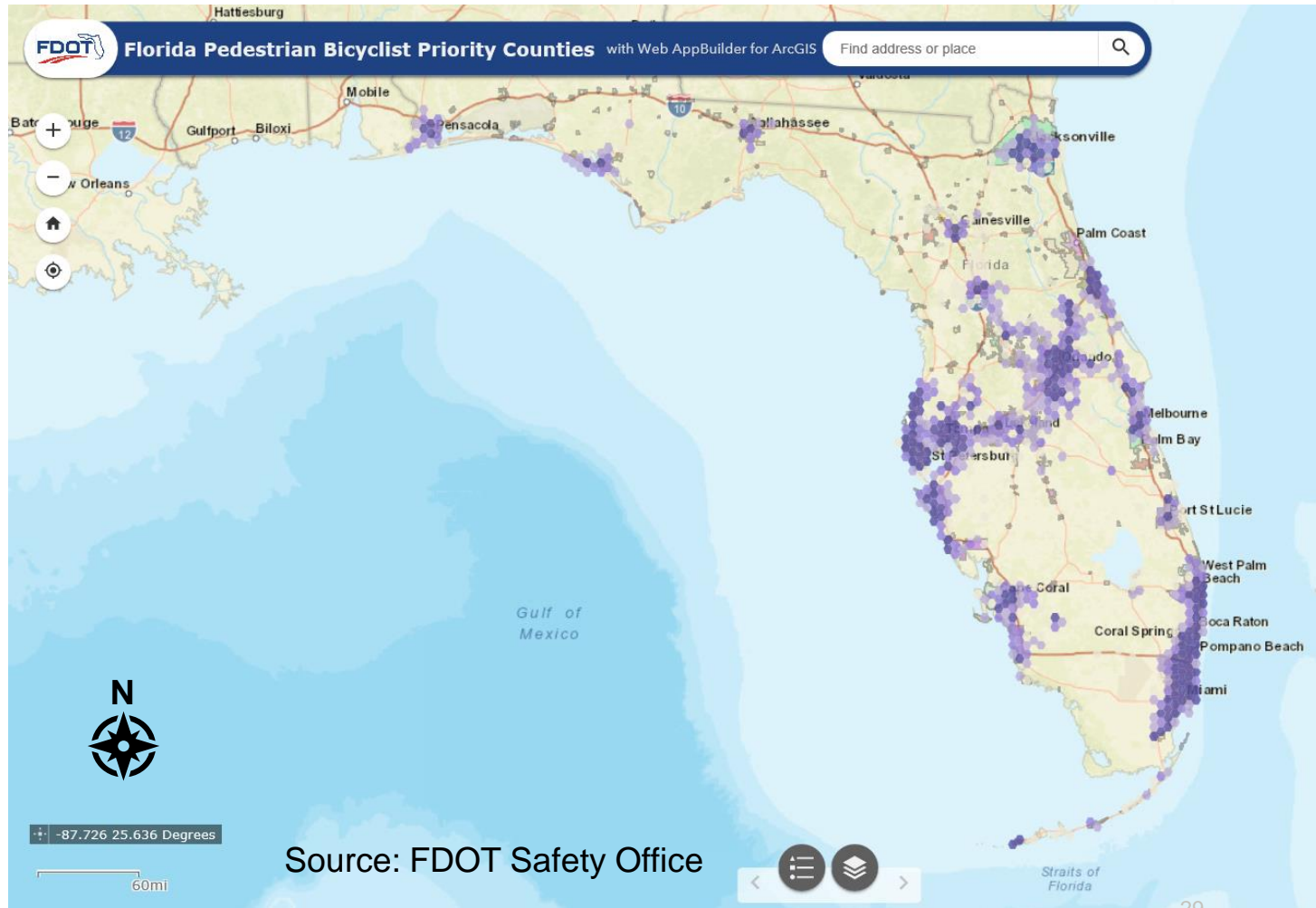
Selection Criteria



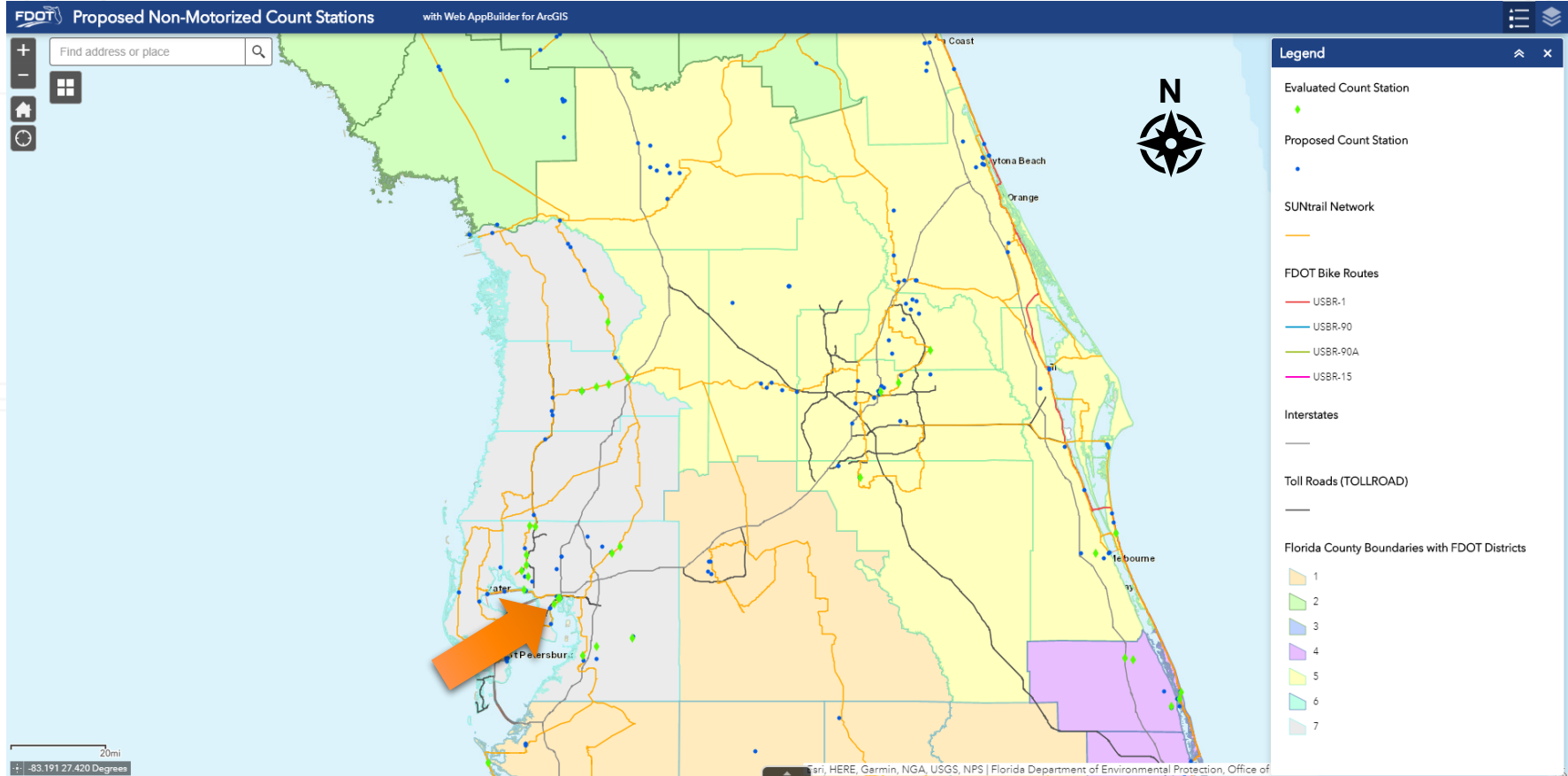
Florida's Pedestrian and Bicycle Focused Initiative 2018-2019 Top 25 High Priority Counties



Selection Criteria



District 7 Scale



City Scale

FDOT Proposed Non-Motorized Count Stations with Web AppBuilder for ArcGIS

Find address or place

Legend

Evaluated Count Station

- Green diamond icon

SUNtrail Network

- Orange line icon

FDOT Bike Routes

- USBR-1 (Red line)
- USBR-90 (Blue line)
- USBR-90A (Green line)
- USBR-15 (Purple line)

Interstates

- Black line icon

Toll Roads (TOLLROAD)

- Black line icon

Jackson St Cycle Track

FID	28
Site_Num	28
Site_Name	Jackson St Cycle Track
Latitude	27.95
Longitude	-82.46
District	7

Attachments:
[Site28.pdf](#)

[Zoom to](#)

Florida Department of Environmental Protection, Office of

District 7: Downtown Tampa



District 7: Downtown Tampa

THANK YOU!



District 7



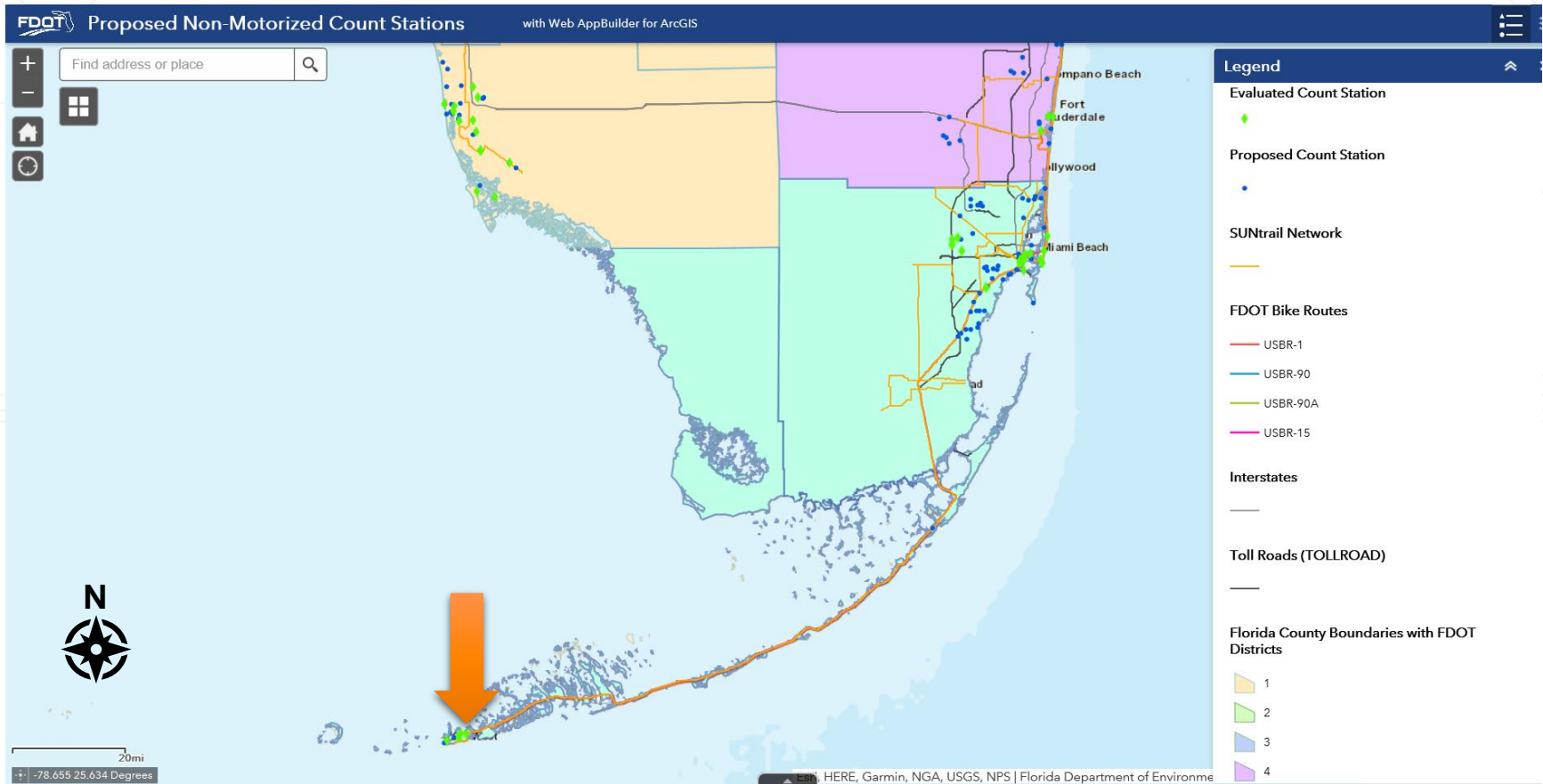
Hillsborough
County Florida



TAMPA
DOWNTOWN PARTNERSHIP



District 6 Scale



City Scale: Overseas Heritage Trail

The screenshot shows a web application interface for 'Proposed Non-Motorized Count Stations' using ArcGIS. The map displays Key West, Florida, with several trails and count stations. A popup window provides details for the 'Overseas Heritage Trail - Cow bridge'.

Proposed Non-Motorized Count Stations with Web AppBuilder for ArcGIS

Find address or place

Legend

- Evaluated Count Station
- SUNtrail Network
- FDOT Bike Routes
 - USBR-1
 - USBR-90
 - USBR-90A
 - USBR-15
- Interstates
- Toll Roads (TOLLROAD)

Overseas Heritage Trail - Cow bridge

FID	34
Site_Num	34
Site_Name	Overseas Heritage Trail - Cow bridge
Latitude	24.57
Longitude	-81.75
District	6

Attachments:
[Site34.pdf](#)

[Zoom to](#)

0.6mi
-81.811 24.561 Degrees

Florida Department of Environmental Protection, Office of

District 6: Key West Overseas Heritage Trail

THANK YOU!



District 6



Selection Criteria

Potential Continuous Count Sites			STIC Grant Criteria			TDA Criteria							
District	Site Name	Managing Agency	Safety's Top 25 counties	Bike/ped crash cluster zone	On-System	Anticipated Factor Group	Anticipated volumes	Anticipated Equipment	Evaluated by TDA	Local Agency Support	Historical Non-Motorized Data	TDA Short-term data	SUN Trail Facility
7	Jackson St Cycle track	City of Tampa/D7/Tampa	Yes	Yes	Yes	Urban commute	Medium	Camera or loops & overhead sensor	Yes	Yes	No	No	No
7	Tampa Riverwalk	City of Tampa/D7/Tampa	Yes	Yes	No	Urban Mixed	High	Camera or loops & overhead sensor	Yes	Yes	No	No	Yes
6	SE 1st Street Complete Street	Miami-Dade County	Yes	Yes	No	Urban Commute	High	Camera or loops & overhead sensor	Yes	Yes	Yes	No	No
6	Atlantic Greenway Trail	City of Miami Beach	Yes	Yes	No	Urban Mixed	High	Post & piezos strips	Yes	Yes	No	No	Yes
6	Krome Path	D6/Miami-Dade County	Yes	No	Yes	Rural Recreational	Low	Loops & overhead sensor	Yes	Yes	No	No	Yes
6	Overseas Heritage Trail	DEP/City of Key West/D6	Yes	Yes	Yes	Urban Mixed	High	Loops & overhead sensor	Yes	Yes	Yes	No	Yes

Continuous Count Best Practices

- Know the type of technology needed for your facility
 - Entity bought a counter that did not match facility surface type
- Site selection process
 - It all started with a survey
 - Virtual site visit
 - On-site visits
- Communication is key
 - Creation of the statewide coalition
 - Data sharing!
- Continuous Coordination
 - Sharing resources
 - Common Goals
 - ***Statewide meeting in May!***

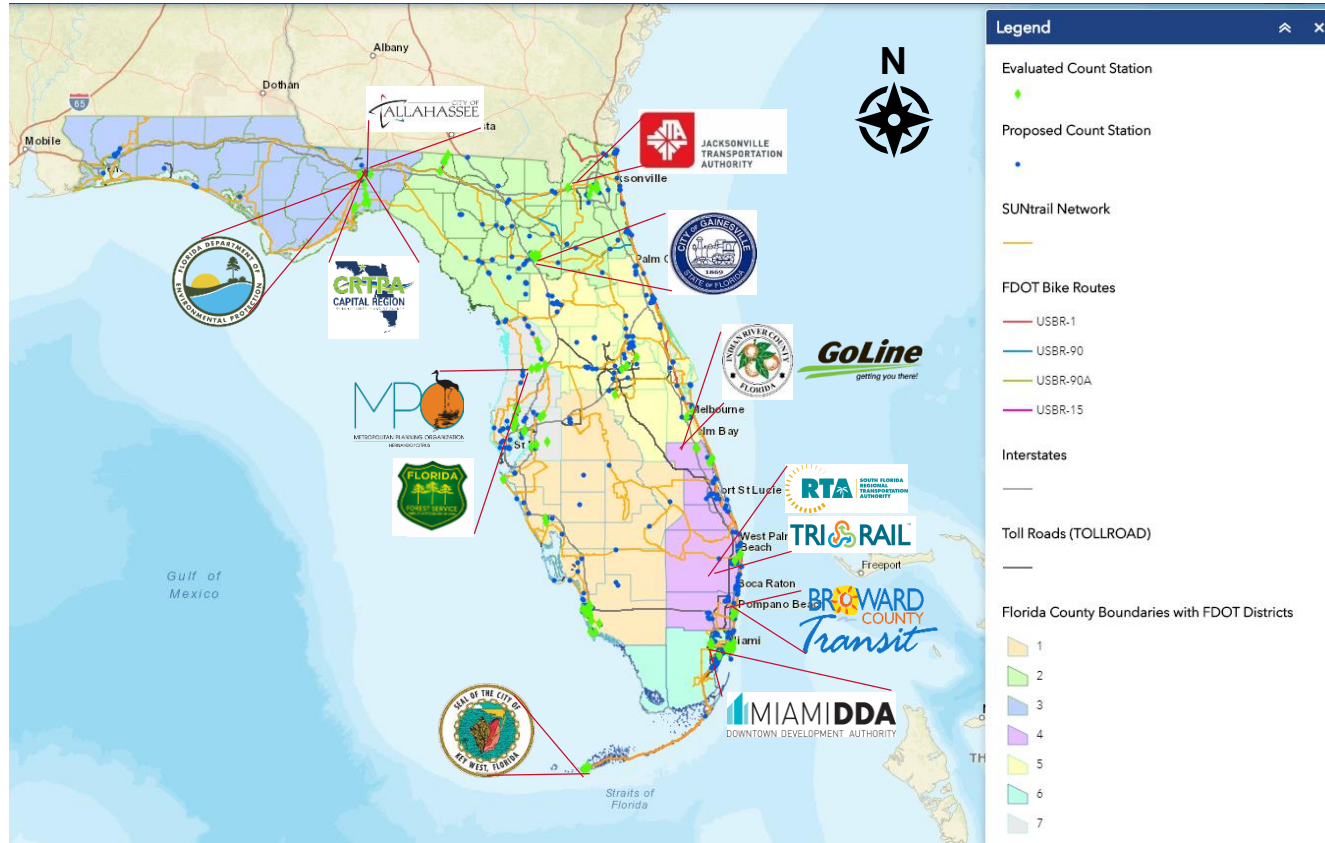


Poll Questions

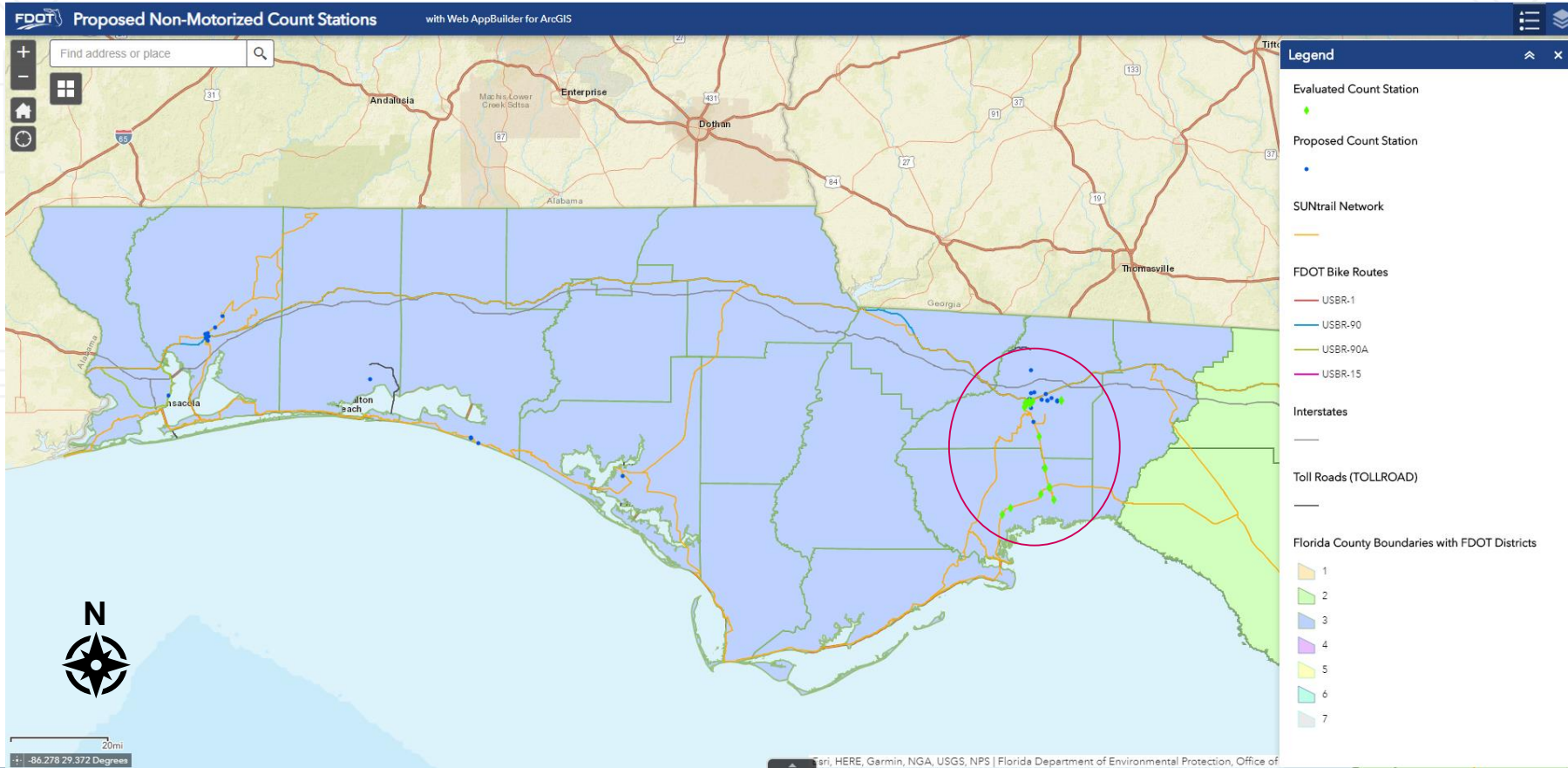
Short-term Count Program



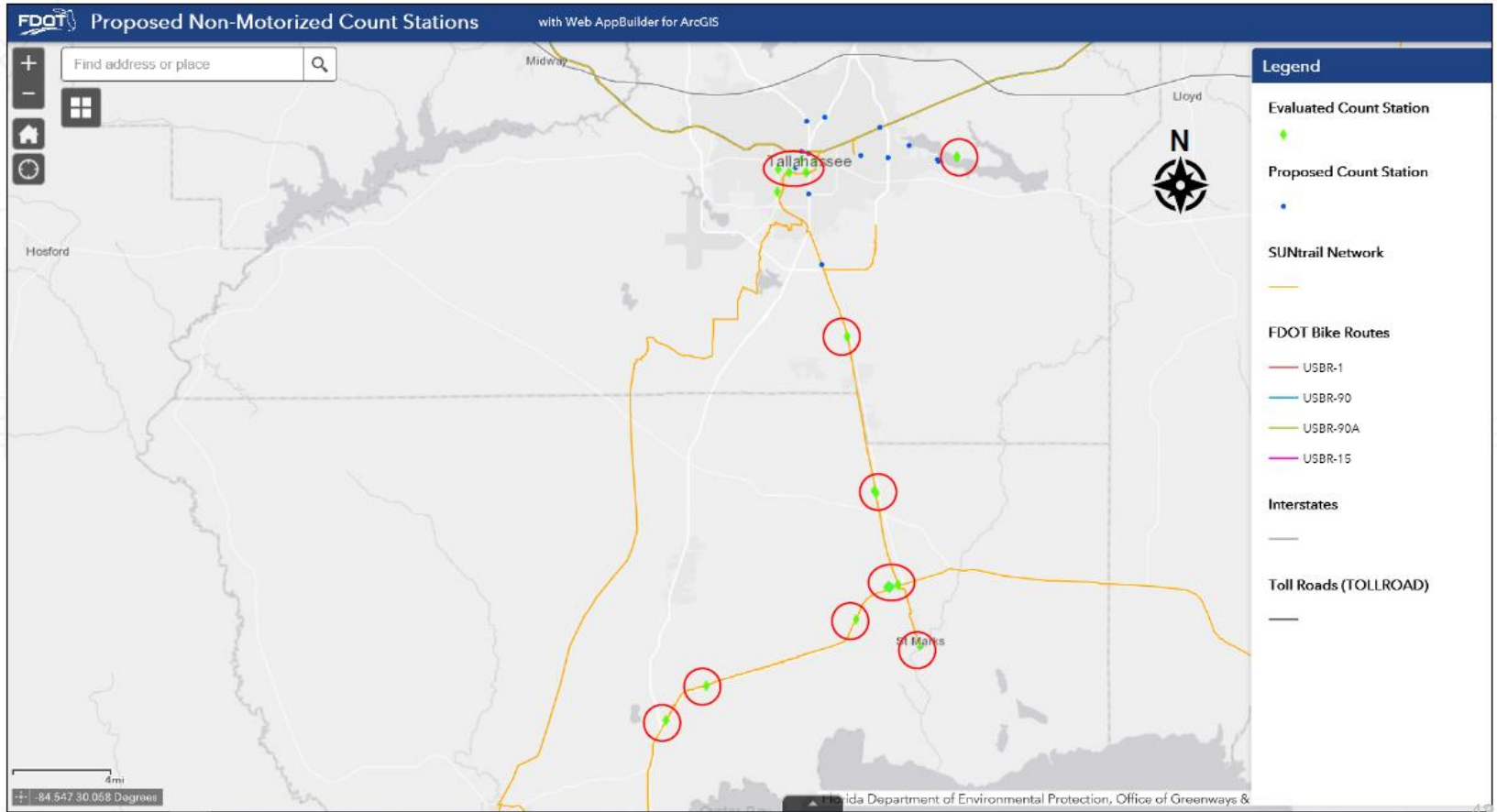
Where we have done short-term counts



District 3 Scale

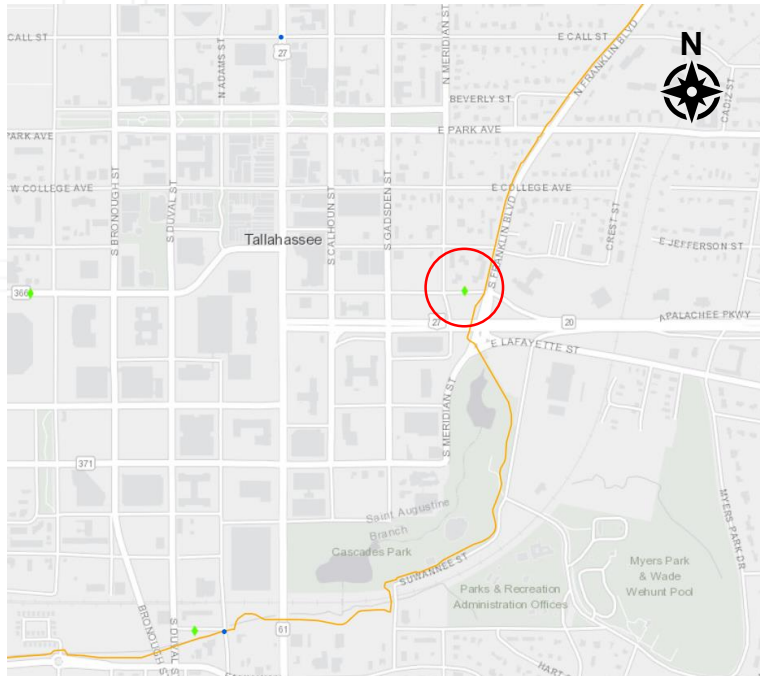


Tallahassee – Capital Region



Franklin Blvd @ Smokey Hollow

GPS: 30.4387669, -84.2766337
FDOT Station # 55N002

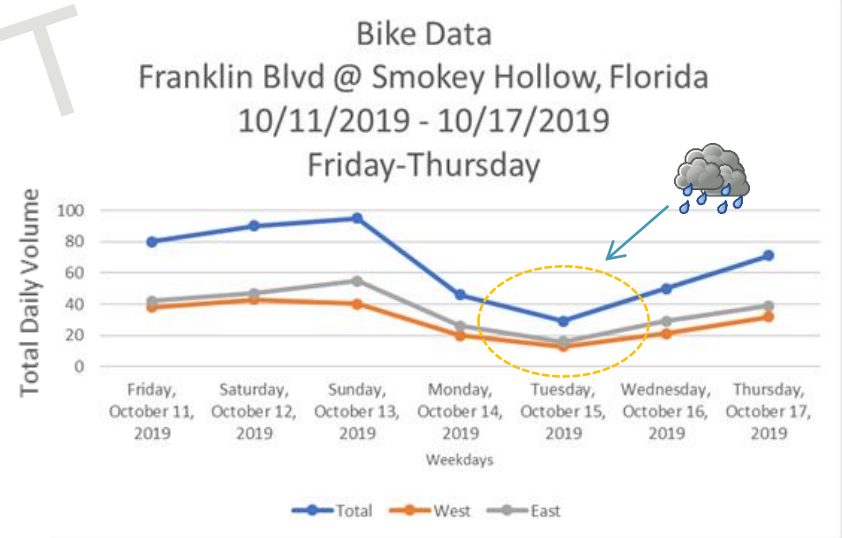
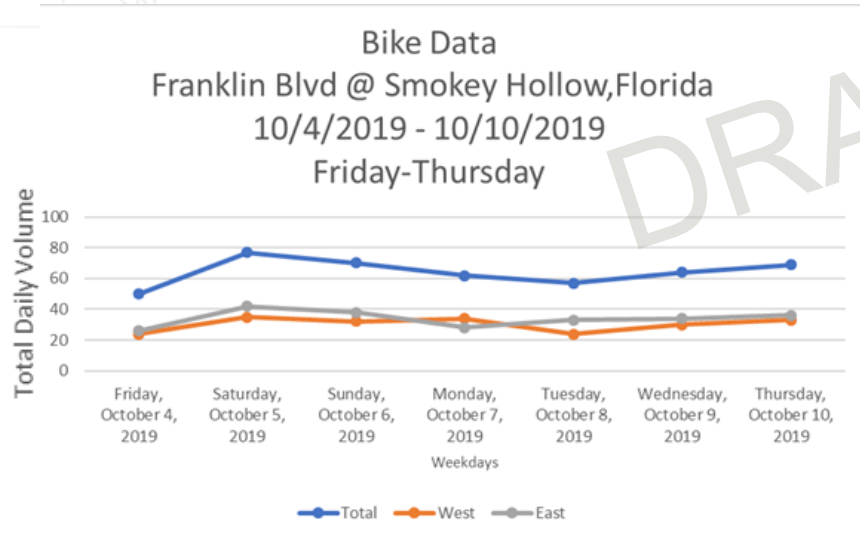


On-Site Evaluation



Site Deployment

Franklin Blvd @ Smokey Hollow



Findings:

- Potential Factor Group: Urban Mixed
- Higher Volumes during the weekend, but only slightly

NOAA Weather reference

Climatological Data for TALLAHASSEE REGIONAL AP, FL - October 2019

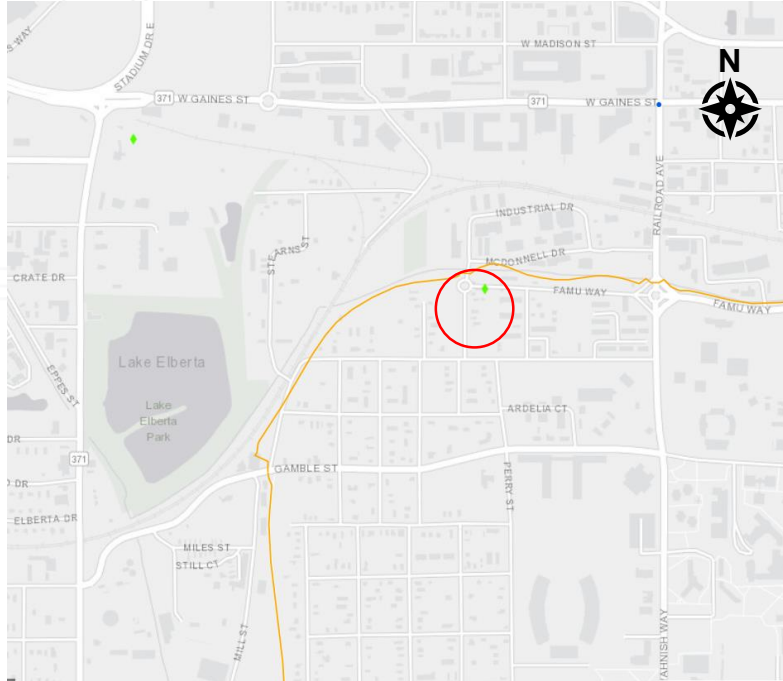
Click column heading to sort ascending, click again to sort descending.

Date	Temperature				HDD	CDD	Precipitation	New Snow	Snow Depth
	Maximum	Minimum	Average	Departure					
2019-10-01	95	72	83.5	9.3	0	19	0.01	0.0	0
2019-10-02	96	70	83.0	9.1	0	18	0.00	0.0	0
2019-10-03	97	68	82.5	8.9	0	18	0.00	0.0	0
2019-10-04	97	68	82.5	9.2	0	18	0.00	0.0	0
2019-10-05	93	69	81.0	8.1	0	16	0.00	0.0	0
2019-10-06	91	74	82.5	9.9	0	18	0.00	0.0	0
2019-10-07	86	73	79.5	7.2	0	15	0.02	0.0	0
2019-10-08	93	71	82.0	10.1	0	17	0.00	0.0	0
2019-10-09	90	68	79.0	7.4	0	14	0.00	0.0	0
2019-10-10	91	66	78.5	7.2	0	14	0.00	0.0	0
2019-10-11	88	61	74.5	3.6	0	10	0.00	0.0	0
2019-10-12	90	61	75.5	4.9	0	11	0.00	0.0	0
2019-10-13	89	62	75.5	5.2	0	11	0.00	0.0	0
2019-10-14	92	67	79.5	9.5	0	15	1.17	0.0	0
2019-10-15	82	72	77.0	7.4	0	12	1.80	0.0	0
2019-10-16	85	69	77.0	7.7	0	12	T	0.0	0
2019-10-17	74	57	65.5	-3.5	0	1	0.00	0.0	0
2019-10-18	67	60	63.5	-5.1	1	0	0.16	0.0	0
2019-10-19	83	63	73.0	4.7	0	8	0.54	0.0	0
2019-10-20	79	63	71.0	3.0	0	6	0.00	0.0	0
2019-10-21	83	57	70.0	2.3	0	5	0.00	0.0	0
2019-10-22	81	53	67.0	-0.4	0	2	0.13	0.0	M
2019-10-23	75	51	63.0	-4.1	2	0	0.00	0.0	0
2019-10-24	81	53	67.0	0.3	0	2	0.00	0.0	0
2019-10-25	87	71	79.0	12.6	0	14	0.09	0.0	0
2019-10-26	84	72	78.0	11.9	0	13	T	0.0	0
2019-10-27	82	63	72.5	6.7	0	8	0.01	0.0	0
2019-10-28	84	61	72.5	7.0	0	8	0.00	0.0	0
2019-10-29	77	72	74.5	9.3	0	10	0.24	0.0	0
2019-10-30	83	71	77.0	12.1	0	12	0.00	0.0	0
2019-10-31	89	50	69.5	4.9	0	5	0.18	0.0	0
Sum	2664	2008	-	-	3	332	4.35	0.0	-
Average	85.9	64.8	75.4	6.0	-	-	-	-	0.0
Normal	81.4	57.3	69.4	-	46	181	3.23	0.0	-

FAMU Way Shared Path

GPS: 30.43, -84.29

FDOT Station #55N003

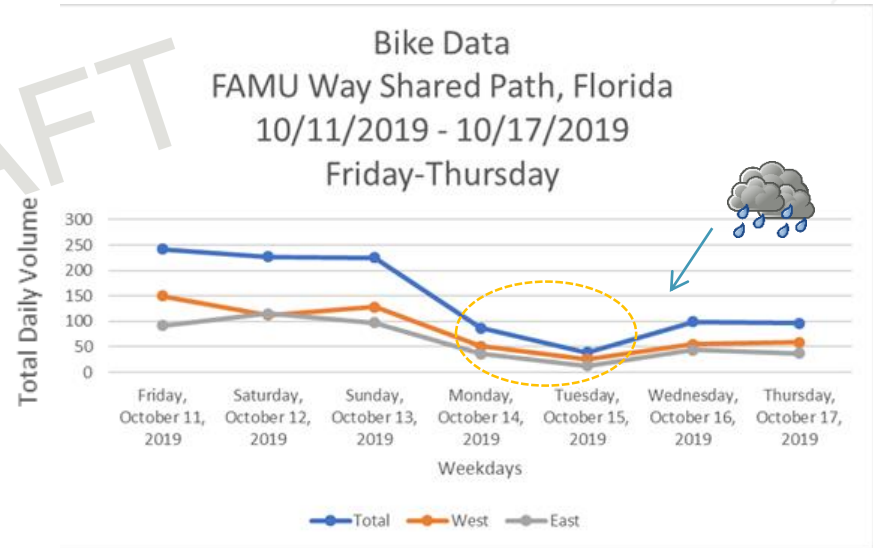
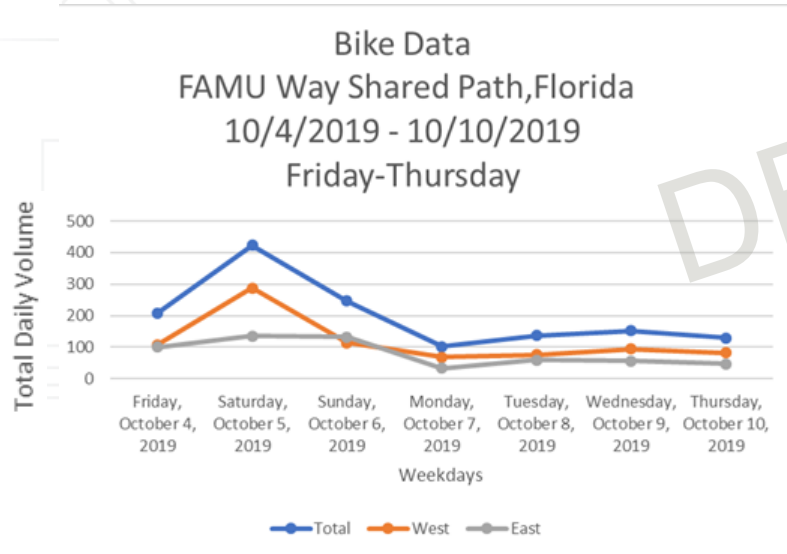


On-Site Evaluation



Site Deployment

FAMU Way Shared Path



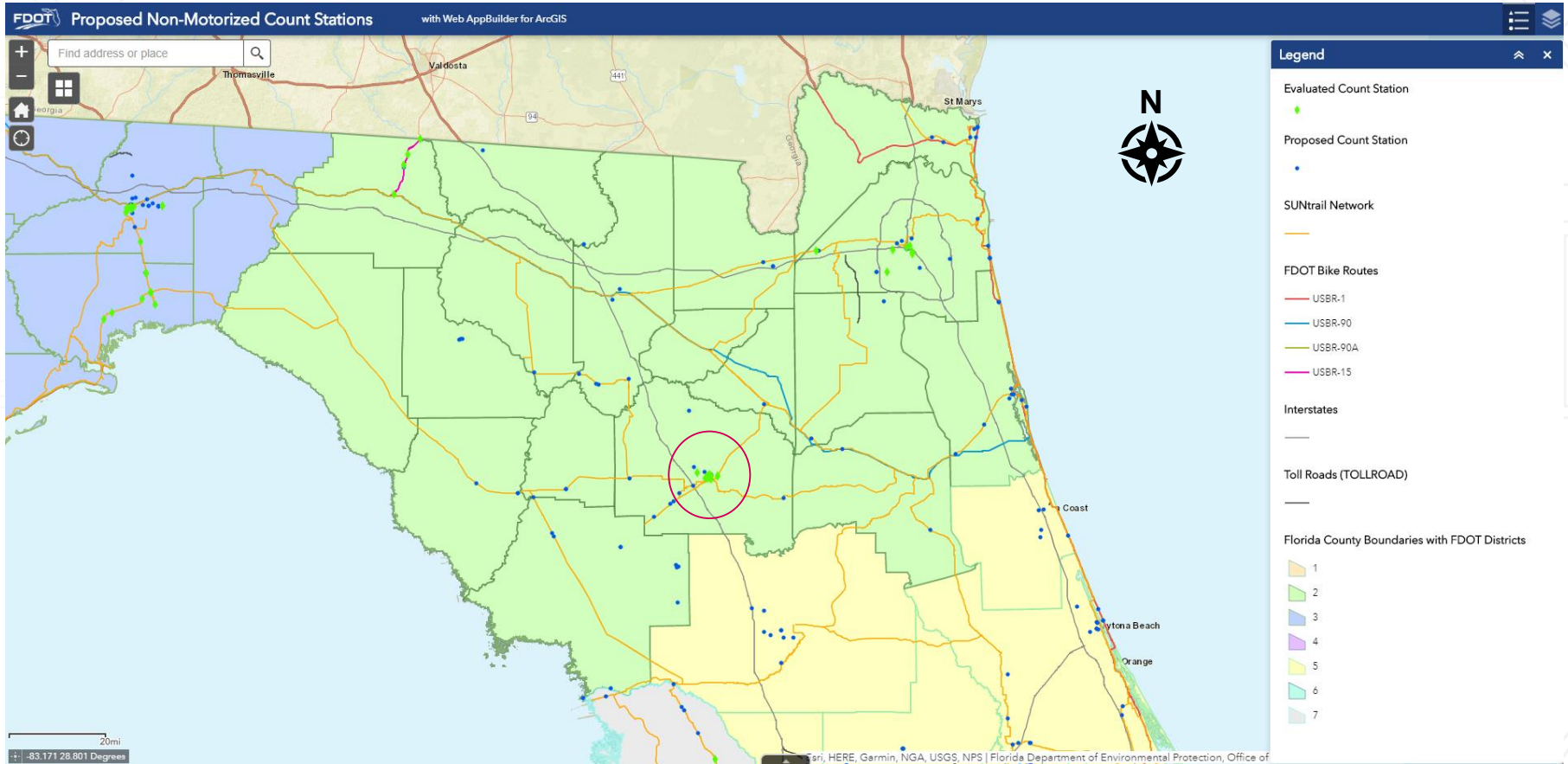
Findings:

- Potential Factor Group: Urban Mixed or University Mixed
- Higher Volumes during the weekend
- Site effected by “First Friday of Month” event

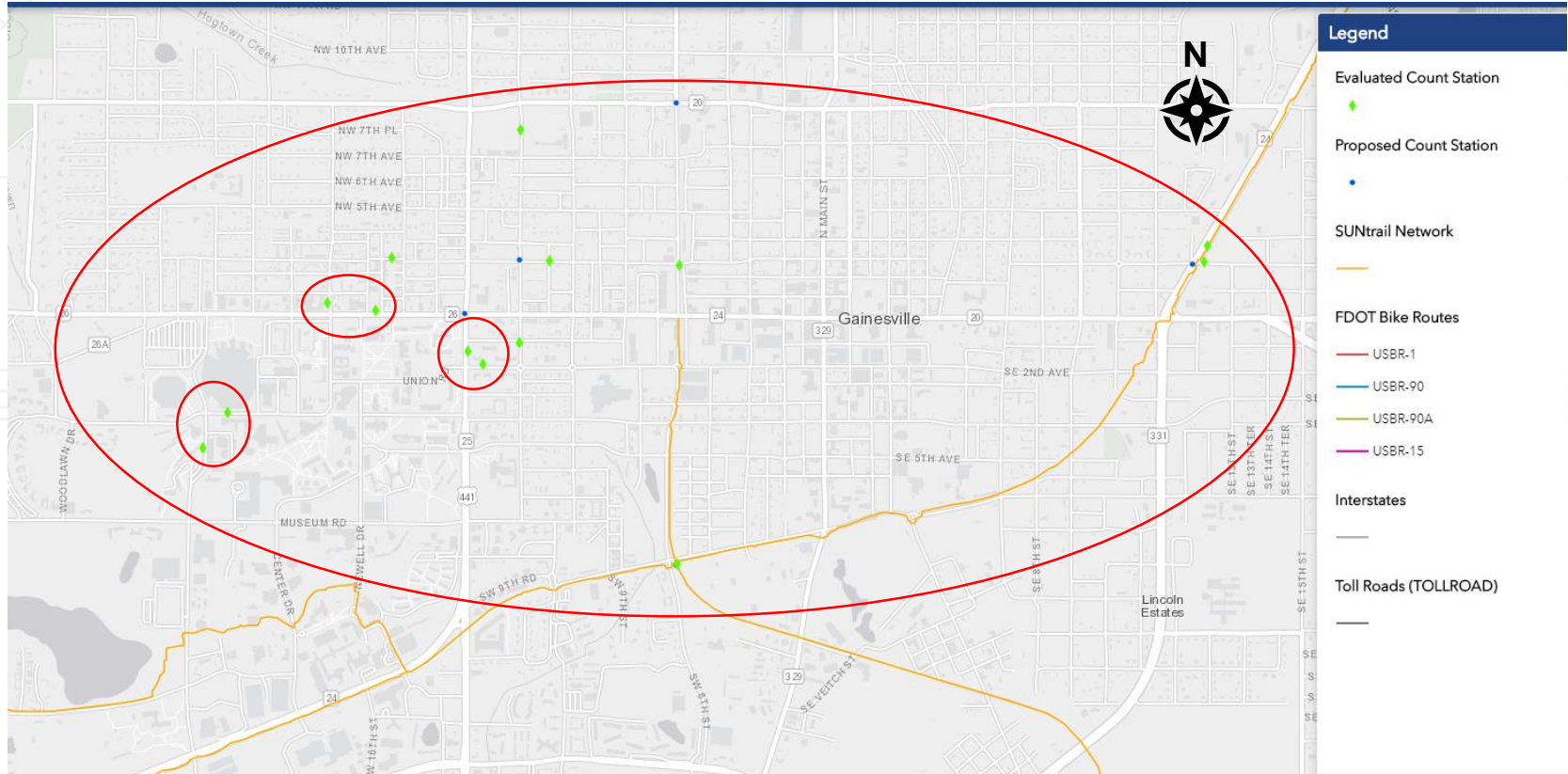
Further Analysis Needed:

- Scooter vs bike traffic

District 2 – Gainesville Count



City Scale



Next Steps

Continuous Counter Recommendations

Short term deployments now include infrared pedestrian counters

Get your MOAs completed to get loaner equipment reserved!

THANK YOU, PARTNERS!



Short-term Count Program – Transit Study

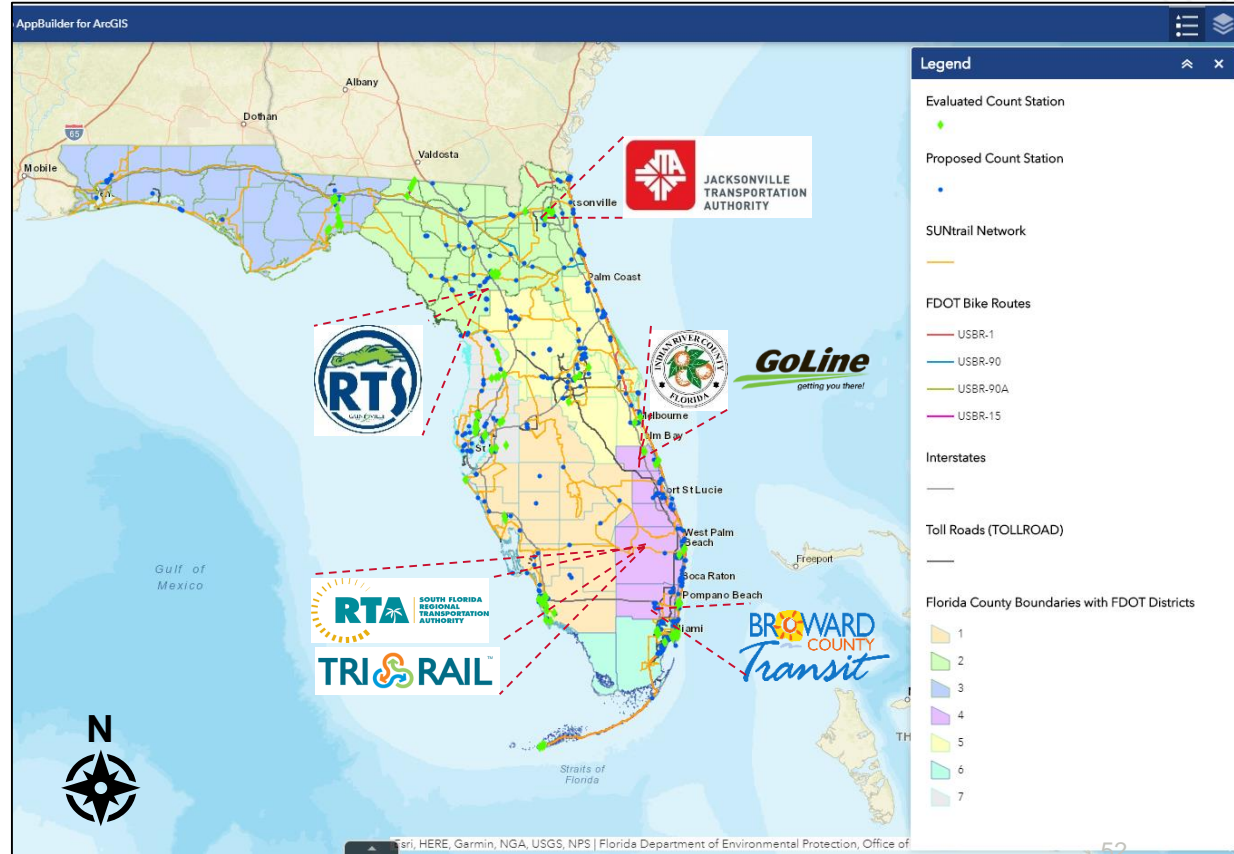
Scope

- 3 technologies
 - Tubes
 - Infrared
 - Cameras
- Support NMTM program and Transit Planning practice

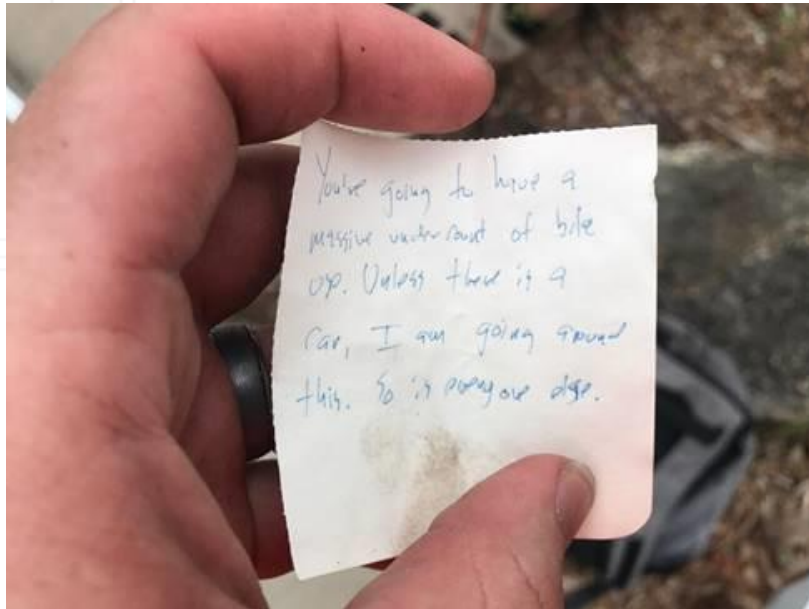
THANK YOU!



Public Transit Office



Short-term count Best Practices / Lessons Learned



Site 5 – Gale Dr. South of Stadium Dr.

- GPS: 29.647409, -82.349775
- Counters: 2 bike tube counters deployed
- Facilities: 2 bike lanes, 2 sidewalks
- Other notes: Adjacent to UF stadium, Adjacent to Transit stop, High Bicycle Crash location, High levels of bicycle activity observed




Site 6 – Gale Dr. @ Stadium Dr.

- GPS: 29.648655, -82.348826
- Counters: 3 bike tube counters deployed
- Facilities: 2 bike lanes, 1 wide sidewalk
- Other notes: Adjacent to UF stadium, High Bicycle Crash location, High levels of bicycle activity observed



2 minutes of FAQ



What equipment is available through the loaner program?

What is the difference between an intersection (TMC) count and a mid-block volume count?

Why 2-week counts?

- Weather
- Equipment issues

Outreach

NMTM Webpage:

<https://www.fdot.gov/statistics/trafficdata/florida-non-motorized-traffic-monitoring/>



Outreach

- Quarterly Statewide Updates
 - Statewide Meeting
 - Newsletter
 - Webinar
 - Newsletter
 - Statewide Meeting

NOVEMBER 2019, ISSUE NO. 1

FDOT NON-MOTORIZED TRAFFIC MONITORING PROGRAM NEWSLETTER



Continuous Counter Stress Test | Tallahassee Test-Site

WHAT'S IN THIS ISSUE

This is our first official newsletter for the NMTM Program. The intent of this newsletter is to keep our hundreds of stakeholders up to date on the progress of the program. The newsletter is organized to inform the reader on the progress of our 4 program pillars: Outreach & Partnerships, Non-Motorized Data Repository, Short-term Count Program, and Continuous Count Program.

If you have any suggestions for the newsletter's content, or if you have detailed questions regarding data sharing and/or partnerships, please contact Eric.Katz@dot.state.fl.us.



Greetings fellow non-motorized data collectors,

We hope everyone is enjoying the Fall season. Since the June 2019 Statewide Meeting, the FDOT Transportation Data and Analytics (TDA) Office has been hard at work developing the Non-Motorized Traffic Monitoring (NMTM) Program. Below are some of the highlights of the program's recent activities.

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OUTREACH & PARTNERSHIPS

The NMTM website has been updated with more program information and convenient access to numerous resources. <https://www.fdot.gov/statistics/trafficdata/florida-non-motorized-traffic-monitoring/>

The NMTM Program has released its 2nd [Recommendations Report](#). The report highlights program activities from January 2019 to September 2019. Refer to this document for more detailed information regarding the growth and direction of the program.

Statewide Webinar #2 is scheduled for January 23, 2020. A flyer with registration information will be provided soon.

.....

Outreach - Statewide Meeting #2 – May 2020



Knowledge sharing



Recommending count sites



Field day at Test Site

Call to Action!

This is a statewide effort!
We can't do this alone!
We look forward
to collaborating with you!

Questions:

Eric.Katz@dot.state.fl.us

EStolz@marlinengineering.com

TDA Office:

Ed.Hutchinson@dot.state.fl.us

Steven.Bentz@dot.state.fl.us

Joey.Gordon@dot.state.fl.us

Eric.Griffin@dot.state.fl.us

Victor.Johnson@dot.state.fl.us



Poll Questions / Questions from Audience