Agenda

• The Team
• Big Picture
• Year-1 in Review
• Next Steps
• Questions
Transportation Data and Analytics Team

Ed Hutchinson – Transportation Data and Analytics Office Manager
Steve Bentz – Traffic Monitoring Program Manager
Joey Gordon – Transportation Data and Analytics Supervisor
Eric Griffin – Telemetered Traffic Count Station Manager
Chris Francis – Project Manager, Marlin Engineering.com
Liz Stolz – Data Scientist, National Expert, Marlin Engineering Inc.
Eric Katz – Statewide Non-Motorized Traffic Monitoring Program Coordinator, Marlin Engineering

FDOT Central Office Working Group

Safety Office – Joe Santos, Trends McPherson, Rupert Giroux
Transit Office – Gabe Matthews, Chris Wiglesworth
Systems Planning Office – Huiwei Chen, Robin Birdsong
Design Office – DeWayne Carver, Mary O’Brien
Policy Office – Martin Markovich
Traffic Operations – Alan El-Urfali, Javier Ponce
Big-Picture

Program Status
Current Status of Program

• We have a program!
• TDA is ready to begin formal non-motorized counts statewide
• TDA must stay focused on the fundamentals of high-quality data collection
  • Technology
  • Methodology
• Partnering FDOT offices and partnering agencies will apply that data for their own specific needs.
How we got here…

May 2018
Non-Motorized Pilot Study 2016-2017

- Transportation Data and Analytics Office
  - “If it moves we count it.” – Steve Bentz
- State of the Practice
  - Count Methodologies
  - Count Technologies
- 2016 Non-Motorized Pilot Study
Research
The intent of this handbook is to provide guidance to those that collect, code, and use traffic data in an accurate and consistent manner statewide.

Handbook link below…
https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/statistics/docs/traffic-monitoring-handbook.pdf?sfvrsn=e8a9f204_0
Traffic Monitoring Handbook Contents

• Introduction
• Methodology
• Non-Motorized Data Collection Challenges
• Continuous Count Practices
• Short-Term Count Practices
• Non-Motorized Data Collection Technology
Survey Results

• 240* emails
  • Districts, MPOs, Counties, Cities
    • Public Works; Planning Directors
  • Bike/Pedestrian advocacy organizations
  • Public Health organizations
  • Encouraged survey takers to share the survey link to their local networks

• 264 Total Survey Respondents

• 406 Locations recommended
Survey Results

Bike/Ped Survey District Count

<table>
<thead>
<tr>
<th>District</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>District 7</td>
<td>49</td>
</tr>
<tr>
<td>District 6</td>
<td>57</td>
</tr>
<tr>
<td>District 5</td>
<td>81</td>
</tr>
<tr>
<td>District 4</td>
<td>72</td>
</tr>
<tr>
<td>District 3</td>
<td>37</td>
</tr>
<tr>
<td>District 2</td>
<td>81</td>
</tr>
<tr>
<td>District 1</td>
<td>29</td>
</tr>
</tbody>
</table>
Q2

Are any bicycle and pedestrian counts being conducted by your agency?

- Yes: 0%
- No: 100%
Survey Results

What is the purpose of collecting data at this location? Please click all that apply.
Survey Results

Is your organization willing to provide data collection funding/resources for data collection activities? For example, provide support as a data contributor, data tester, and/or data user? (A Yes answer does not constitute an obligation for support.)

[Bar chart showing responses: Yes, Maybe, No]
Survey Results

Survey Map
https://fdot.maps.arcgis.com/apps/webappviewer/index.html?id=df6696c128514bb6b0c6710758fd050b

Survey Monkey Link
https://www.surveymonkey.com/r/FDOTBikePedDataCollection Survey
Field Visits = 55 site visits in 2 weeks

Metroplan Orlando

District 7, Tampa DDA

City of Gainesville

Collier County MPO, City of Naples

City of Jacksonville

Madison County
### On-Site Visit Form

- **SITE NAME:** St. Marks Trail @ J. Lewis Park
- **DATE OF SITE VISIT:** 12/5/2018
- **LOCATION:** St. Marks Trail @ J. Lewis Park
- **WEATHER CONDITIONS:** Cool and cloudy
- **FACTOR GROUP:** Rural Recreational
- **PICTURES TAKEN:** Yes
- **GPS:** 31.365741, -84.754567
- **CITY AND DOT DISTRICT:** Tallahassee, District 5
- **LANE WIDTH:** 12
- **# OF LANES:** 12
- **SIDEWALK WIDTH:** 0
- **# OF SIDEWALKS:** 1
- **SITE RANKING:** Short-term
- **RANKING NOTE:** Good short-term location

### 1 - On-Site Characteristics

**Step 1:** Evaluate On-Site Characteristics. Below are some guidelines and things to look for when choosing sites for continuous counting purposes. Check the boxes as applicable below.

1. **Avoid power lines**
2. **Avoid water bodies**
3. **Avoid vegetation that obstructs visibility**
4. **Avoid areas where people stop and mill around an area**
5. **Avoid hills**
6. **Avoid berms**
7. **Avoid locations with pinch points that allow a counter to capture all traffic**
8. **Avoid counting at the intersection, preferred counting locations are mid-block**

### 2 - Site Specific Observations and Behaviors

**Step 2:** Determine Baseline Activity Levels and Evaluate Site Specific Observations and Behaviors. When on-site, evaluate conditions and baseline activity levels using the checklist below. If the site has no bicycle and/or pedestrian activity during the site visit and there is no evidence to substantiate activity may occur at other times.

1. **Determine Baseline Activity Levels and Behaviors**
2. **Test for Interference, are there visible power lines**
3. **Watch Traffic, look for origin and destinations**
4. **Look for Choke Points (special funneling point such as bridges, tunnels, or overpasses)**
5. **Note all observations during the On-Site visit**
6. **Gather additional information from recommending Agency**
7. **Search for data sources such as Strava**
8. **Other sources of information**
9. **Perform Short Duration Counts at potential CCS!!**
Recommendations Report

- Recommendations Report submitted in December 2018
  - Outlines direction of Program
    - 4 Pillars
  - Review of survey results
  - Review of statewide on-site visits
Evaluation Forms

Survey Map

https://fdot.maps.arcgis.com/apps/webappviewer/index.html?id=df6696c128514bb6b0c6710758fd050b
FDOT Non-Motorized Traffic Monitoring Program

1. CONTINUOUS COUNT PROGRAM
FDOT’s goal is to install 1-2 continuous count stations per district, per year. The data will be published and shared on Florida Traffic Online.

2. SHORT-TERM COUNT LOANER PROGRAM
FDOT is providing partnering agencies with short-term count equipment and installation training. In return, FDOT will receive localized non-motorized count data.

3. STATEWIDE REPOSITORY
FDOT is accepting non-motorized data from agencies statewide. TDA will evaluate the data, identify trends, and submit the data to FHWA’s brand new national non-motorized database.

4. STATEWIDE OUTREACH & PARTNERSHIPS
FDOT will actively share progress of the program through published reports, manuals, hosting periodic webinars, and one statewide meeting a year.
Data Sharing

- FDOT obtained data
  - FDOT TDA Non-Motorized Pilot Study
  - District 5 Non-Motorized Data Collection Study
Webinar #1

February 2019
Webinar Results

• Webinar #1
  • Follow-up with survey respondents
  • Update group about program
  • Formal invite to join Florida Non-Motorized Traffic Data Committee
  • Answer questions/gain feedback

• Webinar Link below…
• https://register.gotowebinar.com/recording/2101469483328667916
State of Florida Non-Motorized Data Collaboration

- Federal: 2%
- State: 45%
- MPO/County: 20%
- City: 23%
- P3/NGO: 10%

<table>
<thead>
<tr>
<th>AGENCY TYPE</th>
<th># of AGENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>2</td>
</tr>
<tr>
<td>State</td>
<td>37</td>
</tr>
<tr>
<td>MPO/County</td>
<td>17</td>
</tr>
<tr>
<td>City</td>
<td>19</td>
</tr>
<tr>
<td>P3/NGO</td>
<td>8</td>
</tr>
</tbody>
</table>
Short-Term Count Loaner Program

March/April 2019 - Present
City of Tallahassee/Leon County Partnership

- Devices will be placed in proposed locations for 2-week periods
- Device can be moved to other locations
- Program will start with local Tallahassee agencies
  - City of Tallahassee
  - Leon County
Site Visits
Signed Memorandum of Agreement

RFD Non-Motorized Traffic Counting Hardware

Memorandum of Agreement

This Memorandum of Agreement, hereinafter referred to as the “Agreement,” is made and entered into the last day executed hereof, by and between the Florida Department of Transportation, an agency of the State of Florida, hereinafter referred to as the “Department,” and Colasofloon, hereinafter referred to as the “COT.”

WHEREAS, the Department seeks to establish a statewide Non-Motorized Traffic Monitoring Program and,

WHEREAS, the COT has agreed to participate in data collection needs and to ensure certain responsibilities in the manner and to the extent as hereinafter set out and;

NOW, THEREFORE, the parties hereto shall approve this Agreement within sixty (60) days of receipt of this Agreement. In the event the COT fails to approve said Agreement within sixty (60) days of receipt, the COT forfeits its access to the equipment and training offered by the Department, a hereinafter stated.

This Agreement states the purposes and undertakings of each party as herein provided, and the parties do hereby covenant and agree, each with the other, as follows:

1. PURPOSES

The Department and COT shall be responsible for achieving all work performed and that all terms are met in this Agreement and is agreed to by the Department and COT and/or its agents. The Department and the COT may elect to enter into agreements or contracts equal to the terms of the Agreement. Such agreements may include a local government member of the COT or a contractor qualified and approved by the Department to perform the work described in this Agreement.

The Department and/or its agents will provide technical oversight to the COT and/or its agent. The COT and/or its agent must provide a primary contact for the program to the Department upon approving this Agreement.

The COT and/or the Department and/or its agent shall complete installation activities of the first five non-motorized counter together at any time of training to the COT and/or its agent. The remaining counters will be installed by the COT and/or its agent, with support from the Department as needed.

Failure on the part of the COT to comply with any of the provisions of this Agreement will be grounds for the Department to terminate its participation. Take the counter equipment back from the COT and if applicable, seek reimbursement for any damages done to the equipment beyond standard wear and tear.

Any administrative modifications to this Agreement or its terms will be agreed upon in writing by the Department and COT prior to being implemented. The Department may integrate the approval of any administrative modifications to the Manager of the Department’s Transportation Data Analytics (TDA) Office.

2. SECTIONS OR PROVISIONS

The COT and/or its agent is responsible for providing installation approval and access to the proposed short-term count locations. The COT, at its sole expense, shall install, monitor and inspect the equipment. All station locations must be identified and selected in accordance with the Department’s Non-Motorized Traffic Monitoring Program. The COT will submit candidate sites to the Department for approval. Both parties will remain responsible for the equipment. At the conclusion of the project, the COT will return the bicycle counter equipment, and other related hardware, to the Department.

3. CONTRACT TERMS AND TERMINATION

The world life of this equipment will be for up to ten (10) years. Any agreements entered into shall be for a period of five (5) years. Either party may terminate this agreement at any time with a 30-day written notice of intended to terminate.

4. ENFORCEMENT AGREEMENT

If any part of the equipment is to be located on State Highway System right-of-way or property, the COT shall secure an Enforcement Agreement with the Department prior to performing any work or improvement on that right-of-way or property.

5. RIGHT TO INSPECT

The Department and/or its agent shall have the right to inspect, test, approve or reject any portion of the work being performed by the COT or its agent to ensure compliance with the provisions of this Agreement. Any deficiencies encountered in the Department’s data collection protocols or Non-Motorized Traffic Monitoring hardware and specifications found during an inspection must be corrected by the COT.

6. CONTRACTOR COMPLIANCE

The COT shall be responsible for ensuring that its agent(s) and contractor(s) comply with all terms of the contract and any instructions issued by the Department as a result of any reviews or inspection made by said representatives.

AGENCY RULES AND RESPONSIBILITIES

This section explains the general guidelines for agency rules and responsibilities related to short-term counting equipment installations for the Florida statewide Non-Motorized Traffic Data Collection Program. It lists rules and responsibilities between the Department and partners agencies and/or their contractors.

The Department, in coordination with the state data partners, will select the installation sites based on interference testing, feasibility, and the better group(s) is expected to represent.

Data Partner (COT) Responsibilities

1. Locate Utilities, if necessary, for equipment installation

2. Set up and manage traffic control, if necessary, for equipment installation

3. Close street

4. Approve equipment installation locations

5. Meet Department staff on site during installation

6. Install, inspect, and monitor equipment according to training

7. Review and submit data to Department in accordance with training

Department Responsibilities

1. Conduct equipment test prior to field deployment

2. Define counter equipment to be installed in Data Partner

3. Test for environmental interference with equipment

4. Determine field counter placement

5. Provide installation training to data partner and/or its agent

6. Conduct diagnostics to quickly identify information after installation

7. Counter battery implies

Data Partner Responsibilities for both parties during installation of first counter device

1. Install equipment, such as hammers, tape measure, ruler, binoculars, road signs, cones, safety vests, etc.

2. Provide breaks for testing

3. Provide laptops for testing and finishing task equipment

IN WITNESS WHEREOF, each of the undersigned Parties has caused its duly authorized representative to execute this Memorandum of Agreement.

CITY OF TALLAHASSEE

SIGNED THIS ______ day of ______, 20____

[Signature]

[Title]

[Date]

ATTEND TO:

By:

[Signature]

[Title]

[Date]

APPROVED BY THE DEPARTMENT OF TRANSPORTATION (TDA OFFICE MANAGER)

SIGNED BY:

[Signature]

[Title]

[Date]
Cascades Trail Bike lane and Sidewalk
Lafayette Greenway Bridge
Franklin Blvd Shared Use Path
Lake Bradford Road @ Hutchinson Street
St. Marks Trail Extension
Continuous Count Program

May 2018 - Present
St. Marks Trail – One Year Continuous Counter

https://www.fdot.gov/statistics/datalytics.shtm
Other Partnerships

On-going
Miami Downtown Development Authority
SUN Trail Statewide Study

- Systems Planning Office
- SUN Trail Statewide Data Collection Study
- Provided assistance with non-motorized volume counts on 4 locations along Good Neighbor Trail in District 7
State-Based Innovation Deployment -
The STIC Network is about establishing a group
of representatives from various levels of the highway
community in each State to comprehensively and
strategically consider all sources of innovation.
Outreach Events

On-going
Year-1 Outreach 2018-2019

• Institute of Transportation Engineers – Florida Chapter Annual Meeting (2018)
• Transportation Research Board (2018)
• Baptist Health South Florida – Leadership Development Institute (2019)
• FDOT Statewide Bicycle and Pedestrian monthly conference calls (On-going)
• FDOT Statewide SUN Trail monthly conference calls (On-going)
• FDOT Statewide Bicycle and Pedestrian Partnership Quarterly meetings (On-going)
• FDOT Statewide Bicycle and Pedestrian Quarterly Safety Coalition Meetings (On-going)
• FDOT Transportation Symposium (2019)
Quick Review

Program Structure and Current Resources
1. CONTINUOUS COUNT PROGRAM
FDOT’s goal is to install 1-2 continuous count stations per district, per year. The data will be published and shared on Florida Traffic Online.

2. SHORT-TERM COUNT LOANER PROGRAM
FDOT is providing partnering agencies with short-term count equipment and installation training. In return, FDOT will receive localized non-motorized count data.

3. STATEWIDE REPOSITORY
FDOT is accepting non-motorized data from agencies statewide. TDA will evaluate the data, identify trends, and submit the data to FHWA’s brand new national non-motorized database.

4. STATEWIDE OUTREACH & PARTNERSHIPS
FDOT will actively share progress of the program through published reports, manuals, hosting periodic webinars, and one statewide meeting a year.
Available Resources


• Survey Link - https://www.surveymonkey.com/r/FDOTBikePedDataCollectionSurvey

• Survey Results Map - https://fdot.maps.arcgis.com/apps/webappviewer/index.html?id=df6696c128514bb6b0c6710758fd050b

• Short-Term Loaner Program - Eric.Katz@dot.state.fl.us

• Statewide Repository - Eric.Katz@dot.state.fl.us
Moving Forward

Year-2 Official Kick-off
Statewide Meeting #1

STATEWIDE NON-MOTORIZED TRAFFIC MONITORING PROGRAM

WHERE
FDOT Central Office Auditorium
605 Suwannee Street
Tallahassee, FL 32308

Learn the latest developments regarding non-motorized data collection methodologies, technologies, best practices, and how your agency can partner with FDOT’s Transportation Data and Analytics Office.

MEETING SCHEDULE

18
TUE
1:00 PM
Welcome & Introductions
2:00 PM
Statewide Non-Motorized Traffic Monitoring Program
2:45 PM
Year in Review
3:30 PM
FDOT Statewide Non-Motorized Data Needs
4:15 PM
Non-Motorized Data Application Examples
5:00 PM

19
WED
9:00 AM
Continuous Count Program Presentations & Discussion
10:00 AM
Short Term Count Program Presentations & Discussion
11:00 AM
Statewide Repository Presentations & Discussion
12:00 PM
Lunch
1:00 PM
Local & Regional Non-Motorized Data Collection Initiatives
2:00 PM
Count Site Deployment Workshop
3:00 PM
Data Collection Vendor Introductions
4:00 PM

20
THU
9:00 AM
Non-Motorized Technology Mini-Expo
12:00 PM
Mini-Expo will be held in FDOT Non-Motorized Bike Site located on Capital Circle Southeast

RSVP Deadline: June 3rd, 2019 | Email Eric.Katz@dot.state.fl.us to reserve your space

*Subject to change