SUMMARY MINUTES - ADOPTED

Bicycling and Pedestrian Advisory Committee (BPAC)

Broward County Government Center, in person
1 University Drive, 2nd FL Hearing Room, Plantation, FL 33324
September 11, 2024, at 6:30 p.m.

Board Members Present

Steve Lim – District 1
Chris Wolf – District 3
George Palaidis – District 4
Maximiliano Goldstein (Vice Chair) – District 5
Michael Kroll (Chair) – League of Cities

Board Members Absent

Janet Arango – District 6

County Staff

Sara Forelle, Senior Planner, BPAC Coordinator, Urban Planning Division.

Attendees

Eric Katz, FDOT.

Phillip Kim, former BPAC member.

I. CALL TO ORDER

Michael Kroll, Chair called the meeting to order at 6:33 PM.

II. ROLL CALL

The roll was called by staff. A quorum was present at roll call. Attendees introduced themselves. Chair Kroll welcomed the attendees and recognized former BPAC member Kim. Chair Kroll thanked Mr. Kim for his term of service with the BPAC and presented him with a certificate of appreciation. Mr. Kim is employed with Broward County and no longer eligible to serve on the BPAC.

Figure 1 - Phillip Kim is receiving a certificate of appreciation from Chair Kroll. In the background are Members Lim, Vice Chair Goldstein and Member Wolf (l-r).

III. APPROVAL OF MINUTES – July 10, 2024

Chair Kroll requested but did not receive any comments on the minutes. Upon a motion by Vice Chair Goldstein, seconded by member Wolf, the July 10, 2024 minutes were approved by unanimous vote.

IV. NEW BUSINESS

PRESENTATION – Statewide Non-Motorized Vehicle Monitoring – Eric Katz, AICP, PMP Central Office - Statewide Non-Motorized Traffic Monitoring Program Coordinator, FDOT (with Marlin Engineering).

Figure 2 - Cover slide from FDOT presentation on Non-Motorized Traffic Monitoring Program.

Ms. Forelle introduced Mr. Katz and thanked him for traveling from Orlando to meet with the BPAC. Mr. Katz stated he is a consultant with Marlin Engineering working for the Florida Department of Transportation's Office of Policy Planning at FDOT Central in Tallahassee.

The vehicle monitoring program has been around for over 60 years and began with cars and trucks. The non-motorized vehicle monitoring program was initiated in 2018 with the purpose of collecting statistically valid bicycle and pedestrian volume data. The data is used to prepare and publish annual calculations and statistical data on participating corridors.

Mr. Katz explained the presentation is organized around the following four Statewide pillars that make up the program:

- Repository
- Outreach
- Short-term Count Program, and
- Continuous Count Program

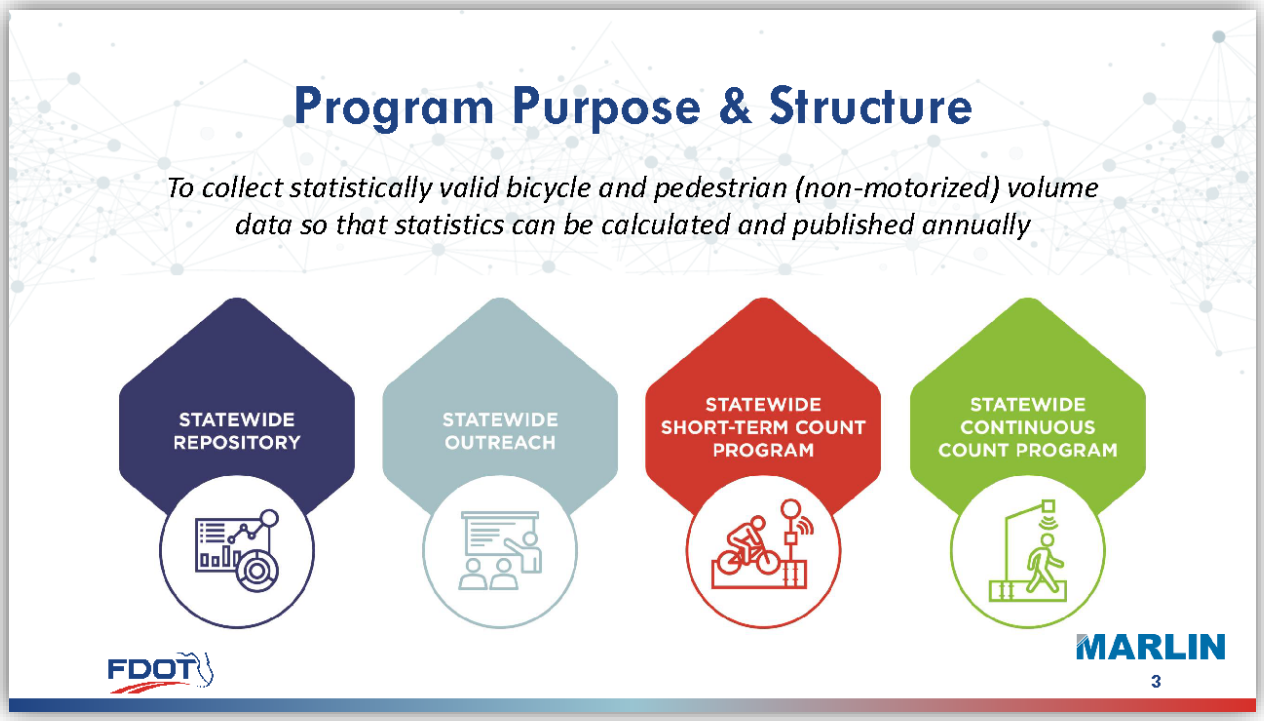

Figure 3 - Slide from the presentation depicting the program purpose and structure.

The Statewide Repository previously consisted of a publicly accessible static GIS map, but the data was only available in PDF reports. Now the data is processed using Power BI software, a tool that powers the online data dashboard currently available to the public. This means that in addition to an interactive map, the dashboard also contains data specific to the counters. A map shows the location of the 96 continuous counters installed throughout Florida. In addition to operating counters (appear green on the map), the map also shows where new counters will be installed (appear yellow on the map).

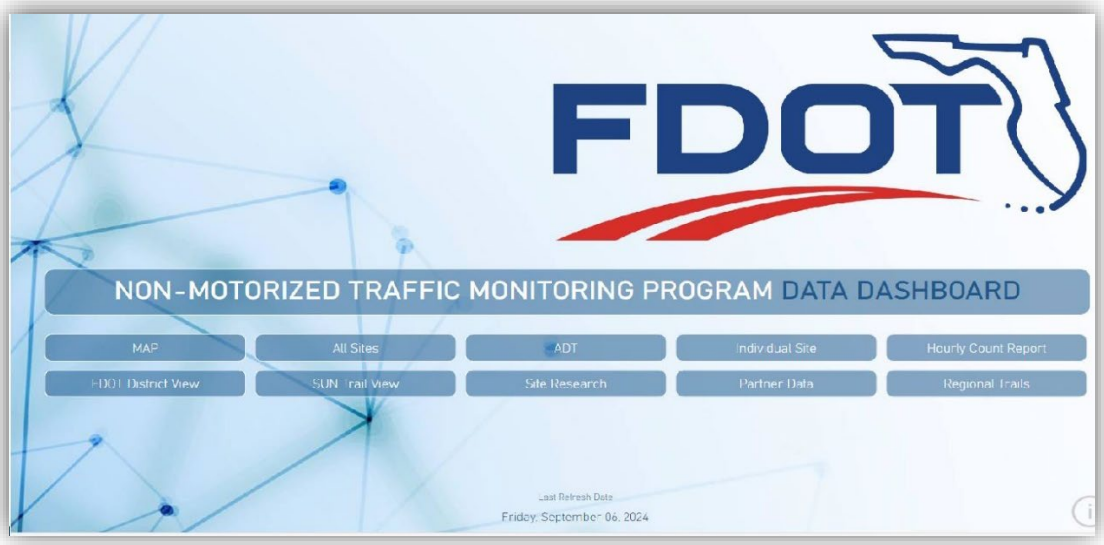

Figure 4 - Image from the presentation depicting the main page of the data dashboard.

There are three main types of the permanent counters. One is the better-known side fire post. It looks like an in-ground utility post and has a horizontal infrared beam. The counter detects bicycles and pedestrians from the thermal heat they emit. The second type includes loops with four piezoelectric sensor strips that are embedded in the roadway, the sidewalk or in the shared path. The sensors detect the metal in motor vehicles and bicycles. The program also has overhead counters pointed downward that are more accurate, particularly when detecting clusters of people traveling in close proximity to each other. Below is an overhead counter on the New River Greenway.

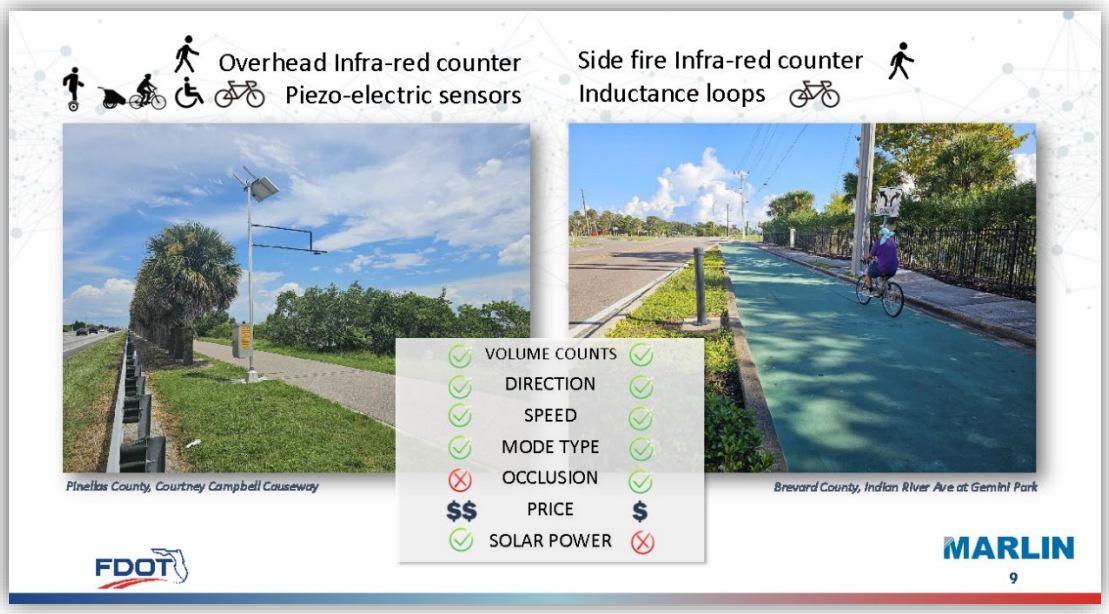

Figure 5 - Slide comparing features and costs of overhead counters and fire post counters.

Mr. Katz provided a demonstration of how the data portal operates. Maps update every three (3) days. The map on the webpage allows you to compare counts between dates and locations. The data can be viewed for different lengths of time, focus on particular months of the year, or for hourly splits. An algorithm cleans the data using 11 different rules for quality control (QC).

The image below shows the dashboard with data collected and processed for the New River Greenway location at Markham Park.

Figure 6 - Dashboard webpage image depicting counts on the New River Greenway at Markham Park.

Mr. Katz shared information about the short-term counts. One of this program's goals is to share equipment with collaborating FDOT districts and external agencies. The expectation is for external users to share data with the state program and also use the short-term counts to determine whether there is justification for a permanent station. The FDOT Central Office does not have the capacity to deploy the program everywhere in the state; they rely on local partners to manage additional count programs. Generally, the equipment is very affordable if an agency wants to purchase their own. The Department encourages agencies that deploy their own equipment to share data.

One of the BPAC members remarked on the preponderance of data collection sites along recreational paths and greenways, as compared to on roadways. Mr. Katz explained that these separated facilities are less complex for conducting the counts. A roadway with dual bike lanes and dual sidewalks requires more counter touch points. A permanent set of counters is being tested on Sunrise Boulevard. Not everyone is captured, since people don't always walk or ride in a straight line. However, a lot is being learned about how people move around. They are also trying to determine the accuracy of the counters. Installing permanent cameras is under consideration but may need to wait until advances in technology and needed algorithms occur that enable more precise counts of non-motorized and motorized vehicles during more complicated traffic

conditions. Another reason trails are emphasized is because FDOT obtained grant funding for them from the Systems Implementation Office.

The counters do not capture everyone who passes. The percentage of missed counts may be determined by conducting visual counts and comparing that data against the counter data. Private data companies are also interested in the data being produced in Florida to help them improve the big data programs they deploy around the country. AI plays a role in interpreting data collected. Below are two images associated with a marked crossing in Fort Lauderdale.

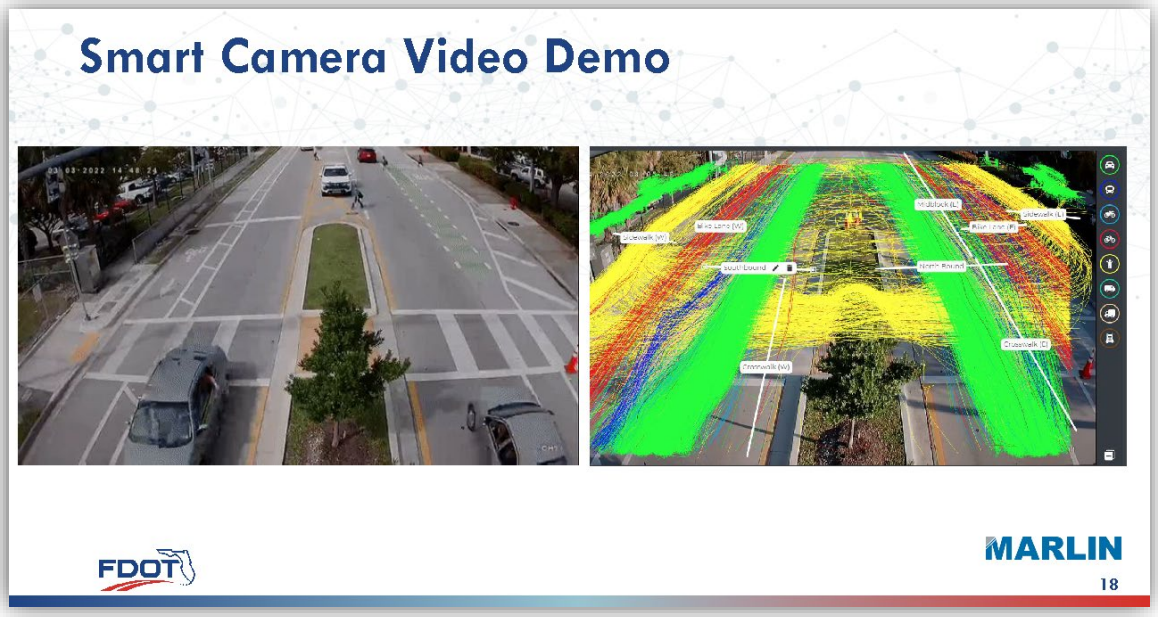

Figure 7 - Presentation slide showing two images from video camera at a midblock crossing; the second image shows lines representing different modal movements captured.

The left side shows a static image from the camera. The right side shows a camera image enhanced with AI capabilities. Green represents car traffic, yellow is pedestrians, red for bikes, and blue for buses. Each line represents one person. A more complete multimodal picture is produced with the AI enhanced images.

One of the BPAC members asked if weather plays a role in detection. Mr. Katz responded that the installations are “weatherproof”. Someone else asked how an umbrella passing under an overhead camera affects data collection. Mr. Katz offered to look further into that question and email the members. (Post Script: Mr. Katz wrote that their preliminary research suggests that the umbrella's fabric thickness/type may affect the accuracy of the sensor.)

Currently the Department is interested in understanding traffic behavior and determining the best way to apply the data collected.

One of the BPAC members asked if cameras installed at intersections could be used to conduct these types of counts. Mr. Katz responded that the traffic monitoring program counts volume of vehicles along roadway segments and not at the intersections.

Intersection counts are done primarily to tally turning movements, which is different from conducting a volume count by mode type.

The image below came from a recent study conducted the Jacksonville Transportation Authority. The purpose of the study is to understand safety issues around their major transit hub. The image demonstrates the complexity of movements. A portable overhead sensor was used in a manner similar to a side post counter. The image below shows the lines produced from a 24-hour count at a bus stop. It portrays the great amount of activity happening and people moving in many directions. The portable camera could not give an accurate account, which is why the technology is needed.

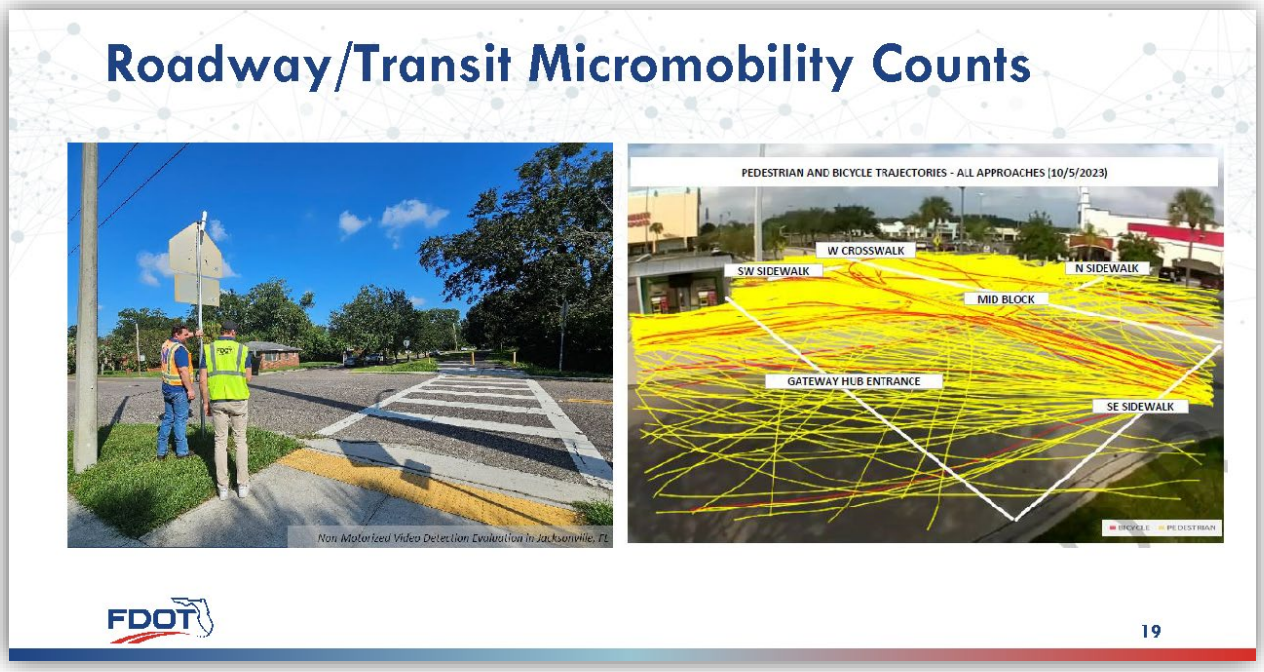

Figure 8 - Two images of efforts related to transit stop and station counts in Jacksonville, FL. The image at the station shows how people walk in multiple directions.

Mr. Katz said that he travels around the state to conduct program outreach. He shared a QR code (next page) that links to their webpage which hosts several reports and information about the counts as well as more in-depth webinars. The webpage also has a link where people can propose a count location.

Figure 9 - FDOT Non-Motorized County Station proposal website QR code. (Source: FDOT website)

Mr. Katz is excited about continuing to develop the dashboard and promoting the possibilities of partnership with other agencies. He shared his contact information and encouraged BPAC members to participate in the survey to propose counter locations. Good stories about how the data has helped the partners seek solutions are always welcomed. The role of the program is to collect, validate, and report. They relying on others to utilize the data in projects and studies.

DISCUSSION

A BPAC member asked how the current counter locations were selected. Mr. Katz explained that they reached out to partners around the state with a survey and received 305 responses proposing 500 locations. General criteria were developed to help create a statistically valid count program. An array of high, medium and low volume sites was needed, as well as a balanced distribution of traffic patterns that included commuter, recreational, mixed, and rural and urban sites. The sites were surveyed to determine the feasibility of installing the counters and ensuring that they would operate well at the locations. The final decision was made after consulting with the partners. It was recognized from the beginning that local experts would be needed. The opportunity for partnerships and collaborations keeps growing, particularly in the more urbanized areas. Only stationary cameras are suitable for data collection.

Counters may cost between $100 and $600; cameras can cost around $3000. Camera set up, data processing, and analysis are separate costs. A short-term camera count can cost in the range of $2500. Also, the resolution of the camera has to match the software or AI needs. Mr. Katz encouraged the members to forward any additional questions.

V. OLD BUSINESS

None.

VI. AGENCY UPDATES

None.

VII. STAFF REPORT

Ms. Forelle shared copies of the draft Annual Report and asked the members to review the document and email any comments or recommendations. The intent is for the BPAC to approve the report at the next meeting.

Ms. Forelle invited BPAC members to participate in the BPAC tent at the Wellness Jamboree on October 19, 2024 at Reverend Samuel L. Delevoe Memorial Park, 2520 NW 6th St, Fort Lauderdale, FL 33311. She asked the members to let her know if they would be volunteering so she could forward the required release form. She shared samples of the items that will be given out to tent visitors. Unfortunately, the safety items distributor was out of helmets.

VIII. PUBLIC COMMENT

None.

IX. COMMITTEE MEMBER UPDATES

a. *Complete Streets Team Updates* – None

b. *Committee Member Updates*

- Vice Chair Goldstein spoke about several regional transportation efforts in which he is participating:
  1. Broward Safe Streets for All grant initiative (MPO, FDOT & Broward County). He reported that eleven of the deadliest corridors identified have been prioritized and outreach meetings have been scheduled in the form of walking audits in the coming weeks. He requested Ms. Forelle to share the information for others to participate.
  2. The MPO is conducting its Route to 2050 Regional Long Range Plan outreach and there are several public events planned. They are taking comments. He mentioned a meeting taking place the following day with the MPO Executive Board that is open to the public.
  3. The Statewide 2055 plan outreach is beginning and there is a meeting scheduled in Miami on September 24th for the Southeast Florida region, which includes Broward and Palm Beach counties. This process will also have virtual engagement opportunities.
  4. The County is updating its BrowardNEXT land use plan. He asked Ms. Forelle to clarify the difference between a comprehensive plan and a land use plan. Ms. Forelle explained that comprehensive plans need to be updated approximately every seven years per state statute, so some local governments are probably in the process of initiating their updates. Vice Chair Goldstein asked if there was any opportunity to add more pedestrian and bicycle safety language to the document. Ms. Forelle affirmed there is an opportunity, particularly related to complete streets, transit corridors, and higher density residential and mixed use development.
- Member Lim shared that the City of Sunrise is trying to renew their Bicycle Friendly City designation and has provided a survey for residents.

X. ADJOURN

Prior to adjourning, Ms. Forelle shared information about future meetings. FDOT District 4 has agreed to send Larry Hymowitz to present the multimodal plan for A1A, per the BPAC's request. Ms. Forelle explained that the report is full of aspirations and will require support to implement.

Upon a motion by Vice Chair Goldstein, seconded by Member Palaidis, the BPAC voted unanimously to adjourn at approximately 7:50 p.m.

Next Meeting: Wednesday, November 13, 2024, at 6:30 PM

Transcript of meeting or recording available upon request. Contact Sara Forelle, Senior Planner, for additional information. Email: sforelle@broward.org or Phone: (954) 357-9785