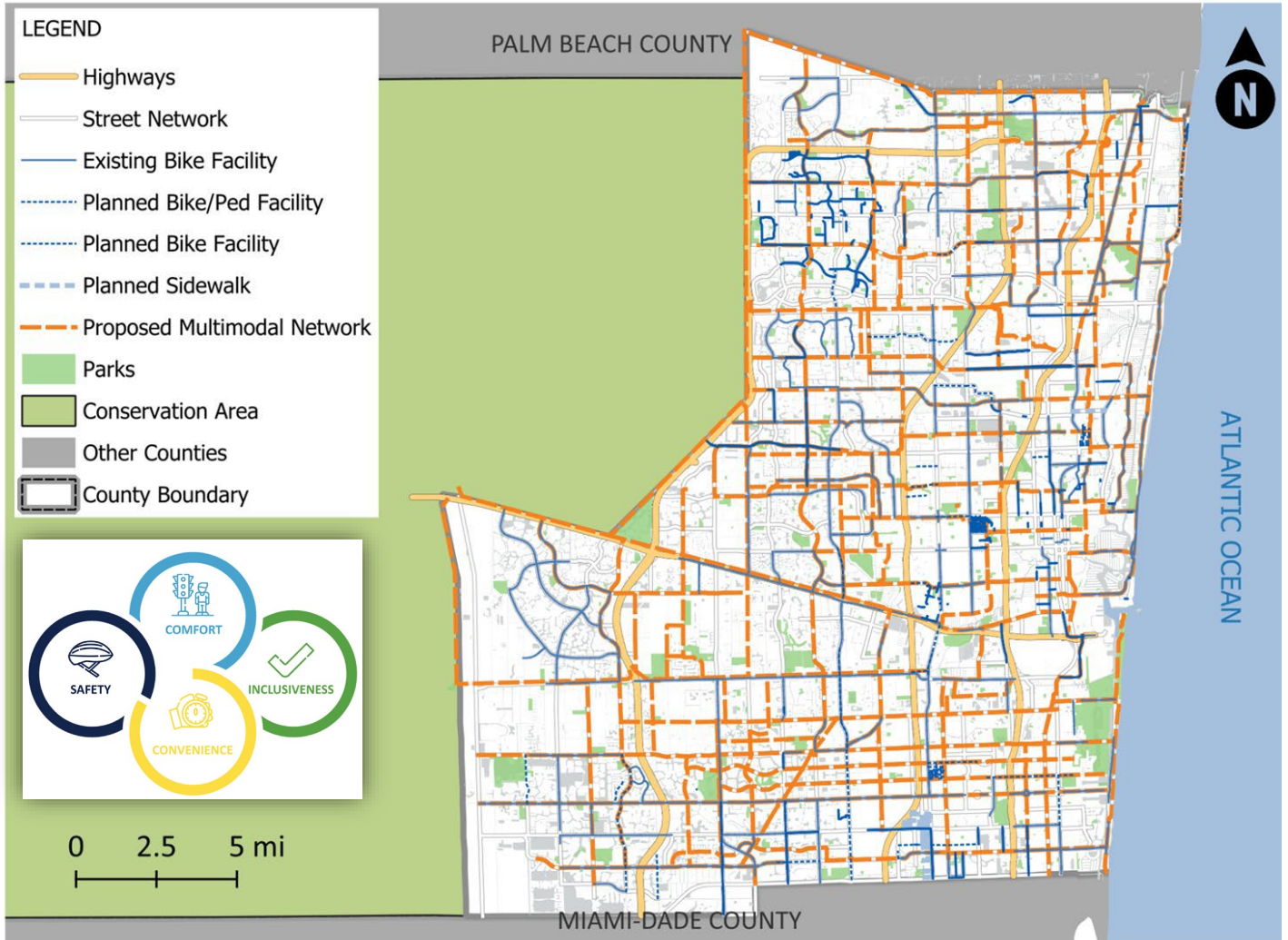




BROWARD COUNTY BICYCLING AND PEDESTRIAN ADVISORY COMMITTEE (BPAC)

ANNUAL REPORT - SEPTEMBER 2024



Cover Images Credit: Broward County Mobility Advancement Program (MAP) Presentation Slides, March 2024.



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I. ABOUT BPAC

A. History

The Broward County Bicycling and Pedestrian Advisory Committee (BPAC) was originally created by Broward County Resolution on October 6, 1981. For over 40 years, BPAC has advised the Broward County Board of County Commissioners on matters pertaining to bicyclists and pedestrians. The BPAC consists of eleven members, with each of the nine Broward County Commissioners appointing one representative, and two appointed by the Broward League of Cities. The Broward County Urban Planning Division (UPD) provides support for BPAC.

B. Purpose

Per the Broward County Administrative Code, the BPAC was established with the following purposes:



Study and advise the Broward County Board of County Commissioners, with the cooperation and assistance of the County Administrator, on all matters related to bicycling and walking.



Review Broward County road construction projects at their planning and design stages for the possible inclusion and/or placement of bicycle and pedestrian facilities.



Develop programs to encourage bicycling and walking throughout Broward County.

C. Committee Meetings

Meetings are held the second Wednesday every other month, starting in January, at 6:30 pm at Government Center West, 1 North University Drive, Plantation, 33324, 2nd Floor Hearing Room. BPAC meetings are announced through the Sunshine meeting notice directory. Dates and locations may be subject to change. Please check online for updates at [BPAC website](#). This past year meetings were held on the following dates:

- September 13, 2023
- November 8, 2023
- January 10, 2024
- March 13, 2024
- May 8, 2024
- July 10, 2024

D. Members

Michael Kroll (Chair), Maximiliano Goldstein (Vice-Chair), Janet Arango (Secretary), Phillip Kim, Steve Lim, George Palaidis, and Christopher Wolf.



E. Chairperson's Message



Our Broward County Bicycling and Pedestrian Advisory Committee (BPAC) is committed to play a role in the County's continued focus on the betterment of conditions and facilities for our bicycling and pedestrian community. Having safe walking and bicycling facilities continues to play a key role in the County's economy and health.

Last year, the BPAC developed a Strategic Plan. The Strategic Plan's four major goals include; the BPAC providing input to ensure bike and pedestrian facilities are a priority on Florida Department of Transportation (FDOT) and Broward County transportation projects, communicating with stakeholders to gather input on the County's future pedestrian and cycling needs, providing input on the County's

Low Stress Multimodal Mobility Transportation Master Plan, and preparing informative documents outlining best practices for cyclist and pedestrian safety on public and private projects. Measures for each of these goals were also developed to ensure the BPAC stays focused on achieving these critical goals.

To that end, FDOT and Broward County presented numerous transportation projects this year during which the BPAC provided comments and insights to ensure these projects considered accessibility and safety for the vulnerable cyclists and pedestrians. Vice-Chair Goldstein was selected to represent the BPAC on the Broward County Complete Streets Team. He has been an active participant and helps ensure the BPAC is informed of the County's commitment to making our streets safe and accommodating for all modes of transportation and users.

The BPAC is committed to helping Broward County play an integral role in the FDOT's Target Zero initiative to reduce the number of transportation-related serious injuries and deaths across Florida to ZERO. No injury or death of a cyclist or pedestrian is acceptable, and we will remain steadfast to help achieve this initiative.

Another significant achievement over the last year was that bicycle and pedestrian facility improvements are now acceptable projects that can be carried out under the Broward County Mobility Advancement Program (MAP) that is funded by the County's Penny Sales Tax Initiative which was passed in 2018. By allowing bicycle and pedestrian projects to be funded and carried out under the MAP, safer pedestrian and bicycle connectivity between our neighborhoods, community facilities and transit routes can be achieved.

These initiatives have helped Broward County move from being in the top five of the US's most deadly metropolitan pedestrian markets to the number 14 position. While being anywhere near the top of this list and having any pedestrian or bicycle injuries or fatalities are not desirable, this is an indication that Broward is heading in the right direction. The BPAC

will continue to encourage and support initiatives at the local and state level to ensure that our cyclist and pedestrian safety continues to improve over the years.

On behalf of all the BPAC members, we are honored to serve the County in this capacity and are committed to help Broward County achieve our potential of not only being a top tier community for residents and tourists but also cyclists and pedestrians.

Michael D. Kroll, RLA, FASLA

Chair, Broward County Bicycling and Pedestrian Advisory Committee



II. BICYCLING & WALKING: NATIONAL, STATE & COUNTY TRENDS

A. Pedestrian & Bicycle Safety Trends – A Review

Several sources of pedestrian and bicycling safety information were reviewed and summarized below.

1. Smart Growth America.

In 2024, Smart Growth America and the National Complete Streets Coalition published the most recent [Dangerous by Design](#) Report in which Florida ranks #2 in states with high pedestrian fatalities in metropolitan areas. South Florida ranks #14 in the metro areas ranking.



Figure 1 – The top 20 most dangerous metropolitan areas for pedestrians (2018-2022) Source: [Dangerous by Design 2024](#) - [Smart Growth America](#)

2. National Safety Council (NSC).

The figure below show that most bicycle injuries are suffered by youth and men and men between 55-64 years are more likely to incur fatal accidents. The period between 1999-

2017 saw a decrease in accidents, but they are rising again (also see [Center for Disease Control](#)).

Bicycle-related injuries and fatality estimates vary depending on the data source and year. According to the National Highway Traffic Safety Administration, 966 bicyclists were killed in motor-vehicle traffic crashes in 2021, a 1.9% increase from 948 in 2020. The estimates provided in the chart below include preventable fatal injuries.

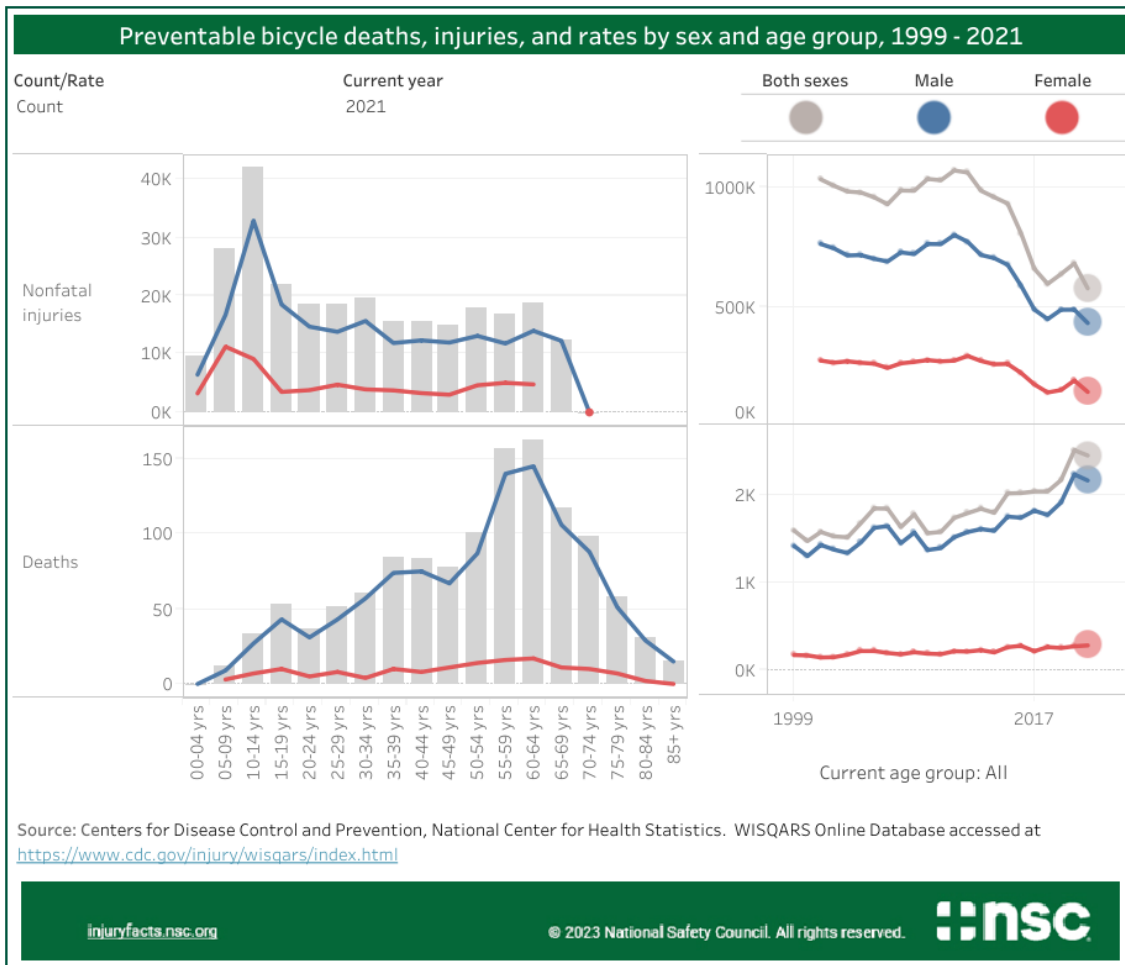


Figure 2 - Source: National Safety Council (NSC) at <https://injuryfacts.nsc.org/home-and-community/safety-topics/bicycle-deaths/>

A recent NSC publication, [Mobility, Technology and safety: the Next 20 Years](#), provides an overview of future safety issues related to the development and deployment of new urban mobility technologies. Some key findings include:

- Vehicles will remain the top source of street deaths, especially electric vehicles which are heavier than biofuel and fossil fuel motor vehicles.
- Advanced Driver Assistance Systems will become more prevalent and increase driver and pedestrian safety.

- Denser neighborhoods will experience faster change in urban transportation technology, including trikes and sidewalk robots; parcel delivery on drones will become more feasible.
- Parcel delivery via drones and sidewalk robots could become commonplace but may overwhelm existing street and sidewalk infrastructure; safety advocates should help ensure that business interests are not prioritized over the safety of urban residents.
- Urban vehicles that move at 35-mph or greater, including e-bikes and three-wheeled trikes, should be regulated by size and speed to encourage safety.
- Planning for new transportation/delivery technology and how to accommodate them on the streets should not jeopardize more vulnerable users, such as wheelchair-bound and children.

3. League of American Bicyclists (League).

The League (founded in 1880) focuses on strengthening communities through bicycling. In BPAC’s 2023 report we shared a [Bicycle Friendly State ranking](#) (2022) for all 50 states based on four public data sources and a Bicycle Friendly State survey for state DOTs. Ranking has fluctuated over the years, but Florida ranked # 8 in bike friendliness.

This year the League shared 1975 - 2021 fatal bicyclist crashes. The report states that the ten **states with the most deaths** account for nearly 65% of all bicyclist deaths. More than 50% of biking fatalities occur in just the **top five states: Florida**, California, Texas, New York, and Arizona. The largest increases occurred in Florida, Texas, and Arizona.

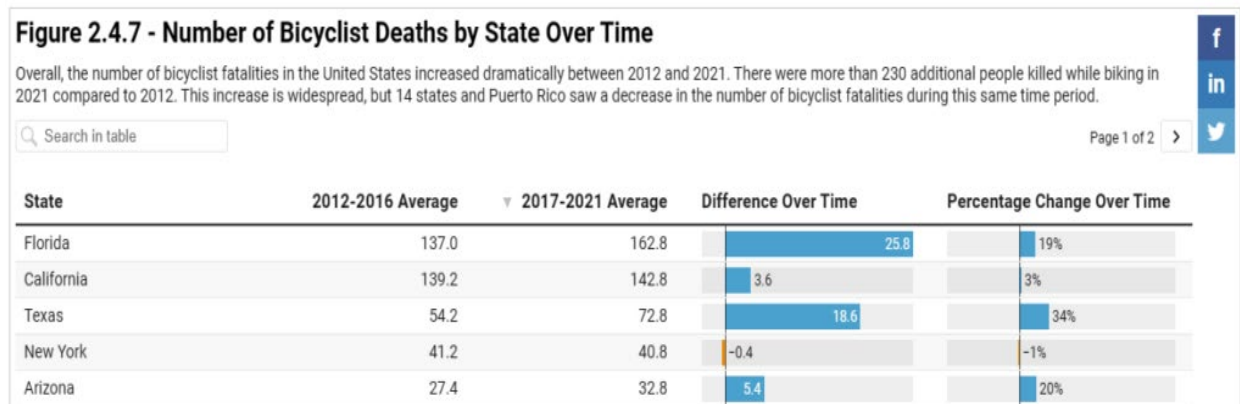


Figure 3 - [Number of Annual Bicyclist Fatalities](#) - The League of American Bicyclists (2024).

In recent years, Florida topped California in bicycle fatalities and appears to be breaking away since fatal crash rates in California are decreasing. **Florida has a per bicycle commuter fatality rate roughly three times higher than California**, which increased at a higher rate between 2012-2016 and 2017-2021. Florida has the highest rate of bicyclists killed per capita at 7.6 bicyclists killed per one million people, more than twice the rate in California. In Florida, bicyclists account for 4.9% of traffic fatalities.

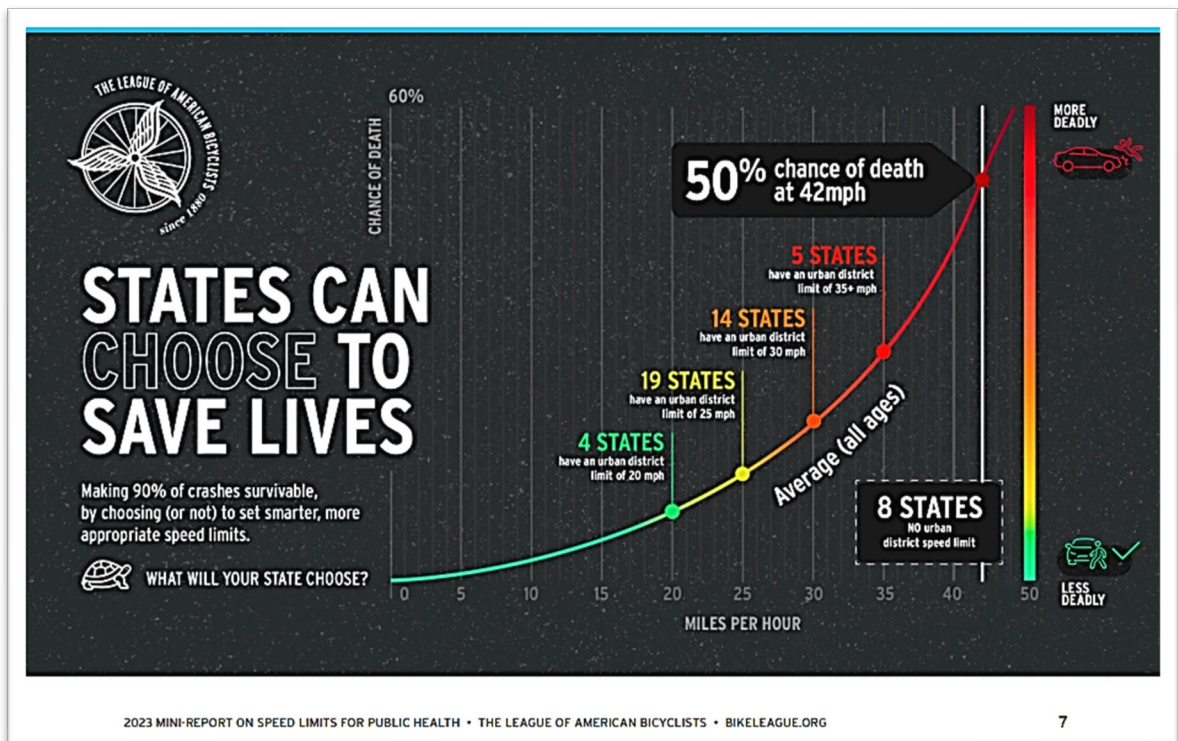


Figure 4 - [From Setting Speed Limits for Health and Safety](#). The League (2024)

Another report published by the League (2023, see chart above) is on **lowering speed limits for health and safety**. It concludes that *based on a review of all 50 states, statutory speed limits suggest that 20 mph speed limits are rare in the United States and that the number of statutes that provide for 20 mph speed limits has not significantly changed over the last decade. Data systems do not currently support reporting on the existence or extent of 20 mph speed limits in all states, so statutory speed limits provide the best benchmark and can be monitored for changes that support increased prevalence.* The report includes several maps where Florida generally falls in the middle in range of speed limits, residential district speeds, and allowing lower speed limits (20 mph or below). **Related to school zone speed limits, 15 mph is the lowest listed and has been adopted throughout the state of Florida.**

The League's website also features a review of the newly updated Manual on Uniform Traffic Control Devices (MUTCD) published by the Federal Highway Administration. The Eleventh Edition features more modern bicycle facilities. *The League has participated in the [National Committee on Uniform Traffic Control Devices](#) to ensure that developments in safe bicycle facilities turn into proposals for standards, guidance, and support for their implementation nationwide. **With the 11th edition of the MUTCD, modern bicycle facilities like buffered and separated bike lanes, bicycle signals, and interstate***

bicycle routes are included in the toolbox for America's streets. The MUTCD became effective in January 2024. For more information visit the [FHWA website](#).

4. AARP Livable Communities.

The American Association of Retired Persons (AARP) is also focusing on safe street design. On their [Getting Around](#) webpage they feature *Dangerous by Design v. Safer by Design*.

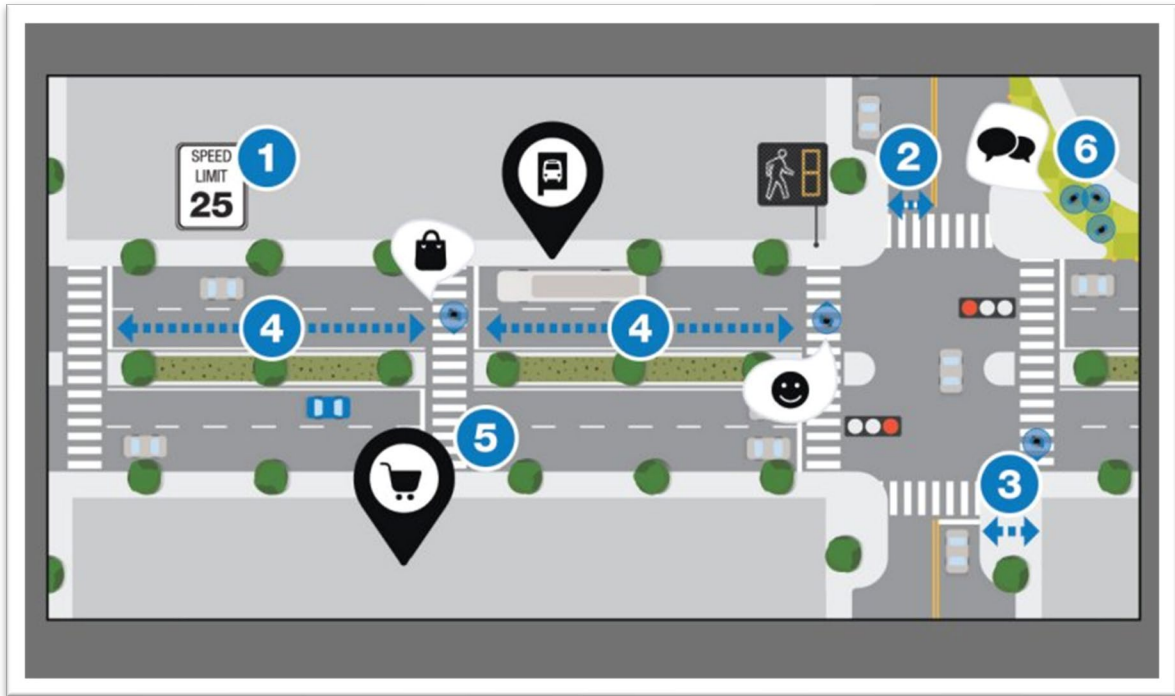


Figure 5 - AARP Complete Streets Figure with recommended elements.

Above is an example of a "Complete Street" with the following features highlighted by AARP:

1. While it's important to lower speed limits, safe design provides drivers with added visual cues to slow down.
2. Narrow travel lanes naturally slow traffic.
3. Highly visible, signalized crosswalks make drivers more aware of pedestrians, and extended curbs shorten the distance required to cross the street.
4. Decreasing the distance between intersections helps to reduce speeds.
5. Adding signalized crosswalks in the middle of long blocks slows traffic and provides connections where people need or want to cross.
6. Eliminating right turn "slip" lanes in favor of right-angle corners produces slower, safer turns and shorter crossing distances for pedestrians.

5. STREETS BLOG.

Streetsblog SF published an online article, [Eyes on the Street: San Francisco Joins the Sidewalk Level Bike Lane Club - Streetsblog San Francisco](#) depicting the first sidewalk-level bike lane built in San Francisco, CA. Below is one of the images included in the article. The project features mountable rubber curbs that separate the bicycle paths from the pedestrian zones. The article states that it is the equivalent of widening a sidewalk, but requires new catch basins for drainage, reshaping a roadway and relocating utilities, which can make them more cost-intensive than other designs. Plastic post delineators are being installed to protect the lanes from delivery trucks in “loading” zones. While the article seems to find many faults with the implementation of the bike lanes, it is probably a welcome improvement over the lack of facilities. Streetsblog is a series of “curated” independent blog sites about “member” cities focused on breaking important stories about urban transportation.

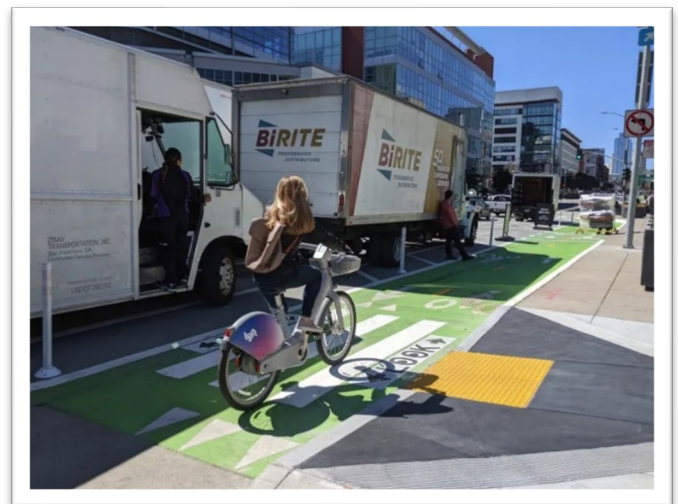
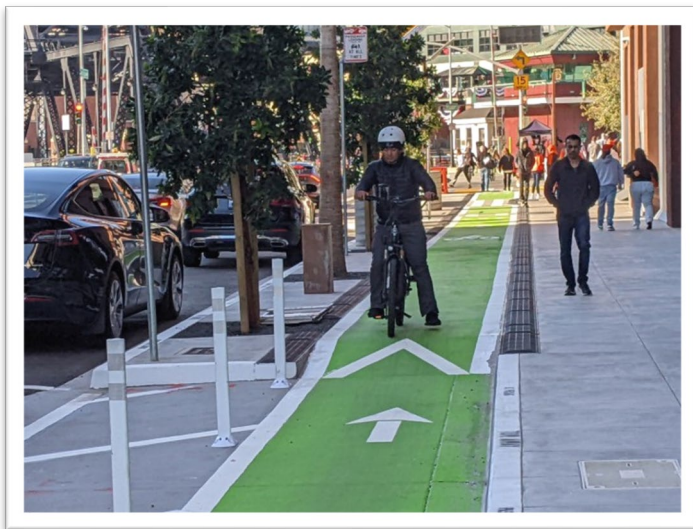


Figure 6 - Images form Streetsblog San Francisco. (2024)

6. Signal Four Analytics.

The University of Florida’s Geoplan Center, [Signal Four Analytics](#) compiles crash data from the Florida Department of Highway Safety and Motor Vehicles by County and for the entire State. The graphics below show pedestrian and bicycle accidents for Broward County. Total fatalities dipped between 2018-2020 but appear to be increasing to pre-2017 levels. While it is encouraging that fatalities were decreasing for a few years, with a renewed focus on FDOT’s [Target Zero](#) initiative, continued implementation of complete streets, greenways, and trails will help to further improve safety.

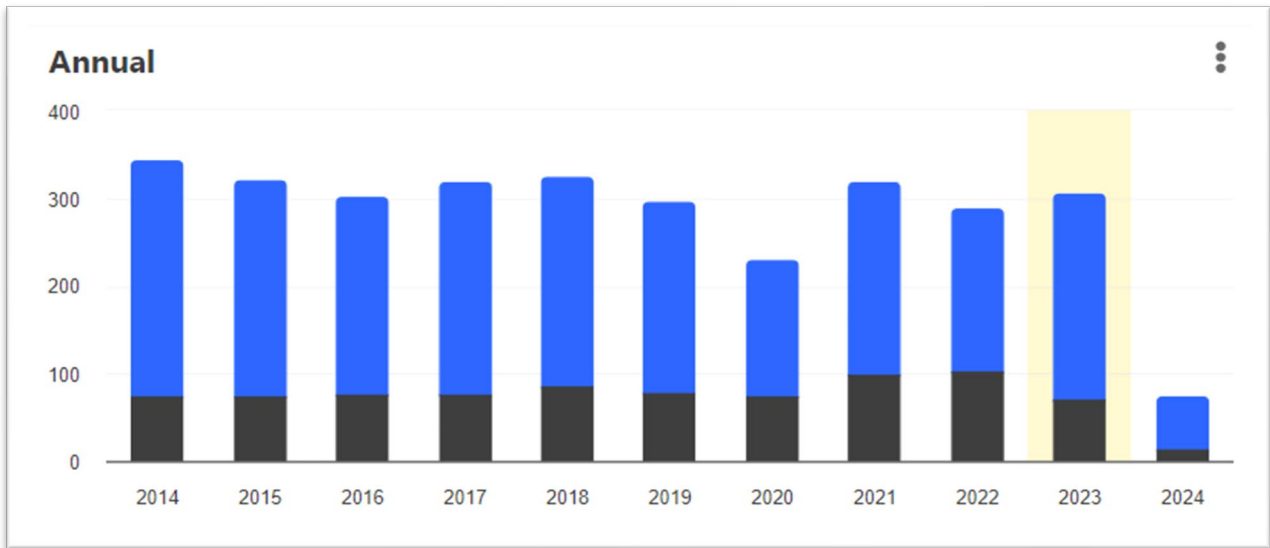


Figure 7 - Annual Serious Injuries and Fatalities in Broward County. Source of figures above, Geoplan Signal4Analytics, University of Florida (2023)

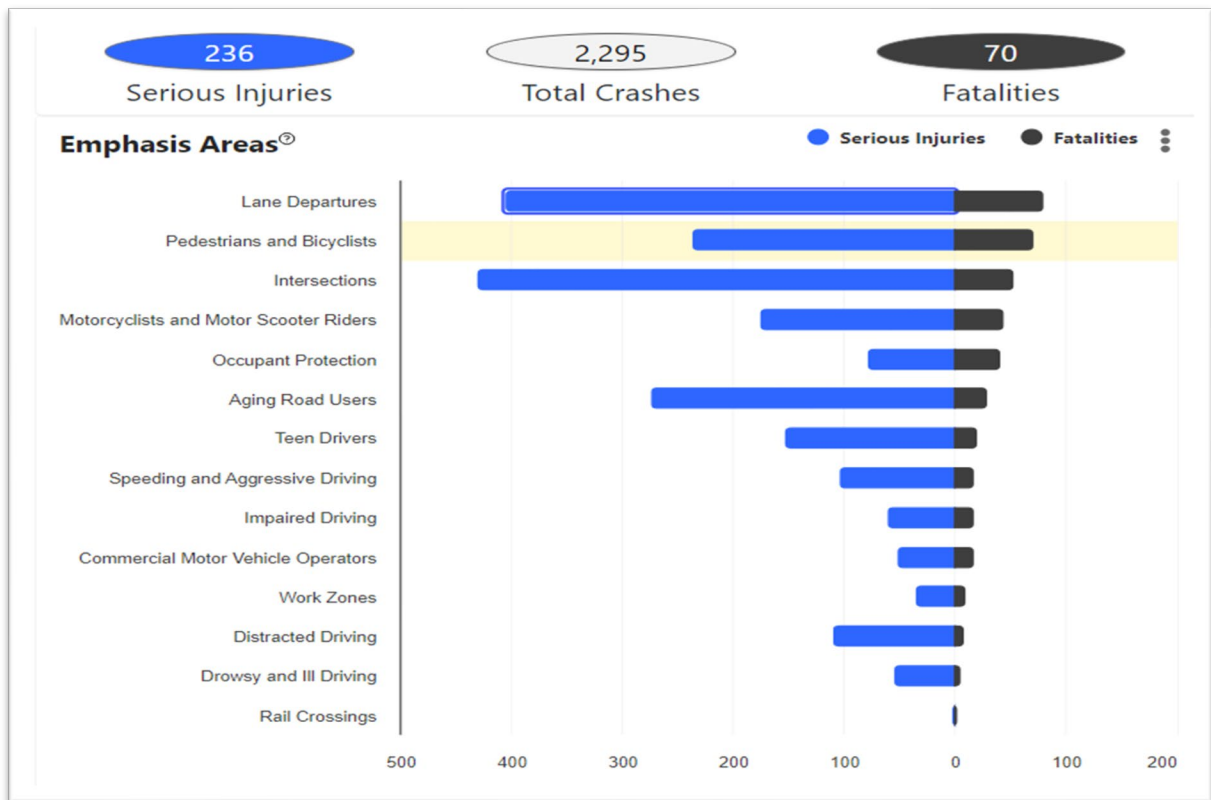


Figure 8 - Injuries and Fatalities in Broward County by Emphasis Area. Source Geoplan Signal4Analytics, University of Florida (2023)

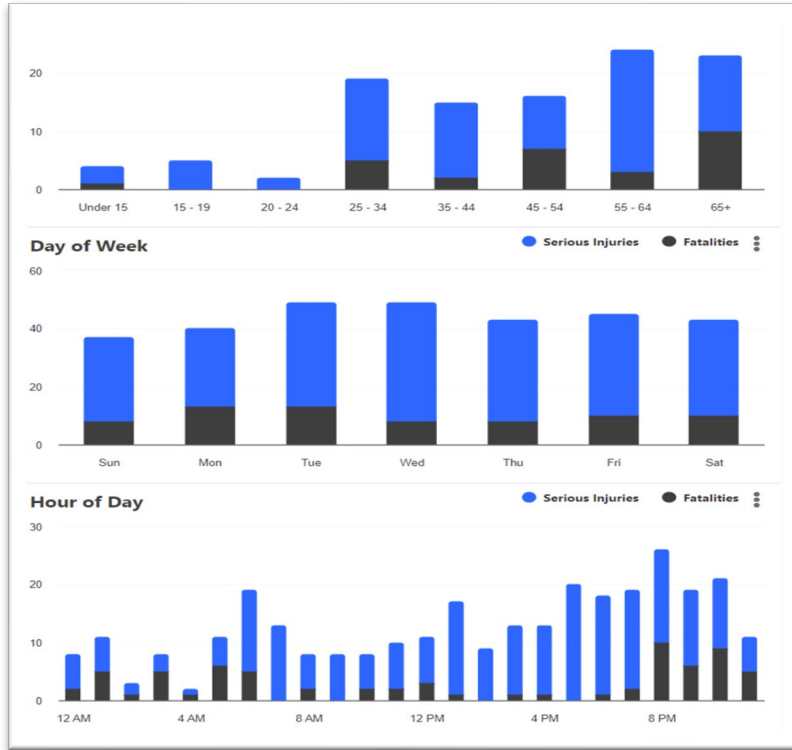


Figure 9 - Annual Serious Injuries and Fatalities in Broward County by Occurrence. Source of figures above, Geoplan Signal4Analytics.

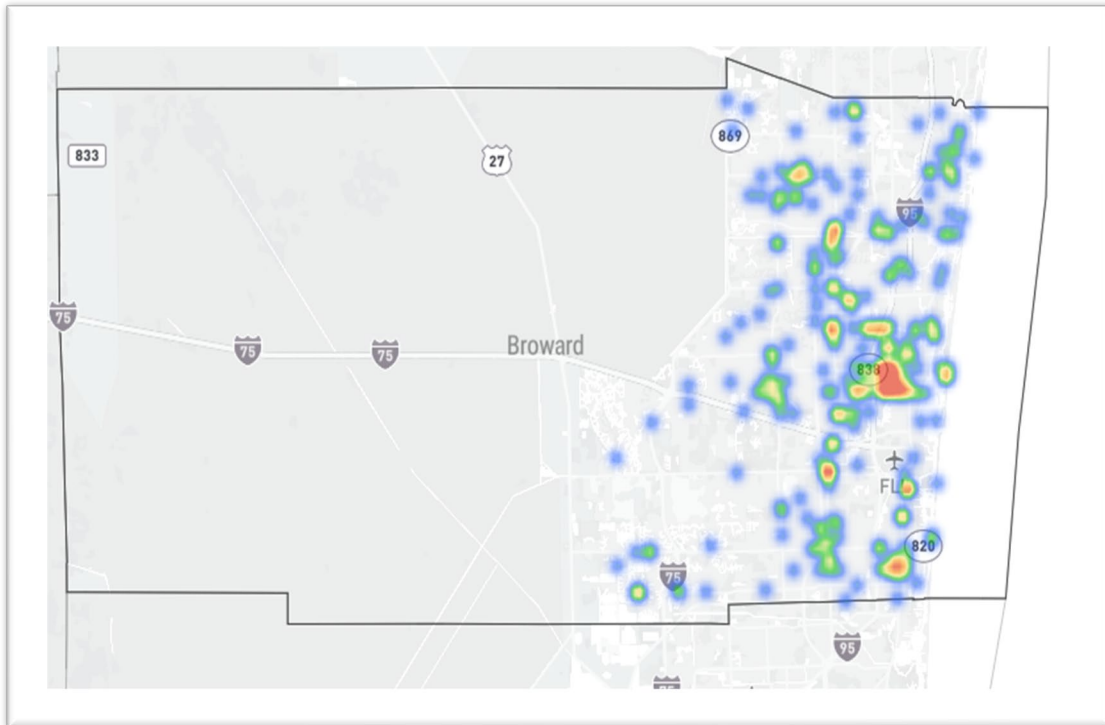


Figure 10 - Heat map of location of fatalities and injuries in Broward County (2023). Source Geoplan Signal4Analytics, University of Florida.

B. Air Quality in Broward County

Motor vehicles with internal combustion engines (gasoline and diesel) are heavily linked with air quality and water pollution. We include the state of air quality in Broward in this report to show how we are improving/failing in this measure. The 2022 and 2023 average percentage of good air quality days for Broward County's was 75%. The United States Environmental Protection Agency (EPA) calculates the Air Quality Index (AQI) for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. Ground-level ozone and particulate matter are the two pollutants that pose the greatest threat to human health. Ground level ozone is created when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight (EPA, 2023). More information about Broward County's air quality monitoring can be found at the [Broward County ambient air monitoring page](#).

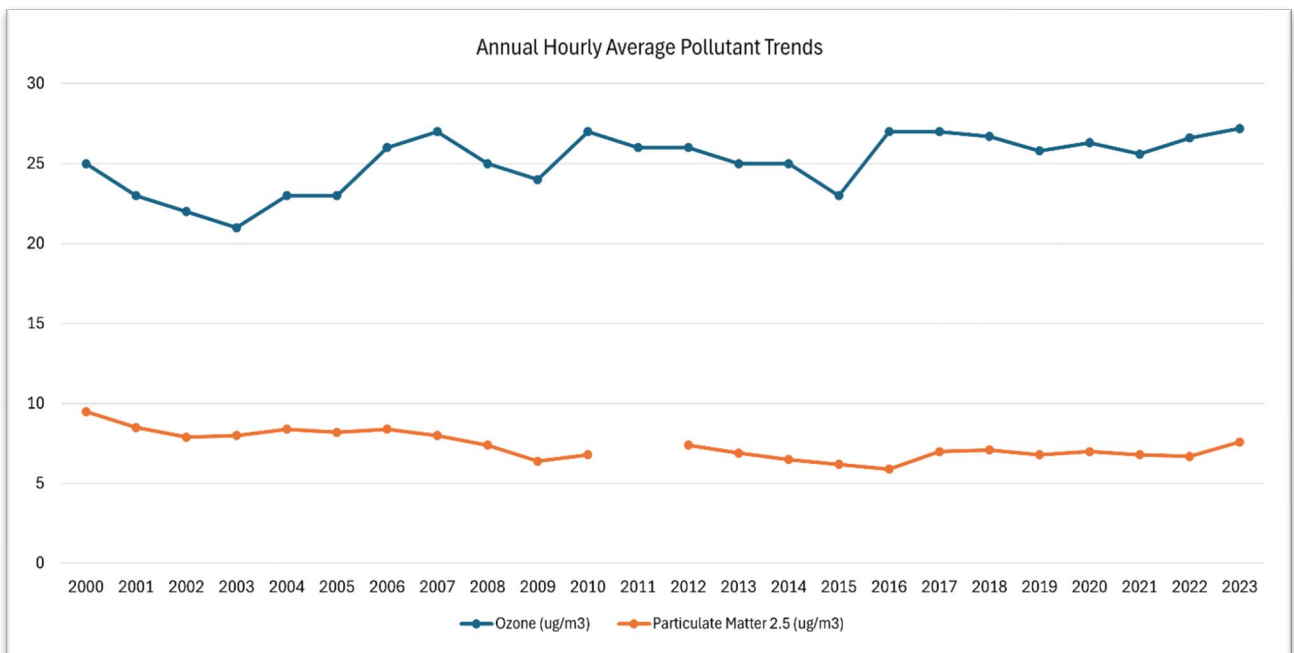



Figure 11 - Broward County Air Quality Measures (note: 2011 data NA) (Source: Broward County Natural Resources Division)


Greater reliance on electric vehicles and active transportation alternatives is shown to help reduce greenhouse gas emissions. (See "Health benefits from cleaner vehicles and increased active transportation in Seattle, Washington." (2022) found at [National Library of Medicine](#).)


C. Efforts by County Departments and Divisions


Broward County promotes the development of a safe mobility system including bicycling through collaboration with the Broward Metropolitan Planning Organization (MPO), Florida Department of Transportation (FDOT), and municipalities to fund and construct safe and equitable bicycle facilities.

The County Commission supports safe bicycling and walking through the adoption of complete street policies and designs on County jurisdictional roadways and through the activities of County agencies. Within the County, several Departments and Divisions assist with planning and construction of bicycle and pedestrian facilities and programming activities for all ages and abilities.

 The Broward County Urban Planning Division supports the Bicycling and Pedestrian Advisory Committee and the Complete Streets Team. Both advise the Board of County Commissioners on bicycle and pedestrian projects and enforcement of rules and standards.

 The Broward Complete Streets Team (CST) and its member agencies partner with the Broward MPO, FDOT, municipalities and others to incorporate Complete Streets design guidelines into codes and Comprehensive Plans, identify and allocate funding, and construct multimodal projects. Both the Broward County Comprehensive Plan and the Broward County Land Use Plan include policies that promote Complete Streets. The CST reviews projects that impact county roads for compliance with Broward County's Complete Streets policies and standards. The CST includes representatives from several County agencies, such as the Transportation Department (Transit), Public Works Department, Parks and Recreation Division, Urban Planning Division, Natural Resources Division, and Human Services Department, as well as a member of the Broward Bicycling and Pedestrian Advisory Committee.

 The Mobility Advancement Program (MAP), funded through a 30-year sales surtax approved by Broward residents in 2018, has 66 bicycle and pedestrian path projects listed through 2027. The projected cost is \$151 million. In 2023, MAP staff received a federal grant to develop a Low Stress Multimodal Mobility Transportation Master Plan. It is a countywide effort to examine the transportation system in Broward County to plan and develop a comprehensive network of low stress facilities. The Master Plan is intended to enhance mobility and promote equitable access for non-motorized users of all abilities and ages.

 The Broward County Parks and Recreation Division manages 14 parks that offer a variety of recreational bike paths and programs. These include 20 miles of mountain bike trails, a racing velodrome; a Tandem Bicycle Program for adults who are blind or

visually impaired, and hand-cycles at Central Broward Regional Park for adults with physical disabilities. (See more information under Outreach.)



Broward County encourages residents and visitors to partake in safe bicycling. In partnership with Joe DiMaggio Children’s Hospital, the Parks and Recreation Division operates several Safety Towns to teach children bicycle safety. Also, throughout Florida Bicycle Month in March, the County features free year-round fitness and safety education for all levels of riders at local parks.

III. BPAC ACHIEVEMENTS

A. BPAC Goals

At the beginning of 2023, the BPAC developed several long-term goals and prioritized a few for implementation. Accomplishment of these goals is tracked through the Committee’s activities that are summarized in this report. The following goals were adopted by the BPAC on March 8, 2023, for implementation over the next 1-3 years:



Review and provide input on bike/ped facilities to no less than five FDOT projects and five Broward County projects. Projects should be reviewed prior to the commencement of 60% plan preparation.



Communicate with at least five local bicycle clubs and five local schools or youth bicycle clubs, by the end of 2024 to solicit their opinions about the current and future state of walking and cycling in Broward County and encourage active commutes by organizing activities, including bike buses to schools.



Invite the “Low Stress Multimodal Mobility Transportation Master Plan” team to present the Initial, Draft and Final Plan to BPAC.



Prepare a list of the top 10 policies/best practices that local governments can use to increase cyclist and pedestrian safety and encourage mode shift to walking, cycling, and public transit from private automobiles. Submit this list to the Board of County Commissioners by the end of 2024.



Publish at least 10 best practices that developers can use to incorporate and encourage active travel in their projects by the end of 2024.

B. Progress Report on Adopted Goals

1. GOAL: Review FDOT and Broward County Projects

- a. FDOT Sunrise Boulevard/US 1 Gateway project: Presented by Carlos Cejas, P.E. (Vice President), Nelson Mora, P.E. (Senior Project Manager), Gannett Fleming, Inc. (9/13/23) This is a Location Design Concepts Acceptance (LDCA) project to improve capacity and multimodal facilities at this important intersection. The location includes several high-crash segments, and the intersection capacity is currently failing, primarily at the southbound left turns. The consultants shared nine alternatives, including the “no build” scenario, a combination of at grade solutions that included roundabouts, and elevated overpass and underground tunnel solutions. Alternative 3 (Figure 12) was considered a viable at-grade alternative. One of the intents of the project is to include



minimum 12-foot shared-use paths in all directions. Projects partners to FDOT include the MPO, the City of Fort Lauderdale, and Broward County. Additional outreach meetings are scheduled prior to final alternative selection.



Figure 12 - Sunrise Blvd/US 1 Gateway Project Alternative 3 Concept. (Source: consultant presentation).

b. Broward County Transit (BCT) Request for Feedback on the Transit Development Plan: Presented by Sofia Thordin, Benesch (11/8/23)

Broward County Transit (BCT) is seeking public input and feedback for the Transit Development Plan (TDP) update. The TDP is a ten-year plan that is updated every 5 years. It includes recommendations related to service, infrastructure, technology, plans and policies for all modes of public transportation. The final plan was presented to the Board of County Commissioners on December 12, 2023. Outreach has included an on-board survey with over 3,800 responses which was conducted during all weekdays and all operating times (4:30 am to 12:20 am) to capture as many types of riders as possible. Also, several meetings were held with focus groups and citizen organizations. BCT scored high in the “net promoter score”, a measure of satisfaction with the service. For more information see the Broward County Transit Development Plan FY 2024-33 at https://www.broward.org/BCT/Documents/BCT_2024-2033_TDPAnnualUpdate.pdf.

c. Broward Low Stress Multimodal Mobility Master Plan Updates: Presented by Josette Severyn, Broward County MAP; Jeff Weidner and Christina Fermin, Marlin Engineering (11/8/23, 3/13/24)

Ms. Fermin provided two presentations on the Low Stress Multimodal Mobility planning process. The goal of the Mobility Advancement Program (MAP) project is

to produce a low stress network plan for pedestrian and bicycle facilities. There are currently about 200 projects that need to be prioritized and be implemented through the joint Broward MPO / Broward County Safe Streets for All (SS4A) Safety Projects Action Plan and other local efforts.

The purpose of the study is to design a low stress network that most people (60%) prefer, since they are very concerned about safety and prefer to ride or walk on a facility that is physically separated from vehicular traffic (elevated, buffered, detached). To identify the level of traffic stress (LTS) the project used a methodology found in the Florida Department of Transportation (FDOT) 2023 Multimodal Quality Level of Service Handbook. The target for the network is to increase the number of LTS 1 and 2 facilities, which are on the lower range of traffic stress levels.

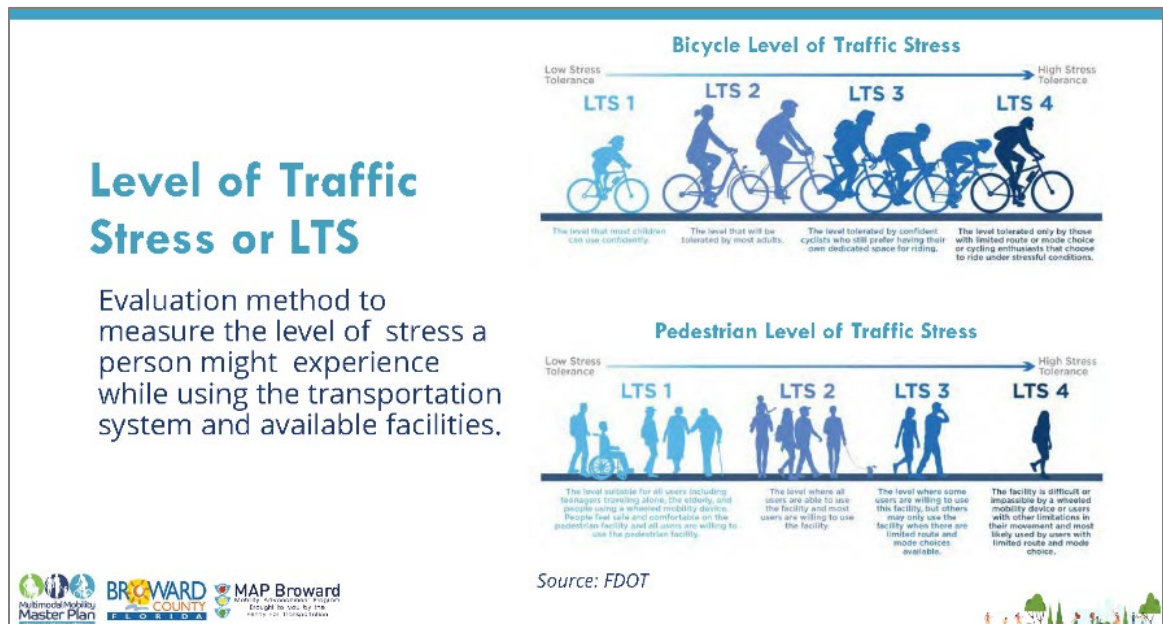


Figure 13 - Level of Traffic Stress explained

The project began with evaluating the “Existing Network” which includes Existing and Planned Bicycle Facilities on roads that are part of a local network. The assessment concluded that most of the County facilities classify as LTS 1 or 2 for pedestrians, but LTS 3 or 4 for bicyclists, which is considered an uncomfortable ride for most bicyclists. An accessibility analysis was also conducted to generate a map that shows proximity to transit stops, schools, grocery stores, and parks. Combined with the level of traffic stress analysis, areas were classified with different combinations of high/low accessibility and high/low level of traffic stress. Ms. Fermin shared the Gaps and Opportunities Map that will be used to prioritize the list of projects for future funding and implementation. More information about this project is in the section about the Low Stress Multimodal Plan Goal, below.

- d. Crosswalk Safety Traffic Control Devices & Strategies: Rasem Awwad, Assistant Director, TED, and Carmelo Caratozzolo, Traffic Operations Engineer, TED (1/10/24)

The presenters discussed the County efforts to address mid-block crossings which are spontaneous crossings at unmarked locations between two signalized intersections. Formalizing these crossings by providing marked crosswalks and pedestrian signals increases safety. Agency standards are detailed in the Manual on Uniform Traffic Control Devices (MUTCD), which is being revised this year.

Figure 14 below depicts three types of signalized treatments in increasing intensity of traffic control. The newest treatments are the Pedestrian Hybrid Beacon (PHB) and the Full Pedestrian Crossing Signal, which bring traffic to a full stop with a solid red light, rather than a flashing yellow caution light, used in the Rectangular Rapid Flashing Beacon (RRFB).

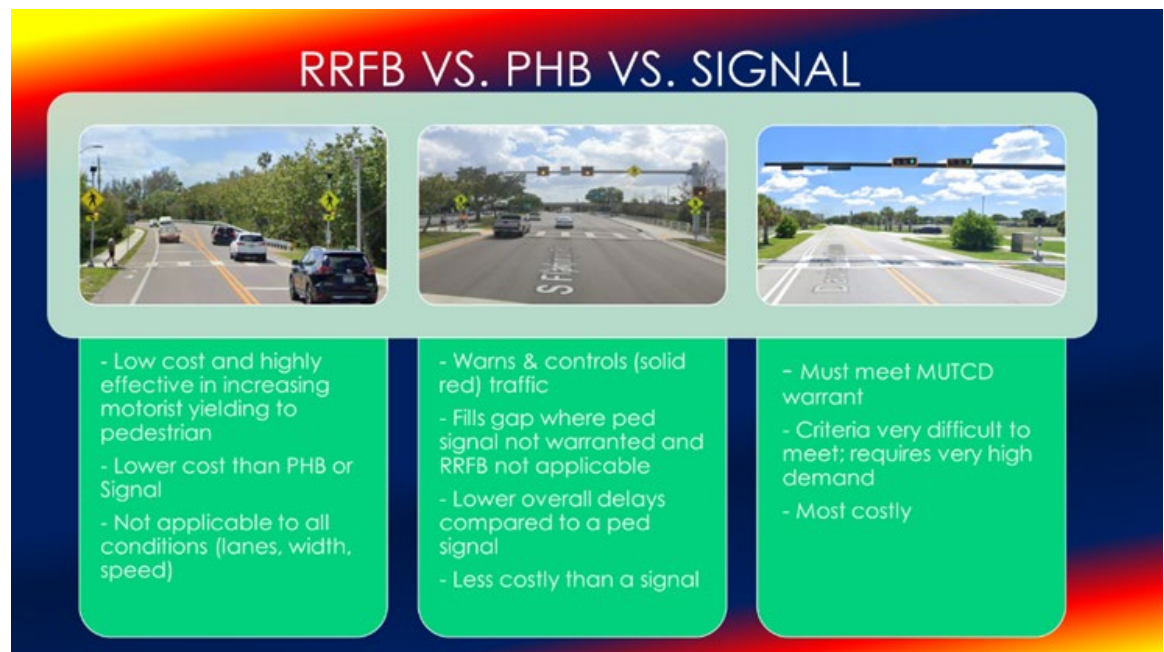


Figure 14 - Slide depicting Rectangular Rapid Flashing Beacons (RRFB), Pedestrian Hybrid Beacons (PHB) and Pedestrian Signals.

Criteria in discussion with many of the local municipalities includes the following:

- Location:
 - A well-defined spatial pattern of pedestrian generators, attractors, and flow;
 - A well-defined pattern of existing pedestrian crossings;
 - Minimum of 300 feet to nearest alternative intersection or crossing; and
 - Extent of influence area of adjacent signalized intersection, including turn lanes.

- Demand:
 - Minimum vehicular volume of 2,000 Average Daily Traffic/Vehicles;
 - Twenty (20) or more pedestrians per hour, with seniors, children and disabled counted as two; and
 - Fifty percent (50%) reduction of above criteria for shared-use path connections.

BPAC members were very interested in this topic. In particular, there was interest in how the installation of these lights was being coordinated with Broward County Transit around existing and future bus stops and stations. Also of concern is the need for better lighting at the crosswalks and more island refuges mid-crossing.

- e. Pines Boulevard and Flamingo Road Intersection Project (FM# 408046.2): Humberto Arrieta, PE, Project Manager, FDOT-District IV - Consultant Management - Section 5 (3/13/24)

Mr. Arrieta introduced the project and the consultant, Luis Costa with Colliers Engineering. The Broward MPO requested that the FDOT study the feasibility of installing an elevated [Center left-Turn Overpass](#) (CTO) to span the Pines Boulevard and Flamingo Road intersection. This could be the first elevated CTO to be installed in the United States.

Center Turn Overpass (CTO) Concept

- **CTO Features:**

- Elevated Left Turn Movements
- Improved Level of Service
- 7' Buffered Bike Lanes
- Standard 6' Sidewalk
- ADA Compliant Accessibility
- Reduced Crosswalk Length
- Crosswalk Refuge Areas



Figure 15 - Presentation Slide with Center Turn Overpass (CTO) image.

BPAC members asked questions about how much right-of-way (ROW) would be needed for this type of project and how bicyclists would use the overpass. The ROW needed is significant, but generally less than what is needed for a traditional multi-lane/directional overpass bridge. The overpass is not designed for bicyclists, so the

intersection underneath the overpass would be designed to accommodate pedestrian and bicyclists, including turns. Ms. Severyn from MAP in attendance informed the FDOT staff that the County has applied for a SunTrail grant to build a Flamingo Road greenway which would pass through this intersection. Other projects will also need to be accommodated including the premium transit that is part of the BCT Premium Transit Plan.

- f. Safe Streets for All: James Cromar and Fazal Qureshi, Broward Metropolitan Planning Organization (BMPO) (7/10/24)

James Cromar and Fazal Qureshi, Broward MPO, provided an overview of the Safe Streets For All (SS4A) grant and the planning process for the Broward Safety Action Plan (BSAP). This is a \$5M federal grant to the region is being administered by the Broward MPO. The County is a partner who provided a \$1.25M local match, which includes in-kind services from three current projects: the County wide Multimodal Master Plan (Low Stress Network), Near Miss Technology Study, and a countywide Intersection Improvement Study. The project mission includes making the Target Zero vision a reality. The Killed and Seriously Injured (KSI) Network analysis and the subsequent project selection share three major inputs: location of deaths and injuries (High Injury Network), factors that increase crash risk (High Risk Analysis and Network), and socio-economic factors (Equity Mapping). Twenty-nine deliverables identified are currently in different stages of development. The BSAP will include eleven priority corridors priority projects out of 30 recommended after several rounds of consultation with partner agencies, the oversight board members, and local jurisdictions. Additional outreach is planned for the fall of 2024 around concepts related to the priority corridors. Prior to adoption on June 2025, the BMPO staff will be scheduling another BPAC presentation.



Figure 16 - Presentation slide about Broward Safety Action Planning Process. Broward MPO,

- g. Flamingo Road Greenway SUNTrail Grant submittal

At the November 8, 2023 BPAC meeting, Ms. Josette Severyn from MAP requested and was approved for a letter of support for this grant. The project would complete a trail along Flamingo Road from the southern County line to the New River

Greenway thus providing another important connection to the regional low-stress pedestrian and bicycle network. The project is a partnership with the FDOT and the South Florida Water Management Agency, as well as four municipalities, namely, Miramar, Pembroke Pines, Southwest Ranches and Cooper City. On November 28, 2023 the BPAC provided a letter of support to Ms. Severyn.

h. BPAC Complete Streets Team Representative

Vice-Chair Goldstein is the representative the BPAC selected in 2022 for the Broward County Complete Streets Team. In the past year, he reported on several Complete Streets Team (CST) discussions, including the following:

- The July 19, 2023 CST meeting featured two projects. The Sawgrass Expressway Widening where they plan to redo various intersections and improve sidewalks, but no bicycle infrastructure is expected to be added since it is not a priority area for this mode. The second project is that the County is moving forward with an intersection study in which 100 intersections would be studied for safety improvements. The ranking factors in car crashes and car capacity, among others. The design will also include other safety features, but that is not part of this project. He also spoke about an earlier meeting where Dixie Highway pedestrian and bicycle improvements were featured, which he had reported on at the July BPAC meeting that lacked quorum.
- At the October CST meeting the widening of the Turnpike and underpass improvements were discussed. Also, the Laudertrail team provided a status update on the implementation of the adopted Master Plan. The November CST meeting occurred on the same day as the BPAC meeting and included a presentation about NW 31st Avenue, where the bike lane is being replaced by a wider shared-use path at the level of the sidewalk. Ms. Severyn had provided a presentation about the Flamingo Road SUN Trail application to the CST earlier that day as well.
- Ms. Forelle shared information about a special Complete Streets Team meeting in December where the Coral Springs Everglades Memorial Loop and bridge over the Sawgrass was discussed. The City of Coral Springs was seeking a letter of support to apply for a SUN Trail Grant.

For more information, visit the [Broward Complete Streets](#) webpage.

i. Public Comments

At the September 13, 2023 meeting, Tom Langer directed concerns about a personal incident to the BPAC, since he has been the victim in several crashes while bicycling. In particular, he wanted to address vehicle-bicycle spacing on roadways. Mr. Langer spoke about a few incidents he has had while on his daily bicycle rides on A1A,

including times where County buses have come very close to him. He has tried to educate drivers and found that they are generally receptive, but not always. Frequently, they respond that they are unaware of the State Law that requires drivers to maintain a 3-foot clearance from bicyclists. It's the vehicle's responsibility to create that space.

Mr. Langer referenced a section in the 2022 BPAC Annual Report about a Broward County Transit Division (BCT) campaign to remind bus operators, per state law, of the safe passing distance when overtaking a bicyclist (see image below). Mr. Langer is hoping more people learn about the law since most drivers are observing it. He also wants to see posted road signs like ones used in Boca Raton, FL. Below are sample signs found online and one that is posted in Indian River County, FL.

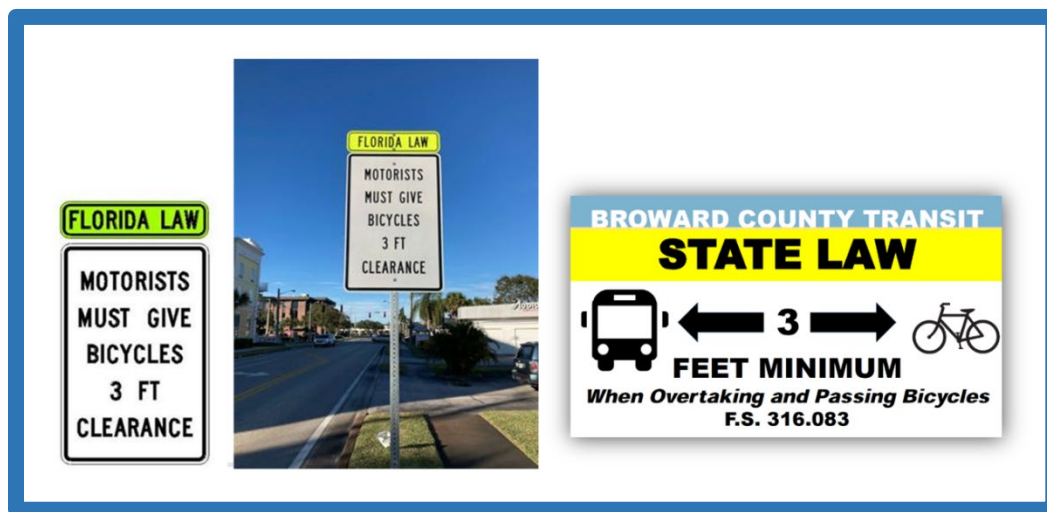


Figure 17 – Examples of Florida motorist signs requiring 3-foot clearance on the road when overtaking bicyclists.

Alejandro Munoz, a 20-year resident of Broward County, spoke to the BPAC about often riding in Davie and Plantation and feeling that bike lane standards are insufficient. He thinks that having just some paint separating the bicyclist from vehicular traffic is what drives some bicyclists to use the sidewalks. He liked the project on US1 that FDOT shared the same meeting, because the shared-use path on the curb provides greater separation from traffic. He recommended it for other projects.

NOTE: BPAC observations about the preference for shared-use paths over bike lanes adjacent to travel lanes have been shared at different project and technical advisory meetings and seem to be getting some traction at the County and State level.

2. GOAL: Outreach to local bicycling clubs and schools



Figure 18 - Florida Safe Routes to School website banner (and link). Source: website at <https://www.fdot.gov/projects/floridasrts/home>

Paula Finlayson, Broward County Parks & Recreation Division (Parks Division), and Sara Forelle, BPAC Coordinator are researching to develop bicycle education curriculum and materials to complement the Parks Division’s annual March is Bicycle Month and summer camp activities. The intent is to share the materials developed with schools to help educate children about safe bicycle riding habits. Also, throughout the month of March, Broward County hosts over a dozen events in parks around the county (more below). Events often include a Bike Rodeo which is set up to teach children about bicycle safety on streets and sidewalks. The items used to set up the bike rodeo course were obtained by the County through Florida’s Pedestrian & Bicycle Safety Resource Center funded by the Florida Department of Transportation. The bike course materials are made available to parks throughout the year but require a trained host. These events help educate young riders and adults about safe bicycle riding habits.

3. GOAL: Low Stress Multimodal Mobility Transportation Master Plan



Figure 19 - Multimodal Mobility Master Plan logo

The Broward Mobility Advancement Program (MAP) is funded by a voter-approved transportation surtax. MAP staff secured federal funding to develop a countywide master plan, which will serve as the blueprint for future low stress bicycle, pedestrian, and

greenway projects. The BPAC established a goal for participating in this process by securing the ability to review work products at different stages. Ms. Forelle participates in the steering committee.

Consultants Jeff Weidner and Christina Fermin, Marlin Engineering, and Josette Severyn from MAP shared findings of the Broward Low Stress Multimodal Plan with the BPAC at the November 8, 2023 and March 13, 2024 BPAC meetings. A low-stress network seeks to reduce the impact from high-speed motorized vehicles, allowing for safe travel within and between neighborhoods for all ages and abilities. Low-stress facilities are preferred by most. In the image below levels of traffic stress (LTS) bicyclists and pedestrians range from 1 to 4 (5 for bicycles). LTS 1 provides the lowest level of stress and the most comfortable option for facility users. LTS 4 includes facilities that are difficult to use or cross, uncomfortable, located along a high volume/high speed corridor, or where there is no special facility.

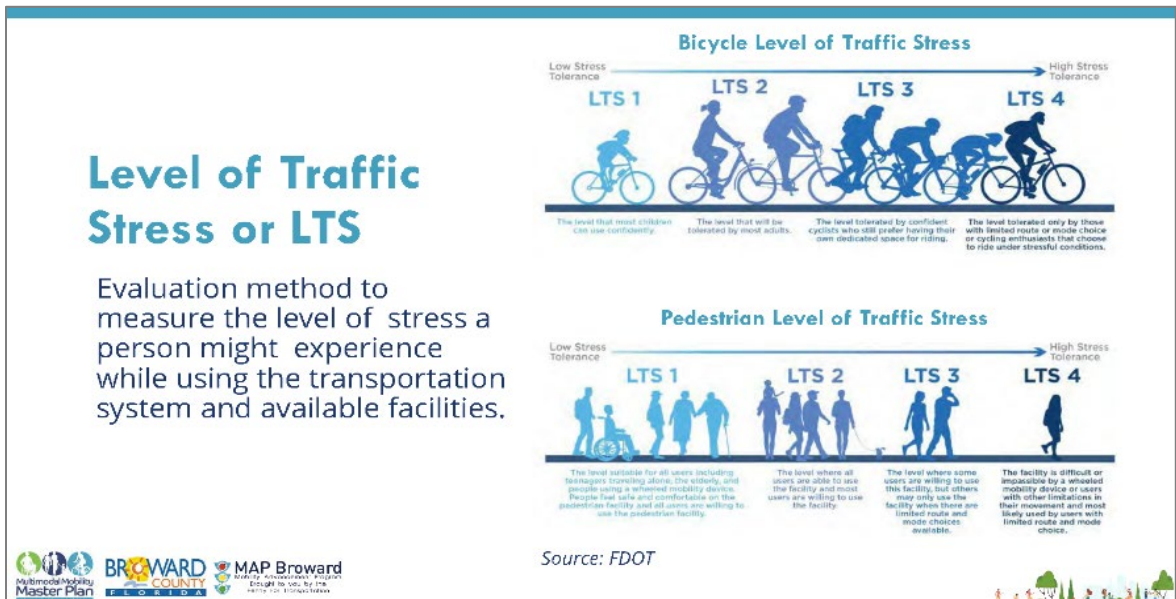


Figure 20 - Level of Traffic Stress explained.

A level of traffic stress was conducted as well as an accessibility analysis for the County road network. Destination accessibility is based on proximity to public schools, transit facilities, parks, jobs and grocery stores. The resulting combined analysis rendered a map that categorizes the roadways by high/low level of traffic stress (for both modes) with high/low accessibility.

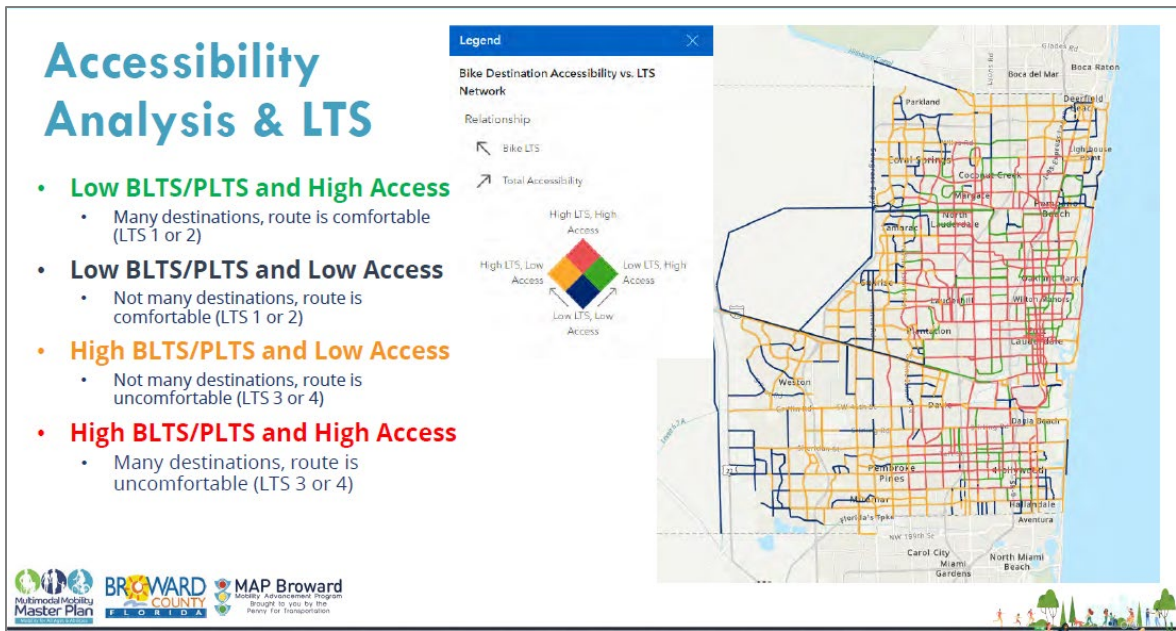


Figure 21 - Accessibility Analysis and LTS map.

The project consultants were completing the prioritization criteria which will apply to the higher-ranking corridors. The criteria include the following elements:



Figure 22 - Prioritization Criteria

BPAC members discussed the inclusion of micromobility vehicles in facility design, reducing conflicts at bus stops, and including a design manual with the report, among others.

Figure 23 shows the Proposed Low Stress Network map with the proposed network in orange dashed lines and the existing network in solid blue. Additional proposed projects appear with dashed lines. In combination, this regional network would improve north/south as well as east/west movement. The goal of building the network is for the municipal partners to connect their local facilities to the regional corridors and thus increase countywide path density and accessibility.

BPAC members generally support this effort.

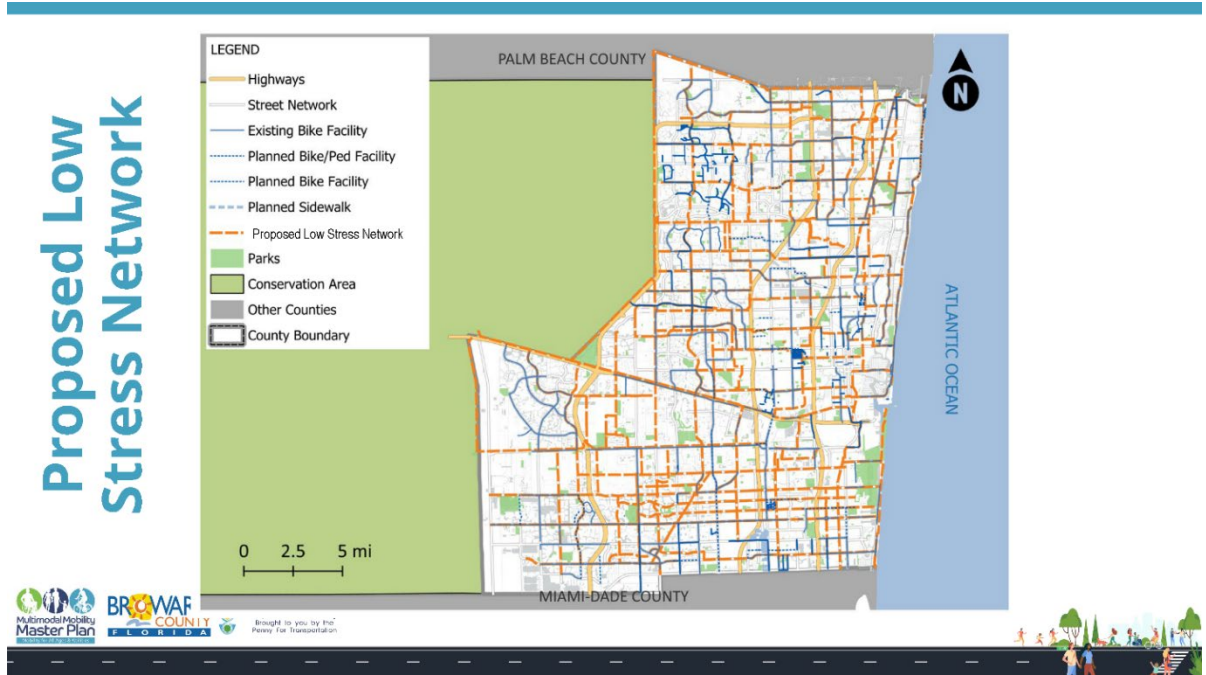


Figure 23 - Map showing the proposed network by type of facility proposed. (Source: Marlin Engineering for MAP)

One of the project outreach tools consists of a Crowdsourc map with layers that can be turned on/off and comment posts about the proposed network that can be added and shared.

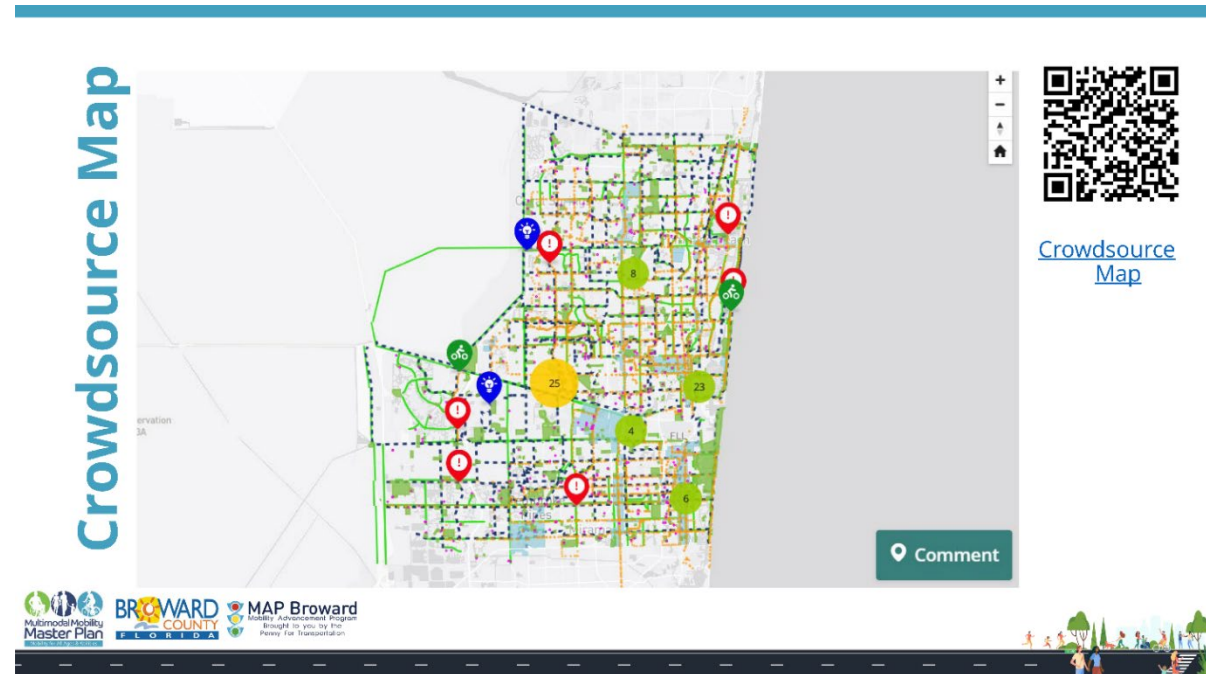


Figure 24 - Image of the Crowdsourc map for the Low Stress Project input and related QR code. (Source: Marilin Engineering for MAP).

4. GOAL: Top 10 policy proposals/best practices & 10 best practices for developers to encourage active travel in communities.

Beginning in late March 2023, BPAC members submitted seventeen (17) recommended best management practices associated with safe and convenient bicycle facilities. The BPAC coordinator identified and grouped the submittals under the following topic headings:

- Development and Land Use
- Mobility Recommendations
- Environmental Recommendations
- Legal/Enforcement Recommendations
- Education

Additional work has been done to separate the policy proposals from the best practices for developers. Drafts were distributed in the fall of 2023 to the BPAC members for further review and comment. Final products may include images and handouts that can be used by the members to share with residents, visitors, agencies and elected officials, after approval from the Board of County Commissioners. The intent is to finalize a solid draft by the end of 2024.

C. Outreach Activities & Resolution

1. October Broward Municipal Services District Wellness Jamboree

Ms. Finlayson from Broward County Parks & Recreation Division was joined by BPAC Chair Michael Kroll and Member Chris Wolf to staff a tent at the 2023 Healthy Community Zone Wellness Jamboree. The event was held on Saturday, October 21, 2023, at Reverend Samuel Delevoe Memorial Park in the Broward Municipal Services District.



Figure 25 - Images from the BPAC tent at the 2023 Broward Municipal Services District Wellness Jamboree

This annual event featured information about different County services that help improve the quality of life and health of community residents. Ms. Finlayson and the BPAC members provided information about bicycle and pedestrian safety. Twenty-six (26) bicycle helmets from an FDOT safety program were distributed to attendees. Printed bike/ped materials in English and Spanish were also provided, including activity and coloring books. Each year, Urban Planning Division staff identify donated bicycles, some of which need refurbishing, to be raffled at the event. This year five children's bikes were donated for the give-away. Mayor Fisher and Commissioner McKinzie (District 8) also joined in the fun!

2. March Bicycle Month Proclamation

In coordination with the Broward County Parks and Recreation Division and the Mobility Advancement Program (MAP), the BPAC submitted a proclamation to the Board of County Commissioners to celebrate March as state bicycle month. The

proclamation was adopted by the BPAC at the November 2023 meeting, and was read by Vice-Mayor Furr at the March 7, 2024 Commission Meeting. Five of the BPAC members were present to receive the proclamation, along with County staff members and Ms. Rachele Solomon, Injury Prevention and Safe Kids Broward Coordinator for Memorial Regional Hospital.

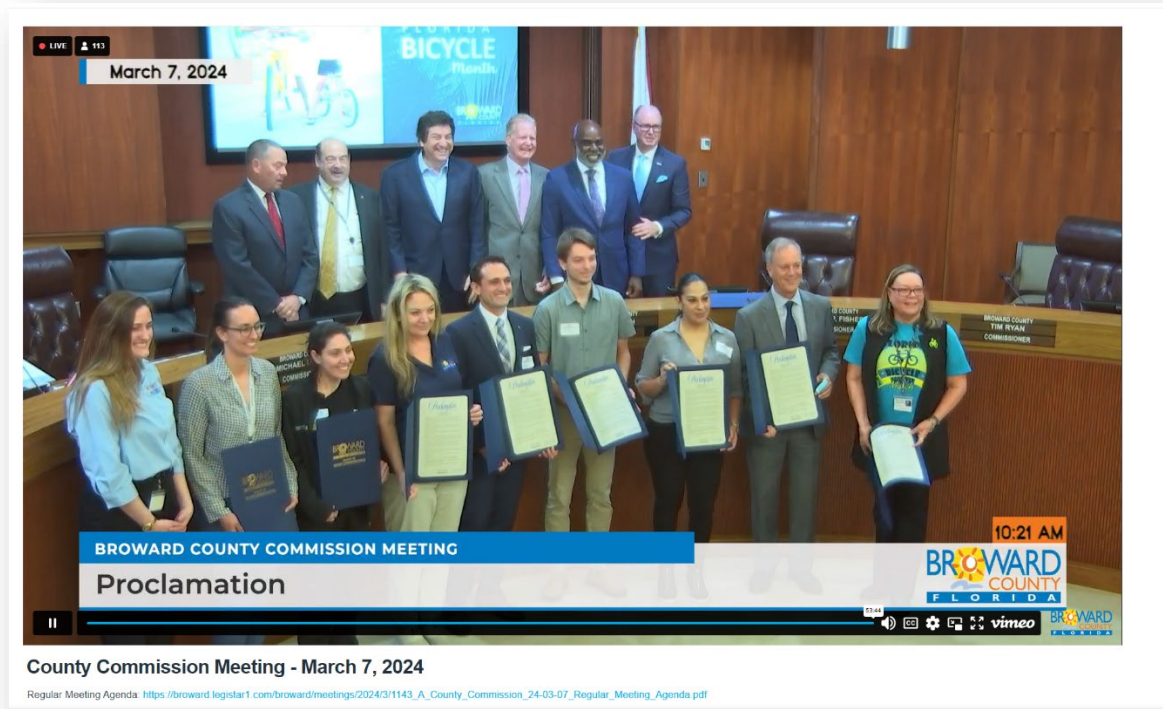


Figure 26 - Photo of BPAC members receiving the 2024 March Bike Month Proclamation from the County Commission.

3. March 2024 Bicycle Month Programs

Each year, the Broward County Parks and Recreation Division partners with municipalities and organizes numerous events that promote fun, bike skills, and safe riding. [Click here for the Broward County Parks bicycling opportunities.](#) This year’s offerings are listed below.

EVENT NAME	DATE	PARK
Kids Bike Fest and Rodeo	March 9	Vista View (Davie)
Rodeo & Biking 101 at Bike Box	March 10	Markham Park (Sunrise)
Rodeo & Neighborhood Slow Roll	March 16	Central Broward Park (Lauderhill)
101 Biking Lessons for Families	March 17	Topeekeegee Yungnee (TY) Park (Hollywood)
Skills Lesson	March 20	Quiet Waters Park (Deerfield Beach)
Rodeo & Scavenger Hunt	March 24	West Lake (Hollywood)
Scavenger Hunt & Bike Ride	March-Daily	Tradewinds Park (Coconut Creek)

Scavenger Hunt & Bike Ride	March-Daily	Topeekeegee Yungnee (TY) Park (Hollywood)
Two-person Team Cycling Series at the Velodrome	March 2, 9, 16, 23 & 30	Brian Piccolo Sports Park (Cooper City)
Tandem Leisure Ride	March 9	Tradewinds Park (Coconut Creek)

For more information about these programs, contact Paula Finlayson at Broward County Parks and Recreation.



Figure 27 - Photos from 2024 March Bike Month Event at Delevoe Park.

4. Bicycle Helmet Fitting Mini-Workshop

Broward County annually gives out dozens of bicycle safety helmets at bicycle safety events. Helmet fitting and safety tips are part of the process. The FDOT requires that helmet fitters undergo a training one of which was hosted at the FDOT District 4 office earlier this year. Ms. Forelle received a certificate and shared the newly acquired

knowledge with the BPAC members, who also help out at some County events. Below are images from BPAC's mini helmet fitting workshop.



Figure 28- Steps in the helmet fitting process.



Figure 29 - BPAC Members Arango, Kroll, Wolf, Lim, and Palaidis with fitted helmets.