

C7 P A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, ACCEPTING THE RECOMMENDATION OF THE FINANCE AND ECONOMIC RESILIENCY COMMITTEE, AT ITS FEBRUARY 21, 2025 MEETING, DIRECTING THE ADMINISTRATION TO PROCEED WITH THE RESTRIPIING AND/OR REPAINTING OF DAMAGED AND/OR FADED GREEN BICYCLE LANES CITYWIDE, SUBJECT TO A FISCAL YEAR 2024/5 ("FISCAL YEAR 2025") OPERATING BUDGET AMENDMENT IN THE APPROXIMATE AMOUNT OF \$375,000.

Applicable Area:



**COMMISSION MEMORANDUM**

TO: Honorable Mayor and Members of the City Commission

FROM: Eric Carpenter, City Manager

DATE: March 19, 2025

TITLE: A RESOLUTION OF THE MAYOR AND CITY COMMISSION OF THE CITY OF MIAMI BEACH, FLORIDA, ACCEPTING THE RECOMMENDATION OF THE FINANCE AND ECONOMIC RESILIENCY COMMITTEE, AT ITS FEBRUARY 21, 2025 MEETING, DIRECTING THE ADMINISTRATION TO PROCEED WITH THE RESTRIPING AND/OR REPAINTING OF DAMAGED AND/OR FADED GREEN BICYCLE LANES CITYWIDE, SUBJECT TO A FISCAL YEAR 2024/5 ("FISCAL YEAR 2025") OPERATING BUDGET AMENDMENT IN THE APPROXIMATE AMOUNT OF \$375,000.

**RECOMMENDATION**

The City Administration ("Administration") recommends that the Mayor and City Commission ("City Commission") adopt the Resolution.

**BACKGROUND/HISTORY**

At the July 10, 2024 PSNQLC meeting, the PSNQLC discussed the item (Attachment A) following a presentation from the Transportation and Mobility Department staff identifying the various issues, findings, and recommendations from the multi-departmental micromobility safety working group ("Working Group"), comprised of representatives from various City departments, the Mayor's Office, and a City of Miami Beach ("City") resident (Attachment B). During the discussion, the PSNQLC recommended that the Administration move forward with safety striping and the proposed regulatory signage on the Beachwalk and Lincoln Road, as recommended by the Working Group. In addition, during public comment, a resident spoke in support of extending the safety striping and signage through the Cutwalk and Baywalk to 5 Street. The Administration responded that, provided the current budget allocation is sufficient, the safety improvements would be extended to the Cutwalk and Baywalk.

Furthermore, the PSNQLC recommended to refer this item to the Finance and Economic Resiliency Committee ("FERC" or "Committee") to discuss funding needs for: 1) bicycle lane improvements and safety enhancements identified in the Bicycle-Pedestrian Master Plan (BPMP) Projects Implementation Matrix; 2) restriping and/or repainting damaged and/or faded green bicycle lanes citywide; 3) drainage improvements along the Beachwalk to address ponding; 4) potential widening of the Beachwalk at critical chokepoints; and 5) purchasing solar-powered electronic speed feedback devices and data collection sensors.

At the September 11, 2024 City Commission meeting, the City Commission referred an agenda Item (C4 J), sponsored by Vice Mayor Tanya K. Bhatt and co-sponsored by Commissioner Laura Dominguez, to the FERC to discuss funding needs for: 1) various bicycle lane improvements and safety enhancements identified in the Bicycle-Pedestrian Master Plan ("BPMP") Projects Implementation Matrix; 2) restriping and/or repainting green bicycle lanes citywide; 3) drainage improvements along the Beachwalk to address ponding; 4) potential widening of the Beachwalk at critical chokepoints; and 5) purchasing solar-powered electronic speed feedback devices and data collection sensors.

At the February 21, 2025 FERC meeting, the Committee discussed this item and recommended that the Administration proceed with the restriping and/or repainting of damaged and/or faded green bicycle lanes citywide, subject to a Fiscal Year ("FY") 2025 operating budget amendment in the approximate amount of \$375,000.

## **ANALYSIS**

### **Restriping and/or Repainting Damaged and/or Faded Green Bicycle Lanes Citywide**

The Transportation and Mobility Department recently conducted an assessment of the current condition of all existing bike lanes (i.e. pavement markings and green paint) throughout the City. Attachment C includes a draft report which identifies multiple locations which require restriping and/or repainting as a result of peeling, fading, and/or poor restoration following underground utility work. Based on unit prices from one of the City's rotational contracts, the estimated cost of restriping and/or repainting approximately 46,496 square feet of damaged and/or faded green bicycle lanes throughout the City is approximately \$375,000.

## **FISCAL IMPACT STATEMENT**

The estimated cost of restriping and/or repainting damaged and/or faded green bicycle lanes citywide is approximately \$375,000. Funding has not been identified, budgeted or appropriated at this time in the Transportation and Mobility Department's FY 2025 operating budget.

Should the City Commission adopt a resolution accepting the recommendation of the FERC, the Administration will present a FY 2025 operating budget amendment to the City Commission at the April 23, 2025 City Commission meeting for consideration.

**Does this Ordinance require a Business Impact Estimate?** Click or tap here to enter text.  
(FOR ORDINANCES ONLY)

**If applicable, the Business Impact Estimate (BIE) was published on:**

**See BIE at:** <https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notices/>

## **FINANCIAL INFORMATION**

N/A

## **CONCLUSION**

Should the City Commission adopt a Resolution accepting the recommendation of the FERC, the Transportation and Mobility Department will engage one of the City's pre-qualified rotational contractors to perform the restriping and/or repainting of damaged and/or faded green bicycle lanes throughout the City in an expeditious timeframe, subject to City Commission approval for funding appropriation through a FY 2025 operating budget amendment.

### **Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-17?**

No

**Is this item related to a G.O. Bond Project?**

No

**Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying?** No

If so, specify the name of lobbyist(s) and principal(s): N/A

**Department**

Transportation and Mobility

**Sponsor(s)**

Commissioner Tanya K. Bhatt

**Co-sponsor(s)**

Commissioner Laura Dominguez

**Condensed Title**

Accept Recommendation, Restriping of Green Bike Lanes Citywide. (Bhatt/Dominguez) TR

**Previous Action (For City Clerk Use Only)**



OLD BUSINESS {{item.number}}

## Attachment A

# MIAMI BEACH

## COMMITTEE MEMORANDUM

TO: Public Safety and Neighborhood Quality of Life Committee Members

FROM: Rickelle Williams, Interim City Manager *RW*

DATE: July 10, 2024

TITLE: **DISCUSS REGULATIONS PERTAINING TO ELECTRIC VEHICLES AND DEVICES, ALONG WITH THE CITY'S ENFORCEMENT EFFORTS AND ANY ADDITIONAL REGULATIONS THAT MAY BE NECESSARY TO AID IN ENSURING THE SAFE OPERATION OF ELECTRIC VEHICLES AND DEVICES FOR ALL.**

### **RECOMMENDATION**

The City Administration ("Administration") recommends that the Public Safety and Neighborhood Quality of Life Committee ("PSNQLC" or "Committee") discuss this item and provide input and a recommendation.

### **BACKGROUND/HISTORY**

At the December 13, 2023 City Commission meeting, the Mayor and City Commission ("City Commission") referred an agenda item (C4 I), sponsored by Commissioner Tanya K. Bhatt and co-sponsored by Vice-Mayor Laura Dominguez, to the PSNQLC to discuss regulations pertaining to electric vehicles and devices, along with the City's enforcement efforts and any additional regulations that may be necessary to aid in ensuring the safe operation of electric vehicles and devices for all.

Pursuant to the City of Miami Beach ("City") Code of Ordinances, it is unlawful to operate any motorized means of transportation, in, on, or upon any sidewalk or sidewalk areas in the City, except for (a) wheelchairs or other motorized means of transportation when used by disabled persons and (b) electric personal assistive mobility devices, where otherwise not prohibited, which are restricted to a maximum speed of eight (8) miles per hour. It is also unlawful for any person to engage in skateboarding, roller skating, and in-line skating at any time; to operate any motorized means of transportation at any time; or to engage in bicycling between 9:00 a.m. and 2:00 a.m., on Lincoln Road between Washington Avenue and Alton Road. Furthermore, it is unlawful to operate any motorized means of transportation at any time on the Beachwalk; the Lummus Park Promenade (Serpentine Walkway between 5 Street and 15 Street); the South Pointe Park Cutwalk (adjacent and parallel to Government Cut); the Marina Baywalk (adjacent and parallel to Biscayne Bay and south of 5 Street); the interior pathways within South Pointe Park and Collins Park; and the South Pointe Park Pier.

### **Beachwalk**

The Beachwalk is an at-grade, paved, and highly utilized seven (7)-mile long shared-use path facility abutting the western limit of the dune vegetation system along the east coast of the City. The Beachwalk serves recreational, leisure, work and other trips throughout the City and is one of the most active public trails within the state of Florida and a component of the United States Atlantic Greenway Network extending from Florida to Maine. The Beachwalk's popularity, coupled with its constrained width, contributes to frequent conflicts among pedestrians, bicyclists, and other users sometimes resulting in crashes, including some with serious injuries. An additional concern is the intermixing of pedestrians and unauthorized motorized/electric devices, including electric stand-up scooters, electric bikes, and electric skateboards operating illegally on the Beachwalk. Although Section 70-67 of the City Code prohibits motorized means of transportation

on the Beachwalk, among other pedestrian facilities throughout the City, the growing popularity of these electric mobility devices poses a significant safety concern for pedestrians and an enforcement challenge for the Police Department.

In March 2020, pursuant to the recommendation of the Neighborhood and Quality of Life Committee ("NQLC"), various city departments, including Police, Communications, Facilities and Fleet Management, and Transportation and Mobility, collaborated to develop a holistic approach to address the pedestrian safety concerns on the Beachwalk through better signage and enhanced enforcement. This effort resulted in the installation of 142 new regulatory signs along the Beachwalk and at all Beachwalk entrance points to assist Police Officers and Park Rangers with enforcing applicable provisions of the City Code. In addition, the City installed 70 advisory signs along the Beachwalk to advise users that the area is a pedestrian-friendly zone where permitted/non-motorized devices such as bicycles, skates, and skateboards must slow down and yield to pedestrians (see images below).

#### Existing Advisory Signs on the Beachwalk



#### Existing Regulatory Signs on the Beachwalk



In March 2021, the Miami Beach Police Department initiated a daily Beachwalk pedestrian safety detail entitled "Clear Path". Since early 2022, Police Officers and Park Rangers have conducted regular enforcement of the Beachwalk, including enforcement of Section 70-67 of the City Code prohibiting motorized means of transportation on the Beachwalk.

In May 2022, to further enhance pedestrian safety on the Beachwalk, the Transportation and Mobility Department launched an initial pilot project consisting of segregating bicyclists and pedestrians between 15 Street and 24 Street (a typical 15' wide section of the beachwalk) through striping and signage. The initial pilot required bi-directional bicycle traffic to travel along an 8' wide path on the eastern side of the beachwalk. While the goal of the pilot program was to achieve the separation of pedestrians and bicyclists on the Beachwalk, based on data analysis and field observations, City staff concluded that the initial pilot was not practical and created significant safety concerns due to the high amount of pedestrians and bicyclists traveling in opposing directions within the same confined space which resulted in user non-compliance. User feedback regarding the initial pilot configuration was overwhelmingly negative, particularly from cyclists who felt that mode segregation was more unsafe than the original Beachwalk configuration. Users stated that the initial pilot project provided insufficient space to accommodate bicyclists traveling in both directions on only one side of the Beachwalk.

In light of staff's analysis, observations, and user feedback, the Transportation and Mobility Department discontinued the initial pilot configuration, and, in September 2022, launched a modified pilot within the same segment of the Beachwalk from 15 Street to 24 Street. The modified pilot maintained the white painted solid line along the centerline of the Beachwalk and painted new directional arrows and symbols in both directions guiding all users to keep right while walking and cycling. To supplement the pavement markings and reinforce the new configuration, the Transportation and Mobility Department worked with the Office of Marketing and Communications to design and install new contextual signage in accordance with the modified pilot configuration. Below is an image of the current signage within the pilot segment.



While the modified configuration is not intended to achieve the original goal of mode separation along the Beachwalk, it provides a safer configuration for pedestrians and bicyclists as compared to the original pilot configuration as it follows the basic rules of a two-way street where all traffic traveling in the same direction keeps to the right side of the facility. This modified pilot program remains in effect to date and has received generally positive feedback from users and support

from the Mid-Beach Neighborhood Association ("MBNA"). As a result of the current modified pilot's effectiveness, through the Fiscal Year 2023 budget process, the City Commission endorsed a funding allocation in the amount of \$200,000 to implement the pavement marking and signage enhancements throughout the entire length of the Beachwalk on a permanent basis. As further described below in the Analysis section of this Committee Memorandum, this work is anticipated to commence during summer 2024 with anticipated completion in fall 2024.

#### **ANALYSIS**

Under the leadership of Commissioner Tanya K. Bhatt, with the participation of the Administration, a multi-departmental working group, including a representative from the Mayor's Office and a City resident, is currently working on developing a comprehensive, multi-pronged, and unified approach to improve micromobility, bicycle, and pedestrian safety on the Beachwalk and other shared-use facilities as well as bicycle lanes throughout the City. The working group's focus areas and participating City department(s) are as follows:

- Crash Data/Statistics (Police)
- Enforcement of Current Regulations (Police/Park Rangers, Code Compliance)
- Beachwalk Safety Concerns and Recommendations (various city departments)
- Signage and Messaging (Marketing and Communications)
- Condition Survey of Existing Bicycle Lanes (Transportation and Mobility)
- Proposed Bicycle Lane Improvements and Safety Enhancements (Transportation and Mobility)

In addition, on Saturday, April 4, 2024, Commissioner Bhatt led a bicycle ride along the Beachwalk with key members of the working group and residents to experience first-hand the safety issues on the Beachwalk.

Below is a synopsis of each of the working group's focus areas, including relevant statistics, issues, opportunities, challenges, recommendations, and next steps, as appropriate.

#### **Crash Data**

Given the Beachwalk is classified as a recreational shared-use facility and not a vehicular roadway, during the working group's discussions, Police Department representatives articulated a concern regarding the inability to capture specific crash data as it relates to micromobility devices. Bicycle and pedestrian crashes are captured statewide via the Florida Traffic Crash Report (Attachment A), a state-issued form provided by the Department of Highway Safety and Motor Vehicles ("DHSMV"). Due to the automated nature of the form, specific information regarding crashes/incidents by specific location and micromobility devices throughout the City of Miami Beach is not currently available. Even as the DHSMV is considering modifying the standard report to include micromobility devices, data from the form would only apply to crashes with motor vehicles and not to incidents on the Beachwalk with pedestrians. The Police Department, therefore, is exploring the possibility of capturing these incident types in-house through digital changes to its departmentwide Offense Incident Report through which to better gauge and document reported bicycle, pedestrian, and micromobility crashes throughout the City.

For reference, below is the Florida Statute pertaining to micromobility:

#### **316.2128 Micromobility devices, motorized scooters, and miniature motorcycles; requirements.—**

(1) The operator of a motorized scooter or micromobility device has all of the rights and duties applicable to the rider of a bicycle under s. 316.2065, except the duties imposed by s. 316.2065(2), (3)(b), and (3)(c), which by their nature do not apply. However, this section may not be construed to prevent a local government, through the exercise of its powers under s. 316.008, from adopting an ordinance governing the operation of micromobility devices and motorized scooters on streets, highways, sidewalks, and sidewalk areas under the local government's jurisdiction.



#### Enforcement of Current Regulations

The Miami Beach Police Department and Park Ranger Service began tracking Uniform Traffic Citations, verbal warnings and written warnings related to the enforcement of the non-motorized Ordinance (70-67) on the Beachwalk in October of 2021. Beat officers throughout the City, officers assigned to the Redevelopment Agency ("RDA"), and Park Rangers have proactively addressed the illegal use of motorized vehicles on the Beachwalk daily and through various specialized details that have run concurrently since 2022. Data regarding these activities is provided below.

Enforcement Related to Section 70-67 (Prohibition of motorized means of transportation)												
	2021 (October - December)			2022			2023			2024 (January - June)		
	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers	RDA
Uniform Traffic Citations	N/A	37	127	N/A	54	2	N/A	74	1	N/A	170	1
Written Warnings	3685	259	123	18	356	31	106	4	28	156	59	2
Verbal Warnings	(not tracked separately)	188	321	8966	1139	676	13652	919	308	1992	313	147

During the month of April 2024, the Police Department deployed a zero-tolerance campaign strictly enforcing the prohibited use of micromobility devices on the Beachwalk. The Police Department has also carried out social media campaigns to inform the public on the City Ordinance, reached out to hotels in order to educate tourists, as well as distributed flyers on the prohibited use of motorized/electric vehicle use on the Beachwalk.

Furthermore, from June 30, 2023 to June 30, 2024, the Code Compliance Department issued 16 violations for vegetation overgrowth (including hedges) on the Beachwalk between 24 Street and 61 Street. To date, the property owners cited have complied with these violations.

#### Beachwalk Safety Concerns and Recommendations

The working group has been discussing various Beachwalk safety issues and potential solutions. Following is a list of safety concerns identified by the working group and recommendations:

- Concern #1: Conflicts between bicyclists and pedestrians traveling along the Beachwalk.

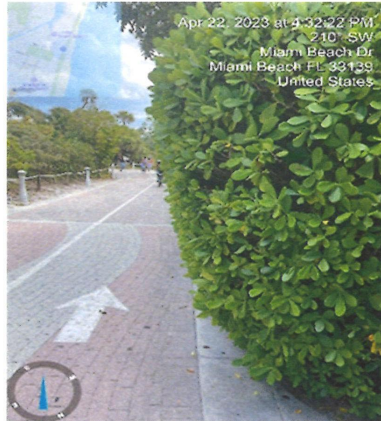
Recommendation #1 (In Progress): Building on the success of the existing modified pilot configuration along the Beachwalk from 15 Street to 24 Street, the Transportation and Mobility Department staff anticipates painting a continuous white line along the center of the Beachwalk with directional arrows on either side along the entire 7-mile length of the Beachwalk. Signage advising users to "KEEP RIGHT" (see below) will supplement the new striping and pavement markings. This work is anticipated to commence in late summer 2024 using one of the City's pre-qualified contractors and be completed in fall 2024.



- Concern #2: Critical chokepoints along the Beachwalk result in conflicts and safety concerns among users.

Recommendation #2: The Administration will identify all critical chokepoint locations as well as opportunities for potential minor widening of the Beachwalk as feasible.

- Concern #3: Overgrown vegetation on private property encroaching onto the Beachwalk results in reduced effective width for Beachwalk users.

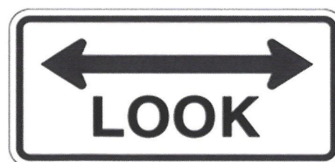


Recommendation #3: Explore new legislation requiring a private property setback from the Beachwalk and developing regulations governing the type of vegetation permitted for planting within the setback area.

- Concern #4: User conflicts due to limited sight visibility where private property egress and/or beach egress intersects the Beachwalk.



Recommendation #4: 1) Install signage and/or advance warning pavement markings (e.g. "LOOK") on the Beachwalk to alert users of approaching conflict zones.



2) At the May 15, 2024 City Commission meeting, Commissioner Tanya K. Bhatt sponsored a dual referral item (C4 AE) to the Land Use and Sustainability Committee ("LUSC") and the Planning Board to discuss an ordinance modifying the land development regulations governing maintenance of oceanfront properties facing the Beachwalk. Specifically, the proposed ordinance seeks to modify maximum allowable height of fencing, walls, gates, shrubbery, hedges, and trees to ensure clear and unobstructed sightlines for all who are traveling along, or entering/exiting the Beachwalk. The item is slated to be discussed at the July 9, 2024 LUSC meeting.

- Concern #5: Lack of street number signs at intersecting streets along the Beachwalk.

Recommendation #5: The Parking Department will manufacture and install street number signs along the Beachwalk at each intersecting street and beach access based on the working group's recommended sign design below.



- Concern #6: Ponding at various locations along the Beachwalk affects safety and mobility.



Recommendation #6: The Administration will identify locations where ponding occurs and develop a work plan with estimated costs and timelines to implement spot-drainage improvements at these locations. Should the fiscal impact require action by the City Commission, the Administration will request funding.

#### Signage and Messaging Recommendations

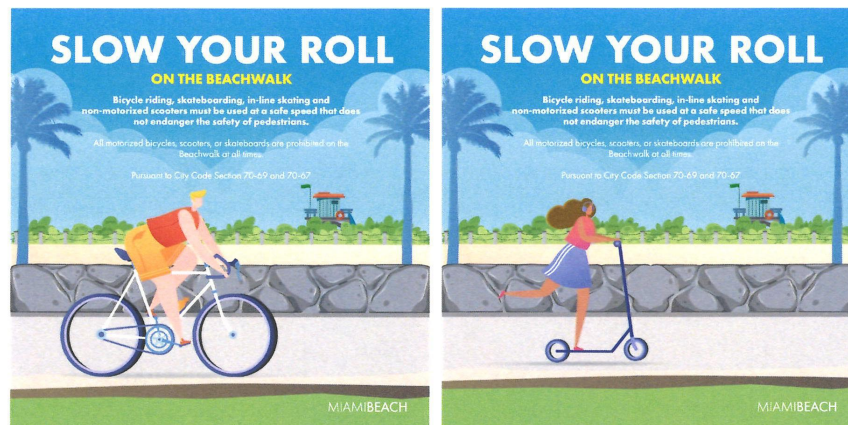
The working group recommends that the City remove all existing mobility signs along the Beachwalk which detract from the experience and are currently not providing much direction or warning and install standard black and white regulatory-type signs, including "SLOW DOWN" and "KEEP RIGHT" signs as depicted above and below.





Regulatory signs are easier to recognize and understand by people of all backgrounds and languages. In addition, the working group discussed the possibility of establishing a speed limit on the Beachwalk and installing speed limit signs; however, Police Department representatives expressed concerns with the inability to enforce a speed limit as most conventional bicycles are not equipped with speedometers, thus making it difficult for cyclists to be aware of their speed.

The working group also recommends launching an organic, digital campaign to advise Beachwalk users, including cyclists, skateboarders, in-line skaters, and non-motor scooters to “SLOW YOUR ROLL.” The new temporary decals will be placed on the pavement to reinforce that all motorized means of transportation are prohibited on the Beachwalk as depicted below.



A similar campaign targeted to the Lincoln Road pedestrian mall will include the installation of temporary decals on the pavement advising patrons to “WALK YOUR WHEELS” as depicted below.





In addition, the working group recommends replacing the existing regulatory signs on Lincoln Road (below) with a simpler regulatory sign which is easier to understand.

#### Existing Regulatory Signs on Lincoln Road



#### Proposed Regulatory Sign for Lincoln Road



The working group anticipates that the updated signage approach and messaging campaign will change behavior and enhance the safety of all Beachwalk users. Staff will communicate the

proposed signage changes with the Lincoln Road Business Improvement District. Costs for signage production and replacement/installation may be absorbed through the Transportation and Mobility Department's Fiscal Year 2023/2024 Operating Budget.

#### Condition Survey of Existing Bicycle Lanes

The Transportation and Mobility Department recently conducted an assessment of the current condition of all existing bike lanes (i.e. pavement markings and green paint) throughout the City. Based on the assessment, staff identified multiple locations which require restriping and/or repainting as a result of peeling, fading, and poor restoration following underground utility work. A draft report is anticipated to be completed in August 2024. The draft report will include the locations that require restriping and/or repainting as well as cost estimates. Funding for these improvements has not been identified, budgeted, or appropriated. In addition, the working group will explore ways of ensuring that proper bicycle facility restoration by contractors is completed.

#### Proposed Bicycle Lane Improvements and Safety Enhancements

The Transportation and Mobility Department conducted an evaluation of projects recommended in the adopted 2016 Bicycle-Pedestrian Master Plan ("BPMP") to identify current project status (i.e. completed, in-progress, funded/not started, not feasible, part of future neighborhood improvement/infrastructure project, and unfunded). Attachment B includes a BPMP Project Implementation Matrix.

It is important to note that 1) the BPMP is a visionary plan with a horizon year of 2035; 2) many pending BPMP projects are anticipated to have a significant impact to existing on-street parking; and 3) while several BPMP projects have been completed or are underway in various phases of development, many BPMP projects are pending construction as part of future large-scale stormwater drainage/neighborhood improvement projects (e.g. West Avenue, 17 Street, 22/23 Street, North Bay Road, North Shore D, Washington Avenue, among others) or future roadway improvement projects on State and County roadways to be undertaken by the Florida Department of Transportation ("FDOT") and Miami-Dade County Department of Transportation and Public Works (e.g. Collins Avenue, Alton Road, Dade Boulevard, Venetian Causeway, among others).

Pursuant to the working group's recommendation, Transportation and Mobility Department staff identified various pending BPMP projects which could potentially be undertaken in a relatively short timeframe and at a low cost. Following is a list of six (6) "low-hanging" BPMP projects for further consideration by the working group. It is important to note that greenways are defined in the BPMP as low-volume, low-speed, and thus, low-stress streets that are designed for safe bicycle travel (and do not include dedicated bicycle lanes).

1. Closing the bike lane gap on northbound Ocean Drive at 5 Street (traffic analysis in progress pursuant to City Commission direction, however, construction is unfunded).
2. BPMP Category 1 - Project No.30: Bicycle lane on 5 Street between Collins Avenue and Atlantic Way (construction is unfunded).
3. BPMP Category 3 - Project No. 6: Greenway on Michigan Avenue between 2 Street to 11 Street (construction is unfunded).
4. BPMP Category 3 - Project No.15: Greenway on Prairie Avenue between 44 Street to 47 Street (construction is unfunded).
5. BPMP Category 3 - Project No. 21: Greenway on 69 Street between Indian Creek Drive to Atlantic Way (construction is unfunded).
6. BPMP Category 3 - Project No. 25: Greenway on Royal Palm Avenue between 26 Street and 41 Street (construction is unfunded).

#### Solar-Powered Electronic Speed Feedback Devices

To deter cyclists speeding on the Beachwalk, the working group recommends that the Administration test, as a pilot program, the effectiveness of solar-powered electronic speed feedback devices - as depicted in the images below - at key locations on the Beachwalk. While the devices would not display a speed or speed limit (due to concerns from the Police Department

regarding enforcement), the devices will serve to alert bicyclists to “SLOW DOWN” and raise awareness while cycling on the Beachwalk. It is important to note that the below images are visual place-holders as the Administration is currently conducting research on the most suitable sign to install on the Beachwalk.



Based on City staff's observations and coordination with the Police Department and Park Rangers, the following locations have been identified as areas on the Beachwalk where conflicts between users are regularly occurring due to high activity or speeding:

- South Pointe Park
- 5 Street
- 10 Street
- 14 Court
- 17 Street
- Lincoln Road
- 21 Street
- 27 Street
- 53 Street
- 64 Street
- 73 Street
- 75 Street
- 77 Street
- 79 Street

The cost of purchasing and installing these types of devices would range from approximately \$10,000 to \$20,000 per device. Since posting a speed limit for bicycles on the Beachwalk is not

recommended by Police at this time due to challenges with enforcement, the working group recommends programming the electronic speed feedback device such that it would display a "SLOW DOWN" message if an approaching bicyclist is traveling at a rate of speed greater than what would be considered a reasonable speed limit for bicyclists on a shared-use path with pedestrians (i.e. 12 miles per hour). As such, any bicyclist traveling faster than 12 miles per hour while approaching the electronic speed feedback sign would trigger a "SLOW DOWN" message. It is worth noting that while these electronic signs can collect speed data, they do not collect volume data and do not differentiate between motorized and non-motorized mobility devices. The Transportation and Mobility Department staff is in discussions with various vendors to pilot, at no cost to the City, these devices at a couple of locations on the Beachwalk (potentially at Lincoln Road and at 77 Street) to gauge user compliance and effectiveness. It is important to note that these devices are often used as a temporary measure to educate and change user behavior and have utility beyond their use on the Beachwalk.

#### Speed, Volume, and Modal Data Collection Sensors

The working group acknowledged the importance of installing electronic sensors to collect speed and volume data in real-time of pedestrians, bicycles, and micromobility devices, in order to corroborate anecdotal information from users and make informed decisions and recommendations to enhance safety on the Beachwalk and other shared-use paths, as well as bicycle lanes throughout the City. In addition, it is essential for the data collection sensors to have the capability to differentiate among the various modes (pedestrians, bicycles, scooters, skateboards, in-line skates, etc.) and type of mobility devices (i.e. motorized and non-motorized).

To this end, the Transportation and Mobility Department recently purchased six (6) bicycle counters which will be installed on existing bicycle lanes in the City, including Ocean Drive, Venetian Causeway, and Meridian Avenue, in the next few months. Additional funding is being requested through the ongoing Fiscal Year 2024/2025 budget process for the purchase and installation of additional counters on bicycle lanes and shared-use paths throughout the City. It is worth noting that the FDOT recently installed a new bicycle/pedestrian counter on the Beachwalk at 54 Street as part of the Statewide Non-Motorized Traffic Monitoring Program. While the FDOT counter classifies pedestrians, bicyclists, and scooters, it does not differentiate between motorized and non-motorized mobility devices and does not collect speed data.

The working group also acknowledged the need to install sensors on the Beachwalk to collect speed, volume, and modal data. Furthermore, the working group determined that any data collection sensors to be installed on the Beachwalk should be wireless and non-intrusive in order to be effective. The Transportation and Mobility Department staff is currently conducting research to determine the type and number of data sensors to purchase and install along the Beachwalk.

An operating budget enhancement in the amount of \$175,000 has been recommended by the Administration as part of the ongoing budget process for Fiscal Year 2025 for the purchase and installation of six (6) data collection sensors and six (6) speed feedback signs throughout the Beachwalk.

#### FISCAL IMPACT STATEMENT

TBD

#### Does this Ordinance require a Business Impact Estimate?

(FOR ORDINANCES ONLY)

The Business Impact Estimate (BIE) was published on . See BIE at:  
<https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notice/>

#### FINANCIAL INFORMATION

N/A

### **CONCLUSION**

Under the leadership of Commissioner Tanya K. Bhatt, with the participation of the Administration, the micromobility safety working group, comprised of representatives from various City departments, the Mayor's Office, and a City resident, have been engaged in discussions to explore innovative ways to improve the safety of all users on the Beachwalk and other shared-use paths and bicycle lanes throughout the City. The goal of the working group is to develop a comprehensive and unified work plan with recommendations, including potential new legislation, for short-term and long-term improvements, cost estimates, and timelines for implementation.

This Committee Memorandum provides a status update on the working group's discussions, ideas, and recommendations to date; however, further discussions are necessary to continue to refine and finalize a comprehensive work plan. Additional updates will be provided to the PSNQLC at future meetings.

### **Applicable Area**

Citywide

**Is this a "Residents Right to Know" item, pursuant to City Code Section 2-17?**

No

**Is this item related to a G.O. Bond Project?**

No

**Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying?** No

If so, specify the name of lobbyist(s) and principal(s): N/A

### **Department**

Transportation and Mobility

### **Sponsor(s)**

Commissioner Tanya K. Bhatt

### **Co-sponsor(s)**

Commissioner Laura Dominguez

### **Condensed Title**

Discuss Regulations Pertaining to Electric Vehicles and Devices along with Enforcement Efforts

# FLORIDA TRAFFIC CRASH REPORT

LONG FORM ☐ SHORT FORM ☐ UPDATE ☐  
(Shaded Areas)

MAIL TO: DEPARTMENT OF HIGHWAY SAFETY & MOTOR VEHICLES  
TRAFFIC CRASH RECORDS, NEIL KIRKMAN BUILDING  
TALLAHASSEE, FL 32399-0537

## Attachment A – Florida Traffic Crash Report Form

TOTAL # OF VEHICLE SECTION(S) \_\_\_\_\_

TOTAL # OF PERSON SECTION(S) \_\_\_\_\_

TOTAL # OF NARRATIVE SECTION(S) \_\_\_\_\_

CRASH DATE		TIME OF CRASH		DATE OF REPORT		REPORTING AGENCY CASE NUMBER		HSMV CRASH REPORT NUMBER	
<b>CRASH IDENTIFIERS</b>									
COUNTY CODE		COUNTY OF CRASH		PLACE OR CITY OF CRASH		CHECK IF WITHIN CITY LIMITS <input type="checkbox"/>		TIME REPORTED	
TIME ON SCENE		TIME CLEARED SCENE		CHECK IF COMPLETED <input type="checkbox"/>		REASON (If Investigation NOT Complete)		Notified By: 1 Motorist <input type="checkbox"/> 2 Law Enforcement <input type="checkbox"/>	
<b>ROADWAY INFORMATION (CHOOSE ONLY 1 OF 4 OPTIONS)</b>									
CRASH OCCURRED ON STREET, ROAD, HIGHWAY						AT STREET ADDRESS # <b>1</b>		AT LATITUDE AND LONGITUDE <b>2</b>	
FEET		MILES		N S E W <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		AT / FROM INTERSECTION WITH STREET, ROAD, HIGHWAY <b>3</b>		OR FROM MILEPOST # <b>4</b>	
<b>Road System Identifier</b>			<b>7 Forest Road</b> 8 Private Roadway 9 Parking Lot 77 Other, Explain in Narrative			<b>Type of Shoulder</b>		<b>Type of Intersection</b>	
<input type="checkbox"/> Interstate <input type="checkbox"/> U.S. <input type="checkbox"/> State			<input type="checkbox"/> County <input type="checkbox"/> Local <input type="checkbox"/> Turnpike/Toll			<input type="checkbox"/> Paved <input type="checkbox"/> Unpaved <input type="checkbox"/> Curb		<input type="checkbox"/> Not at Intersection <input type="checkbox"/> Four-Way Intersection <input type="checkbox"/> T-Intersection <input type="checkbox"/> Y-Intersection	
<input type="checkbox"/> 5 Traffic Circle <input type="checkbox"/> 6 Roundabout <input type="checkbox"/> 7 Five-Point, or More <input type="checkbox"/> 77 Other, Explain in Narrative									
<b>CRASH INFORMATION (CHECK IF PICTURES TAKEN) <input type="checkbox"/></b>									
<b>Light Condition</b>		<b>Weather Condition</b>		<b>Roadway Surface Condition</b>		<b>School Bus Related</b>		<b>Manner of Collision/Impact</b>	
<input type="checkbox"/> 1 Daylight <input type="checkbox"/> 2 Dusk <input type="checkbox"/> 3 Dawn <input type="checkbox"/> 4 Dark-Lighted		<input type="checkbox"/> 5 Dark-Not Lighted <input type="checkbox"/> 6 Dark-Unknown Lighting 77 Other, Explain in Narrative 88 Unknown		<input type="checkbox"/> 4 Fog, Smog, Smoke 5 Sleet/Hail/ Freezing Rain 6 Blowing Sand, Soil, Dirt 7 Severe Crosswinds 77 Other, Explain in Narrative 88 Unknown		<input type="checkbox"/> 5 Oil 6 Mud, Dirt, Gravel 7 Sand 8 Water (standing/ moving) 77 Other, Explain in Narrative 88 Unknown		<input type="checkbox"/> 1 No 2 Yes, School Bus Directly Involved 3 Yes, School Bus Indirectly Involved	
<input type="checkbox"/> 1 Front to Rear <input type="checkbox"/> 2 Front to Front <input type="checkbox"/> 3 Angle									
<b>First Harmful Event</b>		<b>Non-Collision</b>		<b>Collision Non-Fixed Object</b>		<b>Collision with Fixed Object</b>		<b>First Harmful Event Location</b>	
<input type="checkbox"/> 1 Overturn/Rollover 2 Fire/Explosion 3 Immersion 4 Jackknife 5 Cargo/Equipment Loss or Shift 6 Fell/Jumped From Motor Vehicle 7 Thrown or Falling Object 8 Ran into Water/Canal 9 Other Non-Collision		<input type="checkbox"/> 10 Pedestrian 11 Pedalcycle 12 Railway Vehicle (train, engine) 13 Animal 14 Motor Vehicle in Transport 15 Parked Motor Vehicle 16 Work Zone/Maintenance Equipment 17 Struck By Falling, Shifting Cargo 18 Other Non-Fixed Object		<input type="checkbox"/> 19 Impact Attenuator/Crash Cushion 20 Bridge Overhead Structure 21 Bridge Pier or Support 22 Bridge Rail 23 Culvert 24 Curb 25 Ditch 26 Embankment 27 Guardrail Face 28 Guardrail End 29 Cable Barrier		<input type="checkbox"/> 30 Concrete Traffic Barrier 31 Other Traffic Barrier 32 Tree (standing) 33 Utility Pole/Light Support 34 Traffic Sign Support 35 Traffic Signal Support 36 Other Post, Pole or Support 37 Fence 38 Mailbox 39 Other Fixed Object (wall, building, tunnel, etc.)		<input type="checkbox"/> 1 On Roadway 2 Off Roadway 3 Shoulder 4 Median 6 Gore 7 Separator 8 In Parking Lane or Zone 9 Outside Right-of-way 10 Roadside 88 Unknown	
<b>First Harmful Event within Interchange</b>		<input type="checkbox"/> 1 No 2 Yes 88 Unknown							
<b>First Harmful Event Relation to Junction</b>		<input type="checkbox"/> 5 Railway Grade Crossing 14 Entrance/Exit Ramp 15 Crossover - Related 16 Shared-Use Path or Trail 17 Acceleration/Deceleration Lane 18 Through Roadway 77 Other, Explain in Narrative 88 Unknown		<b>Contributing Circumstances: Road</b>		<b>Contributing Circumstances: Environment</b>			
<input type="checkbox"/> 1 Non-Junction 2 Intersection 3 Intersection-Related 4 Driveway/Alley Access Related		<input type="checkbox"/> 1 None 4 Work Zone (construction/ maintenance/utility) 6 Shoulders (none, low, soft, high) 7 Rut, Holes, Bumps		<input type="checkbox"/> 9 Worn, Travel-Polished Surface 10 Road Surface Condition (wet, icy, snow, slush, etc.) 11 Obstruction in Roadway 12 Debris 13 Traffic Control Device Inoperative, Missing or Obscured 14 Non-Highway Work 77 Other, Explain in Narrative 88 Unknown		<input type="checkbox"/> 1 None 2 Weather Conditions 3 Physical Obstruction(s) 4 Glare		<input type="checkbox"/> 5 Animal(s) in Roadway 77 Other, Explain in Narrative 88 Unknown	
<b>Work Zone Related</b>		<b>Crash in Work Zone</b>		<b>Type of Work Zone</b>		<b>Workers in Work Zone</b>		<b>Law Enforcement in Work Zone</b>	
<input type="checkbox"/> 1 No 2 Yes 88 Unknown		<input type="checkbox"/> 1 Before the First Work Zone Warning Sign 2 Advance Warning Area 3 Transition Area 4 Activity Area 5 Termination Area		<input type="checkbox"/> 1 Lane Closure 2 Lane Shift/Crossover 3 Work on Shoulder or Median 4 Intermittent or Moving Work 77 Other, Explain in Narrative		<input type="checkbox"/> 1 No 2 Yes 88 Unknown		<input type="checkbox"/> 1 No 2 Officer Present 3 Law Enforcement Vehicle Only Present	
<b>WITNESSES</b>									
NAME		ADDRESS		CITY & STATE		ZIP CODE			
NAME		ADDRESS		CITY & STATE		ZIP CODE			
NAME		ADDRESS		CITY & STATE		ZIP CODE			
<b>NON VEHICLE PROPERTY DAMAGE</b>									
VEHICLE #	PERSON #	PROPERTY DAMAGE – OTHER THAN VEHICLE	EST. AMOUNT	OWNER'S NAME <input type="checkbox"/> (Check if Business)	ADDRESS	CITY & STATE	ZIP CODE		
VEHICLE #	PERSON #	PROPERTY DAMAGE – OTHER THAN VEHICLE	EST. AMOUNT	OWNER'S NAME <input type="checkbox"/> (Check if Business)	ADDRESS	CITY & STATE	ZIP CODE		



VEHICLE #		Check if Commercial		REPORTING AGENCY CASE NUMBER		HSMV CRASH REPORT NUMBER											
1 Vehicle in Transport 2 Parked Motor Vehicle 3 Working Vehicle		VEHICLE LICENSE NUMBER		STATE	REGISTRATION EXPIRES	Check if Permanent Registration	VIN										
Hit and Run 1 No 2 Yes 88 Unknown		YEAR	MAKE	MODEL	STYLE	COLOR	DAMAGE: 1 Disabling 2 Functional 3 None 4 Minor 88 Unknown	EST. AMOUNT									
INSURANCE COMPANY		INSURANCE POLICY NUMBER		Towed due to Damage: 1 No 2 Yes		VEHICLE REMOVED BY		1 Rotation 2 Owner Request 3 Driver 4 Other, Explain in Narrative									
NAME OF VEHICLE OWNER		(Check if Business)		CURRENT ADDRESS		CITY & STATE		ZIP CODE									
TRAILER #		LICENSE NUMBER	STATE	REGISTRATION EXPIRES	Check if Permanent Registration	VIN	YEAR	MAKE	LENGTH	AXLES							
TRAILER #		LICENSE NUMBER	STATE	REGISTRATION EXPIRES	Check if Permanent Registration	VIN	YEAR	MAKE	LENGTH	AXLES							
VEHICLE TRAVELING		N	S	E	W	Off-Road	Unknown	ON STREET, ROAD, HIGHWAY		AT EST. SPEED	POSTED SPEED	TOTAL LANES					
HAZ. MAT. RELEASED 1 No 2 Yes 88 Unknown		HAZ. MAT. PLACARD 1 No 2 Yes 88 Unknown		HAZ. MAT. NUMBER		HAZ. MAT. CLASS		Area of Initial Impact		Most Damaged Area							
MOTOR CARRIER NAME		US DOT NUMBER		14 13 12 11 10 9 8 7 6 5 4 3 2 1		18 Undercarriage 19 Overtown 20 Windshield 21 Trailer		14 13 12 11 10 9 8 7 6 5 4 3 2 1									
MOTOR CARRIER ADDRESS		CITY & STATE		ZIP CODE		PHONE NUMBER											
Vehicle Body Type		Trafficway		Commercial Motor Vehicle Configuration		Cargos Body Type		Emergency Vehicle Use									
1 Passenger Car 2 Passenger Van 3 Pickup 7 Motor Home 8 Bus 11 Motorcycle 12 Moped 13 All Terrain Vehicle (ATV)		15 Low Speed Vehicle 16 (Sport) Utility Vehicle 17 Cargo Van (10,000 lbs (4,536 kg) or less) 18 Motor Coach 19 Other Light Trucks (10,000 lbs (4,536 kg) or less) 20 Medium/Heavy Trucks (more than 10,000 lbs (4,536 kg)) 21 Farm Labor Vehicle 77 Other, Explain in Narrative 88 Unknown		1 Two-Way, Not Divided 2 Two-Way, Not Divided, with a Continuous Left Turn Lane 3 Two-Way, Divided, Unprotected (painted >4 feet) Median 4 Two-Way, Divided, Positive Median Barrier 5 One-Way Trafficway 88 Unknown		1 Vehicle 10,000 lbs or less Placarded for Hazardous Materials 2 Single-Unit Truck (2-axle and GVWR more than 10,000 lbs (4,536 kg)) 3 Single-Unit Truck (3 or more axles) 4 Truck Pulling Trailers(s) 5 Truck Tractor (bobtail) 6 Truck Tractor/Semi-Trailer 7 Truck Tractor/Double Truck		13 Intermodal Container Chassis 14 Vehicle Towing Another Vehicle 15 Not Applicable (vehicle 10,000 lbs (4,536kg) or less not displaying HM placard) 77 Other, Explain in Narrative 88 Unknown									
Comm/Non-Commercial		Trailer Type		Comm GVWR/GCWR		Collision with Non-Fixed Object		Collision Fixed Object		Vehicle Maneuver Action		Traffic Control Device For This Vehicle	Vehicle Defects				
1 Interstate Carrier 2 Intrastate Carrier 3 Not in Commerce/Government 4 Not in Commerce/Other Truck		1 Single Semi Trailer 2 Tandem Semi Trailer 3 Tank Trailer 4 Saddle Mount/Trailer 5 Boat Trailer 6 Utility Trailer 7 House Trailer		1 10,000 lbs (4,536 kg) or less 2 10,001-26,000 lbs (4,536-11,793 kg) 3 More than 26,000 lbs (11,793 kg) 4 Not Applicable		10 Pedestrian 11 Pedalcycle 12 Railway Vehicle (train, engine) 13 Animal 14 Motor Vehicle in Transport 15 Parked Motor Vehicle 16 Work Zone/Maintenance Equipment 17 Struck By Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle 18 Other Non-Fixed Object		19 Impact Attenuator/Crash Cushion 20 Bridge Overhead Structure 21 Bridge Pier or Support 22 Bridge Rail 23 Culvert 24 Curb 25 Ditch 26 Embankment 27 Guardrail Face 28 Guardrail End		29 Cable Barrier 30 Concrete Traffic Barrier 31 Other Traffic Barrier 32 Tree (standing) 33 Utility Pole/Light Support 34 Traffic Sign Support 35 Traffic Signal Support 36 Other Post, Pole, or Support 37 Fence 38 Mailbox 39 Other Fixed Object (wall, building, tunnel, etc.)		1 Straight Ahead 3 Turning Left 4 Backing 5 Turning Right 6 Changing Lanes 8 Parked 10 Making U-Turn 11 Overtaking/ Passing 13 Stopped in Traffic 14 Slowing 15 Negotiating a Curve 16 Leaving Traffic Lane 17 Entering Traffic Lane 77 Other, Explain in Narrative 88 Unknown		1 No Controls 4 School Zone Sign/ Device 5 Traffic Control Signal 6 Stop Sign 7 Yield Sign 8 Flashing Signal 9 Railway Crossing Device 10 Person (including Flagman, Officer, Guard, etc.) 13 Warning Sign 77 Other, Explain in Narrative 88 Unknown		1 None 2 Brakes 3 Tires 4 Lights (head, signal, tail) 6 Steering 7 Wipers 9 Exhaust System 10 Body, Doors 11 Power Train 12 Suspension 13 Wheels 14 Windows/ Windshield 15 Mirrors 16 Truck Coupling/ Trailer Hitch/ Safety Chains 77 Other, Explain in Narrative 88 Unknown	
VIOLATIONS																	
PERSON #	NAME OF VIOLATOR			FL STATUTE NUMBER		CHARGE		CITATION NUMBER									
PERSON #	NAME OF VIOLATOR			FL STATUTE NUMBER		CHARGE		CITATION NUMBER									
PERSON #	NAME OF VIOLATOR			FL STATUTE NUMBER		CHARGE		CITATION NUMBER									

<b>PERSON #</b> <input type="text"/>		<b>REPORTING AGENCY CASE NUMBER</b>		<b>HSMV CRASH REPORT NUMBER</b>	
1 Driver 2 Non-Motorist 3 Passenger	<input type="checkbox"/>	<b>VEHICLE #</b>	<b>NAME</b>	<b>PHONE NUMBER</b>	Check if Recommend Driver Re-exam <input type="checkbox"/>
<b>CURRENT ADDRESS (Number and Street)</b>			<b>CITY &amp; STATE</b>		<b>ZIP CODE</b>
<b>DATE OF BIRTH</b>	<b>SEX:</b> 1 Male 2 Female 88 Unknown	<b>DRIVER LICENSE NUMBER</b>	<b>STATE</b>	<b>EXPIRES</b>	<b>INJURY SEVERITY (INJ)</b> 1 None 2 Possible 3 Non-incapacitating 4 Incapacitating 5 Fatal (within 30 days) 6 Non-Traffic Fatality

<b>DRIVER</b>					
<b>DL Type</b> <input type="checkbox"/> 1 A 2 B 3 C <input type="checkbox"/> 4 D/Chauffeur <input type="checkbox"/> 5 E/Operator <input type="checkbox"/> 6 E/Oper - Rest <input type="checkbox"/> 7 None		<b>Required Endorsements</b> <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 No Req. Endorsement		<b>Driver's Actions at Time of Crash</b>	
<b>Driver Distracted By</b> <input type="checkbox"/> 1 Not Distracted <input type="checkbox"/> 2 Electronic Communication Devices (cell phone, etc.) <input type="checkbox"/> 3 Other Electronic Device (navigation device, DVD player)		<b>4 Other Inside the Vehicle (explain in narrative)</b> <input type="checkbox"/> 5 External Distraction (outside the vehicle, explain in narrative) <input type="checkbox"/> 6 Texting <input type="checkbox"/> 7 Inattentive <input type="checkbox"/> 88 Unknown		<b>1st</b> <input type="checkbox"/> 1 No Contributing Action <input type="checkbox"/> 2 Operated MV in Careless or Negligent Manner <input type="checkbox"/> 3 Failed to Yield Right-of-Way <input type="checkbox"/> 4 Improper Backing <input type="checkbox"/> 6 Improper Turn <input type="checkbox"/> 10 Followed too Closely <input type="checkbox"/> 11 Ran Red Light <input type="checkbox"/> 12 Drove too Fast for Conditions <input type="checkbox"/> 13 Ran Stop Sign <input type="checkbox"/> 15 Improper Passing <input type="checkbox"/> 17 Exceeded Posted Speed <input type="checkbox"/> 21 Wrong Side of Wrong Way <input type="checkbox"/> 25 Failed to Keep in Proper Lane <b>2nd</b> <input type="checkbox"/> 1 No Contributing Action <input type="checkbox"/> 2 Operated MV in Careless or Negligent Manner <input type="checkbox"/> 3 Failed to Yield Right-of-Way <input type="checkbox"/> 4 Improper Backing <input type="checkbox"/> 6 Improper Turn <input type="checkbox"/> 10 Followed too Closely <input type="checkbox"/> 11 Ran Red Light <input type="checkbox"/> 12 Drove too Fast for Conditions <input type="checkbox"/> 13 Ran Stop Sign <input type="checkbox"/> 15 Improper Passing <input type="checkbox"/> 17 Exceeded Posted Speed <input type="checkbox"/> 21 Wrong Side of Wrong Way <input type="checkbox"/> 25 Failed to Keep in Proper Lane <b>3rd</b> <input type="checkbox"/> 26 Ran off Roadway <input type="checkbox"/> 27 Disregarded other Traffic Sign <input type="checkbox"/> 28 Disregarded Other Road Markings <input type="checkbox"/> 29 Over-Correcting/Over-Steering <input type="checkbox"/> 30 Swerved or Avoided - Due to Wind, Slippery Surface, MV, Object, Non-Motorist in Roadway, etc. <input type="checkbox"/> 31 Operated MV in Erratic, Reckless or Aggressive Manner <input type="checkbox"/> 77 Other Contributing Action <b>4th</b> <input type="checkbox"/> 26 Ran off Roadway <input type="checkbox"/> 27 Disregarded other Traffic Sign <input type="checkbox"/> 28 Disregarded Other Road Markings <input type="checkbox"/> 29 Over-Correcting/Over-Steering <input type="checkbox"/> 30 Swerved or Avoided - Due to Wind, Slippery Surface, MV, Object, Non-Motorist in Roadway, etc. <input type="checkbox"/> 31 Operated MV in Erratic, Reckless or Aggressive Manner <input type="checkbox"/> 77 Other Contributing Action	
<b>Driver Vision Obstructions</b> <input type="checkbox"/> 1 Vision Not Obscured <input type="checkbox"/> 2 Inclement Weather <input type="checkbox"/> 3 Parked/Stopped Vehicle <input type="checkbox"/> 4 Trees/Crops/Bushes		<b>5 Load on Vehicle</b> <input type="checkbox"/> 6 Building/Fixed Object <input type="checkbox"/> 7 Signs/Billboards <input type="checkbox"/> 8 Fog <b>9 Smoke</b> <input type="checkbox"/> 10 Glare <input type="checkbox"/> 77 All Other, Explain in Narrative		<b>Condition At Time of Crash</b> <input type="checkbox"/> 1 Apparently Normal <input type="checkbox"/> 3 Asleep or Fatigued <input type="checkbox"/> 5 Ill (sick) or Fainted <input type="checkbox"/> 6 Seizure, Epilepsy, Blackout <input type="checkbox"/> 7 Physically Impaired <input type="checkbox"/> 8 Emotional (depression, angry, disturbed, etc.) <input type="checkbox"/> 9 Under the Influence of Medications/Drugs/Alcohol <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown	
<b>DRIVER OR PASSENGER</b>					
<b>Motor Vehicle Seating Position:</b> <b>Seat</b> 1 Left 2 Middle 3 Right 77 Other (explain in narrative) 88 Unknown		<b>Row</b> 1 Front 2 Second 3 Third 4 Fourth 77 Other Row 88 Unknown		<b>Other</b> <input type="checkbox"/> 1 Not Applicable <input type="checkbox"/> 2 Sleeper Section of Truck Cab <input type="checkbox"/> 3 Other Enclosed Cargo Area <input type="checkbox"/> 4 Unenclosed Cargo Area <input type="checkbox"/> 5 Trailing Unit <input type="checkbox"/> 6 Riding on Motor Vehicle Exterior (non-trailing unit) <input type="checkbox"/> 88 Unknown <b>LOCATION: SEAT ROW OTHER (LOC)</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<b>Helmet Use (HU)</b> <input type="checkbox"/> 1 DOT-Compliant Motorcycle Helmet <input type="checkbox"/> 2 Other Helmet <input type="checkbox"/> 3 No Helmet		<b>Eye Protection (EP)</b> <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 Not Applicable		<b>Restraint Systems (RS)</b> <input type="checkbox"/> 1 Not Applicable <input type="checkbox"/> 2 None Used - Motor Vehicle Occupant <input type="checkbox"/> 3 Shoulder and Lap Belt Used <input type="checkbox"/> 4 Shoulder Belt Only Used <input type="checkbox"/> 5 Lap Belt Only Used <input type="checkbox"/> 6 Deployed - Combination <input type="checkbox"/> 7 Deployed - Curtain <input type="checkbox"/> 8 Deployed - Front <input type="checkbox"/> 88 Deployment Unknown <input type="checkbox"/> 10 Child Restraint Type Unknown <input type="checkbox"/> 77 Other, Explain in Narrative	
<b>Air Bag Deployed (ABD)</b> <input type="checkbox"/> 1 Not Applicable <input type="checkbox"/> 2 Not Deployed <input type="checkbox"/> 3 Deployed - Front <input type="checkbox"/> 4 Deployed - Side		<b>Ejection (EJECT)</b> <input type="checkbox"/> 1 Not Ejected <input type="checkbox"/> 2 Ejected, Totally <input type="checkbox"/> 3 Ejected, Partially <input type="checkbox"/> 4 Not Applicable <input type="checkbox"/> 88 Unknown			

<b>NON-MOTORIST</b>			
<b>Non-Motorist Description</b> <input type="checkbox"/> 1 Pedestrian <input type="checkbox"/> 2 Other Pedestrian (wheelchair, person in a building, skater, pedestrian conveyance, etc.) <input type="checkbox"/> 3 Bicyclist <input type="checkbox"/> 4 Other Cyclist <input type="checkbox"/> 5 Occupant of Motor Vehicle Not in Transport (parked, etc.) <input type="checkbox"/> 6 Occupant of a Non-Motor Vehicle Transportation Device <input type="checkbox"/> 7 Unknown Type of Non-Motorist		<b>Non-Motorist Location At Time of Crash</b> <input type="checkbox"/> 1 Intersection - Marked Crosswalk <input type="checkbox"/> 2 Intersection - Unmarked Crosswalk <input type="checkbox"/> 3 Intersection - Other <input type="checkbox"/> 4 Midblock - Marked Crosswalk <input type="checkbox"/> 5 Travel Lane - Other Location <input type="checkbox"/> 6 Bicycle Lane <input type="checkbox"/> 7 Shoulder/Roadside <input type="checkbox"/> 8 Sidewalk <input type="checkbox"/> 9 Median/Crossing Island <input type="checkbox"/> 10 Driveway Access <input type="checkbox"/> 11 Shared-Use Path or Trail <input type="checkbox"/> 12 Non-Trafficway Area <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown	
<b>Safety Equipment</b> <input type="checkbox"/> 1 None <input type="checkbox"/> 2 Helmet <input type="checkbox"/> 3 Protective Pads Used (elbows, knees, shins, etc.) <input type="checkbox"/> 4 Reflective Clothing (jacket, backpack, etc.) <input type="checkbox"/> 5 Lighting <input type="checkbox"/> 6 Not Applicable <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown		<b>Non-Motorist Actions/Circumstances</b> <b>1st</b> <input type="checkbox"/> 1 No Improper Action <input type="checkbox"/> 2 Dart/Dash <input type="checkbox"/> 3 Failure to Yield Right-of-Way <input type="checkbox"/> 4 Failure to Obey Traffic Signs, Signals, or Officer <input type="checkbox"/> 5 In Roadway Improperly (standing, lying, working, playing) <input type="checkbox"/> 6 Disabled Vehicle Related (working on, pushing, leaving/approaching) <b>2nd</b> <input type="checkbox"/> 1 No Improper Action <input type="checkbox"/> 2 Dart/Dash <input type="checkbox"/> 3 Failure to Yield Right-of-Way <input type="checkbox"/> 4 Failure to Obey Traffic Signs, Signals, or Officer <input type="checkbox"/> 5 In Roadway Improperly (standing, lying, working, playing) <input type="checkbox"/> 6 Disabled Vehicle Related (working on, pushing, leaving/approaching) <input type="checkbox"/> 7 Entering/Exiting Parked/Standing Vehicle <input type="checkbox"/> 8 Inattentive (talking, eating, etc.) <input type="checkbox"/> 9 Not Visible (dark clothing, no lighting, etc.)	
<b>Action Prior to Crash</b> <input type="checkbox"/> 5 Walking/Cycling on Sidewalk <input type="checkbox"/> 6 In Roadway - Other (working, playing, etc.) <input type="checkbox"/> 7 Adjacent to Roadway (e.g., shoulder, median) <input type="checkbox"/> 8 Going to or from School (K-12) <input type="checkbox"/> 9 Working in Trafficway (incident response) <input type="checkbox"/> 10 None <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown			

<b>ALCOHOL/DRUG/EMS</b>							
<b>SUSPECTED ALCOHOL USE:</b> <input type="checkbox"/> 1 No <input type="checkbox"/> 2 Yes <input type="checkbox"/> 88 Unknown	<b>ALCOHOL TESTED:</b> <input type="checkbox"/> 1 Test Not Given <input type="checkbox"/> 2 Test Refused <input type="checkbox"/> 3 Test Given <input type="checkbox"/> 88 Unknown, if Tested	<b>ALCOHOL TEST TYPE:</b> <input type="checkbox"/> 1 Blood <input type="checkbox"/> 2 Breath <input type="checkbox"/> 3 Urine <input type="checkbox"/> 77 Other, Explain in Narrative	<b>ALCOHOL TEST RESULT:</b> <input type="checkbox"/> 1 Pending <input type="checkbox"/> 2 Completed <input type="checkbox"/> 88 Unknown	<b>BAC</b> <input type="checkbox"/>	<b>SUSPECTED DRUG USE:</b> <input type="checkbox"/> 1 No <input type="checkbox"/> 2 Yes <input type="checkbox"/> 88 Unknown	<b>DRUG TESTED:</b> <input type="checkbox"/> 1 Test Not Given <input type="checkbox"/> 2 Test Refused <input type="checkbox"/> 3 Test Given <input type="checkbox"/> 88 Unknown, if Tested	<b>DRUG TEST TYPE:</b> <input type="checkbox"/> 1 Blood <input type="checkbox"/> 3 Urine <input type="checkbox"/> 77 Other, Explain in Narrative
<b>DRUG TEST RESULT:</b> <input type="checkbox"/> 1 Positive <input type="checkbox"/> 2 Negative <input type="checkbox"/> 3 Pending <input type="checkbox"/> 88 Unknown							

<b>SOURCE OF TRANSPORT TO MEDICAL FACILITY</b> <input type="checkbox"/> 1 Not Transported <input type="checkbox"/> 2 EMS <input type="checkbox"/> 3 Law Enforcement <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown		<b>EMS AGENCY NAME OR ID</b>	<b>EMS RUN NUMBER</b>	<b>MEDICAL FACILITY TRANSPORTED TO</b>
--	--	------------------------------	-----------------------	--

<b>ADDITIONAL PASSENGERS</b>													
<b>PERSON #</b>	<b>VEHICLE #</b>	<b>NAME</b>	<b>DATE OF BIRTH</b>	<b>INJ</b>	<b>SEX</b>	<b>LOC: S</b>	<b>R</b>	<b>O</b>	<b>EJECT</b>	<b>HU</b>	<b>EP</b>	<b>ABD</b>	<b>RS</b>
<b>CURRENT ADDRESS (Number and Street)</b>			<b>CITY &amp; STATE</b>		<b>ZIP CODE</b>								
<b>SOURCE OF TRANSPORT TO MEDICAL FACILITY</b> <input type="checkbox"/> 1 Not Transported <input type="checkbox"/> 2 EMS <input type="checkbox"/> 3 Law Enforcement <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown			<b>EMS AGENCY NAME OR ID</b>		<b>EMS RUN NUMBER</b>		<b>MEDICAL FACILITY TRANSPORTED TO</b>						
<b>PERSON #</b>	<b>VEHICLE #</b>	<b>NAME</b>	<b>DATE OF BIRTH</b>	<b>INJ</b>	<b>SEX</b>	<b>LOC: S</b>	<b>R</b>	<b>O</b>	<b>EJECT</b>	<b>HU</b>	<b>EP</b>	<b>ABD</b>	<b>RS</b>
<b>CURRENT ADDRESS (Number and Street)</b>			<b>CITY &amp; STATE</b>		<b>ZIP CODE</b>								
<b>SOURCE OF TRANSPORT TO MEDICAL FACILITY</b> <input type="checkbox"/> 1 Not Transported <input type="checkbox"/> 2 EMS <input type="checkbox"/> 3 Law Enforcement <input type="checkbox"/> 77 Other, Explain in Narrative <input type="checkbox"/> 88 Unknown			<b>EMS AGENCY NAME OR ID</b>		<b>EMS RUN NUMBER</b>		<b>MEDICAL FACILITY TRANSPORTED TO</b>						

HSMV 90010 S (VIP) (rev 10/10)





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Attachment B – BPMP Project Implementation Matrix

Bike Miami Beach Master Plan Implementation Matrix

Category 1: Filling in the gaps

Project Information											
Project Number	Project Street	Project Identification	Beach Area	Project Limits	Public ROW	Pavement Width	Posted Speed Limit	Daily Volume	Type	Order of magnitude cost	TOTAL Project Length
1	Atlantic Trail	SB Short Term Item 12	South beach	Between 5 Street and 3 Street		15'	NA		Shared path		2224 ft / .42 MI
2	Atlantic Trail		Middle beach	Between 24th st to 28th st					Protected bike lane		
3	Atlantic Trail		Middle beach	Between 30th st to Allison Park					Protected bike lane		
4	72 & 73 St	NB Short Term Item 7	North beach	Between Collins Ave. and Dickens Ave.	74'	30' Typical	25 mph	NA	Protected bike lane	\$31,000	1,800 FT / 0.35 MI
		NB Short Term Item 7		Between Atlantic Trail and Dickens Avenue	74'	56'	NA	NA	Protected bike lane		1,800 FT / 0.35 MI
5	63 St	MB Short Term Item 1	Middle beach	Between Atlantic Trail and Indian Creek Dr.	80'	60' Typical	35 mph		Protected bike lane		
6	West Ave	SB Short Term Item 7	South beach	Between 20th St. and 5th St.	70'	51' Typical	25 mph	12,000 ADT	Protected bike lane		7,600 FT / 1.43 MI
7	Meridian Ave	SB Short Term Item 2	South beach	Between Dade Boulevard and 16 Street	70'	58'	NA		protected bike lane		2480 ft / .47 MI
8	MacArthur Causeway	SB Short Term Item 10	South beach	Between 5th st intersection and Fisher Island Ferry	90'	80'	NA		Protected bike lane		7523 ft / 1.42 MI
9	Indian Creek Dr	NB Short Term Item 10	North beach	Between Abbott and 63 st	92' typical	74'	30 mph	NA	Protected bike lane		2753 ft / .52 MI
10	21 St	SB Short Term Item 1	South beach	Between Atlantic Trail and Washington Avenue			NA		Protected bike lane		3641 ft / .69 MI
11	63 St	MB Short Term Item 1	Middle beach	Between Alton Rd. and Indian Creek Dr.	80'	60' Typical	35 mph	32,960 ADT	Protected bike lane		2,000 FT / 0.4 MI
12	81 St	NB Short Term Item 3	North beach	Between east end to Cresp Blvd then north to 82 st	60'	42'	NA	NA	Greenway		1820 ft / .36 MI
13	77 St	NB Short Term Item 3	North beach	Between Collins Ave and Dickens Ave.	50'	35'	15 mph school zone	NA	Greenway		1637 ft / .31 MI
14	Convention Center Drive	SB Short Term Item 3	South beach	Between 17 st and Dade Blvd.	100'	80'			Bike lane		1647 ft / .31 MI
15	51 St	MB Short Term Item 5	Middle beach	Between Alton Rd. and Pine Tree Dr.	70'	28' Typical	25 mph		bike lane		2,000 FT / 0.4 MI
16	Alton Road	MB Short Term Item 6	Middle beach	Between 51 and Lakeview Drive	48'	20'			shared path		
		MB Short Term Item 6		Between Lakeview Drive and North Bay Road	48'	20'			shared path		2076 ft / .39 MI
17	28 St	MB Short Term Item 16	Middle beach	Between Prairie and Pine Tree Dr.	94'	74'			Shared Path		
18	Tatum Waterway Dr	NB Short term Item 2	North beach	Between 77st and 81 st	48'	35'	15 mph school zone	NA	Greenway		1787 ft / .34 MI
19	Chase Ave	MB Short Term Item 11	Middle beach	Between Prairie ave and Alton Road Junction to Julia Tuttle	40'	30'	NA		Shared path		2143 ft / .39 MI
20	Pine Tree Dr/La Gorce Dr	MB Short Term Item 4	Middle beach	Between 63 Street and 51 Street	71'	36' Typical	35 mph		protected bike lane		6,000 FT / 1.1 MI
					74'	35' Typical	35 mph	4,800 ADT	protected bike lane		6,000 FT / 1.1 MI
21	N. Michigan Ave	MB Short Term Item 7	Middle beach	Between Dade Blvd to Alton Rd.	64'	30'	NA		Greenway		3787 ft / .72 MI
22	Alton Road @ N. Bay Road Intersection	MB Short Term Item 8	Middle beach	Alton Rd @ N. Bay rd. intersection			30 mph		Protected bike lane		
23	11 St	SB Short Term Item 8	South beach	Between West Avenue and Atlantic Way	60'	42'	NA		Greenway		3620ft / .69 MI
24	Meridian Ave	SB Short Term Item 8	South beach	South of 16th st.	50'	36'	NA		Greenway		8496 ft / 1.24 MI
25	Byron Ave	NB Short Term Item 2	North beach	Between Tatum Waterway Drive and 72 Street	80'	68'	25 mph	NA			3,000 FT / 0.55 MI
26	Pine Tree Dr	MB Short Term Item 10	Middle beach	Between 51st and 23rd st.	100'	58'	NA		Greenway		8597 ft / 1.63 MI
27	Parkview Island Path	NB Short Term	North beach	Between 72 Street and 77 Street			NA		Shared Path		
28	N. Bay Road	MB Short Term Item 13	Middle beach	Between Chase Ave and Alton Rd.	64'	20'	25 mph		Greenway		5355 ft / 1.01 MI
29	South Pointe Dr		South beach	Ocean Drive to Atlantic Way					Bike lane		
30	5 St		South beach	Between Collins Ave to Atlantic Way					Bike lane		

## Bike Miami Beach Master Plan Implementation Matrix

	Project Information										
	Project Number	Project Street	Project Identification	Beach Area	Project Limits	Pulse ROW	Pavement Width	Posted Speed Limit	Daily Volume	Type	Order of magnitude cost TOTAL Project Length
Category 2: Improvements to Existing Facilities	1	Washington Ave	SB Long Term Item 1	South beach	Dade Blvd. to S. Pointe Dr.			NA		Protected bike lane	10908 ft / 2.07 Mi
	2	Dade Blvd	MB Short Term Item 18	Middle beach	Purity Ave. and Pine Tree	70'	54'			shared path	5473 ft / 1.04 Mi
	3	41 St	MB Long Term Item 4	Middle beach	Pine Tree Drive and Julia Tuttle junction	98'	68'	NA		Protected bike lane	4459 ft / .85 Mi
	4	71 St	MB Long Term Item 5	North beach	Atlantic Trail and Abbot Ave	74'	48'	NA		From Shoreways to Protected bike lane	2438 ft / .46 Mi
	5	16 St	SB Long Term Item 5	South beach	Between Bay walk and Collins Ave	66'	48' Typical	25 mph		From Bike Lane to Protected Bike lane	4786 ft / .91 Mi
	6	5 St	SB Long Term Item 8	South beach	Between MacArthur entrance and Atlantic Trail	66'	48' Typical	35 mph	67,050 ADT	Protected bike lane	2880 ft / .55 Mi
	7	41 St	MB Short Term Item 12	Middle beach	Between Indian Creek and Pine Tree Dr.	98'	68'	NA		Shared path	797 ft / .15 Mi
	8	Normandy Dr (westbound)	NB Short Term Item 9	North beach	Between Bantitz Drive and Bay Drive	80'	54'	NA		Protected bike lane	2438 ft / .46 Mi
	9	71 St (eastbound)	NB Long Term Item 4	North beach	Between Bantitz Drive and Bay Drive			NA		Protected bike lane	5460 ft / 1.04 Mi
	10	S. Pointe Dr	SB Short Term Item 11	South beach	Between Atlantic Trail and Alton Rd.	80'	68'	NA		From Bike Lane to Protected Bike lane	1539 ft / .29 Mi
	11	Dickens Ave	NB Cat 2 -	North beach	Between 71 Street and Tatum Waterway Drive			25 mph		From Bike Lane to Protected Bike lane	
	12	71 St	NB Long Term Item 4	North beach	71 st from Bantitz Dr to city limits	74'	48'	NA		Protected bike lane	6271 ft / 1.19 Mi
	13	Normandy Dr		North Beach	Between Bantitz Dr. to city limits					Protected bike lane	
	14	Indian Creek Dr	MB Long Term Item 7	Middle beach	Between 41 st and 26 st.	60'	48'	NA		protected bike lane	3871 ft / .73 Mi
	15	Alton Road	MB Short Term Item 10	Middle beach	Between North Michigan and Chase	102'	78'			From Bike Lane to Shared path	696 ft / .93 Mi
	16	Julia Tuttle Causeway	MB Long Term Item 3	Middle beach	Between city limits and extending into Alton @ 41 st junction	114'	110'	55 mph		From Bike Lane to Protected Bike lane	7773 ft / 1.47 Mi
	17	Euclid Ave	SB Long Term Item 6	South beach	Between 15th st and 2nd st.	66'	48' Typical	25 mph		From Bike Lane to Protected Bike lane	5452 ft / 1.03 Mi
	18	Indian Creek Drive	NB Long Term Item 6	North beach	Between Abbot Avenue to Dickens Avenue	92' typical	74'	NA		From Bike Lane to Protected Bike lane	
	19	Byron Ave	NB Short Term Item 2	North beach	Between Tatum Waterway Drive and 73 Street	80'	68'	25 mph	NA		3,000 FT / 0.05 Mi
	20	N. Bay Road	MB Short Term Item 13	Middle beach	North Bay Road between Chase and Sunset Drive.	64'	20'	25 mph		Greenway	5355 ft / 1.01 Mi
	21	Alton Road @ 5 St intersection		South beach	Alton @ 5th st intersection					Protected bike lane	
	22	47 St		Middle beach	Alton Rd to North Bay Rd					Bike lane	
	23	Alton Road		South beach	South Pointe to 9th street					Protected bike lane	
	24	42 St		Middle beach	Between Sheridan and Pine Tree					Bike lane	

## Bike Miami Beach Master Plan Implementation Matrix

Project Information										
Project Number	Project Street	Project Identification	Beach Area	Project Limits	Public Right of Way	Proposed Width	Proposed Speed Limit	Proposed Lane	Type	Notes of magnitude and
1	Harding Ave	SB Short Term Term 6	North beach	73 st to north city limits (88 st)	50'	44'	30 mph	NA	Protected bike lane	5254 ft / 1.60 mi
		SB Long Term Term 7	North beach	Between city limit (north) to Indian Creek	50'	44'	30 mph		Protected bike lane	7553 ft / 1.34 mi
2	Collins Ave		North beach	Between city limit (north) to Indian Creek					Protected bike lane	
3	17 St	SB Short Term Term 6	South beach	From Atlantic to West Ave	50'	44'			greenway	4705 ft / .89 mi
4	Lincoln Road	SB Short Term Term 5	South beach	East of Washington Ave			NA		shared path	1020 ft / .19 mi
5	10 St	SB Short Term Term 6	South beach	Between Bay walk and Atlantic Way	52'	36'	NA		Greenway	3765 ft / .72 mi
6	Mahogan Ave	SB Short Term Term 6	South beach	Between 110 st to 120 st	52'	44'	NA		Greenway	3878 ft / .73 mi
7	Pennsylvania Ave	SB Short Term Term 6	South beach	Between 70 st and 170 st	50'	36'	NA		Greenway	5475 ft / 1.04 mi
8	2 St	SB Short Term Term 6	South beach	Between Ocean Dr and Mahogan Ave	50'	36'-30'	NA		Greenway	1787 ft / .34 mi
9	Pine Tree Dr	SB Long Term Term 7	Middle beach	Between 51st and Oak St	100'	50'	NA		protected bike lane	10706 ft / 2.03 mi
10	Farway Dr	SB Short Term Term 6	North beach	Bay Dr @ 71st to Farway Dr to Ocean Dr	34'	22'	NA	NA	Shared Path	8225 ft / 1.56 mi
11	Bay Dr	SB Short Term Term 6	North beach	Bay Dr @ 71st (west) to Bay Dr @ 71 st (east)	34'	22'	30 mph	NA	Greenway	6365 ft / 1.21 mi
12	13 St	SB Short Term Term 6	South beach	West side of Washington Ave to Bay Walk and from Farmington park to Atlantic			NA		Greenway	
13	15 St	SB Short Term Term 6	South beach	Between Washington and West ave	50'	52'	NA		Greenway	3458 ft / .65 mi
14	6 St	SB Short Term Term 9	South beach	Between Washington Ave and West Ave	48'	36'	NA		Greenway	2255 ft / .43 mi
15	Phoebe Ave	SB Short Term Term 9	Middle beach	Between 44st to 47 st	48'	26'	NA		Greenway	2639 ft / .50 mi
16	20 St	SB Short Term Term 17	Middle beach	Between Purdy Ave and Mahogan	64'	50'			greenway	1375 ft / .26 mi
17	Collins Ave	SB Short Term Term 6 SB Long Term Term 7 SB Long Term Term 7	North beach Middle beach South beach	73 st to north city limits (88 st) Between 50th st to 61st Between 51st to 52nd st	60' 60' 70'	44' 44' 42'	30 mph 30 mph 30 mph	NA protected bike lane protected bike lane	Protected bike lane Protected bike lane Protected bike lane	3257 ft / .61 mi 11451 ft / 2.15 mi 11379 ft / 2.12 mi
18	Ocean Dr	SB Long Term Term 10	South beach	Between 10th St and 6th St	61'	36'	Typical	25 mph	9,892 ADT	5,669 FT / 1.07 mi
19	Byron Ave		North beach	South of 61st to 73rd st	50'	50'	25 mph	NA	Greenway	1547 ft / .29 mi
20	Marine Gate Memorial Park	SB Long Term Term 10	Middle beach	West of Sunset Harbor Dr			NA		Shared Path	716 ft / .14 mi
21	68 St	SB Long Term Term 9	North beach	Indian Creek to Atlantic Way	74'	54'-44'	NA		Greenway	1108 ft / .21 mi
22	Washington Ave	SB Long Term Term 9	North beach	Between 77th st and the north end of Silverman park	60'	36'	30 mph		Greenway	3245 ft / .61 mi
23	Crescent Blvd	SB Long Term Term 2	North beach	Between Washington Ave and 60th st	50'	36'	30 mph		Greenway	2816 ft / .53 mi
24	Purdy Ave	SB Short Term Term 17	Middle beach	Between Norwood and 50th	70'	30'			greenway	1308 ft / .25 mi
25	Royal Palm Ave	SB Long Term Term 6	Middle beach	Between 58 st and 41 st	70'	20'	NA		greenway	2887 ft / .55 mi
26	Bay Walk			Between 5th st to 10th st					Shared path	
27	Atlantic Trail			Between 24th st to 25th st					Shared Path	
28	Atlantic Trail			30th st and Alhambra Park					Shared Path	
29	85 St		North Beach	Atlantic Trail to Silverman Drive					Greenway	
30	6 St		South beach	Between West Ave and Atlantic					Greenway	
31	Ocean Ave		South beach	Between 17th st to 12th st					Greenway	
32	Lincoln Ln North		South beach	Between Washington and 17th St					Greenway	

### LEGEND

- Completed
- In Progress
- Feasible, Not Started
- Not Feasible
- Impact to Planning
- Part of Neighborhood Infrastructure
- Not Color
- Unfunded

**Attachment B**

# **MICROMOBILITY SAFETY**

**Public Safety and Neighborhood Quality of Life Committee**

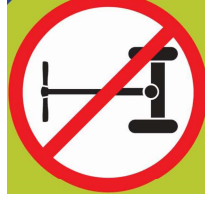
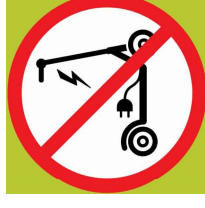
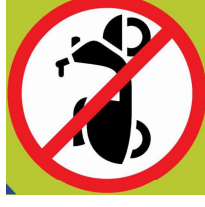
**July 10, 2024**

**MIAMIBEACH**

# Background – Beachwalk

## Sec. 70-67(c) of the City Code

- It is unlawful to operate any motorized means of transportation at any time:
  - The Beachwalk
  - The Lummus Park Promenade (Serpentine Walkway between 5 Street and 15 Street)
  - The South Pointe Park Cutwalk (adjacent and parallel to Government Cut)
  - The Marina Baywalk (adjacent and parallel to Biscayne Bay and south of 5 Street)
  - The interior pathways within South Pointe Park and Collins Park
  - The South Pointe Park Pier



## Sec. 70-67(d) of the City Code

- It is unlawful to operate any motorized means of transportation on any sidewalk in the City.



# Signage – Beachwalk

## Concern

- Existing advisory and regulatory signs along the Beachwalk detract from the experience and are not easy to understand.

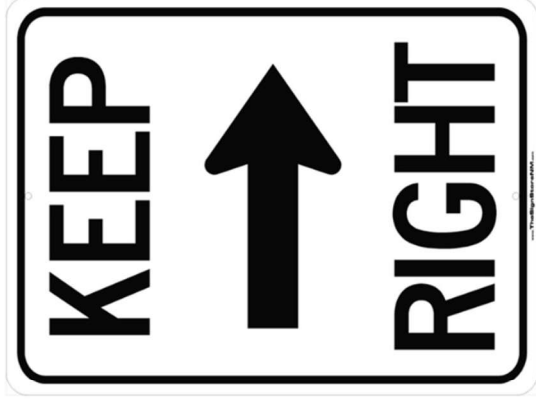




## Signage – Beachwalk

### Recommendation

- Removing all existing advisory and regulatory signs along the Beachwalk and install standard black and white regulatory-type signs.



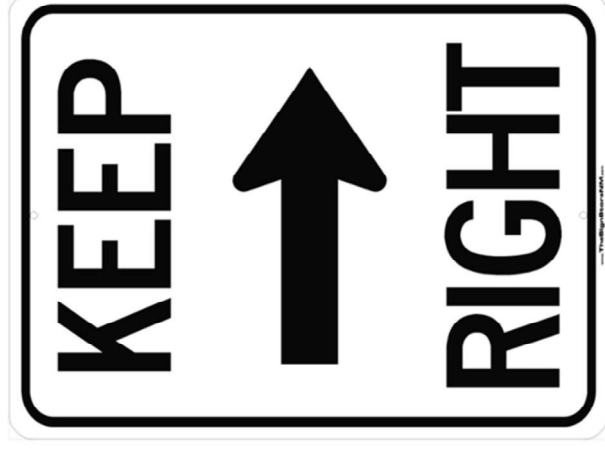
## Signage – Beachwalk

### Concern

- Conflicts between bicyclists and pedestrians traveling along the Beachwalk.

### Recommendation

- Painting a continuous white line along the center of the 7-mile Beachwalk with directional arrows on either side.
- Signage advising users to “KEEP RIGHT” will supplement the new striping and pavement markings.



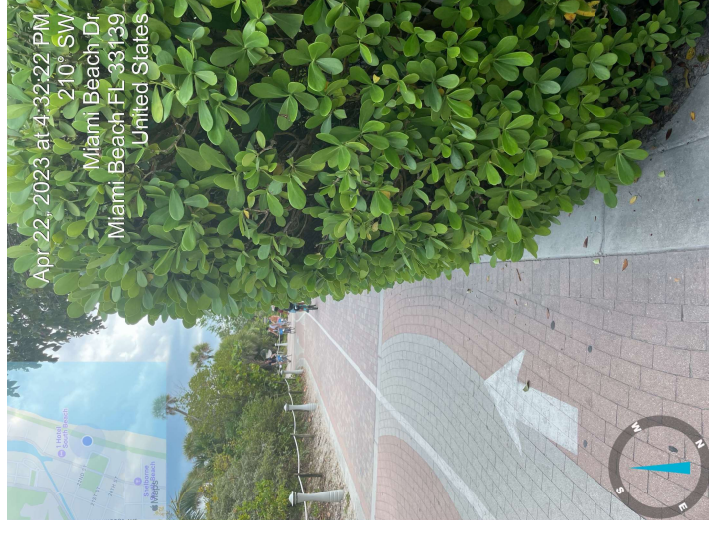
# Signage – Beachwalk

## Concern

- Overgrown vegetation on private property encroaching onto the Beachwalk results in reduced effective width for Beachwalk users.

## Recommendation

- Explore new legislation requiring a private property setback from the Beachwalk and developing regulations governing the type of vegetation permitted for planting within the setback area.



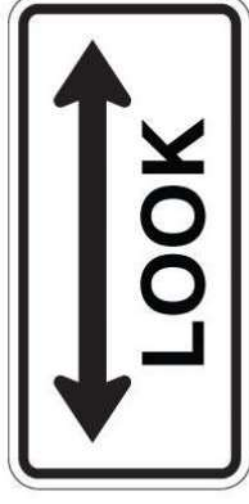
# Signage – Beachwalk

## Concern

- User conflicts due to limited sight visibility where private property egress and/or beach egress intersects the Beachwalk.

## Recommendation

- Install signage and/or advance warning pavement markings (e.g. “LOOK”) on the Beachwalk to alert users of approaching conflict zones.
- Proposed Ordinance sponsored by Commissioner Bhatt on July 9, 2024 LUSC meeting to limit allowable height of fencing, walls, gates, shrubbery, hedges, and trees of properties fronting the Beachwalk.



## Signage – Beachwalk

### Concern

- Lack of street number signs at intersecting streets along the Beachwalk.

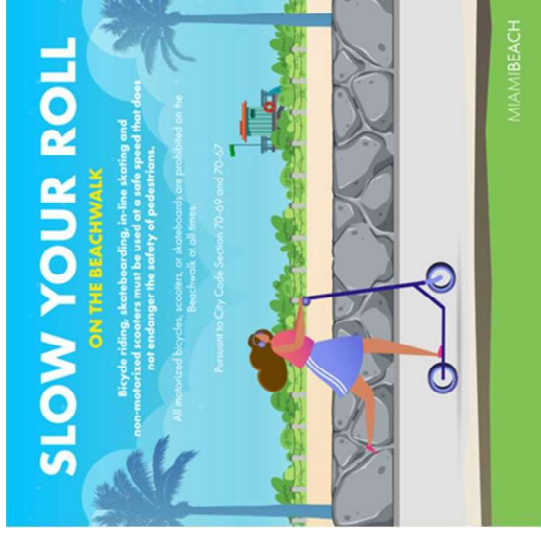
### Recommendation

- Install street number signs along the Beachwalk at each intersecting street and beach access.



# Digital Campaign – Beachwalk

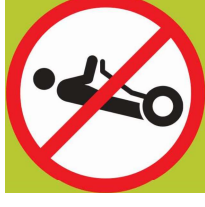
- Launching an organic, digital campaign to advise Beachwalk users to “SLOW YOUR ROLL.”
- Temporary decals on the pavement will reinforce that all motorized means of transportation are prohibited on the Beachwalk.



## Background – Lincoln Road

### Sec. 70-67(a) of the City Code

- It is unlawful to:
  - Engage in skateboarding, roller skating, and in-line skating on Lincoln Road at any time
  - Operate any motorized means of transportation on Lincoln Road at any time
  - Engage in bicycling between 9 a.m. and 2 a.m. on Lincoln Road





# Signage – Lincoln Road

## Concern

- Existing regulatory signs along Lincoln Road detract from the experience and are not providing much direction or warning.

## Recommendation

- Removing all existing regulatory signs along Lincoln Road and install standard black and white regulatory-type signs



Existing Regulatory Signs on Lincoln Road

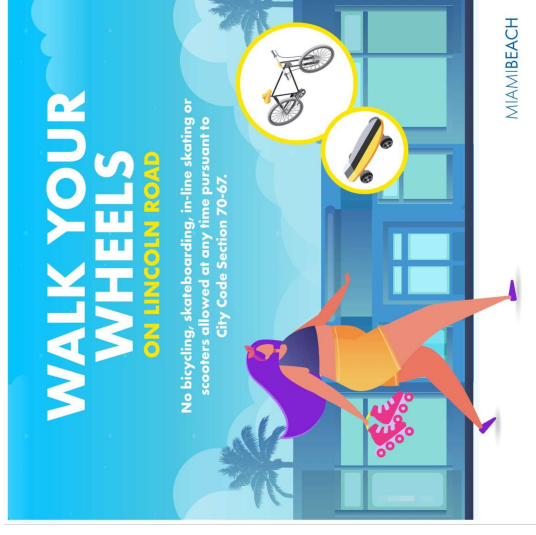


Proposed Regulatory Sign for Lincoln Road



## Digital Campaign – Lincoln Road

- A similar campaign targeted to the Lincoln Road pedestrian mall will include the installation of temporary decals on the pavement advising patrons to “WALK YOUR WHEELS.”



# Enforcement Data and Statistics – Beachwalk

## Concern

- Inability to capture specific crash data as it relates to micromobility devices since the Beachwalk is classified as a recreational shared-use facility and not a vehicular roadway.

## Recommendation

- Exploring the possibility of capturing these incident types in-house through digital changes to its departmentwide Offense Incident Report through which to better gauge and document reported bicycle, pedestrian, and micromobility crashes throughout the City.

Enforcement Related to Section 70-67 (Prohibition of motorized means of transportation)											
	2021 (October - December)			2022			2023			2024 (January - June)	
	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers	RDA	Park Rangers	Police Officers
Uniform Traffic Citations	N/A	37	127	N/A	54	2	N/A	74	1	N/A	170
Written Warnings	3686	259	123	18	356	31	106	4	28	156	59
Verbal Warnings	(not tracked separately)	188	321	8966	1139	676	13652	919	308	1992	313
											147

# Facilities and Infrastructure – Beachwalk

## Concern

- Ponding at various locations along the Beachwalk affects safety and mobility.

## Recommendation

- Identify locations where ponding occurs and develop a work plan with estimated costs and timelines to implement spot-drainage improvements.
  - Should the fiscal impact require action by the City Commission, the Administration will request funding.



# Facilities and Infrastructure – Beachwalk

## Concern

- Critical chokepoints along the Beachwalk result in conflicts and safety concerns among users.

## Recommendation

- Identify all critical chokepoint locations as well as opportunities for potential minor widening of the Beachwalk as feasible.

## Concern

- Bicycle facilities requiring restriping and/or repainting as a result of peeling, fading, and poor restoration following of underground utility work.

## Recommendation

- Identify all locations that require restriping and/or repainting as well as cost estimates.
- Explore ways of ensuring that proper bicycle facility restoration by contractors is completed.

# Facilities and Infrastructure – Beachwalk

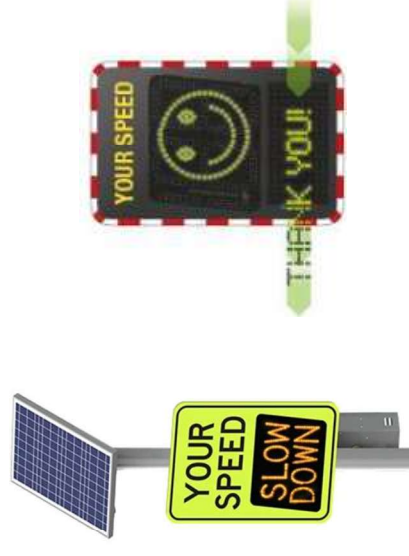
## Solar-Powered Electronic Speed Feedback Devices

### Concern

- Bicyclist speeding on the Beachwalk.

### Recommendation

- Pilot Program to test the effectiveness of solar-powered electronic speed feedback devices.
  - The devices will serve to alert bicyclists to “SLOW DOWN” and raise awareness while cycling on the Beachwalk.



## Speed, Volume and Modal Data Collection Sensors

- Install electronic sensors to collect speed and volume data in real-time of pedestrians, bicycles, and micromobility devices.

# Facilities and Infrastructure – Citywide

## Proposed Bicycle Lane Improvements

- Transportation and Mobility Department staff identified various pending BPMP projects:
  - Closing the bike lane gap on northbound Ocean Drive at 5 Street (traffic analysis in progress pursuant to City Commission direction, however, construction is unfunded).
  - BPMP Category 1 - Project No.30: Bicycle lane on 5 Street between Collins Avenue and Atlantic Way (construction is unfunded).
  - BPMP Category 3 - Project No. 6: Greenway on Michigan Avenue between 2 Street to 11 Street (construction is unfunded).
  - BPMP Category 3 - Project No.15: Greenway on Prairie Avenue between 44 Street to 47 Street (construction is unfunded).
  - BPMP Category 3 - Project No. 21: Greenway on 69 Street between Indian Creek Drive to Atlantic Way (construction is unfunded).
  - BPMP Category 3 - Project No. 25: Greenway on Royal Palm Avenue between 26 Street and 41 Street (construction is unfunded).
- Greenways are defined in the BPMP as low-volume, low-speed, and thus, low-stress streets that are designed for safe bicycle travel (and do not include dedicated bicycle lanes)

## Next Steps

- Explore new legislation requiring a private property setback from the Beachwalk and developing regulations governing the type of vegetation permitted for planting within the setback area.
- Exploring the possibility of capturing bicycle, pedestrian, and micromobility crashes throughout the City through digital changes to its departmentwide Offense Incident Report.
- Identify locations where ponding occurs and develop a work plan with estimated costs and timelines to implement spot-drainage improvements.
- Identify all critical chokepoint locations along the Beachwalk as well as opportunities for potential minor widening as feasible.
- Identify all locations that require restriping and/or repainting as well as cost estimates.
- Explore ways of ensuring that proper bicycle facility restoration by contractors is completed.
- Refine low-hanging BPMP projects.





**Thank You**



# Attachment C

## MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, [www.miamibeachfl.gov](http://www.miamibeachfl.gov)

TRANSPORTATION & MOBILITY DEPARTMENT  
Tel: 305-673-7514

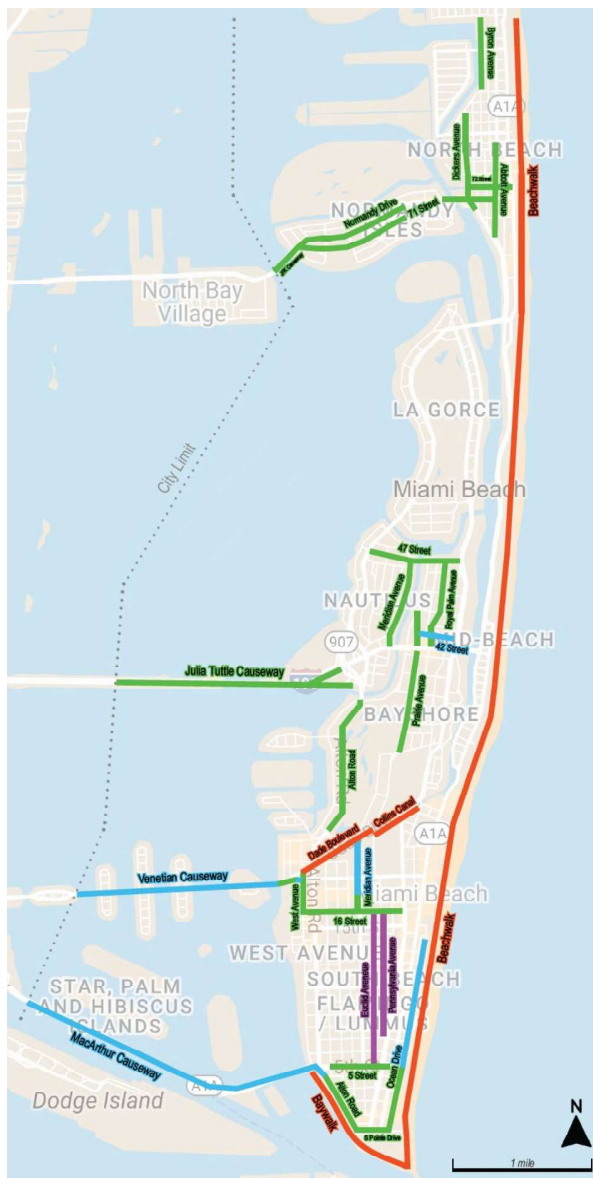
October 22, 2024

Field Visit Analysis

**SUBJECT: Damaged Green Bicycle Lanes Analysis Throughout the City of Miami Beach**

### Background Data:

- Current Green Bicycle Lanes Map:



### Field Visit Analysis:

Field visits were conducted on May 25, 2024 and May 26, 2024.

*We are committed to providing excellent public service and safety to all who live, work, and play in our vibrant, tropical, historic community.*

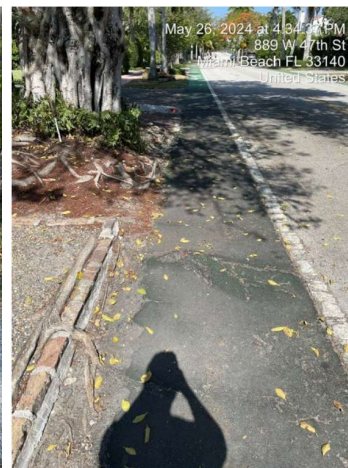
1. **172-244 Alton Road:**  
Green striping is peeling off



2. **3047 Prairie Avenue; 3737 Prairie Avenue; 4137 N Meridian Avenue:**  
Missing green striping through the intersection and faded in multiple locations.



3. **4491 Royal Palm Avenue; 889 W 47 Street:**  
Tree roots are exposed and causing a hazard for bicyclists. Damaged pavement and creating bumps in the bicycle lane.





4. **859-891 W 47 Street; 4235 Prairie Avenue:**  
Asphalt cuts and bicycle lane was not restored



5. **2915 Prairie Avenue – 3047 Prairie Avenue**  
Green striping is missing or faded in multiple sections of the bike lane, with some areas potentially damaged or paved over by a contractor.







6. **3047 Prairie Avenue – 3711 Prairie Avenue**

The green striping through the bicycle lane is missing or faded in several locations, possibly due to damage or being paved over by contractors. Additionally, there are inconsistencies in the shade of green paint used in some areas.





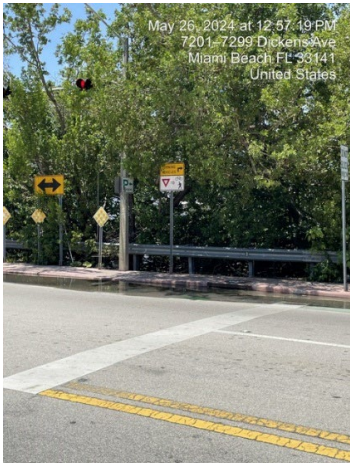
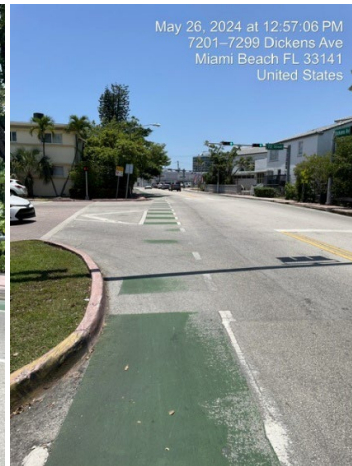
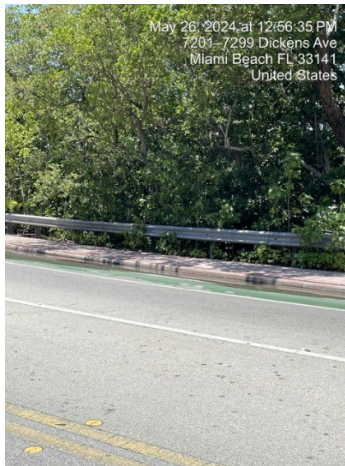
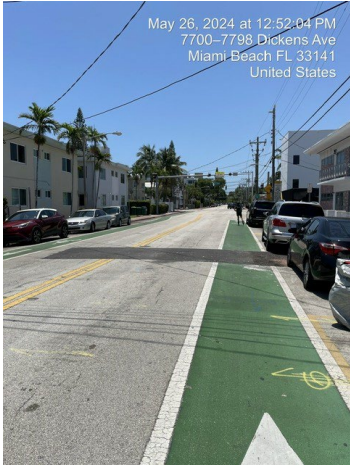
7. **4293 Prairie Avenue**

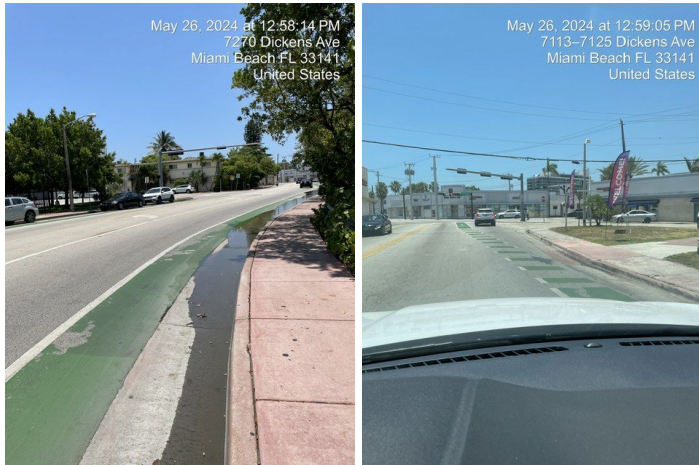
The green bicycle facility is faded due to age and wear from adjacent driveways, and the asphalt is failing and splitting, causing a rut that eventually may be wide enough for bicycle tires to become stuck inside of while riding, potentially causing an accident and creating a liability for the City.



8. **7113 Dickens Avenue – 7798 Dickens Avenue**

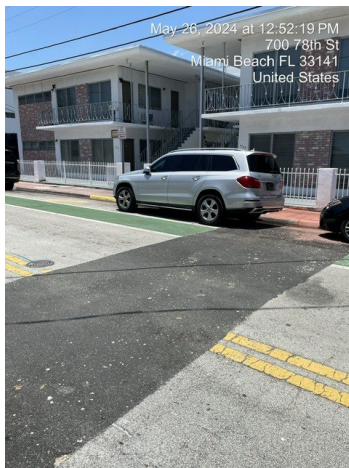
Green striping in the bicycle lane is missing and faded in several areas. Water ponding issue.





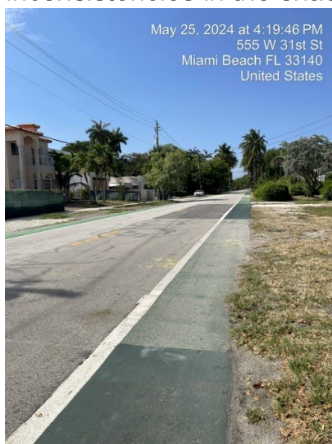
9. **700 78<sup>th</sup> Street**

Green striping removed during contractor utility work; contractor is responsible for restoring the original striping.



10. **555 W 31<sup>st</sup> Street**

Green striping is missing or faded in multiple sections of the bicycle lane, and there are inconsistencies in the shade of green paint used in some areas.





**11. 104 8<sup>th</sup> Street – 146 8<sup>th</sup> Street – 198 8<sup>th</sup> Street**

Missing green striping through the bicycle lane and faded in multiple locations

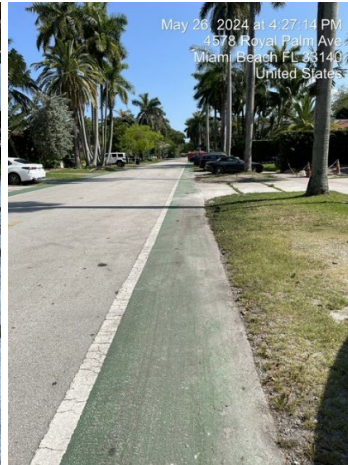


**12. 4461-4578 Royal Palm Avenue**

Royal Palm Avenue east and west bike lane pair has significant fading throughout, with several different instances of failing asphalt, construction work not restored properly, overgrown grass/soil in the bike lane, and general but significant faded green pavement markings throughout due to age and wear from the many driveways that traverse this bike lane.

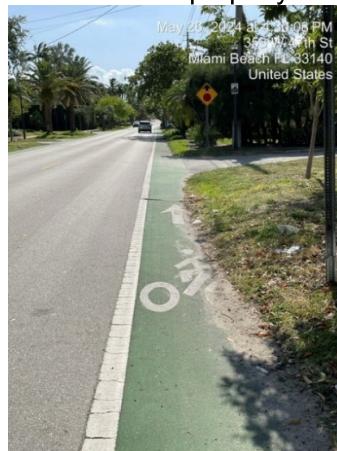






13. **353-359 W 47<sup>th</sup> Street**

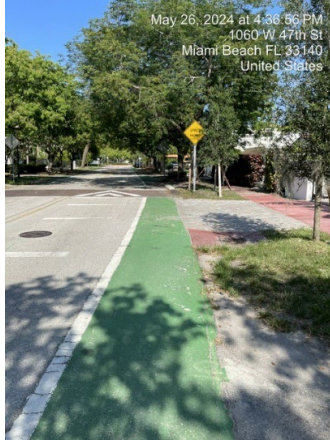
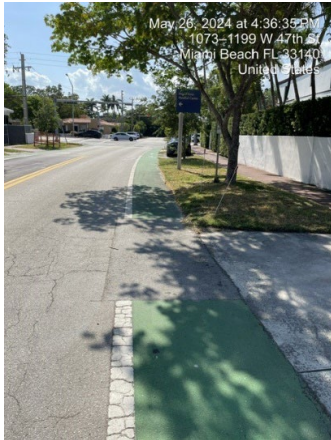
This bike facility suffers from overgrown grass and soil, faded markings due to cars traversing into private parking lots, fading due to age, and missing sections within the lane due to construction work not restored properly.





14. **1040-1073 W 47<sup>th</sup> Street**

Portions of the bike lane are faded due to age, portions are missing due to construction work not restored properly, and portions have failing asphalt that has created potholes within the bike lane.



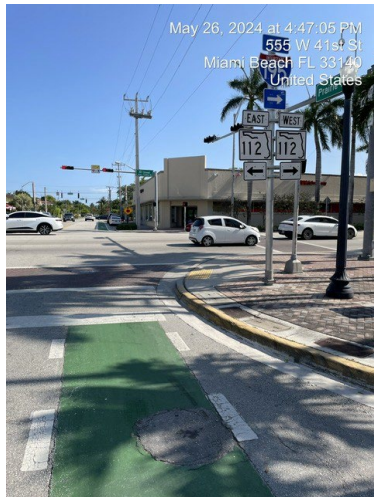
15. **4137-4165 N Meridian Avenue**

Bicycle lane not restored properly, and the asphalt is missing at the edge causing tripping hazard. The bicycle lane restored south of the missing paint section has a different width than the north side.



16. **555 W 41<sup>st</sup> Street**

A small but impactful pothole is created as the result of construction work not restored properly.



**Conclusion:**

Transportation and Mobility staff recommend the assistance from other departments such as Public Works and Greenspace to address the repairs needed prior to restriping the green bicycle lanes. Transportation and Mobility staff will be able to reach out to one of the rotational contractors the City of Miami Beach has a contract with to restripe the green bicycle lanes. The contractors are using multiple types of green paint making our bicycle lanes inconsistent. Transportation and Mobility staff recommend using the same paint throughout the City.

Green Bicycle Lanes Tracking Sheet					
Transportation and Mobility Department					
Location #	PM	Location/Address	Type of Damage to Green Bicycle Lane	Quantity (SF)	Maintenance Request Date
1	Grant	148-198 8th Street	Faded due to age	175	
2	Grant	4469 Royal Palm Avenue	Faded due to age	225	
3	Grant	4461 Royal Palm Avenue	Faded due to age	85	
4	Grant	4469 Royal Palm Avenue (2)	Faded due to age	70	
5	Grant	4491 Royal Palm Avenue	Faded due to age	260	
6	Grant	4491 Royal Palm Avenue (2)	Faded due to age	260	
7	Grant	4491 Royal Palm Avenue (3)	Faded due to age	260	
8	Grant	4491 Royal Palm Avenue (4)	Faded due to age	260	
9	Grant	4515 Royal Palm Avenue (1)	Faded due to age	235	
10	Grant	4511 Royal Palm Avenue (2)	Faded due to age - driveway entrance	175	
11	Grant	4540 Royal Palm Avenue	Faded due to age - driveway entrance	175	
12	Grant	4539 Royal Palm Avenue	Faded due to age	145	
13	Grant	4578 Royal Palm Avenue	Faded due to age	480	
14	Grant	4545 Royal Palm Avenue (1)	Faded due to age	360	
15	Grant	4545 Royal Palm Avenue (Crossbike Markings)	Faded due to age	185	
16	Grant	353 W 47th Street	Not restored properly	605	
17	Grant	359 W 47th Street	Overgrown grass/soil	425	
18	Grant	859 W 47th Street	Not restored properly	100	
19	Grant	901 W 47th Street	Asphalt failing/driveway/age	425	
20	Grant	889 W 47th Street (1)	Was never painted green/limit lines faded due to age	415	
21	Grant	889 W 47th Street (2)	Was never painted green/age/tree roots/asphalt failing	415	
22	Grant	1073-1199 W 47th Street	Not restored properly	55	
23	Grant	1060 W 47th Street	Other - driveway entrance	20	
24	Grant	1049 W 47th Street (1)	Asphalt failing/age	60	
25	Grant	1040 W 4th Street (2)	Asphalt failing/age	60	
26	Grant	4137-4165 N Meridian Avenue	Not restored properly	230	
27	Grant	555 W 41st Street	Not restored properly	15	
28	Grant	4235 Prairie Avenue	Not restored properly	10	
29	Grant	4293 Prairie Avenue	Asphalt failing/age/driveway entrance	225	
30	Paola	315 W 47th Street	Faded due to age	48	
31	Paola	1001 Ocean Dr	Faded due to age /Asphalt failing /Not restored properly	1,086	
32	Paola	1001 Ocean Dr	Faded due to age	2,260	
33	Paola	940 Ocean Dr	Faded due to age / Not restored properly	330	
34	Paola	873 Ocean Dr / 800 Ocean Dr	Faded due to age	7,970	
35	Paola	200- 298 South Pointe Dr	Faded due to age	1,480	
36	Paola	141 Alton Rd	Faded due to age	2,050	
37	Paola	172 - 244 Alton Rd	Faded due to age	350	
38	Paola	172 - 244 Alton Rd	Faded due to age	1,566	

Green Bicycle Lanes Tracking Sheet					
Transportation and Mobility Department					
Location #	PM	Location/Address	Type of Damage to Green Bicycle Lane	Quantity (SF)	Maintenance Request Date
39	Paola	900-950 5th St (5 St FDOT Road)	Faded due to age	200	
40	Paola	135 Ocean Dr / 121 Ocean Dr	Faded due to age	1,100	
41	Paola	100 Ocean Dr	Faded due to age	3,070	
42	Paola	121 Ocean Dr	Faded due to age	1,040	
43	Paola	161 Ocean Dr	Faded due to age	150	
44	Paola	436 16th Street	Faded due to age / Not restored properly / Asphalt failing.	1,815	
45	Paola	436 16th Street	Faded due to age	1,342	
46	Paola	1001-1099 16 St	Asphalt failing	400	
47	Paola	1575 Alton Rd	Faded due to age / Asphalt failing	2,300	
48	Paola	1636 Meridian Ave	Faded due to age	16	
49	Paola	2800 Prairie Ave	Faded due to age	260	
50	Paola	2801 Prairie Ave	Faded due to age	385	
51	Paola	2801 Prairie Ave	Faded due to age	765	
52	Paola	2838 Prairie Ave	Faded due to age	239	
53	Paola	2839 Prairie Ave	Faded due to age / Not restored properly / Asphalt failing.	1,214	
54	Paola	2845 Prairie Ave	Faded due to age	300	
55	Paola	2905 Prairie Ave	Faded due to age	1,230	
56	Franklin	2915 Prairie Avenue	Faded due to age	300	
57	Franklin	2925 Prairie Avenue	Faded due to age	280	
58	Franklin	3001 Prairie Avenue	Faded due to age	350	
59	Franklin	3023 Prairie Avenue	Faded due to age	400	
60	Franklin	3047 Prairie Avenue	Faded due to age and Construction work	570	
61	Franklin	3165 Prairie Avenue	Faded due to age	150	
62	Franklin	3175 Prairie Avenue	Faded due to age	375	
63	Franklin	3711 Prairie Avenue	Faded due to age and Different shades of green	250	
64	Franklin	3737 Prairie Avenue	Faded due to age	60	
65	Franklin	7700-7798 Dickens Avenue	Faded due to age and Construction work	75	
66	Franklin	7201-7299 Dickens Avenue	Faded due to age	125	
67	Franklin	7141 Dickens Avenue	Faded due to age and ponding	1,670	
68	Franklin	7270 Dickens Avenue	Faded due to age and ponding	500	
69	Franklin	7113-7125 Dickens Avenue	Faded due to age	1,055	
70	Franklin	700 78th Street	Construction work	50	
71	Franklin	555 W 31st Street	Faded due to age	250	
72	Franklin	104-146 8th Street	Faded due to age	660	
Total Area				46,496	