

Executive Summary

Overview

Miami-Dade County's current bicycle route numbering and wayfinding system has been in place since the early 1980s. Since its adoption, the County has seen growth in bicycle facilities and while the existing route numbering system has continued to provide route designation to several facilities, a more dynamic and expansive numbering system is needed. The current system provides even numbers to east-west routes and odd numbers to north-south routes, as well as some lettered bicycle routes for some facilities (including the M-Path, the Venetian Causeway, and Krome Avenue). Although the intent may have been to progress the numbering system in a geographic method (in ascending order north to south and east to west), a chronological system has been adopted as new facilities are built. Therefore, the existing bicycle route numbering method does not give the users of the network any information with regards to their relative location within the county. In fact, many users are familiar with the route name, but are often unaware of the route's designated number. Furthermore, the current system represents only existing and funded facilities. As a result, many of Miami-Dade County's bicycle facilities, particularly the more urban facilities, are not represented on the County's Bicycle Route System.

In fact, the current designated bicycle route network in Miami-Dade County is heavily influenced by the South Dade Greenway Network Master Plan, and consists almost exclusively of canal trails and shared-use paths. The resulting network (shown on right) represents recreational bicycle routes, but does not include routes used for more regular bicycle commuters, particularly in the central and northern parts of the County. Additionally, many of the designated bicycle routes are segments that do not provide continuous connection from origins to destinations, and therefore do not provide users with a continuous network that will guide them to where they need or want to go.



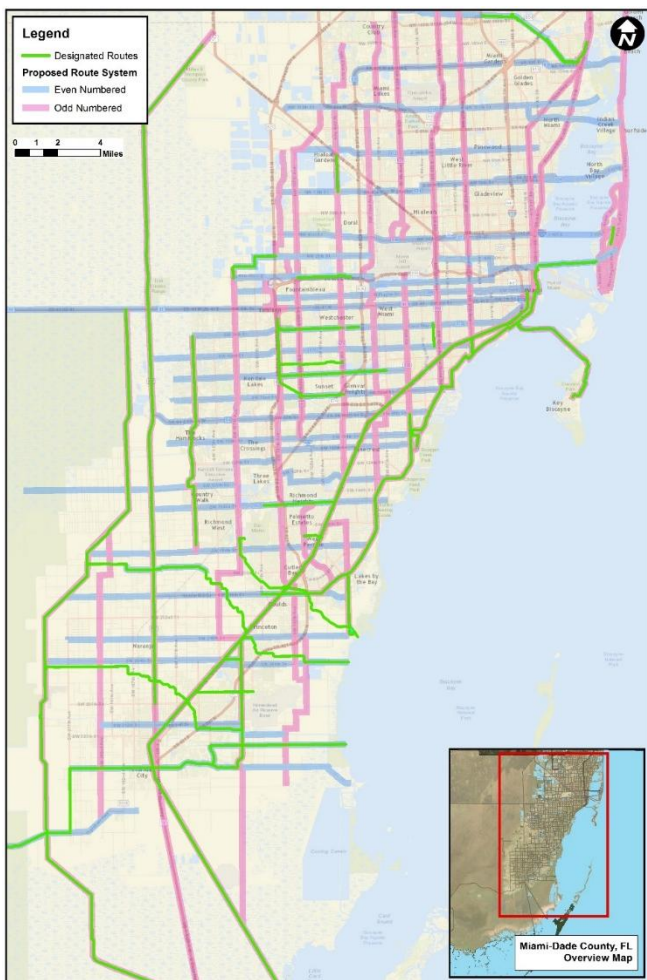
Existing Designated Bicycle Route Network in Miami-Dade County (2015)

Proposed Bicycle Route Network

The proposed bicycle route designation system accounts for geographic orientation of the routes as well as relative location within the County. Similarly to how the existing network was initially set up, the proposed Miami-Dade Bicycle Route System would assign even numbers to east-west corridors in ascending order from north to south, and odd route numbers for north-south corridors in ascending order from east to west. Numbers that are multiples of five (5, 10, 15, etc.) would be reserved for major corridors. To ensure that this new geographically based numbering system is maintained, it is crucial that such route numbers be reserved for

specific corridors, regardless of the presence of a bicycle facility today. Additionally, lettered bicycle route designations will be continue to be used for those routes that are easily recognizable by name (such as the M-path, or Bike Route V for the Venetian Causeway).

Establishing such a network would ensure that all parts of the County are equally represented. The map below displays what a potential Designated Bicycle Route Network could look like, with east-west corridors depicted in blue, and north-south corridors shown in pink. The existing designated bicycle route network, shown in green, has been overlaid onto the map to better depict those areas which are well covered, those and which are currently underserved.



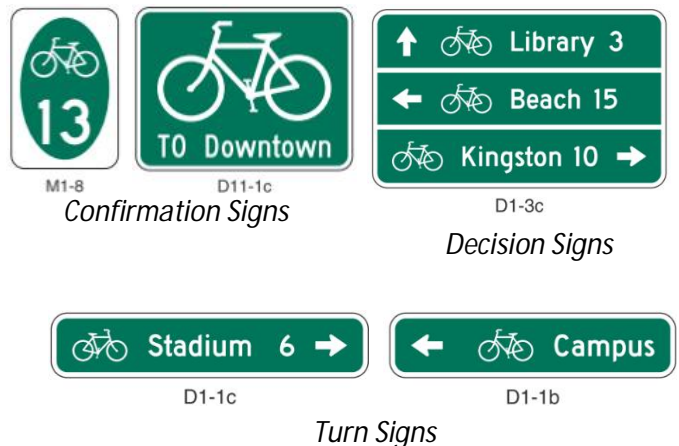
Potential Designated Bicycle Route System

Bicycle Wayfinding System

In addition to establishing a new Bicycle Route Numbering System, this study provides guidelines for bicycle wayfinding signage that will complement the bicycle route network and enhance user experience. A comprehensive guide to bicycle wayfinding in Miami-Dade County will consist of decision, turn, and confirmation signs. The bicycle wayfinding guidelines provided in this study offer recommendations as to placement, spacing, and type of signs that should be installed along various types of facilities. The guidelines also provide a baseline for distances at which wayfinding to various destinations should be provided, shown below.

	Nearby (≤ 15 minutes)			Medium (15-30 minutes)			Far (> 30 minutes)		
Downtowns	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
Transit Stations	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
Regional Parks	🚲	🚲	🚲	🚲	🚲	🚲			
Local Parks	🚲	🚲	🚲						
Entertainment	🚲	🚲	🚲	🚲	🚲	🚲			
Key Neighborhoods	🚲	🚲	🚲						
Universities	🚲	🚲	🚲						
Government Buildings	🚲	🚲	🚲						
Other Routes	🚲	🚲	🚲	🚲	🚲	🚲			
End of Line Destination	As Needed / As Applicable								

Type of attraction, surrounding environment, and the type of facility on which signage is to be placed are all considered under these guidelines.



Implementation

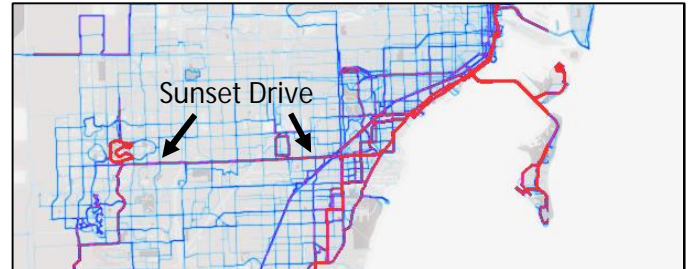
To facilitate the adoption of the proposed Bicycle Route Numbering System and the Bicycle Wayfinding guidelines, several possible pilot projects were identified ranging from urban corridors that serve to better connect communities to surrounding parks and transit infrastructure, to rural bicycle routes aimed more at recreational riders who want to explore the County or want to reach more distant destinations through non-motorized means. A total of five pilot projects are recommended for short-term implementation. Each of the pilot projects was selected for its uniqueness, opportunity for short-term implementation, and its ability to showcase various aspects of the proposed Bicycle Route Numbering System and Bicycle Wayfinding System. The five pilot projects that were selected include:

- 1) Sunset Drive,
- 2) NW 14th Avenue within the boundaries of Model City and Brownsville,
- 3) "The Zig-Zag" connecting Black Point Park to Homestead Bayfront Park in the south-eastern part of the County,
- 4) Baywalk in Downtown Miami, and
- 5) County-wide signage at Tri-Rail, Metrorail, and Metromover stations.

Sunset Drive

Sunset Drive was selected as a pilot project as an example of a high-use, continuous arterial bicycle corridor. Currently, only 2.1 miles of the total 12.5 mile corridor are designated as a bicycle route (Bike Route 8). This project provides a template for renaming an existing bicycle route from Route 8 to Route 60, which more accurately represents the corridor's location in Miami-Dade County. Signage recommendations include wayfinding to nearby parks on the western end of the corridor, Metrorail stations to the east, and intersecting bicycle routes. Providing wayfinding and designating the entirety of Sunset Drive as a numbered bicycle route will improve first-mile/last-mile connectivity to transit and

the non-motorized transportation network for the residents of South Miami, Coral Gables, and surrounding neighborhoods.



Sunset Drive Strava® Volumes show the corridor as a primary east-west connection.

NW 14th Avenue

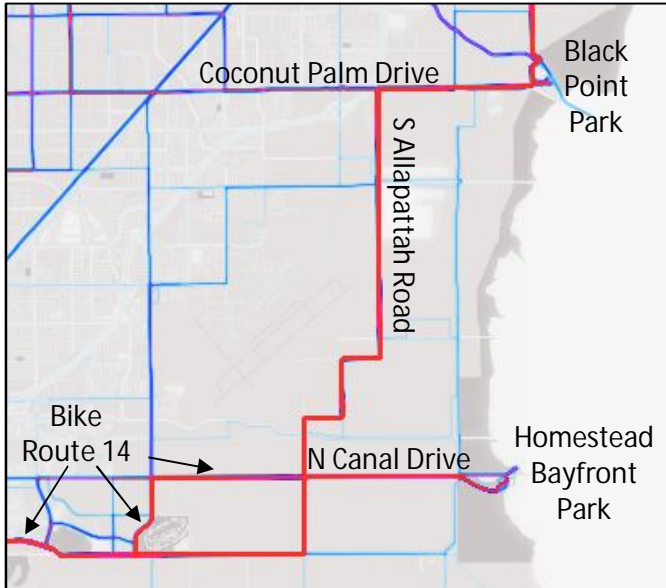
The NW 14th Avenue project is based on the recommended bicycle boulevard route presented in the *Miami-Dade County Bicycle Boulevard Planning Study: Model City/Brownsville* from 2009. This project showcases how wayfinding should be implemented along a bicycle boulevard/neighborhood greenway. This type of facility will make up much of the County's bicycle network, and is instrumental in providing first-mile/last-mile connectivity in residential areas.

The pilot project for the NW 14th Avenue project will provide a connection from Arcola Park on NW 83rd Street to the Earlington Heights Metrorail Station located on NW 41st Street and NW 21st Avenue. The corridor provides several connections through City and County parks, as well as wayfinding to several Metrorail stations.

The "Zig-Zag"

The Biscayne Trail is designated as two separate bicycle routes in Miami-Dade County: Bike Route 14 (Biscayne-Everglades Trail), and Bike Route 5 (Biscayne Trail N-S). The "Zig-Zag" is a popular connection between the two trails, and serves as a connection between Black Point Park (Coconut Palm Drive) and Homestead Bayfront Park (N Canal Drive). The pilot project would recognize the "Zig-Zag" as an extension of the Biscayne Trail (N-S) through a rural environment which is typical of South

Miami-Dade County. In addition to wayfinding to connecting routes, this project provides an example of alternate route signage, as it provides wayfinding to the dirt trail that runs along the L-31E Levee.



The "Zig-Zag" Strava® Volumes between Black Point Park and Homestead Bayfront Park.

Baywalk

The urban shared use path along Biscayne Bay in Downtown Miami is a prime example of a bicycle route that serves a dense urban core. This pilot project provides wayfinding that will serve both cyclists and pedestrians, and therefore is different in nature from the wayfinding that is recommended for the other pilot projects. The wayfinding that is recommended in this pilot project aims to provide bicyclists and pedestrians with directions to nearby attractions, transit stations, parks, routes, and the several disconnected sections of the Baywalk.



Baywalk (shown in green) in downtown Miami

County-wide Signage at Transit Stations

In order for a Miami-Dade County Bicycle Network to be used to its full extent, it is important that signage be provided to make potential users aware of available, nearby facilities. Placing wayfinding at transit stations is key in improving first-mile/last-mile connectivity within the County. The type of wayfinding to be provided at transit stations is more similar to the Baywalk signage than it is to signs provided along the pilot projects. Wayfinding at transit stations should consist of decision signs that point users to nearby facilities and attractions, and no confirmation or turning signs are required. Such signage will increase awareness of nearby facilities that will allow and encourage transit users to finish their trips through non-motorized means. The goal is that more transit and potential transit users will shift modes from the private automobile to walking/bicycling as a means of connecting to transit. This has the potential to reduce the need for park-and-ride facilities, and even grow the number of 'choice' riders.