

ATTACHMENT - B

OLD BUSINESS 6.

MIAMI BEACH

COMMITTEE MEMORANDUM

TO: Neighborhood and Quality of Life Committee Members

FROM: Alina T. Hudak, City Manager

DATE: September 20, 2021

SUBJECT: **DISCUSSION REGARDING WASHINGTON AVENUE TO INCLUDE THE CURRENT LANE CLOSURES.**

ANALYSIS

Memo attached.

Applicable Area

South Beach

Is this a "Residents Right to Know" item, pursuant to City Code Section 2-14?

No

Does this item utilize G.O. Bond Funds?

No

Strategic Connection

Mobility - Improve the walking and biking experience.

ATTACHMENTS:

Description		Type
<input type="checkbox"/>	Memorandum	Memo
<input type="checkbox"/>	Attachment A	Memo

MIAMI BEACH

COMMITTEE MEMORANDUM

TO: Members of the Neighborhood and Quality of Life Committee

FROM: Alina T. Hudak, City Manager

DATE: September 20, 2021

SUBJECT: **DISCUSSION REGARDING WASHINGTON AVENUE TO INCLUDE THE CURRENT LANE CLOSURES.**

HISTORY

At its February 10, 2021 meeting, the City Commission referred an item, sponsored by Commissioner Michael Gongora, to the Neighborhood and Quality of Life Committee (NQLC) to discuss Washington Avenue, including the current lane closures.

At the March 22, 2021 NQLC meeting, Transportation and Mobility Department staff discussed the current configuration of Washington Avenue, the pilot's mobility benefits and challenges, the need to reintroduce transit service on Washington Avenue, and the desire to keep some level of segregation for bicycle traffic going forward. Furthermore, staff discussed potential dedicated bike lanes on Pennsylvania Avenue as an alternate north-south corridor in lieu of keeping dedicated bicycle lanes on Washington Avenue as a long-term improvement. At the meeting, the Committee recommended that staff continue to investigate options to improve mobility on Washington Avenue and return to the July 21, 2021 NQLC meeting for further discussion.

At the July 21, 2021 NQLC meeting, the Administration provided a verbal update and presented a preliminary interim cross section option intended to address some current challenges with traffic flow and emergency vehicle access under the current Washington Avenue pilot configuration. The Committee requested that the Administration schedule a workshop with stakeholders and the community to obtain feedback on the current pilot and potential reconfiguration option and return to the September NQLC meeting for further discussion.

For reference and discussion at the NQLC meeting, attached is a presentation that depicts Washington Avenue cross sections and lane configurations for various conditions, including pre-COVID, current pilot, and potential interim reconfiguration options.

BACKGROUND

In May 2020, the City and the Washington Avenue Business Improvement District (WAVE BID) began coordinating a pilot program to assist businesses along Washington Avenue during the COVID-19 pandemic. Prior to the pilot, Washington Avenue consisted of four travel lanes (two in each direction) divided by a landscaped median and with on-street parking and wide sidewalks on both sides. It is worth highlighting that, prior to the pilot, Washington Avenue had shared-lane markings (sharrows) along the outside travel lanes adjacent to on-street parking which accommodated all modes of traffic - vehicles, bicycles, and buses/trolleys (Attachment).

In June 2020, the Administration met with members of the WAVE BID and Mr. Bernard Zyscovich, principal for Zyscovich Architects, to jointly develop a street concept intended to increase the economic resilience and accelerate the recovery of businesses along the Washington Avenue corridor from 5 Street to 16 Street. At the meeting, City staff and WAVE BID members discussed the expansion of restaurants into the parking lane through the use of parklets to allow restaurants to increase the number of tables while complying with social distancing guidelines; and repurposing the outside travel lane in each direction to implement protected bike lanes (including the first parking-protected bike lanes in the County from 11 Street to 16 Street) to promote safe cycling. The WAVE BID provided the locations of the desired restaurant expansions. The pilot configuration resulted in a reduction of one travel lane in each direction to accommodate the parklets and protected bike lanes. Transportation and Mobility Department staff developed the required pavement marking and signage plans and secured Miami-Dade County approval for the pilot with no set termination date.

Current Pilot Configuration (Attachment)

The City's Transportation and Mobility Department coordinated with the Public Works Department to implement the pavement marking and signage modifications along Washington Avenue from 5 Street to 16 Street through one of the City's contractors. The pilot was implemented in August 2020. The cost of implementing the Washington Avenue Pilot was approximately \$62,000. Given that some of the construction signs and barriers are being rented from a contractor, the pilot has a recurring cost of about \$2,500 per month. As part of the pilot, County bus and City trolley services were temporarily relocated to Collins Avenue until August 2021 when public transit service was reinstated on Washington Avenue.

Following the implementation of the Washington Avenue pilot, City staff performed observations and installed additional signage to help users understand the new configuration of the corridor. The signs installed were intended to guide motorists and bicyclists on the location of the protected bike lanes and to deter vehicles from illegally parking or staging on the bike lanes.

With the implementation of the pilot project, on-street parking was modified throughout the corridor to accommodate restaurant expansions (parklets). While some parking spaces were eliminated to accommodate parklets, most of the parking was relocated closer to the vehicular travel lane to accommodate a parking-protected bike lane. It is worth noting that due to the more stringent intersection sight distance requirement established as a condition of the County permit, approximately 18 on-street parking spaces were lost. While the City was able to relocate most of the freight-loading zones within the corridor, three freight loading zones could not be accommodated as part of the pilot due to conflicts with the proposed parklets. As mitigation, the City created additional freight loading zones along Collins Avenue within the Art Deco Cultural District.

At the present time, the City has approved and permitted 11 parklets/restaurant expansions on Washington Avenue as part of the Restaurant Recovery Outdoor Seating Pilot Program.

Washington Avenue Pilot Effectiveness Studies

Since the implementation of the Washington Avenue pilot, the City and the WAVE BID have separately collected data to track the performance of the pilot. Using pre-pandemic and pre-pilot data as a baseline, the Transportation and Mobility Department collected traffic, pedestrian, and bicycle data to gauge the effectiveness of the pilot. Data was collected in December 2020 and

March 2021. Based on the data collected in March 2021, daily bicycle volumes on Washington Avenue increased by 875 trips per day since implementation of the pilot in August 2020 and by 337 trips per day since the December 2020 pilot effectiveness study, indicating a substantive growth in bicycle trips. It is important to note that this increase in bicycle volumes represents a snapshot in time and should not be interpreted as the number of bicyclists on Washington Avenue on a daily basis.

Given that the primary goal of the pilot is to increase economic resilience and revenues for restaurants along the Washington Avenue corridor, the City also requested that the WAVE BID track revenue trends for restaurants in the area. Based on information provided by the WAVE BID, businesses reported an average increase in revenues of 28% between October and December 2020. Based on the increase in bicycle volumes and business activity along the corridor, it can be concluded that to date, the pilot has been effective in accomplishing its primary goal of promoting economic recovery during the pandemic.

Miami Beach Police Department and Fire Department Concerns

As traffic volumes continue to increase in the area, particularly during high impact periods, Miami Beach Police and Fire departments have expressed significant concerns with the current configuration of Washington Avenue during the pilot project, including:

- Increased congestion resulting in gridlock during high demand periods
- Delivery and ride-share vehicles parking on the bike lane
- Scooters, motorcycles, and vehicles driving on the bike lanes during congested periods
- Corridor lacks the space to perform periodic enforcement and conduct traffic stops
- Corridor lacks the 20' pavement width required by National Fire Protection Association Codes and Standards to accommodate a fire truck with extended outriggers

Art Deco Cultural District (ADCD) Visioning Study

As part of the ADCD Visioning Study, the City's consultant (Zyscovich Architects) is developing a long-term vision for the District. Preliminary concepts were presented to the City Commission at the June 23, 2021 Commission meeting. Zyscovich's proposed mobility vision for Washington Avenue is a transit street with dedicated bus and bicycle lanes and a vehicular travel lane in each direction. The consultant team will be finalizing the long-term mobility concepts for the ADCD in the coming months.

ANALYSIS

Pursuant to the NQLC's recommendation, the Transportation and Mobility Department staff is currently exploring potential alternative configurations to try to improve the effectiveness of the Washington Avenue pilot in the short-term by reducing friction while retaining the parklets and bicycle facilities, minimizing impacts to on-street parking, and providing sufficient space for emergency vehicle operations. These options will be presented at the September 23 Commission Workshop on Ocean Drive and Washington Avenue for discussion. It is important to note that funding for the below options is not included in the City's proposed budget for Fiscal Year 2021/2022. As the policy decision is finalized, we will review the funding options together with the decision regarding Ocean Drive.

Interim Reconfiguration Option 1 (Attachment)

Given the resumption of transit service on Washington Avenue and the need for improved accessibility and mobility for emergency vehicles traveling along the corridor, staff is exploring the possibility of adding a second travel lane in each direction along Washington Avenue to be used (either exclusively or shared) by buses and bicycles (bus-bike lane), as well as by emergency vehicles, while retaining existing parklets and on-street parking along the corridor. It is important to note that the County buses and City trolleys operate on Washington Avenue along the section between 5 Street and Lincoln Road at an average service frequency of one bus every 4.4 minutes; and the section between Lincoln Road and 17 Street at an average service frequency of one bus every 3 minutes. Based on this high transit frequency and ridership along Washington Avenue, the City's adopted Transportation Master Plan, the Miami-Dade County SMART Plan, and the ongoing ADCD Vision Study all recommend dedicated transit lanes on Washington Avenue. Furthermore, based on industry standards, this high frequency of public transit service warrants dedicated use of a travel lane for transit.

When both dedicated transit and bicycle lanes cannot be accommodated along a corridor due to limited roadway width, shared bus-bike lanes can be an option when conditions are appropriate. Shared bus-bike lanes are commonly implemented on two-way streets with frequent curbside transit activity and high bicycle volumes but with limited right-of-way to accommodate dedicated lanes for both modes. To ensure safety on shared bus-bike lane facilities, buses are discouraged from passing bicyclists, and bicyclists are encouraged to pass buses only at stops. Staff reviewed various case studies and literature from the National Association of City Transportation Officials (NACTO) on this topic. Based on staff's review, the following general advantages and disadvantages were identified for shared bus-bike lanes.

Advantages:

- Provides space for bikes when dedicated bicycle lanes cannot be accommodated
- Reduces friction with general purpose traffic which can improve safety
- Significantly improves bus operations in comparison to operating in mixed traffic

Disadvantages:

- Increases the need for enforcement along the corridor to ensure that general purpose traffic is not illegally using or stopping on the shared bus-bike lane
- Some less experienced bicyclists may feel less comfortable when operating in a shared bus-bike lane in comparison to a protected bike lane; however, this facility is safer than bicyclists operating in mixed traffic (pre-pilot condition)
- The bus lane is not available to general purpose traffic (aside of right turns at intersections) which may create congestion at certain times of the day
- Shared bus-bike lanes are considered to be safer than shared (vehicle/bicycle) lanes (sharrows) but may not attract new riders due to their lack of experience and comfort using this type of facility

In addition to the literature review, the City, as a member of NACTO, obtained input from other cities which currently have shared bus-bike lanes in operation, including Portland, Seattle, Honolulu, Washington D.C., and Philadelphia. Based on discussions with staff from those cities, their overall experience has been positive and all have measured success with minimal safety concerns or conflicts.

To properly review the feasibility of bus-bike lanes on Washington Avenue, staff divided the corridor into two sections based on geometric characteristics (5 Street to 11 Street and 11 Street to 16 Street). While the travel lane width, on-street parking lane width, and sidewalk width are generally the same on both sections, the width of the center median varies between the two sections and that results in different cross sections and lane configurations (current and proposed) for each segment.

5 Street to 11 Street:

In this southern section of Washington Avenue, the center median is 14 ft. wide and the available pavement space is not sufficient to accommodate one lane for vehicular traffic, one lane for transit, a protected bicycle lane, and parklet zone/on-street parking. Based on these geometric characteristics, the implementation of a shared bus-bike lane was determined to be the only feasible alternative for this section. If this option is implemented for this section of the corridor, the resulting configuration would consist of:

- One 10 ft. wide travel lane in each direction
- One 11 ft. wide shared bus-bike lane in each direction (which can also be used by emergency vehicles)
- Parklet zone or on-street parking lane on each side adjacent to the shared bus-bike lane

It is worth highlighting that prior to the pilot, Washington Avenue had sharrows along the outside travel lane (adjacent to on-street parking) in each direction which served as an advisory for motorists that bicyclists may use the full lane. The outside lanes were used by all traffic, including vehicles, buses, and bicycles. While perhaps not as comfortable for certain riders as dedicated bicycle lanes, the proposed shared bus-bike lanes are a significant improvement over pre-pilot conditions as general vehicular traffic is prohibited from traveling on the shared bus-bike lanes, thus reducing the amount of vehicle-bicycle conflicts and improving bicycle safety.

Other considerations for the shared-bus bike lane concept include the following:

- Right turns at Intersections: Motorists who wish to make a right turn into one of the side streets will be allowed to access the shared bus-bike lane to effectuate the right turn movement. This treatment is recommended by NACTO.
- No Passing: NACTO recommends that buses be prohibited from passing bicyclists and that bicyclists only pass buses at stops to reduce conflicts.
- Additional Signage: NACTO recommends that signage be installed to advise motorists that the bus-bike lane is for the sole purpose of bus and bicycle traffic.
- Speed Limit: NACTO recommends that the speed limit on the shared bus-bike lane be 15 miles per hour.

11 Street to 16 Street:

In contrast with the southern section, this section of the Washington Avenue corridor has a narrower median (6 ft. wide) which provides for more pavement width and allows for the segregation of transit and bicycle lanes. If this option is selected, the proposed concept typical section for Section 2 would consist of:

- One 10 ft. wide travel lane in each direction

- One 11 ft. wide dedicated bus lane in each direction (which can be used by emergency vehicles)
- One 5 ft. wide dedicated bicycle lane in each direction
- Parklet zone or on-street parking lane on each side adjacent to the bicycle lane

While the proposed bicycle lane in this section is downgraded from a protected (buffered) bicycle lane under the current pilot configuration to a conventional bicycle lane, this cross section addresses the needs of the Fire and Police departments for additional space to be able to respond to emergencies more efficiently and effectively.

Staff has developed some preliminary planning-level cost estimates for this reconfiguration option. Given that pavement color is one of the key elements of this concept (i.e., red pavement for the bus lane and green pavement for bicycle lanes), it was important to consider various scenarios of pavement color to determine the prices. The variability in the ranges below depend on the amount of colored pavement in the reconfiguration concepts.

Option 1 Preliminary Cost*:

- Design: \$72,000 - \$180,500
- Construction: \$375,000 - \$949,500
- Contingency: \$89,000 – \$226,000
- Maintenance and Post Analysis - \$50,000 per year

* Cost depends on the quantity of red striping on the shared bus-bike lane/dedicated transit lanes.

Funding for this option is not included in the City's proposed budget for Fiscal Year 2021/2022.

Interim Reconfiguration Option 2 (Attachment)

Given the importance of establishing transit lanes along this corridor, Reconfiguration Option 2 retains the exclusive transit lanes but removes the bicycle facilities from the corridor. In this option, the bicycle facility is relocated to Pennsylvania Avenue. The bicycle lane in this less active vehicular corridor may entice some interested but concerned bike riders to use Pennsylvania Avenue for bicycle trips within South Beach. Since Washington Avenue is the primary destination within the area, it is important to accommodate side street connections to/from Pennsylvania Avenue and Washington Avenue. The side street connections would occur on 8th Street, 10th Street, and 13th Street. Under this concept, the side street bicycle connections would be accomplished via shared-lane markings in the short-term to avoid parking loss in the area. If this concept were to become permanent, the side street connections would be upgraded to protected bicycle lanes; however, the relocation of on-street parking on one side of each of the connecting streets would be required.

Similar to Option 1, the preliminary cost estimates for this reconfiguration option consider various scenarios for the red pavement color for the bus lane.

Preliminary Cost*

- Design: \$65,000 - \$139,000
- Construction: \$339,000 - \$732,000
- Contingency: \$80,000 – \$175,000
- Maintenance and Post Analysis - \$50,000 per year

* Cost depends on the quantity of red striping on the dedicated transit lanes.

Funding for this option is not included in the City's proposed budget for Fiscal Year 2021/2022; however, the implementation of the bicycle lanes on Pennsylvania Avenue is funded in the Transportation and Mobility Department's Fiscal Year 2021/2022 Operating Budget. The proposed bicycle facility along Pennsylvania Avenue has been designed in-house, and the design plans are currently under review by Miami-Dade County Department of Transportation and Public Works.

Enforcement Coordination

Education and enforcement are key to the success of the operation of transit lanes. Transportation and Mobility Department staff met with Police Department and Parking Department staff to present both interim reconfiguration options and discuss a potential enforcement plan. Staff from both Police and Parking have expressed that the education and enforcement plan would require additional resources or re-allocation of existing resources in order to enforce the proper use of the dedicated transit and bicycle lanes.

CONCLUSION

The Administration has developed two options to address some of the concerns with the current pilot configuration of Washington Avenue in terms of mobility and emergency vehicle operation along the corridor. Both options propose reintroducing a second travel lane along Washington Avenue but dedicating the outside travel lane for use by transit, emergency vehicles, and bicycles (under one option). Both options were discussed internally with key City departments and with the WAVE BID at a recent Board of Directors meeting. Input from those meetings has been considered and incorporated in the concepts.

While neither of the two options being considered for the interim reconfiguration of Washington Avenue are funded at this time, both concepts are being presented to the NQLC for review, discussion, and further input prior to being presented at the September 23 Commission Workshop on Ocean Drive and Washington Avenue.

ATH/LS/JRG

Applicable Area

South Beach

Is this a Resident Right to Know item?

No

Does this item utilize G.O. Bond Funds?

No

Strategic Connection

Mobility – Improve the walking and biking experience.

Attachments:

Attachment: Washington Avenue Short-Term Reconfiguration Presentation



MIAMI BEACH

Transportation and Mobility Department

WASHINGTON AVENUE SHORT-TERM RECONFIGURATION CONCEPTS

Data Analysis (Pre-Covid - February 2019)



17,925 Cars



7,718 Peds

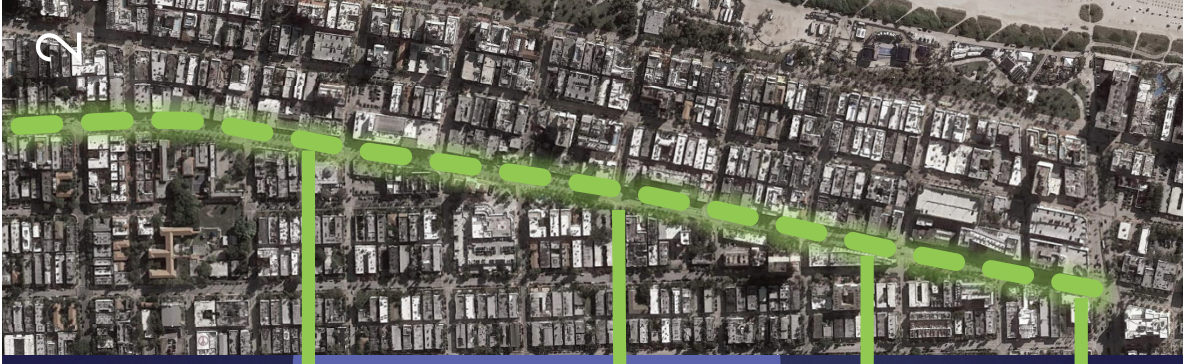


185 Bikes



493 Buses

24 Hr.
Traffic
Data



Data Analysis (Pilot - April 2021)



15,026 Cars



7,700 Peds



1,060 Bikes



0 Buses

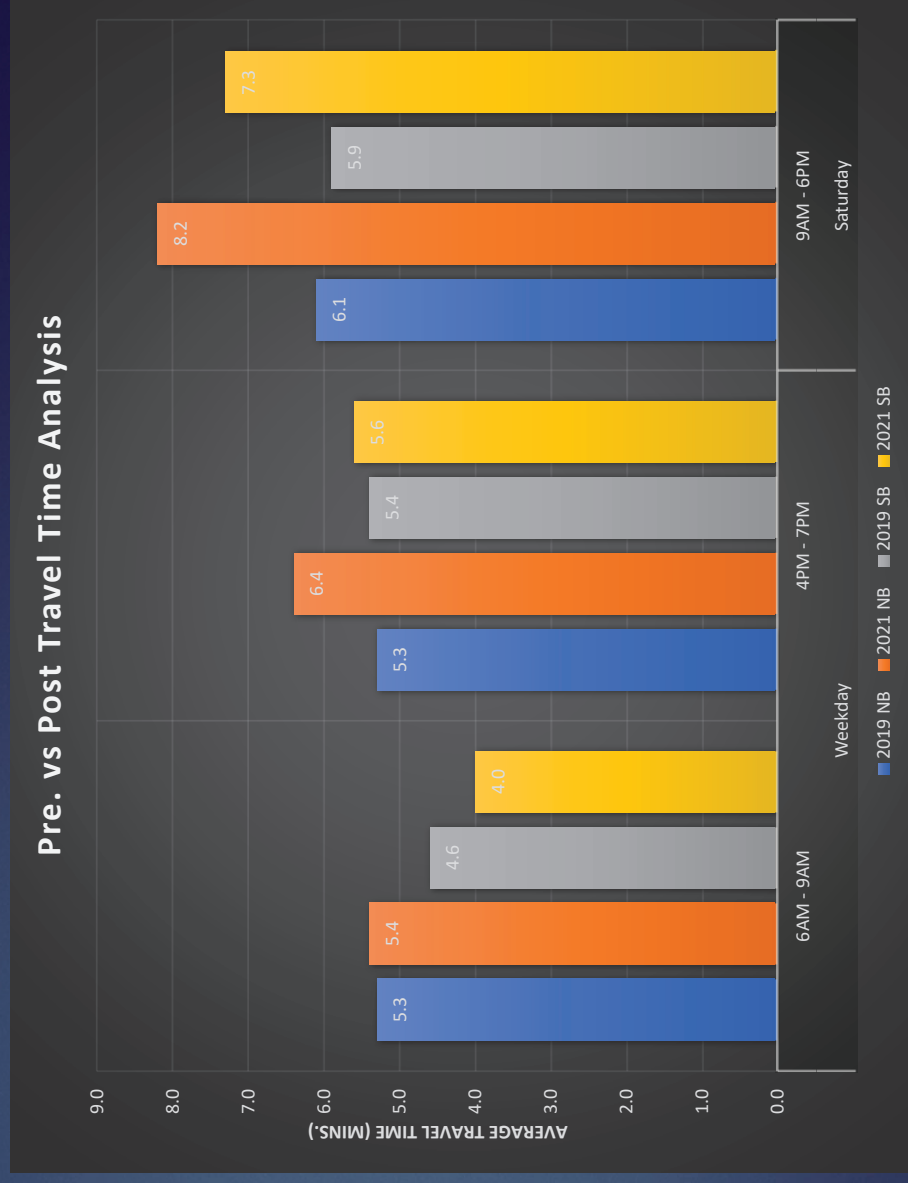
24 Hr.
Traffic
Data



Traffic Impacts – Pre vs. Post Average Travel Time

4

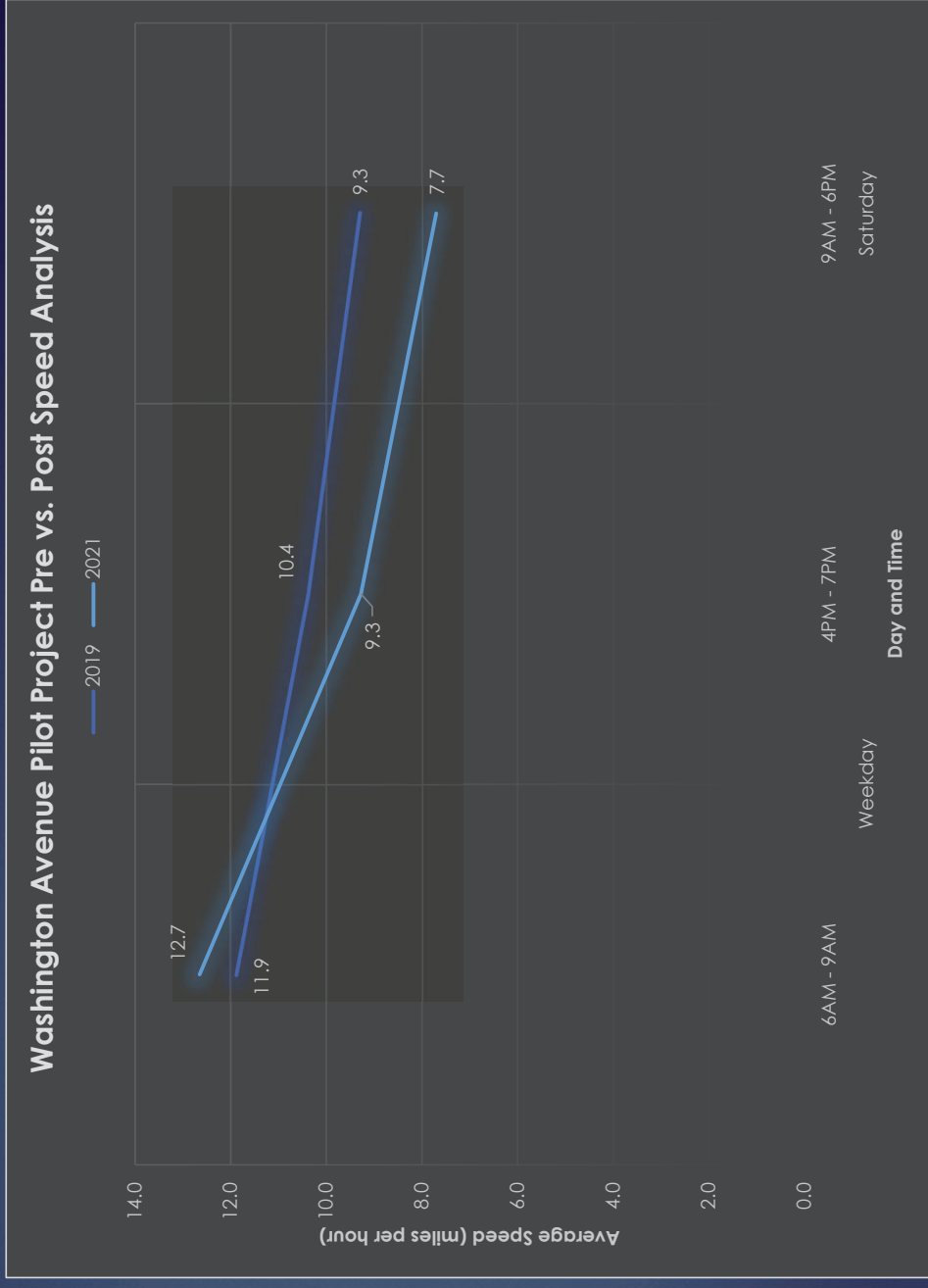
- On average, travel times have increased by just over 1 minute between 6 Street and 16 Street after implementation of pilot
- Highest average increase in travel time of 2.5 minutes occurs on Saturday between 8PM and 9PM



Traffic Impacts – Pre vs. Post Average Speeds

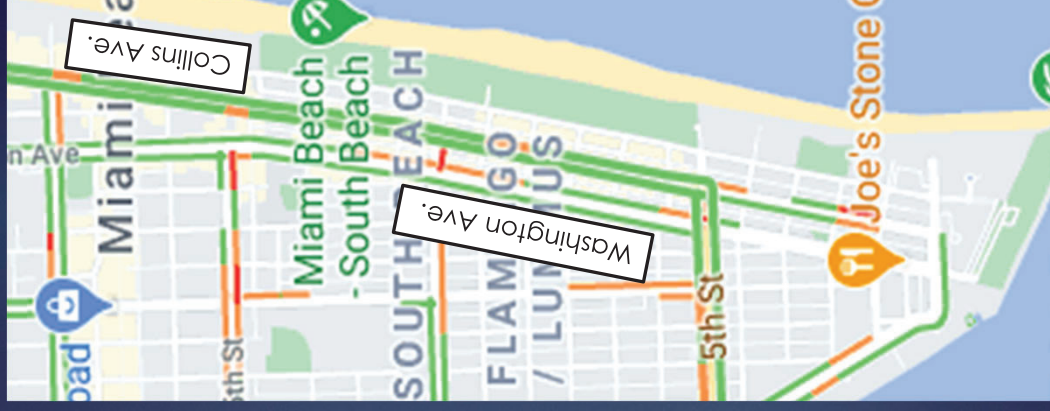
5

- Average speeds have decreased between 5 Street and 16 Street during afternoon peak and throughout weekend
- Lower average speeds contribute to increased travel time
- Lowest average speed occurs on weekends during late afternoon and evening hours



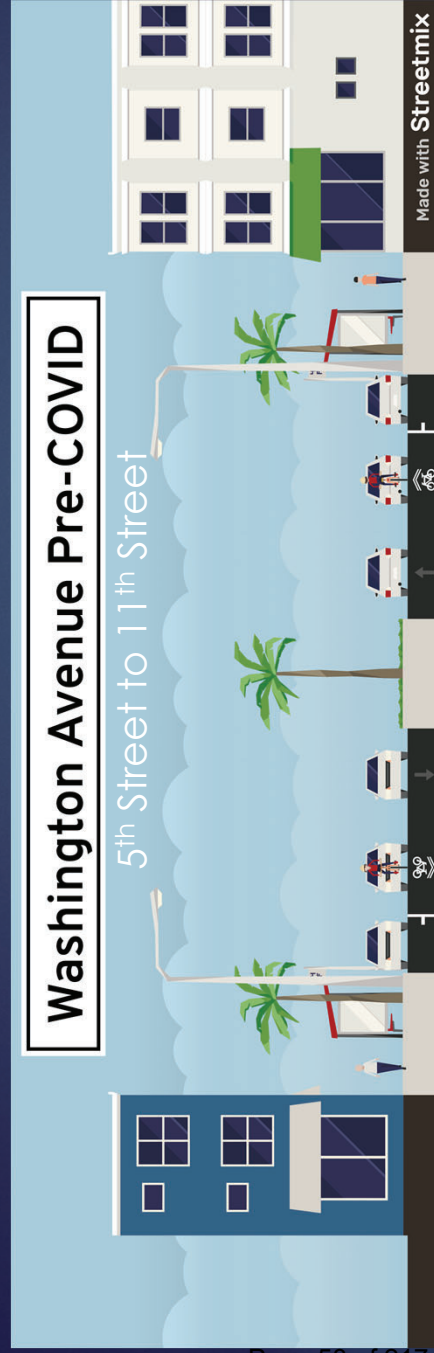
Google Traffic

- Google Maps' traffic layer was archived between April 1st and April 7th
- This animation shows traffic patterns on Saturday, April 3rd
- Congestion varies throughout the day on Washington Avenue with the peak between 6PM and 8PM
- Most congestion is created by friction – parking maneuvers, turning movements, passenger drop-offs from travel lane, unfamiliar drivers



Pre-COVID Configuration

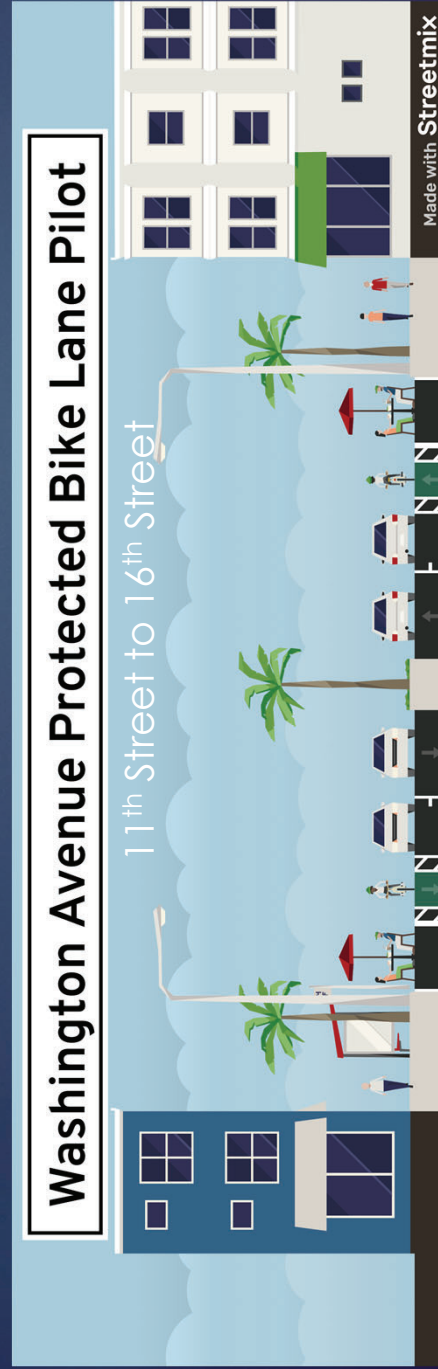
7



- ▲ Prioritizes vehicles with capacity exceeding demand by double
- ▲ Bicycle LOS is F with less than 200 bike trips per day
- ▲ Transit operates in mixed traffic and competes with illegal parking/loading
- ▲ Emergency vehicles operate in mixed traffic
- ▲ No parklets

Existing Pilot Configuration

8



▲ Prioritizes outdoor dining and provides protected bicycle facilities

▲ Bicycle LOS A with an increase of 875 bike trips/day

▲ While vehicle volumes can be accommodated under ideal conditions, friction is created by parking maneuvers, turning movements, and distracted driving

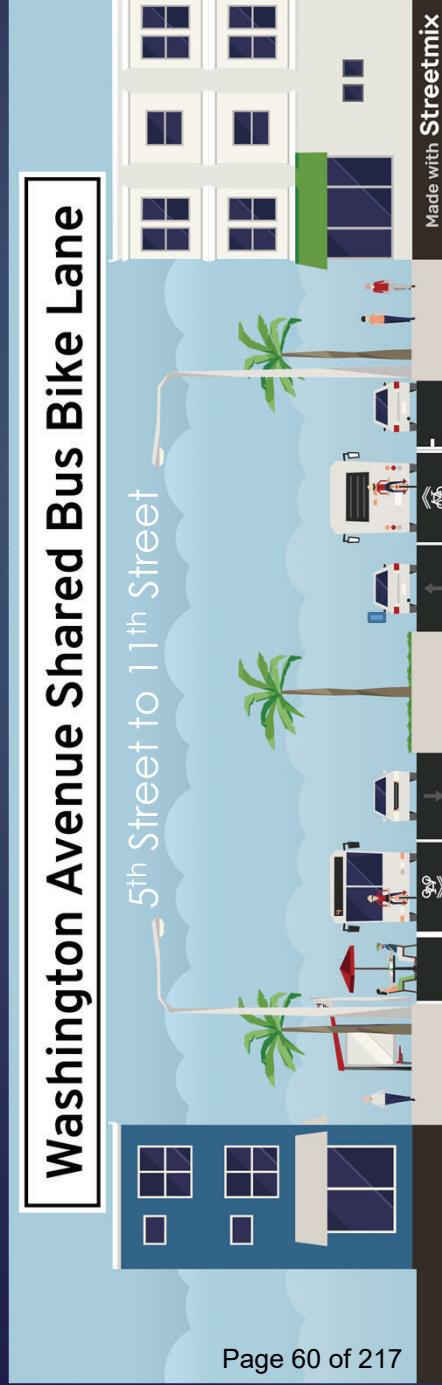
▲ Corridor operates at LOS D overall but degrades to LOS F during peak hours

▲ One travel lane is not conducive to emergency vehicles

▲ Delays transit operations and affects passenger boarding/alighting conditions

Reconfiguration Option 1

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- ▲ Prioritizes transit, emergency vehicles, and parklets
- ▲ Average transit headways is 4.4 min and transit LOS would be A
- ▲ Transit lane is also available for use by emergency vehicles
- ▲ Bicycle facility is downgraded from current condition but improved over pre-COVID conditions
- ▲ Some of the friction is eliminated because parking returns to the curb



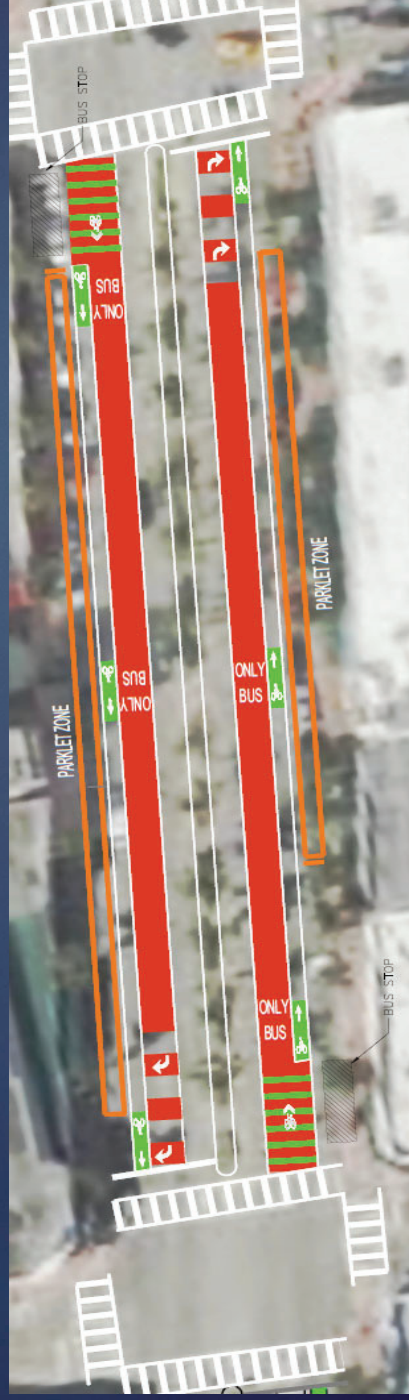
Reconfiguration Option 1

10



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- ▲ Complete street section with parklets and dedicated lanes for transit and bikes
- ▲ Transit LOS A and bike LOS would also improve over pre-COVID conditions
- ▲ Transit lane is available for use by emergency vehicles
- ▲ Some of the friction is eliminated because parking returns to the curb



Preliminary Cost for Option 1

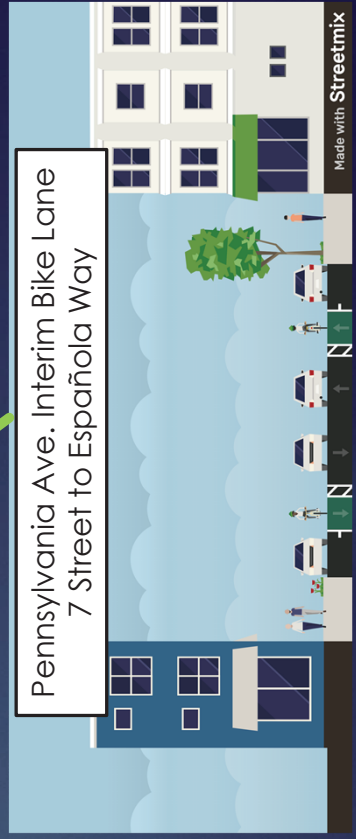
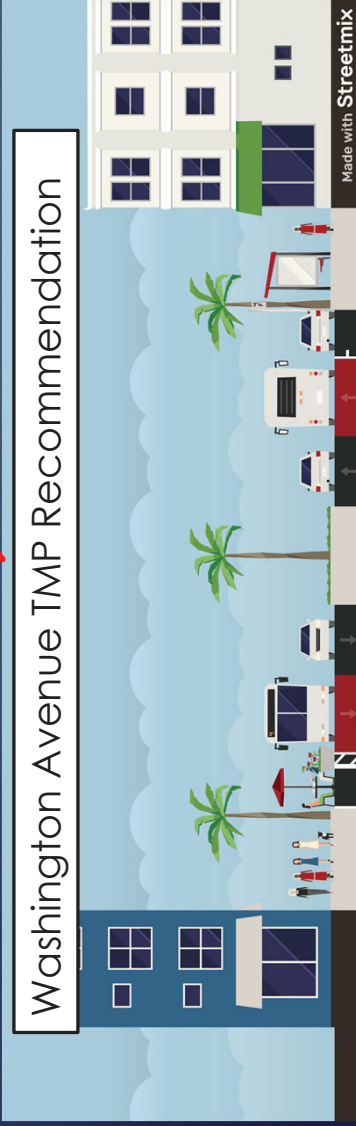
11

- ▶ Preliminary Cost*
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* Cost depends on the quantity of red striping on the shared bus-bike lane/dedicated transit lane

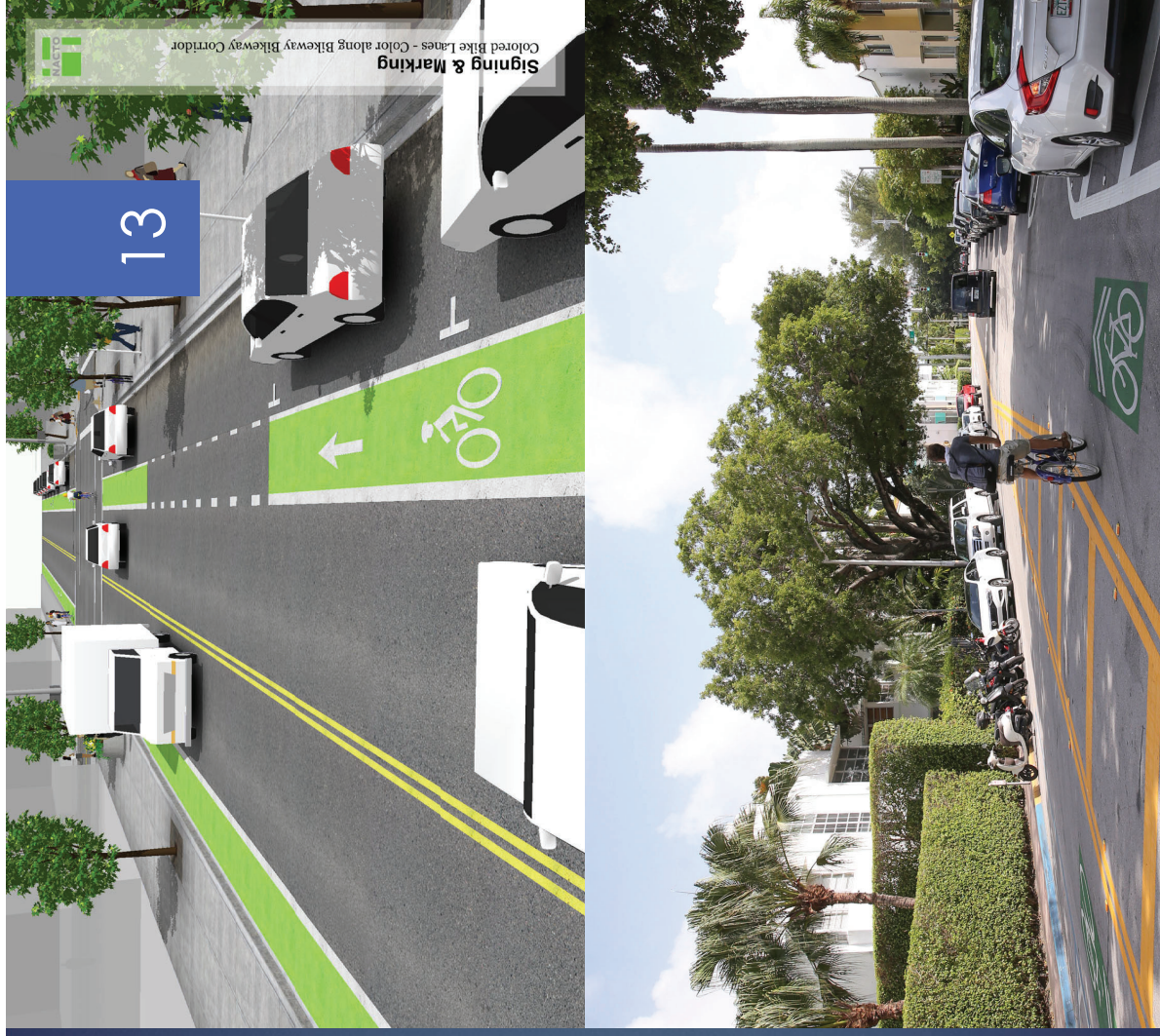
Reconfiguration Option 2

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Reconfiguration Option 2

- ▲ Creates new buffered bike lanes on Pennsylvania Avenue in lieu of Washington Avenue
 - ▲ Final design plans under County review for approval
 - ▲ Construction funding for pilot recommended in FY 2022 Budget
- ▲ Side street bicycle connections to/from Washington Avenue via either
 - ▲ Shared-Lane Markings at 8 Street, 10 Street, and 13 Street; or
 - ▲ Dedicated bicycle lanes at 8 Street, 10 Street, and 13 Street (requires removal of some on-street parking)
- ▲ Dedicated transit lanes on Washington Avenue for use by emergency vehicles



Preliminary Cost for Option 2

14

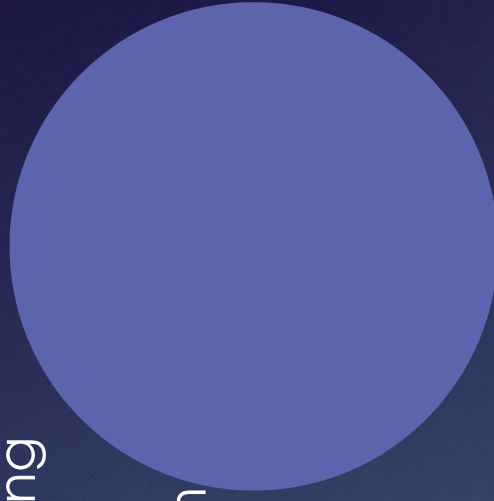
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 - ▶ Maintenance and Post Analysis - \$50,000 per year

** Cost depends on the quantity of red striping on the dedicated transit lane*

Key Dates

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- ▶ September 9 – Washington Avenue BID Meeting
- ▶ September 20 – NQLC Discussion
- ▶ September 23 – Ocean Drive and Washington Avenue Workshop



Questions

