

MIAMI BEACH

NO. LTC# 085-2023

LETTER TO COMMISSION

TO: Honorable Mayor Dan Gelber and Members of the City Commission

FROM: Alina T. Hudak, City Manager

DATE: February 22, 2023

SUBJECT: **Update #2 on Active Traffic Management and Mitigation Efforts**

The purpose of this Letter to Commission (LTC) is to provide an update to Letter to Commission #037-2023 dated January 31, 2023, regarding various traffic management and enforcement strategies currently in place to help mitigate traffic congestion along our key thoroughfares.

For context, it is important to note that an analysis of average daily traffic along the Julia Tuttle Causeway has shown that vehicle volumes for the month of January 2023 are approximately 5% higher as compared to January 2022 and 2.5% higher as compared to January 2019 (pre-pandemic) volumes. Most of this additional vehicular traffic uses 41 Street, Alton Road, and Collins Avenue/Indian Creek Drive to travel within the City. In addition, based on the Florida Department of Transportation ("FDOT") 2021 Level of Service map (attached), several major thoroughfares in our City are operating at a failing level of service (i.e. over capacity) based on average annual daily traffic volumes in comparison to the vehicle capacity of those roadways. In general, when roadways operate at or over capacity, particularly during peak traffic periods, any additional volume can exacerbate congestion and create gridlock. Moreover, when over-saturated traffic conditions occur, traffic signals cannot operate effectively and can give drivers the impression that coordination is off.

COLLINS AVENUE FROM 58 – 63 STREETS

On February 15, 2023, Florida Power & Light ("FPL") advised that it completed the underground electrical system work which required lane closures on Collins Avenue northbound between the 5800 Block and 63 Street and created gridlock in the area for several months. FPL indicated that all equipment and traffic control signs associated with its project were removed from the right-of-way. On Monday, February 20, 2023, FPL commenced pavement restoration work (sidewalks, curbs, gutters, and medians) and is expected to complete this work by March 10. Some nighttime lane closures will be required to complete the restoration.

In addition, given the FPL project has been completed, FDOT is proposing to resurface Collins Avenue/Indian Creek Drive from the 5800 Block to west of 63 Street. The scope of work includes milling and resurfacing, upgrading the signage and pavement markings, upgrading pedestrian ramps and detectable warning surfaces at the intersection of Collins Avenue and 63 Street, and minor sidewalk improvements. The project is not expected to start until after Spring Break ends on March 26, 2023. The Public Works and Transportation and Mobility Departments are working closely with FDOT on the Maintenance of Traffic ("MOT") plan for this project to ensure any required lane closures are performed in such a way as to minimize the impact to traffic flow to the extent possible.

SOUTHBOUND INDIAN CREEK DRIVE AT 41 STREET

The intersection of Indian Creek Drive/41 Street represents a critical juncture between two major state roads and a choke point in our transportation network. Given both of these roadways are under the purview of the FDOT, the City has urged FDOT, including via a recent City Commission resolution, to implement both short-term/interim and long-term solutions consisting of introducing

a second southbound right turn lane at this intersection (to travel westbound on 41 Street) as further described below.

In the short-term/interim, the City has requested that FDOT authorize the reinstatement of the dual southbound right turn lanes at the intersection of Indian Creek Drive/41 Street that were in place for about two years as part of the MOT plan for the construction of the City's Indian Creek Drive Flood Mitigation project. The temporary configuration entails closing the westbound lane on 41 Street from Collins Avenue to Indian Creek Drive to avoid conflicting movements between westbound vehicle traffic coming from Collins Avenue and southbound right turning vehicles using the requested additional right turn lane at Indian Creek Drive to travel westbound on 41 Street. Under this interim configuration, northbound Collins Avenue traffic wishing to make a left turn to travel westbound on 41 Street will need to travel north to Collins Avenue/44 Street, make a left turn at Indian Creek Drive/44 Street, travel southbound on Indian Creek Drive back down to 41 Street, and make a right turn using the dual southbound right turn lanes. Although more circuitous, this temporary travel pattern worked well during the Indian Creek Drive reconstruction project.

On February 3, 2023, members of the City Administration met with FDOT District Six Secretary Stacy L. Miller and other FDOT staff members to further discuss a potential implementation of an interim solution. During the meeting, FDOT expressed that a temporary configuration as described above would not be feasible as a short-term solution for a variety of reasons and that FDOT would only support a permanent reconfiguration of the intersection in order to achieve the desired dual southbound right turn lanes at the intersection of Indian Creek Drive and 41 Street. In addition, FDOT advised that it is currently conducting a comprehensive traffic study to determine the feasibility of the proposed dual southbound right turn lanes and impacts to adjacent intersections and expects to complete the traffic study in March 2023. If the traffic study finds that the improvement is warranted and feasible, FDOT would include it as part of a planned project (FM # 443931-1) currently in the design phase and further described below.

FDOT is finalizing the design of a roadway improvement project on Indian Creek Drive from 44 Street to 41 Street. As part of the project, FDOT is amenable to accommodating an additional southbound right turn lane (i.e. creating dual southbound right turn lanes) at the intersection of Indian Creek Drive and 41 Street. The FDOT project would include new signalization improvements at the intersection of Indian Creek Drive/41 Street to accommodate the additional southbound right turn lane while not adversely affecting westbound 41 Street traffic from Collins Avenue. Some on-street parking spaces on the east side of Indian Creek Drive would be impacted. FDOT anticipates project construction beginning in July 2024 and ending by March 2025.

41 STREET CORRIDOR

There are various factors that affect traffic flow and contribute to congestion along this principal corridor, including:

- **Signal Spacing** – The existing intersections and signalized mid-block pedestrian crossings are very closely spaced; the vast majority do not meet FDOT's signal spacing requirements. Closely spaced intersections require very precise coordination between signals; and the high frequency of pedestrians triggering a walk phase at mid-block crossings adversely impacts signal coordination and can give drivers the perception that the traffic signals are not coordinated.
- **Extended School Zones** – The majority of the corridor is within a school zone, which affects progression and travel time when school zones are active. The afternoon school zone is in effect until 3:30 p.m. which often transitions into the afternoon peak traffic period, thus exacerbating congestion along the corridor.
- **Proximity to the Causeway** – The progression along 41 Street is heavily affected by the Julia Tuttle Causeway. When the causeway is congested in the westbound direction, vehicles are not able to clear 41 Street. In the eastbound direction, progression is

interrupted as vehicles exit the causeway (a limited access facility with no traffic signals) and enter 41 Street (a heavily signalized corridor) with frequent interruptions.

- **On-going I-395 Construction** – Drivers are likely avoiding the MacArthur Causeway and opting to utilize 41 Street and the Julia Tuttle Causeway due to the on-going construction along I-395. Major roadway construction projects can alter traffic patterns and increase volumes on adjacent corridors.
- **On-Street Parking** – Vehicles conducting parking maneuvers often influence vehicle progression and can create friction among vehicles in adjacent travel lanes.
- **Side Street Traffic** – The corridor receives heavy vehicular volumes from the north/south avenues, which adds to the congestion along 41 Street and often results in vehicles blocking the intersections, particularly during peak traffic periods.

The Administration is working closely with Miami-Dade County Department of Transportation and Public Works and FDOT and taking action to improve traffic flow to the extent possible, including:

- **Removal of Automatic Pedestrian Phases** – In coordination with the County, the automatic pedestrian phases have been removed at all signalized intersections on 41 Street (except during the Sabbath) and pedestrians must currently push the walk button to cross 41 Street.
- **Reduced Pedestrian Walking Time** – In an effort to maximize green time for east/west traffic along the corridor, the durations of the pedestrian walk phases to cross 41 Street at all signalized intersections along the corridor were recently reduced by the County to the County standard of 3.5 feet per second. This change has resulted in a few additional seconds of green time that could be allocated to east/west 41 Street traffic.
- **Independent Review** – The City's traffic engineering consultant conducted an independent review of the current signal timing plans along the corridor to identify opportunities to improve coordination and progression along 41 Street. Travel time runs were conducted during the AM and PM peak periods during the week of January 23, 2023 and the observations and data will be used to develop recommendations for signal timing improvements, if feasible. The consultant's assessment concluded that while the traffic signals along the corridor appear to be coordinated, a comprehensive signal retiming effort should be pursued to ensure optimization.

Utilizing the additional time resulting from the removal of automatic pedestrian phases and reduced pedestrian walking times along the corridor, staff will explore a collaboration with FDOT over the coming months to conduct a comprehensive evaluation of two corridor retiming approaches to determine the more advantageous option:

- **Progression Analysis** – Progression along the corridor can be reviewed to confirm off-sets (the time lapse between green time at adjacent intersections) are appropriate.
 - Cycle lengths would be maintained.
 - Tweaks to existing off-sets would be based on and utilizing travel speed in lieu of posted speed with the goal of improving progression.
- **Pre-timed (Fixed-Time) Approach** – Predetermined timing settings with fixed cycle length.
 - This approach provides a more controlled environment as the signal would not be responding to demand.

The Transportation and Mobility Department will continue to work with its traffic signal support consultant, FDOT, and Miami-Dade County to advance a signal retiming analysis for optimization of traffic signals along the 41 Street corridor.

41 STREET CORRIDOR TRAFFIC ENFORCEMENT

Police is actively conducting traffic enforcement along 41 Street every weekday afternoon from 4 p.m. to 8 p.m. The effort focuses on enforcing no blocking of the box at the following intersections, and other intersections as needed:

- 41 Street/Collins Avenue
- 41 Street/Indian Creek Drive
- 41 Street/Pine Tree Drive

Since January 12, 2023, the Police Department has issued a total of 205 citations for blocking the box during afternoon peak periods on 41 Street. It is important to note that Florida law currently prohibits the use of cameras to enforce blocking the box violations, thus law enforcement officers are currently performing this function.

INCREASED CONGESTION ALONG 63 STREET/ALTON ROAD

Given the ongoing lane closures on Collins Avenue from 58 to 63 streets due to the FPL work, more drivers are using Pine Tree Drive as an alternate route. This change of travel patterns has increased volumes on 63 Street and exacerbated congestion along the corridor, particularly during bridge openings. Pursuant to recently adopted City Commission Resolution No. 2022-32232, the Administration has communicated with the U.S. Coast Guard (“USCG”) to request additional bridge weekend schedule restrictions to the 63 Street drawbridge. In order to evaluate this request, the USCG is requiring that the City conduct a comprehensive traffic study for the area surrounding the bridge, the scope, cost, and timeline of which is being considered. The traffic study may also include an analysis of potential additional restrictions to the weekday bridge schedule, including whether reducing the frequency of bridge openings from every 30 minutes to once an hour during weekdays could potentially reduce traffic congestion in the area. If the USCG determines that, based on the findings of the traffic study, a schedule change would be beneficial, the federal rule making process would be initiated and can take one to two years to complete. The City underwent this process a few years ago when it successfully petitioned the USCG to approve a lockdown of this drawbridge during weekday morning and afternoon peak periods (i.e. 7 a.m. - 9 a.m. and 4 p.m. - 7 p.m.), except for federal holidays, emergency vessels, and vessels in distress. The 63 Street bridge schedule will be discussed at the upcoming February 28, 2023 Public Safety and Neighborhood Quality of Life Committee meeting.

VENETIAN CAUSEWAY

As a result of an active sewer line upgrade project being undertaken by the City along the Venetian Causeway in the vicinity of Belle Isle, drivers are currently experiencing lane closures on eastbound Venetian Way at Rivo Alto and Belle Isle. To help alleviate the westbound congestion that results in the afternoon peak period, the Transportation and Mobility Department worked with the County to extend the green time for the intersections of Purdy Avenue/Dade Boulevard, Island Avenue West/Venetian Way, Island Avenue East/Venetian Way, Dade Boulevard/17 Street, Dade Boulevard/West Avenue and West Avenue/17 Street. In addition, the Public Works Department successfully petitioned the County and USCG to approve a temporary deviation of the east drawbridge schedule whereby the bridge opens only on the hour from 7 a.m. to 9 a.m. and from 4 p.m. to 7 p.m. on weekdays (except federal holidays, emergency vessels, and vessels in distress) to help mitigate traffic congestion along the causeway. While the temporary bridge restrictions currently in place expire on March 30, 2023 the Public Works Department is working with the County to extend until the completion of the sewer line upgrade project.

TRAFFIC MONITORING

Pursuant to recent City Commission direction, the Administration reinstated traffic monitoring services during this high impact period (November 2022 - May 2023) for 14 hours/day, 7 days a week. The traffic monitoring contractor utilizes existing cameras in the City and Waze mobile application to identify incidents causing congestion. The contractor communicates with the Police and Fire Communications Unit, the Transportation and Mobility Department, and the Marketing

and Communications Department as necessary to confirm incidents, disseminate traffic text alerts, and program digital message signs strategically located throughout the City for the benefit of the motoring public. The City's contractor also coordinates with the County on traffic signal malfunctions to ensure expedited repairs and with FDOT on incidents affecting traffic flow on the MacArthur and Julia Tuttle causeways.

PARKING ENFORCEMENT

The Parking Department has increased enforcement of freight loading zones and construction management parking plans. Since November 2022, a total of 2,495 freight loading zone violations have been issued and 984 vehicles have been towed. Additionally, Police officers have also been enforcing freight loading zones.

CONCLUSION

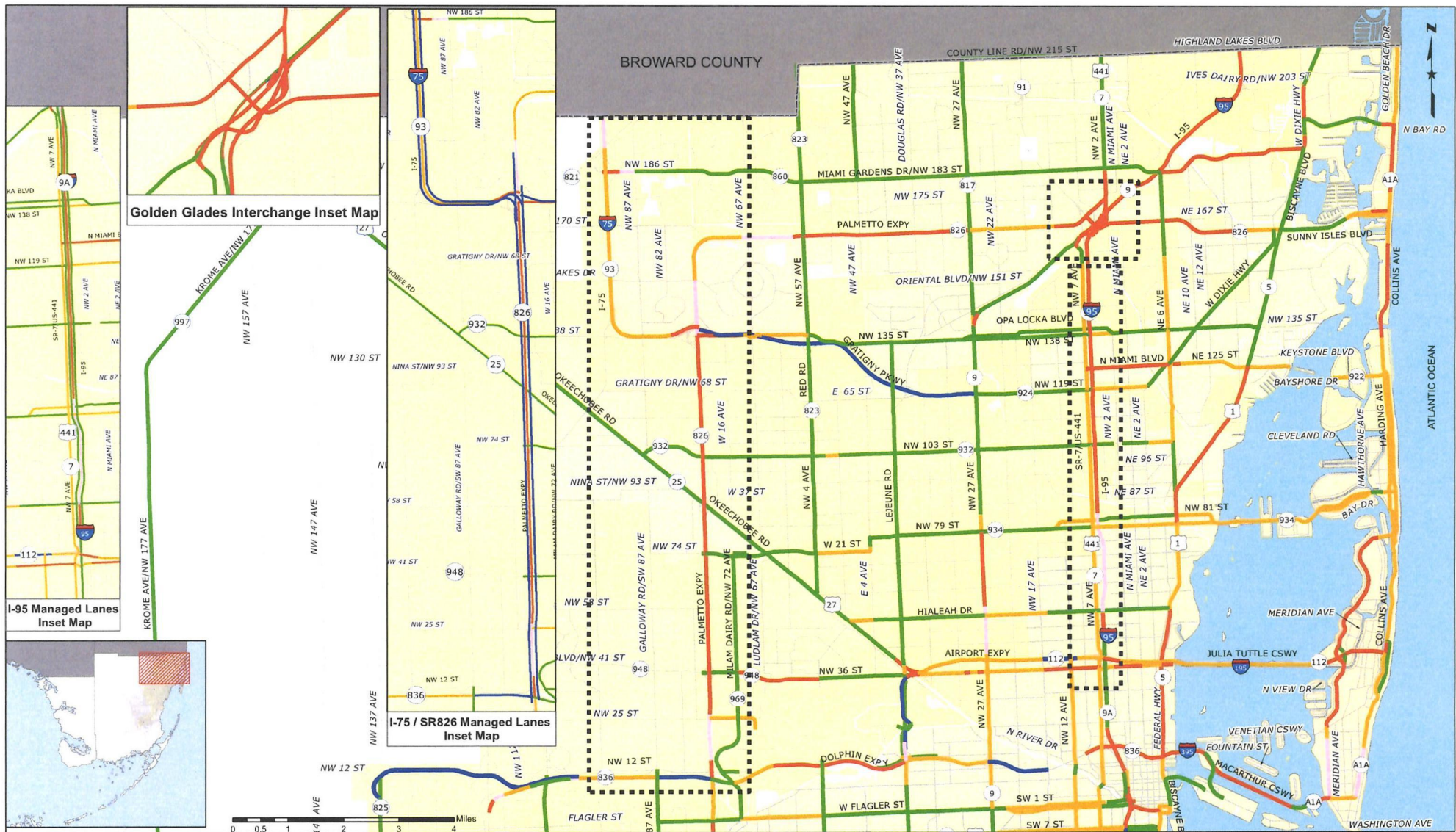
The Administration continues a multi-pronged approach to mitigate traffic congestion throughout our city including cross departmental and multijurisdictional efforts. It is important to highlight that our constrained roadways are operating at or over capacity during peak periods. When this occurs, everyday events such as bridge openings, school zones, roadway construction, emergency work/lane closures, disabled vehicles, accidents, or congestion outside of our city exacerbate the already strained roadway. Signal timing tweaks and police presence provide only minor relief and do not solve the capacity issue. Although the City's trolley and transit network is robust, from a mid to long-term perspective, only meaningful and rapid mass transit solutions, coupled with multimodal transportation improvements, can increase person-throughput (i.e. capacity) of our roadways. Additionally, opportunities to increase affordable and workforce housing inventory may have a positive impact on roadway congestion by encouraging Miami Beach workers to live in the City.

As we prepare for upcoming major events which will increase the number of motorists and pedestrians in our City, my Administration remains committed to managing traffic conditions, exploring all available mitigation options and deploying solutions which are feasible and within our purview as well as through collaboration with FDOT and Miami-Dade County.

Please feel free to reach out to me if you have any questions.

Attachment: FDOT Level of Service Map

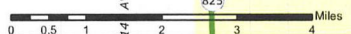
ATH/RW/JRG



Golden Glades Interchange Inset Map

I-95 Managed Lanes Inset Map

I-75 / SR826 Managed Lanes Inset Map



Map Date: Sep. 12, 2022
 Data Updated: June 2022

Florida Department of Transportation
 Planning and Environmental Management Office
 Contact: (305) 470-5373



MIAMI-DADE COUNTY STATE HIGHWAY SYSTEM 2021 AADT LEVEL OF SERVICE

- Legend - AADT LOS**
- B (Blue)
 - C (Green)
 - D (Yellow)
 - E (Orange)
 - F (Red)