

Town of Miami Lakes, Florida

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AGENDA

Special Meeting

August 14, 2017

5:30 PM

Government Center

6601 Main Street Miami Lakes, FL 33014

- 1. Call to Order**
- 2. Roll Call**
- 3. Pledge of Allegiance**
- 4. Moment of Silence**
- 5. Public Comments**

All comments or questions from the attending public to the Council shall be directed to the Mayor, in a courteous tone. No person other than the Council and the person recognized by the Mayor as having the floor, shall be permitted to enter into discussion without the permission of the Mayor. To ensure the orderly conduct and efficiency of the meeting, public comments shall be limited to three (3) minutes maximum per person; however, the Mayor may authorize the extension of the aforesaid time frame, and any extension shall apply to other individuals speaking on the same subject.

No clapping, applauding, heckling, verbal outburst in support of, or in opposition to a speaker or his/her remarks shall be permitted. Should a member of the audience become unruly, or behave in any manner that disrupts the orderly and efficient conduct of the meeting, the Mayor is given the right and the authority to require such person to leave the Council Chambers.

As a courtesy to others, all electronic devices must be set to silent mode to avoid disruption of the proceedings.

6. Items for Discussion and Action

A. Report on Impact of Opening & Connecting the NW 170th Street and 154th Bridges over I-75.

7. Adjournment

This meeting is open to the public. A copy of this Agenda and the backup therefore, has been posted on the Town of Miami Lakes Website at www.miamilakes-fl.gov and is available at Town Hall, 6601 Main Street, Miami Lakes 33014. In accordance with the Americans with Disabilities Act of 1990, all persons who are disabled and who need special accommodations to participate in this meeting because of that disability should contact Town Hall at 305-364-6100 two days prior to the meeting.

Anyone wishing to appeal any decision made by the Miami Lakes Town Council with respect to any matter considered at this meeting or hearing will need a record of the proceedings and for such purpose, may need to ensure that a verbatim record of the proceedings is made which record includes the testimony and evidence upon which the appeal is to be based.

Any member of the public wishing to speak on a public hearing matter on this Agenda or under public comments for items not on this Agenda, should fill out a speaker card and provide it to the Town Clerk, prior to commencement of the meeting. Any person presenting documents to the Town Council should provide the Town Clerk with a minimum of 12 copies.



Town of Miami Lakes Memorandum

To: Honorable Vice Mayor & Councilmembers
From: Honorable Mayor Manny Cid
Subject: Report on Impact of Opening & Connecting the NW 170th Street and 154th Bridges over I-75
Date: 8/14/2017

Recommendation:

A Special Call Meeting will be taking place to discuss the Report from Miami-Dade County regarding the opening of the NW 170th Street and 154th Bridges over I-75.

Please see the attached Report.

ATTACHMENTS:

Description

Report on Impact of Opening and Connecting the NW 170th Street and 154th Bridges over I-75

Traffic Report



Date: July 28, 2017

To: Chairman Esteban L. Bovo, Jr., Co-Prime Sponsor,
and Jose "Pepe" Diaz, Co-Prime Sponsor

From: Darlene M. Fernandez, P.E.
Assistant Director, Traffic Services,
Miami-Dade Department of Transportation and Public Works

Subject: Report on the Impacts of Opening and Connecting the NW 170th Street and NW 154th Street Bridges over I-75 – Directive 171066

This following report was prepared by the Department of Transportation and Public Works (DTPW) in response to Resolution No. R-195-17, adopted by the Board of County Commissioners (Board) on February 22, 2017, which directed the County Mayor or County Mayor's designee to: 1) open the bridge on NW 170th Street over Interstate-75 to vehicular traffic; 2) partner with FDOT and other appropriate or necessary agencies to further the objective of opening the bridge on NW 170th street over Interstate-75 to vehicular traffic and 3) provide a status report (see original item under file no. 170367).

The purpose of this study is to evaluate the traffic impacts resulting from the opening of the NW 170th Street and NW 154th Street Bridges over I-75 in northwest Miami-Dade County. The study limits as shown in the figure below include: NW 186th Street to the north, NW 138th Street to the south, SR 826 to the east, and the Turnpike to the west. The proposed bridges are located in areas currently undeveloped in unincorporated Miami-Dade County, the Town of Miami Lakes, and the City of Hialeah. The study also included an origin-destination study, which analyzed two potential east-west roadway connections parallel to and north and south of NW 154th Street at Miami Lakes.



Background

DTPW Traffic Engineering Division (TED) has coordinated with other County departments such as Bridges, Highway Division, and the Regulatory and Economic Resources Planning Division, as well as the Town of Miami Lakes, the City of Hialeah, and the Florida Department of Transportation (FDOT) District 6. The existing bridges, consisting of a two-lane residential street running along a canal over I-75 at NW 170th Street (Bridge 870596) and at NW 154th Street (Bridge 870599), were constructed by the FDOT in 1984 and 1986, respectively.

The bridges and its approaches are within the jurisdiction of FDOT. As of April 2017, both bridges were rated 'good' during their last inspections. Neither bridge connects to the local arterial roadways as they are currently closed to vehicular traffic.

Existing Conditions and Baseline Review

Field reviews and data collection were performed for the intersections located in the study area on May 2nd, 2017 through the May 4th, 2017 before the school session ended. Field reviews were conducted during the AM (7:30 to 9:30) and PM (3:30 to 5:30) peak periods in order to confirm the existing traffic circulation patterns in the area. Critical intersections and existing traffic signals were also confirmed during the field reviews, in conjunction with verification of aerial maps.

Background information from previous studies were used and included sources of data from the "American Dream Miami & The Graham Project Transportation Impact Analysis for CDMP Amendment", along with other traffic studies regarding committed developments located within the designated study area. Traffic data was obtained for daily volumes, peak hour turning movement counts, signalization information, along with any planned and programmed transportation improvements in the area. Committed trips were calculated based on previous studies in order to capture all the development that is beginning to spur in the area west of I-75 near the bridges. Note: no transit reduction factors were applied to the committed development trips for the American Dream Miami or Graham Companies projects; therefore, the traffic volumes are considered to be conservative. The baseline data provided the foundation for the analysis of the proposed scenarios as described below.

Alternatives Analysis

- 2017 Existing Conditions
- 2022 Future No-Build (includes committed developments)
- 2022 Future Build (includes committed developments):
 - Option 1 – consists of both NW 170th Street and NW 154th Street Bridge openings
 - Option 2 – consists of both NW 170th Street and NW 154th Street Bridge openings, as well as the new Turnpike interchange at NW 170th Street. This option also includes American Dream Miami and The Graham Properties projects in addition to the committed developments.

Development of Future Traffic Volumes

In order to determine the distribution of forecasted trips under the two project alternatives, a comparison was made of each scenario utilizing the South East Regional Planning Model (SERPM), which is based on the Florida Standard Urban Transportation Model Structure (FSUTMS). The model's roadway networks were based on Cost Feasible network improvements, with sub-area roadway modifications to match the relevant scenarios. A reasonableness check was performed for trip assignment onto the adjacent roadway network by both independent and summative reviews of the trip generation for committed developments in the study area. FDOT standard procedures were utilized to develop intersection turning movement volumes for the operational analysis. Based on the volume projections, the peak hour volumes over the proposed bridges for the 2022 Build Options 1 and 2 are noted in the table as follows:

	Option 1				Option 2			
	NW 170 Street Bridge		NW 154 Street Bridge		NW 170 Street Bridge		NW 154 Street Bridge	
Direction	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Eastbound	658	342	408	331	541	295	408	416
Westbound	889	429	240	253	1,074	1,183	1,145	643

Level of Service Analysis

A traffic simulation network was created for the Existing and Future No-build and Build scenarios for the AM and PM peak hour periods. The simulation was performed using SYNCHRO software, which applies methodologies outlined in the Highway Capacity Manual, 2010 Edition. An intersection Level of Service (LOS) analyses was performed for each of the intersections in the study area. LOS analysis for signalized/unsignalized intersections are based on the amount of control delay which is a measurement in seconds per vehicle that act as an indicator of lost time, fuel consumption, frustration and driver's discomfort at the signalized intersections. The level of services for signalized intersections is a scale from "A" to "F" in accordance with control delay thresholds that range from less than 10 seconds to greater than 80 seconds of delay per vehicle. The future scenarios were also optimized for signal timing improvements. A comparison of the reduction in delay (in seconds per vehicle) was made for each of the alternatives using the Future No-Build as the baseline alternative. The findings are as follows:

2022 Future No-Build:

- The results indicate traffic levels of service deteriorating from 2017 Existing Conditions to the 2022 Future No-Build scenario for the east-west arterials as new committed developments come on line within the next five years and no roadway improvements are made to the area.
- The attached figures in Appendix A display the 2022 Future No-Build scenario levels of service at the intersections.
- NW 138th Street, which provides a major link from the Turnpike and Okeechobee Road to I-75 and the Palmetto Expressway, showed the most decrease in levels of service and delay throughout the corridor.

2022 Future Build Option 1:

- The figures in Appendix B show the comparison in delay reduction between the Future No-Build and Build Option 1 alternatives.
- Slight improvements can be seen with Option 1 in place, which is the opening of the two bridges to the public. Both bridges provide a much needed alternate route for all the existing and new development in the area west of I-75 that only have NW 138th Street as access to the freeways.
- The intersections along the new roadway segments of NW 170th Street and NW 154th Street near the bridges are operating at acceptable levels of service.

2022 Future Build Option 2:

- With Option 2 (the addition of the new Turnpike interchange at NW 170th Street), traffic increases throughout the study area. This is due to new travel patterns of drivers from the east heading west to access the new interchange.
- This scenario also includes additional development from major projects west of I-75 such as American Dream Miami and the Graham Properties, among others. These added trips decrease the level of service and increase delay in the area as the mix of new travel patterns are formed for drivers trying to access the new Turnpike interchange.
- As with the other future scenarios, the intersections under this alternative were optimized in order to improve signal timing operations.
- In addition, the new stop controlled intersection at NW 102nd Avenue and NW 154th Street will require signalization in order to provide a better level of service in the future.
- The figures in Appendix C show the comparison in delay reduction between the Future No-Build and Build Option 2 alternatives.
- During the AM peak hour:
 - Reductions in delay were observed on Miami Gardens Drive in the westbound direction.
 - NW 170th Street experienced reduced delay for drivers traveling eastbound.
 - NW 154th Street had reduced delays for eastbound drivers at the Palmetto Expressway ramps, while there was some reduction in delay for those traveling westbound at NW 87th Avenue.
 - Reductions in delay were noticed throughout NW 138th Street in both directions.
- During the PM peak hour:
 - Reductions in delay were observed on Miami Gardens Drive in the westbound direction at NW 87th Avenue.

- Reductions in delay were noticed throughout NW 154th Street in both directions.
- Reductions in delay were noticed along NW 138th Street in both directions at Hialeah Gardens Boulevard and westbound at NW 107th Avenue.

Overall, the reductions in delay demonstrate that opening the bridges extending NW 170th Street and NW 154th Street over I-75 minimizes traffic congestion and increases the flow of traffic, benefiting those who reside and work in the area.

Roadway Level of Service Analysis

A Roadway Level of Service Analyses was performed for the four major east-west corridors in the study area for each scenario analyzed. The analysis, based on the 2013 FDOT Quality Level of Service Handbook generalized service volume tables, did not indicate any changes from the intersection analyses. However, the Build Option 2 did include additional roadway improvements for the widening of Miami Gardens Drive as part of the American Dream Miami project requirements, which is anticipated to improve the level of service along that corridor.

Miami Gardens Drive, as well as the future typical sections for all the major roadways, were also reviewed and are included in the attachments in Appendix D. A summary of the proposed typical sections follows:

- NW 97th Avenue – The proposed improvements along the segment from NW 138th Street to NW 170th Street consist of 4 lanes divided with an 8-foot swaled area and 6-foot sidewalks on both sides of the road.
- NW 107th Avenue – The proposed improvements along the segment from NW 138th Street to NW 170th Street consist of 4 lanes divided with an 8-foot swaled area and 6-foot sidewalks on both sides of the road.
- NW 186th Street – The proposed improvements along the segment from NW 87th Avenue to NW 82nd Avenue consist of 6 lanes divided with sidewalks on both sides of the road.
- NW 170th Street – The proposed improvements along the segment from the Turnpike to NW 97th Avenue consist of 6 lanes divided with 7-foot bike lanes and sidewalks on both sides of the road. The improvements from NW 97th Avenue to the proposed Bridge consist of 2 lanes undivided with a 6-foot sidewalk on the north side and a 10-foot shared path on the south side.
- NW 154th Street – The proposed improvements along the segment from NW 107th Avenue to the proposed Bridge consist of 2 lanes undivided with a 6-foot sidewalk on both sides of the road.

Miami Lakes Origin-Destination Study

FDOT is currently working on the design for the widening of the Palmetto Expressway/SR 826 in the future and are considering the option of raising the corridor within the limits of their study area. This option could provide the Town of Miami Lakes with two new roadway extensions parallel to NW 154th Street, north at NW 160th Street and south at NW 146th Street. These new roadways would provide another east-west connection for Miami Lakes since NW 154th Street is the only east-west road available. Therefore, the Town of Miami Lakes has requested Miami-Dade County to include the scenario in this report and has provided Origin-Destination (OD) data collected by their consultant for documentation.

The OD data was collected within the limits of the Town of Miami Lakes and in the vicinity of NW 154th Street at the SR 826/Palmetto Expressway (SR 826) interchange to further understand the traffic patterns within the Town limits, specifically the traffic origins and destinations between the east and west sides of the Town, which is geographically separated by the SR 826. The purpose of the study was to obtain an estimate of traffic traveling within the Town for weekday and weekend days, during peak and off peak traffic conditions. The study's main goal was to identify the following OD traffic percentages:

- Traffic originating from the west, northwest, and southwest quadrants of the Town (west of the SR 826) and traveling to a point east of SR 826.
- Traffic originating from the east side of the Town (east of the SR 826) and traveling to the west, northwest, or southwest (west of the SR 826).

The OD data collection study was performed from May 31st through June 6th, 2017 along NW 154th Street from NW 82nd Avenue to east of SR 826. The locations of the Bluetooth devices for the OD study, shown in the figure, were setup in order to capture trips to/from the west side of the Town to the east side along NW 154th Street and to identify the percentage of trips that go onto the SR 826 on-ramp.



From the data, the following observations were made:

- During all time period on any given day, there is more traffic originating from the west side of the Town wanting to go to the east side; then there is traffic from the east side wanting to go to the west side of Town.

During the weekday AM peak period from 6:00 AM to 10:00 AM:

- Approximately 31% of traffic from west of NW 82nd Avenue, 12% of traffic from NW 77th Court (north side), and 16% of traffic from NW 77th Court (south side) continued eastbound on NW 154th Street past SR 826.
- 19% of traffic from east of the SR 826 continued westbound on NW 154th Street past SR 826.

During the weekday PM peak period from 3:00 PM to 7:00 PM:

- Approximately 43% of traffic from west of NW 82nd Avenue, 10% of traffic from NW 77th Court (north side), and 17% of traffic from NW 77th Court (south side) continued eastbound on NW 154th Street past SR 826.
- 28% of traffic from east of the SR 826 continued westbound on NW 154th Street past SR 826.

Overall on average, there is approximately 39% of traffic from west of NW 82nd Avenue destined to the east side of the Town of Miami Lakes and approximately 27% of traffic from the east side of the Town of Miami Lakes that is destined to the west side past the NW 77th Court intersection with NW 154th Street. The OD data results suggest that there is a potential for traffic alleviation along NW 154th Street if an alternative route were to be provided to cross from/to the east and west sides of the Town of Miami Lakes. Specifically, as shown in the table below, it is anticipated that 64 eastbound (2%) and 111 westbound (6%) vehicles would be re-routed from NW 154th Street to the north and south alternate roads during the morning peak hour. During the evening peak hour, an estimated 51 eastbound (2%) and 108 westbound (5%) vehicles would be re-routed from NW 154th Street to the alternate roads.

	NW 160 Street Extension		NW 146 Street Extension	
Direction	AM Peak	PM Peak	AM Peak	PM Peak
Eastbound	32	22	32	29
Westbound	76	89	35	19

Conclusion

The analysis shows that without any improvements to the area, the levels of service are going to deteriorate significantly due to all the new committed developments coming to the area in the next five years. With the bridge openings, traffic is ameliorated in this developing area since these two connections provide another source of connectivity besides the existing east-west links in the area.

If you have any questions or concerns, please do not hesitate to contact Alice Bravo, Director of the Department of Transportation and Public Works, at 786-469-5406.

C: Abigail Price-Williams, County Attorney
Geri Bonzon-Keenan, First Assistant County Attorney
Alina T. Hudak, Deputy Mayor, Office of the Mayor
Alice N. Bravo P.E., Director, Department of Transportation and Public Works
Chris Agrippa, Clerk of the Board
Eugene Love, Agenda Coordinator

APPENDIX A





APPENDIX B

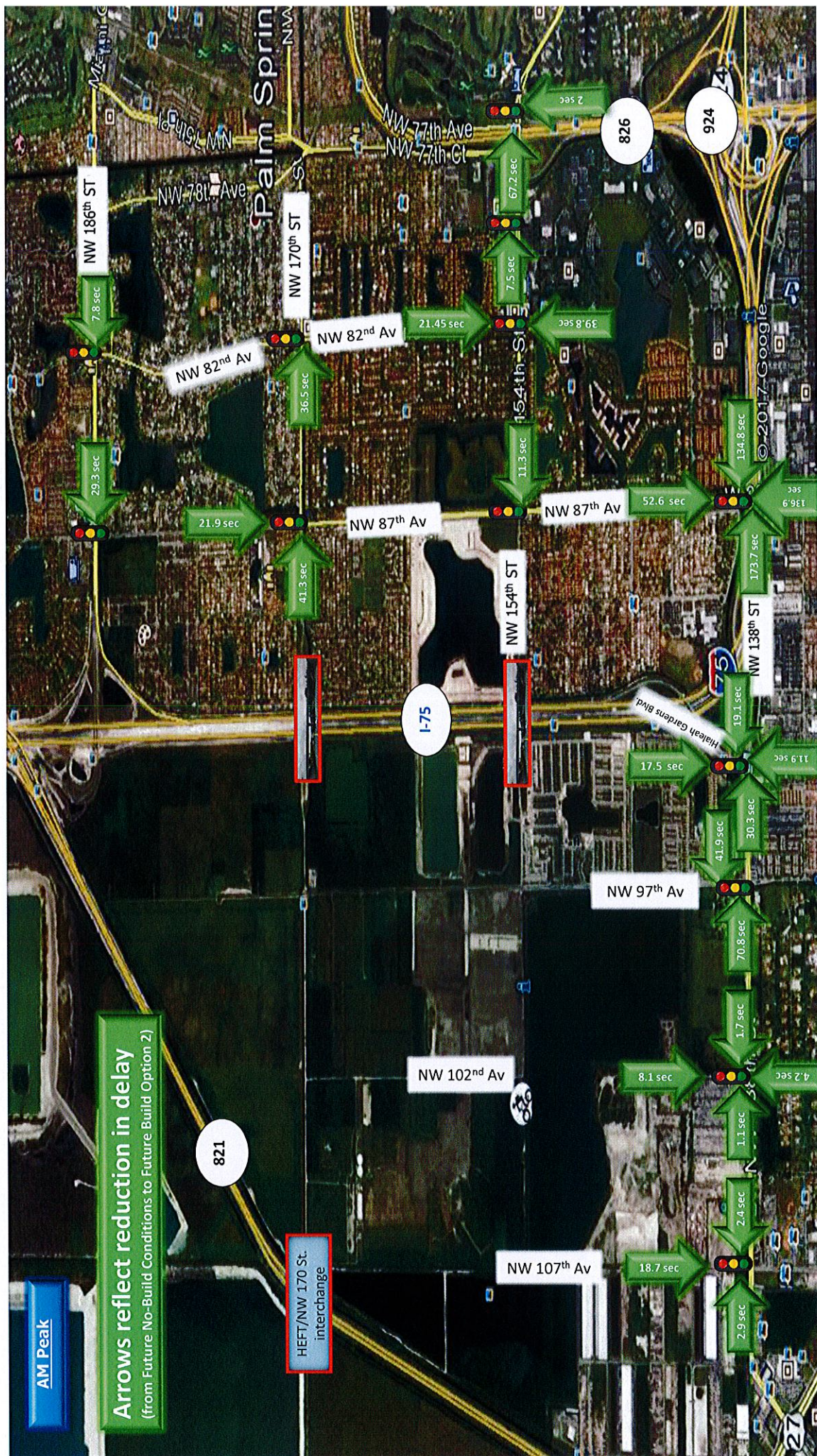


PM Peak

Arrows reflect reduction in delay
(from Future No-Build Conditions to Future Build Option 1)

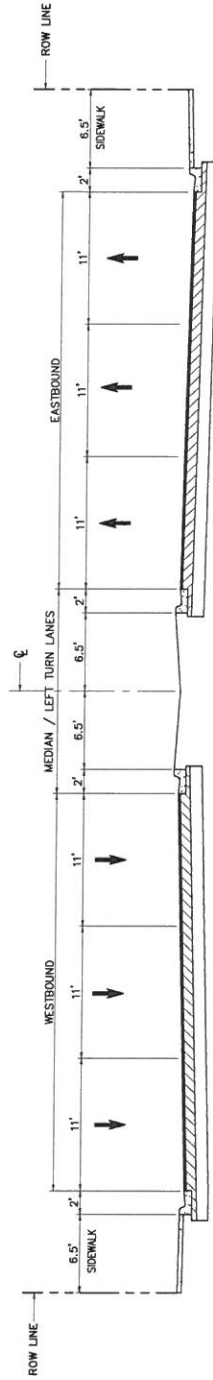


APPENDIX C




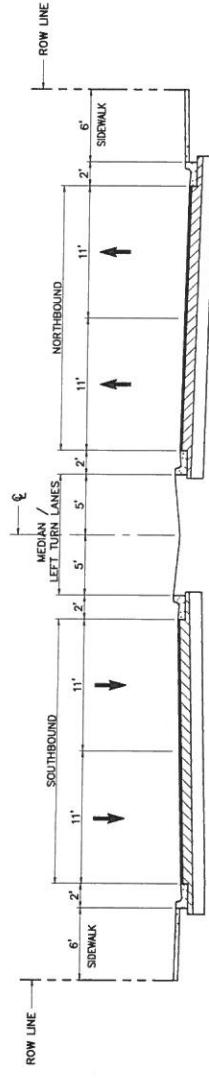


APPENDIX D



EXIST. TYPICAL SECTION
NW 138 ST

REVISIONS				MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS TRAFFIC ENGINEERING DIVISION						TYP-SEC PLAN NW 138 ST FROM NW 107 AVE TO WEST OF I-75	
DATE	REV	DESCRIPTION			PROJECT No.		SHEET OF		DESIGN		DATE



EXIST. TYPICAL SECTION
NW 87 AVE

REVISIONS

DATE REV/DESCRIPTION

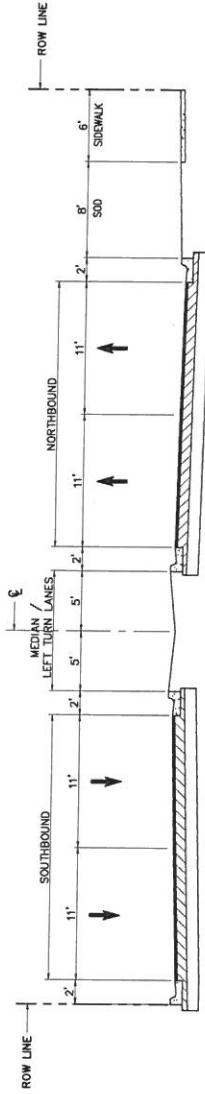


MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

PROJECT No. SHEET OF

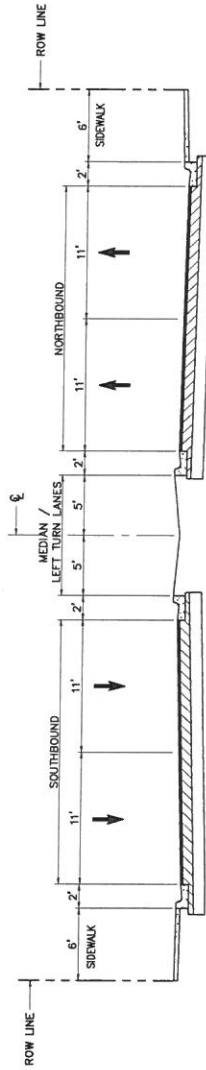
TYP-SEC PLAN
NW 87 AVE FROM NW 138 ST
TO NW 186 ST

A.G. DESIGN DATE
7/24/17



PROP. TYPICAL SECTION
 NW 97 AVE
 FROM NW 138 ST & NW 170 ST

REVISIONS DATE REV DESCRIPTION				MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS TRAFFIC ENGINEERING DIVISION		TYP-SEC PLAN NW 97 AVE FROM NW 138 ST TO NW 170 ST	
		PROJECT No.		SHEET OF		DESIGN A.G.	
						DATE 7/24/17	
T:\Vadegu\DRAWINGS\WTRA'S TYPICAL SECTIONS\ TYP-SEC 7 24 17.dwg							



PROP. TYPICAL SECTION
NW 107 AVE
FROM NW 138 ST & NW 170 ST

REVISIONS

DATE REV/DESCRIPTION

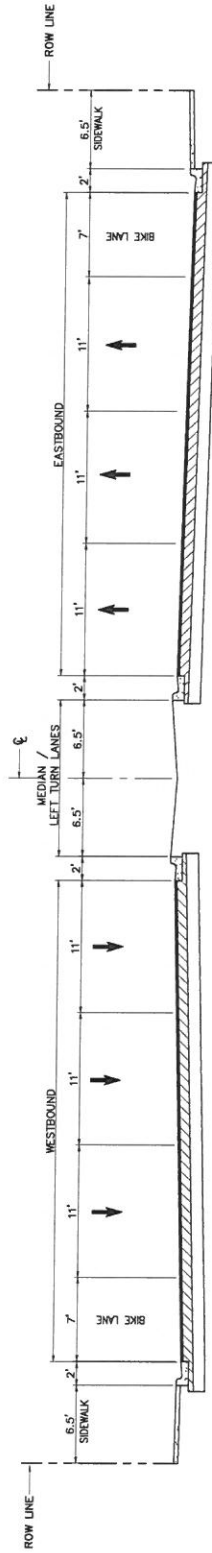


MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

PROJECT No. SHEET OF

TYP-SEC PLAN
NW 107 AVE FROM NW 138
ST TO NW 170 ST

A.G. DESIGN DATE
7/24/17



PROP. TYPICAL SECTION
NW 170 ST
 FROM TURNPIKE TO 97 AVE

REVISIONS

DATE REV/DESCRIPTION



MIAMI-DADE COUNTY
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC WORKS
 TRAFFIC ENGINEERING DIVISION

PROJECT No.

SHEET

OF

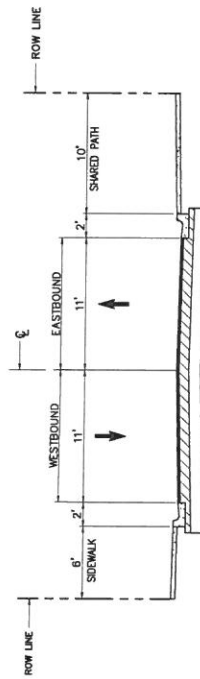
TYP-SEC PLAN
NW 170 ST FROM TURNPIKE
TO NW 97 AVE

A.G.

DESIGN

7/24/17

DATE



PROP. TYPICAL SECTION
NW 170 ST
FROM NW 97 AVE TO THE BRIDGE

REVISIONS

DATE	REV	DESCRIPTION

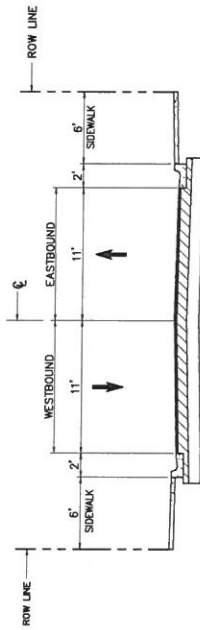


MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

PROJECT No. SHEET OF

TYP-SEC PLAN
NW 170 ST FROM NW 97 AVE
TO THE BRIDGE

DESIGN	DATE
A.G.	7/24/17



PROP. TYPICAL SECTION
NW 154 ST
FROM NW 107 AVE TO THE BRIDGE

REVISIONS	
DATE	REV DESCRIPTION

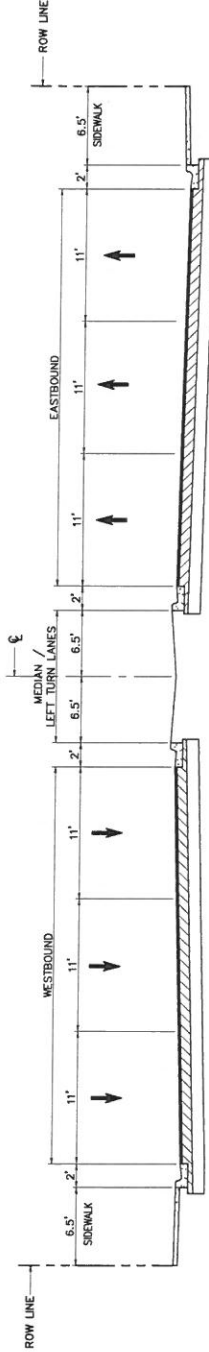


MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

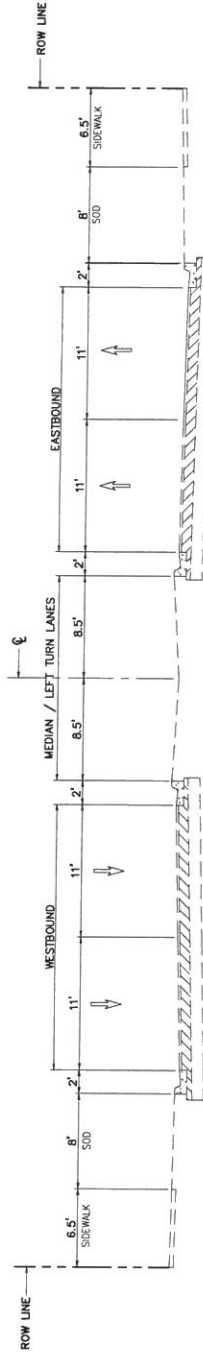
PROJECT No. SHEET OF

TYP-SEC PLAN
NW 154 ST FROM NW 107 AVE
TO THE BRIDGE

A.G.	7/24/17
DESIGN	DATE



PROP. TYPICAL SECTION
NW 186 ST
 FROM NW 87 AVE TO NW 82 AVE



EXIST. TYPICAL SECTION
NW 186 ST
 FROM NW 87 AVE TO NW 82 AVE

REVISIONS DATE REV DESCRIPTION				MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS TRAFFIC ENGINEERING DIVISION		TYP-SEC PLAN NW 186 ST FROM NW 87 AVE TO NW 82 AVE	
		PROJECT No.		SHEET OF		A.G. DESIGN DATE 7/24/17	