

2021
US 1 ARTERIAL TRAVEL TIME
AND DELAY STUDY
MONROE COUNTY, FLORIDA

Prepared for:

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TABLE OF CONTENTS

1.	EXECUTIVE SUMMARY.....	1
2.	INTRODUCTION.....	4
3.	MONROE COUNTY LEVEL OF SERVICE (LOS) AND RESERVE CAPACITY ASSESSMENT OVERVIEW.....	6
4.	DATA COLLECTION.....	8
5.	FIELD OBSERVATIONS.....	9
6.	RESULTS AND DISCUSSIONS.....	11
7.	SUMMARY.....	22

TABLES

TABLE 1 –	AVERAGE TRAVEL SPEEDS AND LEVELS OF SERVICE.....	2
TABLE 2 –	U.S. ROADWAY SEGMENTS.....	6
TABLE 3 –	US 1 TRAFFIC COUNTS – HISTORICAL COMPARISON.....	12
TABLE 4 –	DELAY DATA SUMMARY AND COMPARISON.....	18

FIGURES

FIGURE 1:	US 1 AADT – HISTORICAL COMPARISON.....	13
FIGURE 2:	US 1. HISTORICAL TRAFFIC GROWTH – AADT.....	14
FIGURE 3:	AVERAGE TRAVEL SPEEDS AND LEVELS OF SERVICE.....	16

APPENDICES

APPENDIX A -	DATA COLLECTION METHODOLOGY
APPENDIX B -	TRAVEL TIME DELAY DATA
APPENDIX C -	2021 TRAFFIC VOLUME SUMMARY
APPENDIX D -	HISTORICAL COUNT DATA
APPENDIX E -	2021 TRAVEL SPEED SUMMARY DATA AND STATISTICS
APPENDIX F -	COMPARISONS OF HISTORICAL TRAVEL SPEED DATA
APPENDIX G -	2021 LEVEL OF SERVICE AND RESERVE CAPACITY
APPENDIX H -	SUMMARY OF DELAY EVENTS
APPENDIX I -	2021 DATA COLLECTION SCHEDULE

1. EXECUTIVE SUMMARY

This report contains the results and findings of the 2021 Arterial Travel Time and Delay Study (ATTDS). The primary objective of this study is to determine the Level of Service (LOS) on US 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes, Monroe County Land Development Regulations and the Monroe County Comprehensive Plan. The study methodology was developed by the US 1 Level of Service Task Force in 1993. The methodology established a procedure for using travel speed as a means of assessing the LOS and reserve capacity for US 1. The study methodology was modified by the US 1 LOS Task Force in 1997 and 2021 (see Monroe County Resolution 64-2021 in Appendix A) to account for the latest changes in the Highway Capacity Manual (HCM).

Both Monroe County and the Florida Department of Transportation (FDOT) have adopted a LOS C Standard for US 1. Further, 45 miles per hour (mph) has been adopted as the LOS C Standard for the entire length of US 1 regardless of the posted speed limits. Under the adopted growth management process, if the overall LOS for US 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys, unless mitigation measures are proposed to address the LOS deficiencies.

The 2021 ATTDS results are presented in Table 1. It should be noted that the 2019 study was not adopted or used for development review. As such, the results of the 2017 ATTDS were included for comparison purposes.

**TABLE 1
AVERAGE TRAVEL SPEEDS AND LEVELS OF SERVICE**

Segment	Name of Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS 2017	LOS 2019	LOS 2021	Median Speed 2017	Median Speed 2019	Median Speed 2021
1	Stock Island	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	B	A	29.4	33.0	40.0
2	Boca Chica	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	B	A	59.6	55.8	59.9
3	Big Coppitt	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	B	46.6	46.1	47.5
4	Saddlebunch	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	B	C	B	53.3	52.0	53.5
5	Sugarloaf	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	A	48.3	48.1	48.8
6	Cudjoe	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	A	48.2	47.2	47.9
7	Summerland	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	B	45.0	45.2	46.1
8	Ramrod	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	B	A	A	46.1	46.7	46.5
9	Torch	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	27.5	29.5	A	A	A	47.7	48.1	48.8
10	Big Pine	N. Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	C	B	A	39.4	42.4	42.7
11	Bahia Honda	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	A	A	53.7	54.2	54.8
12	7-Mile Bridge	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	B	B	B	53.3	53.4	53.2
13	Marathon	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	A	37.9	37.9	39.6
14	Grassy	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	C	51.6	50.7	51.4
15	Duck	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	C	C	C	53.3	53.3	53.2
16	Long	Long Key Bridge (S)	Channel #2 Bridge (N)	63.0	73.0	C	B	C	50.5	52.0	49.9
17 ⁽²⁾	Lower Matecumbe	Channel #2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	C	C	C	49.8	49.6	48.2
18 ⁽¹⁾⁽²⁾	Tea Table	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	D	D	A	47.6	46.9	46.6
19 ⁽¹⁾	Upper Matecumbe	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	D	E	E	39.2	36.4	35.3
20 ⁽¹⁾	Windley	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	E	D	41.0	37.0	39.3
21 ⁽¹⁾⁽²⁾	Plantation	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	B	D	C	40.5	35.3	34.7
22	Tavernier	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	A	47.4	46.9	49.4
23	Key Largo	Atlantic Boulevard	C-905	99.5	106.0	A	A	A	44.4	44.2	45.0
24	Cross	C-905	County Line Sign	106.0	112.6	B	B	C	52.7	50.2	49.1
Overall				4.0	112.6	C	D	C	46.0	44.6	45.5

(1) - Village of Islamorada

(2) – Segments with Speed Limit Changes

Segments with NO Reserve Capacity

The overall travel speed on US 1 based on the 2021 ATTDS is 45.5 mph. The following is a brief summary of notable changes in 2021 travel speeds and LOS as compared to the 2019 and 2017 studies.

Comparison between 2021 and 2019 ATTDS Results:

- The median speeds in 9 of the 24 segments decreased, ranging from 0.1 mph to 2.1 mph.
- The median speeds in 15 of the 24 segments increased, ranging from 0.3 mph to 7.0 mph.
- The largest decrease in speed (-2.1 mph) was recorded in Segment #16 (Long – MM 63.0 to MM 73.0); the LOS changed from 'B' to 'C'.
- The largest increase in speed (7.0 mph) was recorded in Segment #1 (Stock Island – MM 4.0 to MM 5.0); the LOS changed from 'B' to 'A'.
- The largest change in LOS was recorded in Segment #18 (Tea Table – MM 77.5 to MM 79.5); the LOS changed from 'D' to 'A'.

Comparison between 2021 and 2017 ATTDs Results:

- The median speeds in 11 of the 24 segments decreased, ranging from 0.1 mph to 5.8 mph.
- The median speeds in 13 of the 24 segments increased, ranging from 0.2 mph to 10.6 mph.
- The largest decrease in speed (-5.8 mph) was recorded in Segment #21 (Plantation – MM 86.0 to MM 91.5); the LOS changed from ‘B’ to ‘C’.
- The largest increase in speed (10.6 mph) was recorded in Segment #1 (Stock Island – MM 4.0 to MM 5.0); the LOS changed from ‘B’ to ‘A’
- The largest change in LOS was recorded in Segment #18 (Tea Table – MM 77.5 to MM 79.5); the LOS changed from ‘D’ to ‘A’.

Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. The segments within the ‘area of concern’ are Duck (MM 60.5 to MM 63), Long (MM 63 to MM 73), Lower Matecumbe (MM 73.0 to MM 77.5), Cross (MM 106 to MM 112.5), and the 12-mile segment in the upper keys (three segments) starting from Upper Matecumbe (MM 79.5) to Plantation (MM 91.5); two of these segments (Upper Matecumbe and Windley) have no reserve capacity.

The following is a list of considerations for review:

- 1) Under the adopted growth management process, if the overall LOS for US 1 falls below the LOS C Standard, then no additional land development will be allowed unless mitigation measures are implemented. Roadway widening is a typical mitigation measure (or capacity improvement) used by most agencies. However, in Monroe County, road widening (specifically along US 1) is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other remedies that could be explored and evaluated to improve the traffic flow and capacity along US 1. Some examples include:
 - Upgrade the traffic signal infrastructure and/or signal timing at signalized intersections along US 1 to enhance traffic flow.
 - Provide or improve transit service or other multi-modal transportation alternatives.
 - Implement active traffic management and Transportation System Management & Operation type improvements, which include real-time monitoring of traffic flow and implementing measures to address traffic congestion.
 - Add turn lanes at strategic locations to improve roadway capacity.
 - Implement access management improvements (consolidate driveways/access points, modify median openings, etc.) to reduce interruptions to US 1 traffic.
 - Provide and/or improve frontage roads to reduce the impacts to US 1 traffic flow. Improve local roads to minimize US 1 being used as a local street for short trips.
 - Do not allow new traffic signals along US 1, if a safe and/or less restrictive alternative (such as indirect left-turns, a roundabout, etc.) can be provided to accommodate traffic movements.
 - Conduct speed studies on selected segments of US 1 to confirm if the current posted speed limits are correct and modify, if necessary.
- 2) This is the first Travel Time and Delay Study conducted after the COVID-19 pandemic. The traffic volumes appeared to be slightly lower compared to 2019 study and this may have slightly impacted travel times.

2. INTRODUCTION

Monroe County conducted travel time and delay studies along US 1 on an annual basis from 1991 to 2013; and on a biennial basis since 2013. The data collection for years 1991 through 1996 was conducted by the Monroe County Planning Department, with assistance from the Monroe County Engineering Department, and the Florida Department of Transportation (FDOT). URS and later AECOM have collected the data for years 1997 through 2021, on behalf of the Monroe County Planning Department with assistance from the agencies identified above. This report contains the travel time/delay data and findings for the year 2021.

The US 1 ATTD's primary objective is to monitor the level of service on US 1 for concurrency management purposes pursuant to Chapter 163, Florida Statutes, Section 114 of the Monroe County Land Development Regulations and the Monroe County Comprehensive Plan. Although US 1 is predominantly an uninterrupted two-lane roadway, the US 1 Level of Service Task Force felt that due to US 1's uniqueness, it warrants an alternative LOS evaluation process to that found in the Highway Capacity Manual (HCM).

The US 1 Level of Service Task Force was formulated in 1992 to develop a methodology for US 1 that utilizes an empirical relationship between the volume-based capacities and the speed-based LOS. The US 1 Level of Service Task Force was a multi-agency group with members from Monroe County, the Florida Department of Transportation, and the Department of Economic Opportunity (formerly known as Florida Department of Community Affairs - DCA). The methodology established by the task force is a procedure for using travel speed as a means of assessing the level of service and reserve capacity for US 1. Each member organization of the Task Force has endorsed the methodology.

The US 1 Level of Service Task Force met in 1997 to re-evaluate the LOS procedure. After several meetings, the Task Force concluded that the speed-based LOS methodology should be used to assess the LOS along US 1 in Monroe County, with a minor change. The signal delay for LOS C was increased to 25 seconds from 15 seconds to account for changes in the HCM. The study methodology was modified again by the US 1 LOS Task Force in 2021 and the signal delay for LOS C was increased to 35 seconds from 25 seconds to account for the latest changes in the HCM. A copy of the current methodology titled "[A Methodology to Assess Level of Service on US 1 in the Florida Keys](#)"- January 2021, is included in Appendix A. Another change made by the 2021 US 1 Level of Service Task Force includes how the drawbridge delay is considered in the LOS calculations. Please refer to Appendix A for additional details.

Pursuant to Section 114-2(a)(1)(a) of the Land Development Code (LDC), US 1 shall have sufficient available capacity to operate at LOS C for the overall length and the 24 roadway segments of US 1, as measured by the US 1 Level of Service Task Force Methodology. In addition, all segments of US 1, as identified in the US 1 Level of Service Task Force Methodology, which would be impacted by a proposed development's access to US 1, shall have sufficient available capacity to operate at LOS C. Section 114-2(a)(1)(b) of the LDC states, development may be approved, provided that the development in combination with all other permitted developments will not decrease travel speed by more than five percent (5%) below LOS C, as measured by the US 1 Level of Service Task Force Methodology. While development may be approved within 5% of LOS C, the proposed development shall be considered to have an impact that needs mitigation. Development mitigation may be in the form of specific improvements or proportioned shared contribution towards improvements and strategies identified by

the County, and/or FDOT to address any level of service degradation beyond LOS C and/or other potential deficiencies.

Although there has never been a countywide development restriction, Big Pine Key experienced a localized development restriction between 1994 and 2002.

Following the 2012 LOS evaluation, the Monroe County Board of County Commissioners (BOCC) directed the planning staff to re-write the LDC to remove the segment-based development restriction, but after further consideration between the BOCC and County staff, it was not implemented. In 2016 Monroe County adopted the 2030 Comprehensive Plan and its implementing Land Development Code which maintained the overall and segment based LOS for transportation concurrency.

3. MONROE COUNTY LEVEL OF SERVICE (LOS) AND RESERVE CAPACITY ASSESSMENT OVERVIEW

US 1 (Overseas Highway) is the only principal arterial serving residents and visitors in the Keys. The unique geography, land use patterns and trip making characteristics of the Florida Keys present a challenge in developing and applying a reasonable and acceptable method to assess LOS.

Although US 1 in the Florida Keys is predominantly an uninterrupted, two-lane roadway, its uniqueness warrants an alternative LOS evaluation process to the methodology provided in the Highway Capacity Manual.

A uniform method was developed in 1992 by the US 1 Level of Service Task Force to assess the level of service on US 1, then amended in 1997 and 2021 to be consistent with current HCM. The adopted method considers both the overall level of service from Key West to the mainland, and the level of service for 24 segments (See Table 2). The original methodology was developed from basic criteria and principles contained in Chapter 7 (Rural Multilane Highways), Chapter 8 (Rural Two-Lane Highways) and Chapter 11 (Urban and Suburban Arterials) of the Highway Capacity Manual. The methodology establishes a procedure for using travel speed as a means of assessing the level of service and reserve capacity for US 1 in the Florida Keys.

**TABLE 2
US 1 ROADWAY SEGMENTS**

SEG NO.	APPROXIMATE MILE - MARKER		CONTROL POINTS		KEY(S)
	Beginning	Ending	Beginning	Ending	
1	4.0	5.0	Cow Key Bridge (N)	Key Haven Boulevard	Stock Island, Key Haven
2	5.0	9.0	Key Haven Boulevard	Rockland Drive	Boca Chica, Rockland
3	9.0	10.5	Rockland Drive	Boca Chica Road	Big Coppitt
4	10.5	16.5	Boca Chica Road	Harris Channel Bridge (N)	Shark, Saddlebunch
5	16.5	20.5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	Lower Sugarloaf, Upper Sugarloaf
6	20.5	23.0	Bow Channel Bridge (N)	Spanish Main Drive	Cudjoe
7	23.0	25.0	Spanish Main Drive	East Shore Drive	Summerland
8	25.0	27.5	East Shore Drive	Torch-Ramrod Bridge (S)	Ramrod
9	27.5	29.5	Torch-Ramrod Bridge (S)	N. Pine Channel Bridge (N)	Torch
10	29.5	33.0	N. Pine Channel Bridge (N)	Long Beach Drive	Big Pine
11	33.0	40.0	Long Beach Drive	7- Mile Bridge (S)	W. Summerland, Bahia Honda, Ohio
12	40.0	47.0	7- Mile Bridge (S)	7- Mile Bridge (N)	7-Mile Bridge
13	47.0	54.0	7- Mile Bridge (N)	Cocoa Plum Drive	Marathon, Key Colony Beach
14	54.0	60.5	Cocoa Plum Drive	Toms Harbor Ch Bridge (S)	Fat Deer Crawl, Grassy
15	60.5	63.0	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	Duck, Conch
16	63.0	73.0	Long Key Bridge (S)	Channel # 2 Bridge (N)	Long, Fiesta, Craig
17	73.0	77.5	Channel #2 Bridge (N)	Lignum Vitae Bridge (S)	Lower Matecumbe
18	77.5	79.5	Lignum Vitae Bridge (S)	Tea Table Relief Bridge (N)	Fill
19	79.5	84.0	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	Upper Matecumbe
20	84.0	86.0	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	Windley
21	86.0	91.5	Snake Creek Bridge (N)	Ocean Boulevard	Plantation
22	91.5	99.5	Ocean Boulevard	Atlantic Boulevard	Key Largo
23	99.5	106.0	Atlantic Boulevard	C-905	Key Largo
24	106.0	112.5	C-905	County Line Sign	Key Largo, Cross Key

NOTE: (N) and (S) refer to the north and south ends of the bridges, respectively

The travel speeds for the entire 108-mile stretch of US 1 and the 24 individual segments are measured by conducting travel time runs during the peak season. The peak season, for the purpose of this study, has been established by the Task Force as the six-week window beginning the second week of February and ending the fourth week of March.

Overall speeds reflect the traffic conditions experienced by motorists making long distance trips or traffic traveling the entire length of the Keys. Given that US 1 is the only principal arterial in unincorporated Monroe County, the movement of long-distance traffic is an important consideration.

Both Monroe County and the FDOT have adopted a LOS C standard for US 1. Regardless of the posted speed limit, 45 mph has been adopted as the LOS C Standard for the entire length of US 1. Under the adopted growth management process, if the overall LOS for US 1 falls below the LOS C Standard, then no additional land development will be allowed in the Florida Keys unless mitigation measures are implemented.

Segment speeds are the speeds recorded within the individual segments of US 1. The segments were defined by the Task Force to reflect roadway cross-sections, speed limits, and geographical boundaries. Segment speeds reflect the conditions experienced during local trips. Given that US 1 serves as the principal arterial in the Keys, the movement of local traffic is also an important consideration.

LOS is determined for individual segments by comparing the weighted average posted speed limits with the median travel speeds. The difference between the segment travel speed and the LOS C Standard is referred to as reserve speed. The reserve speed is converted to an estimated reserve capacity of additional traffic volume. If the travel speed falls below the LOS C Standard, additional trips equivalent to 5% of LOS C capacity can be allowed, to accommodate a limited amount of development to continue until traffic speeds are measured again the following year or until remedial actions are implemented. While development may be approved within 5% of LOS C, the proposed development shall be considered to have an impact that needs mitigation.

4. DATA COLLECTION

The field data collection took place between March 7, 2021 and March 20, 2021. The data was recorded by date, day of the week, time of the day, and direction of travel. Fourteen (14) round trips were made to complete the required 28 travel time runs. These runs represent a sample of two runs for each day of the week. The data collection methodology and the data collected are presented in Appendices A and B, respectively. The seven-day, 24-hour traffic data was collected in Islamorada, Marathon, and Big Pine Key from March 15, 2021 to March 21, 2021, concurrently with the travel time runs. The volume data is provided in Appendix C.

The field studies employed a staggered schedule of departure times previously approved by the Task Force to capture peak hour conditions in as many different locations as possible during the approximately 2.5-hour one-way trip between Key West and the mainland. The staggered schedule of departure also helps to capture the varied trip purposes and time frames within the Keys.

In addition, supplemental travel time runs were conducted (as required by the 2021 US 1 LOS Methodology Update) between March 17, 2021 and March 19, 2021 in the four southernmost segments to better reflect AM and PM peak conditions associated with traffic entering and exiting the City of Key West. It should be noted that the results of the supplemental runs are included in this ATTDS Report for informational purposes only and are not used in the LOS calculations. This information will be reviewed in the future to decide if supplemental runs should be incorporated into future ATTDS and LOS calculations, as directed by the Monroe County BOCC.

5. FIELD OBSERVATIONS

Traffic Signals

There are 16 traffic signals, two flashing signals, seven emergency signals, one drawbridge signal, one Pedestrian Hybrid Beacon (PHB) and two pedestrian signals along the study corridor:

<u>LOCATION</u>	<u>APPROX. MILE MARKER</u>	<u>SEGMENT</u>
College Road	4.4	1
Cross Street	4.6	1
McDonald Avenue	4.8	1
3 rd Street (Flashing Signal)	4.9	1
Emerald Drive (Emergency Signal)	10.5	3
Sugarloaf Boulevard (Flashing Signal)	10.5	5
Crane Boulevard	19.5	5
Key Deer Boulevard	30.3	10
33 rd Street	48.5	13
Sombrero Beach Road	50.0	13
89 th Street (Emergency Signal)	51.7	13
107 th Street	52.4	13
109 th Street	52.5	13
Pedestrian Crossing – 121 st Street	53.0	13
Sadowski Causeway	53.5	13
Coco Plum Drive	54.0	13/14
Layton Drive (Emergency Signal)	68.4	16
Snake Creek Bridge (Drawbridge Signal)	85.7	20
Woods Avenue	90.0	21
Bessie Road	90.5	21
Ocean Boulevard	91.5	21/22
Jo-Jean Way (Emergency Signal)	92.0	22
Fisherman’s Trail (Emergency Signal)	99.1	22
East Drive (Emergency Signal)	99.2	22
Ocean Bay Drive/Atlantic Boulevard	99.5	22/23
Pedestrian Crossing (PHB) – Bay Drive	99.8	23
Tarpon Basin Drive	101.0	23
Pedestrian Crossing – Bowen Drive	105.0	23
CR-905 (Emergency Signal)	106.5	23/24

As it was done in the past, only a partial impact of the signal was considered for the pedestrian signals mentioned above. The delays associated with traffic signals located at the beginning or end of segments, such as Coco Plum Drive, Ocean Boulevard and Atlantic Boulevard intersections, are divided between the two adjacent segments.

The three closely-spaced signalized intersections in Stock Island (Segment 1) were observed to experience fewer delay events (13 in 2021 vs. 45 in 2017) and reduced total delay (7 minutes and 3 seconds in 2021 vs. 22 minutes and 6 seconds in 2017) as compared to 2017.

The six signalized intersections in Marathon (Segment 13) were observed to experience fewer events and reduced total delay as compared to 2017. The number of delay events decreased to 37 in 2021 vs. 57 in 2017. The total delay time caused by these signals was 15 minutes and 21 seconds in 2021 as compared to 25 minutes and 24 seconds in 2017.

The three closely-spaced traffic signals in Stock Island (Segment 1) were observed to experience fewer delay events (13 in 2021 vs. 19 in 2019), and reduced total delay (7 minutes and 3 seconds in 2021 vs. 26 minutes and 49 seconds in 2019) as compared to 2019.

The six traffic signals in Marathon (Segment 13) were observed to experience fewer events and reduce total delay as compared to 2019. The number of delay events decreased to 37 in 2021 vs. 42 in 2019. The total delay time caused by these signals was 15 minutes and 21 seconds in 2021 as compared to 22 minutes and 59 seconds in 2019.

Signal retiming studies were performed by FDOT in April 2019 that included all 16 Monroe County traffic signals. It is possible that the signal retiming effort may have contributed to the reduction in signal delay events and overall delay in 2021.

Traffic Counts

Mechanical traffic counters and hoses were installed on March 15, 2021 along US 1 at the following locations:

- Big Pine Key, on the south side of the North Pine Channel Bridge (MM 29);
- Marathon, in front of McDonalds (MM 50);
- Upper Matecumbe, on the south side of the Whale Harbor Bridge (MM 84).

As compared to the volumes collected in 2019 and 2017, the traffic volumes collected in 2021 were found to be higher in Big Pine and Upper Matecumbe Keys, but lower in Marathon Key (see Table 3). Additional traffic data was collected to identify localized differences in traffic volumes in Big Pine Key. Please see Appendix C for a summary of this data.

6. RESULTS AND DISCUSSIONS

Traffic Volumes

US 1 is predominately a four-lane facility in Marathon and a two-lane facility in Upper Matecumbe and Big Pine Key. Seven-day continuous traffic counts recorded between March 15 and March 21, 2021 at these three locations along US 1 yielded the following average daily traffic (ADT) and annual average daily traffic (AADT) volumes. The volume data for the 5-day and 7-day is the average of the raw volumes collected. The 7-day average volumes have been adjusted using seasonal and axle factors to estimate the 2021 AADTs. Traffic data summaries are included in Appendix C.

<u>Location</u>	<u>5-Day ADT</u>	<u>7-Day ADT</u>	<u>AADT</u>
Big Pine Key (MM 29)	22,799	22,009	19,427
Marathon (MM 50)	38,262	36,739	32,430
Upper Matecumbe (MM 84)	26,152	26,908	23,751

The 2021 AADT increased in Big Pine (1.99%) and Upper Matecumbe (3.07%) Keys but decreased in Marathon Key (-6.30%) compared to 2017.

Similarly, the 2021 AADT increased in Big Pine (3.59%) and Upper Matecumbe (6.48%) Keys but decreased in Marathon Key (-11.67%) as compared to 2019. A detailed historical comparison of the US 1 traffic counts for the period from 1996 to 2021 is presented in Appendix D. A comparison of the most recent data (2009 to 2021) is presented in Table 3 and represented graphically in Figure 1.

US 1 historical traffic growth is depicted in a regression analysis graph in Figure 2. A linear regression analysis of the AADT at each of the three locations over the last 25 years indicates that there is a slight increase in overall traffic growth at the Marathon and Upper Matecumbe count locations, and an overall decreasing trend in traffic volumes for the Big Pine count location (but the last 13-year data shows an increasing trend).

Overall Speeds

The Level of Service (LOS) criteria for overall speeds on US 1 in Monroe County, as adopted by the Task Force, is as follows:

LOS A	51.0 mph or above
LOS B	50.9 mph to 48 mph
LOS C	47.9 mph to 45 mph
LOS D	44.9 mph to 42 mph
LOS E	41.9 mph to 36 mph
LOS F	below 36 mph

Both Monroe County and the FDOT have adopted a LOS C standard for US 1.

**TABLE 3
US 1 TRAFFIC COUNTS – HISTORICAL COMPARISON**

	2011		2012		2013		2015		2017		2019		2021	
	Count	% Change												
Big Pine														
5 – Day Average	20,468	-0.88%	21,056	2.87%	20,986	-0.33%	22,833	8.80%	21,915	-4.02%	22,408	2.25%	22,799	1.74%
7 – Day Average	20,070	-0.22%	20,579	2.53%	20,066	-2.49%	22,106	10.17%	21,595	-2.31%	21,722	0.59%	22,009	1.32%
AADT	17,684	-0.88%	18,011	1.85%	17,943	-0.38%	20,139	12.24%	19,047	-5.42%	18,753	-1.54%	19,427	3.59%
Marathon														
5 – Day Average	32,156	0.85%	34,145	6.19%	34,097	-0.14%	38,824	13.86%	39,382	1.44%	43,041	9.29%	38,262	-11.10%
7 – Day Average	31,097	1.79%	32,985	6.07%	32,783	-0.61%	38,144	16.35%	39,239	2.87%	42,530	8.39%	36,739	-13.62%
AADT	27,782	0.85%	29,208	5.13%	29,153	-0.19%	34,243	17.46%	34,609	1.07%	36,716	6.09%	32,430	-11.67%
Upper Matecumbe														
5 – Day Average	24,326	7.69%	24,561	0.97%	23,656	-3.68%	26,079	10.24%	25,598	-1.84%	25,856	1.01%	26,152	1.14%
7 – Day Average	24,508	8.27%	24,936	1.75%	23,164	-7.11%	25,817	11.45%	26,126	1.20%	25,837	-1.11%	26,908	4.15%
AADT	21,017	7.69%	21,009	-0.04%	20,226	-3.73%	23,002	13.72%	23,043	0.18%	22,305	-3.20%	23,751	6.48%

Figure 1: U.S. 1 AADT - HISTORICAL COMPARISON

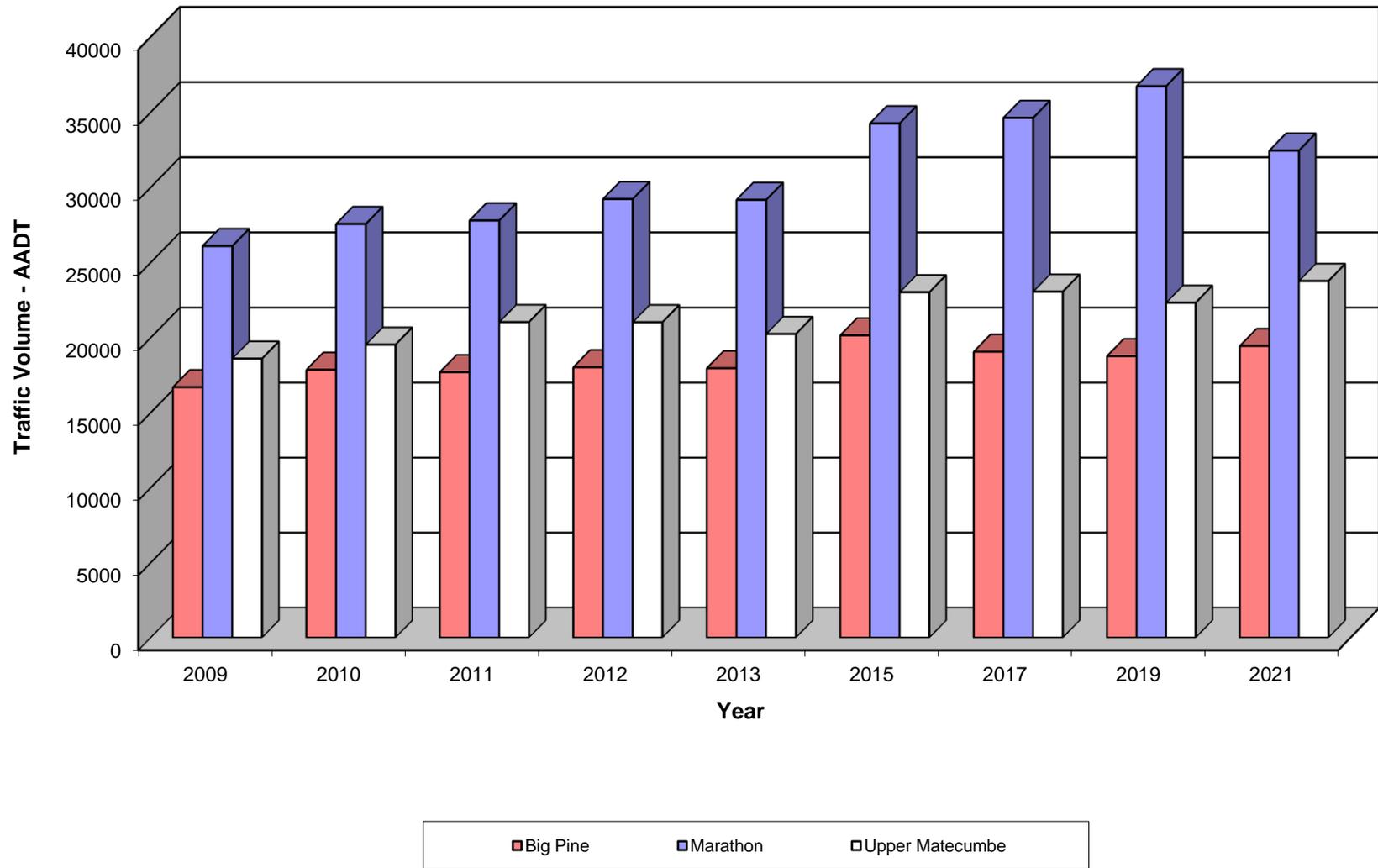
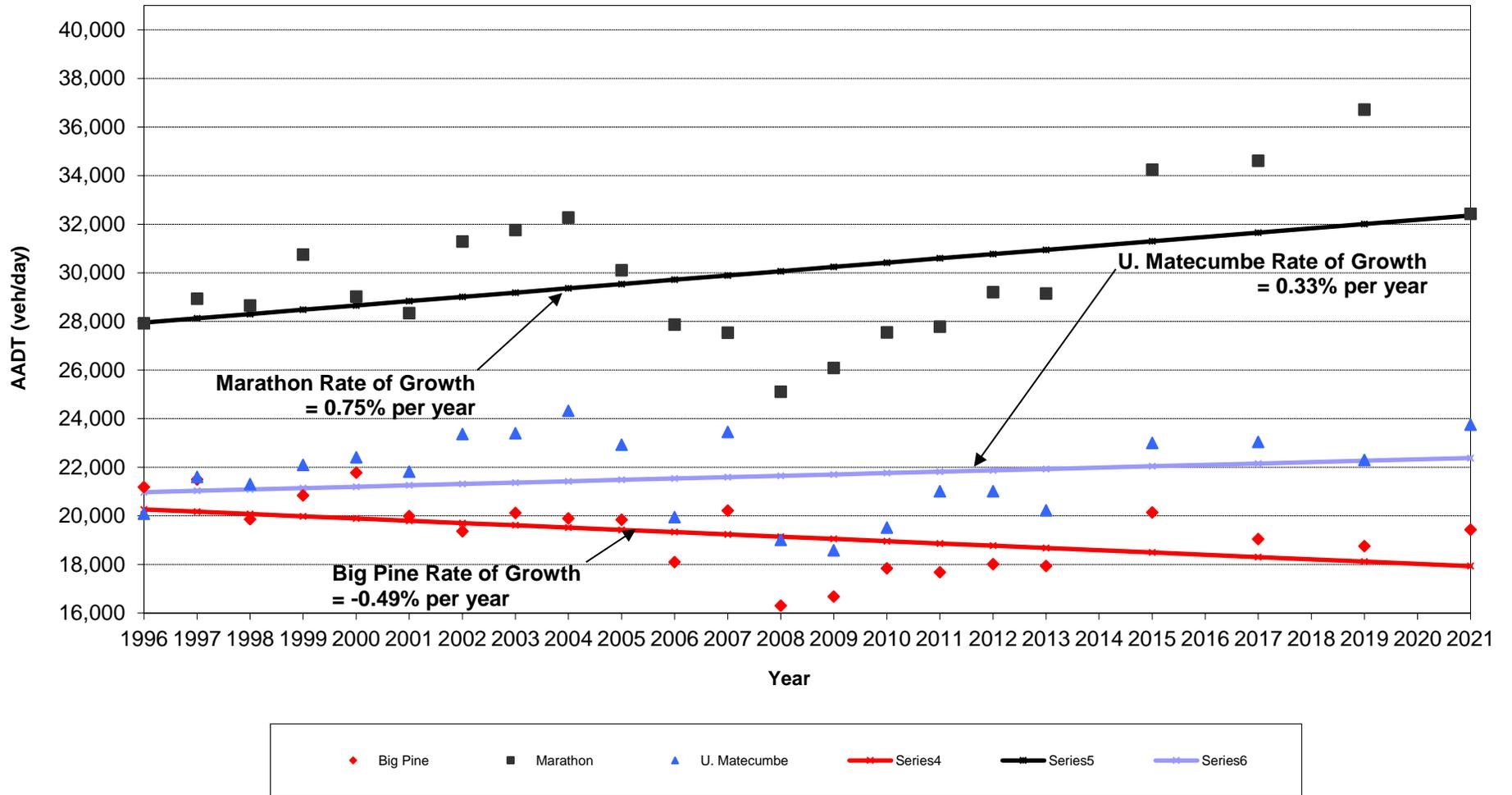


Figure 2: U.S. 1 Historical Traffic Growth AADT



The overall median speed during the 2021 ATTDS was 45.5 mph, which is 0.9 mph higher than the 2019 median speed of 44.6 mph, and 0.5 mph lower than the 2017 median speed of 46 mph. The median speed corresponds to LOS C. The highest overall speed recorded during the 14-day ATTDS was 49.6 mph (0.9 mph lower than the 2019 highest overall speed of 50.5 mph), which occurred on Monday, March 15, 2021 in the southbound direction. The lowest overall speed recorded was 35.5 mph (2.3 mph lower than the 2019 lowest overall speed of 37.8 mph), which occurred on Saturday, March 20, 2021 in the southbound direction. The 2021 travel speed data is summarized in Appendix E. See Appendix F for comparisons of speed data from the 2021 study to previous years data.

Segment Speeds

Segment speeds are the speeds recorded within individual segments of US 1. Segment speeds reflect the conditions experienced during local trips. Given that US 1 serves as the main arterial in the Keys, the movement of local traffic along US 1 is also an important consideration on this multi-purpose roadway.

The level of service criteria for segment speeds on US 1 in Monroe County depends on the flow characteristics and the posted speed limits within the given segment. The criteria, listed by type of flow characteristic, are explained in the LOS Methodology provided in Appendix A, and summarized below.

Interrupted Flow

LOS A \geq 35 mph

LOS B \geq 28 mph

LOS C \geq 22 mph

LOS D \geq 17 mph

LOS E \geq 13 mph

LOS F $<$ 13 mph

Uninterrupted Flow

LOS A \geq 1.5 mph above the posted speed limit

LOS B \geq 3.0 mph below LOS A

LOS C \geq 6.0 mph below LOS A

LOS D \geq 9.0 mph below LOS A

LOS E \geq 15.0 mph below LOS A

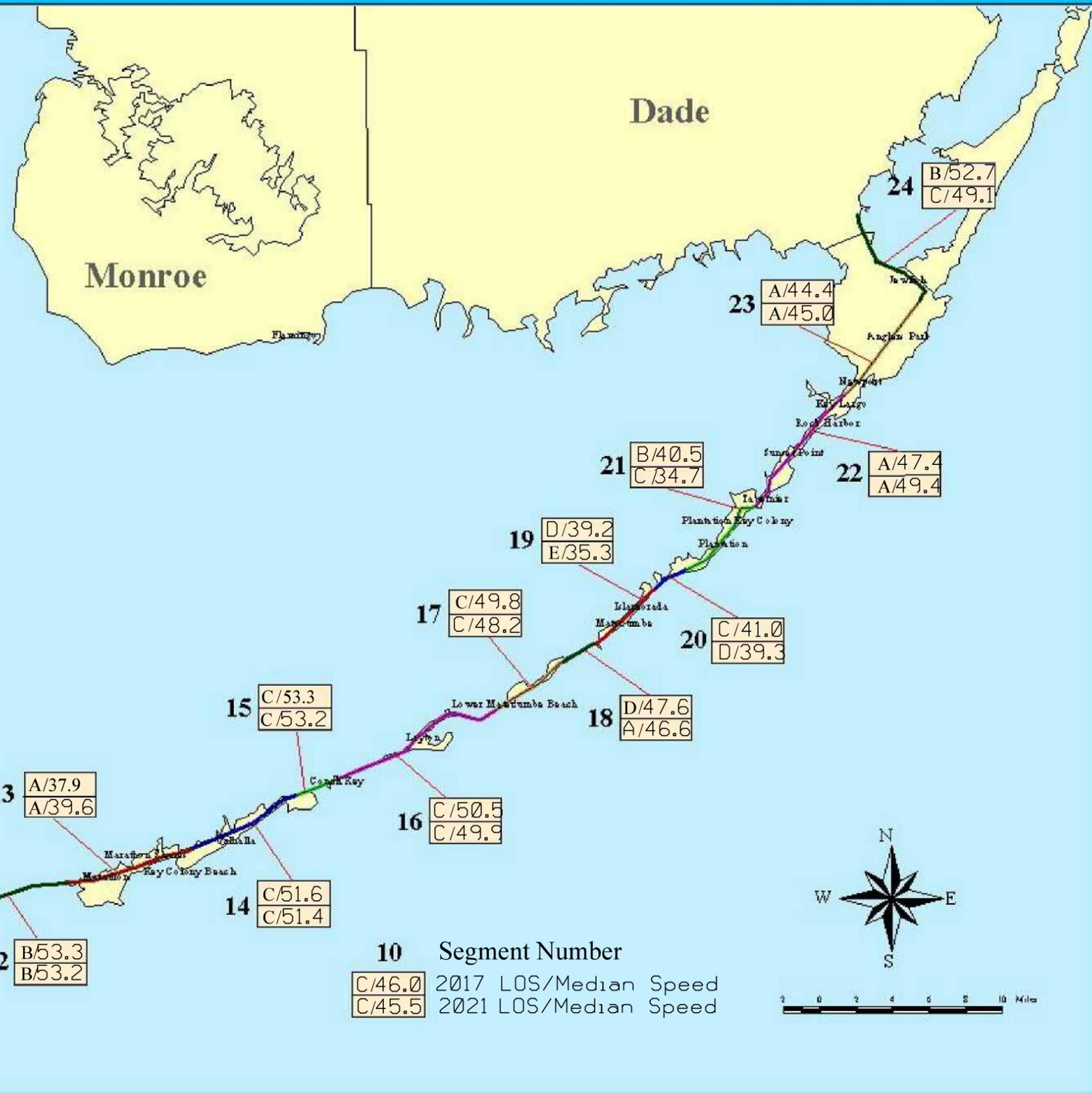
LOS F $<$ 15.0 mph below LOS A

For all “uninterrupted” segments containing isolated traffic signals, the travel times were reduced by 35 seconds per signalized intersection and 3 seconds per pedestrian signal to account for delay due to signals. The Marathon and the Stock Island segments are considered “interrupted” flow facilities, which are evaluated using the interrupted flow LOS criteria shown above. Therefore, no adjustments (to account for delay at signals) were made to travel times in these segments.

The segment limits, median travel speeds, and Level of Service (for 2017 and 2021) for each segment are presented in Figure 3. The median segment speed ranged from 59.9 mph in the Boca Chica segment to 34.7 mph in the Plantation segment. The following is a summary of LOS changes, as compared to 2017:

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Segment	Beginning Control Point	Ending Control Point	Beginning Mile Marker	Ending Mile Marker	LOS 17	LOS 21	Median Speed 17	Median Speed 21
1	Cow Key Bridge (N)	Key Haven Boulevard	4.0	5.0	B	A	29.4	40.0
2	Key Haven Boulevard	Rockland Drive	5.0	9.0	A	A	59.6	59.9
3	Rockland Drive	Boca Chica Road	9.0	10.5	B	B	46.6	47.5
4	Boca Chica Road	Harris Channel Bridge (N)	10.5	16.5	B	B	53.3	53.5
5	Harris Channel Bridge (N)	Bow Channel Bridge (N)	16.5	20.5	A	A	48.3	48.8
6	Bow Channel Bridge (N)	Spanish Main Drive	20.5	23.0	A	A	48.2	47.9
7	Spanish Main Drive	East Shore Drive	23.0	25.0	B	B	45.0	46.1
8	East Shore Drive	Torch-Ramrod Bridge (S)	25.0	27.5	B	A	46.1	46.5
9	Torch-Ramrod Bridge (S)	N.Pine Channel Bridge (N)	27.5	29.5	A	A	47.7	48.8
10	N.Pine Channel Bridge (N)	Long Beach Drive	29.5	33.0	C	A	39.4	42.7
11	Long Beach Drive	7-Mile Bridge (S)	33.0	40.0	B	A	53.7	54.8
12	7-Mile Bridge (S)	7-Mile Bridge (N)	40.0	47.0	B	B	53.3	53.2
13	7-Mile Bridge (N)	Coco Plum Drive	47.0	54.0	A	A	37.9	39.6
14	Coco Plum Drive	Toms Harbor Ch Bridge (S)	54.0	60.5	C	C	51.6	51.4
15	Toms Harbor Ch Bridge (S)	Long Key Bridge (S)	60.5	63.0	C	C	53.3	53.2
16	Long Key Bridge (S)	Channel #2 Bridge (N)	63.0	73.0	C	C	50.5	49.9
17	Channel #2 Bridge (N)	Lignumvitae Bridge (S)	73.0	77.5	C	C	49.8	48.2
18	Lignumvitae Bridge (S)	Tea Table Relief Bridge (N)	77.5	79.5	D	A	47.6	46.6
19	Tea Table Relief Bridge (N)	Whale Harbor Bridge (S)	79.5	84.0	D	E	39.2	35.3
20	Whale Harbor Bridge (S)	Snake Creek Bridge (N)	84.0	86.0	C	D	41.0	39.3
21	Snake Creek Bridge (N)	Ocean Boulevard	86.0	91.5	B	C	40.5	34.7
22	Ocean Boulevard	Atlantic Boulevard	91.5	99.5	A	A	47.4	49.4
23	Atlantic Boulevard	C-905	99.5	106.0	A	A	44.4	45.0
24	C-905	County Line Sign	106.0	112.6	B	C	52.7	49.1
Overall			4.0	112.6	C	C	46.0	45.5



Average Travel Speeds And Levels Of Service

2021 Travel Time Delay Study

Figure 3



SOURCE(5): Florida Department of Transportation Transportation Statistics Office; URS Consultants, Inc.



10 E Broward Boulevard, Ste 700
Fort Lauderdale, FL 33301

There were LOS changes in 9 segments in 2021 study compared to the 2017 study – the LOS for five segments have improved, and the LOS for four segments have degraded.

- Stock Island segment (1) changed from LOS ‘B’ to LOS ‘A’
- Ramrod segment (8) changed from LOS ‘B’ to LOS ‘A’
- Big Pine segment (10) changed from LOS ‘C’ to LOS ‘A’
- Bahia Honda segment (11) changed from LOS ‘B’ to LOS ‘A’
- Tea Table segment (18) changed from LOS ‘D’ to LOS ‘A’- Village of Islamorada
- Upper Matecumbe segment (19) changed from LOS ‘D’ to LOS ‘E’- Village of Islamorada
- Windley segment (20) changed from LOS ‘C’ to LOS ‘D’ - Village of Islamorada
- Plantation segment (21) changed from LOS ‘B’ to LOS ‘C’- Village of Islamorada
- Cross segment (24) changed from LOS ‘B’ to LOS ‘C’

<u>LOS A</u>	<u>LOS B</u>	<u>LOS C</u>	<u>LOS D</u>	<u>LOS E</u>
(+) Stock Island (1)		(-) Plantation (21)	(-) Windley (20)	(-) U. Matecumbe (19)
(+) Ramrod (8)		(-) Cross (24)		
(+) Big Pine (10)				
(+) Bahia Honda (11)				
(+) Tea Table (18)				

Compared to 2017 results, the median segment speeds increased in 13 of the 24 segments, ranging between 0.2 mph and 10.6 mph, and decreased in 11 segments, ranging from -0.1 mph to -5.8 mph.

The largest increase in speed (+10.6 mph) was recorded in Segment # 1 (Stock Island – MM 4.0 to MM 5.0); The largest reduction in speed (-5.8 mph) was recorded in Segment # 21 (Plantation – MM 86.0 to MM 91.5).

Compared to 2019 results, the LOS increased in seven of the 24 segments, and decreased in two segments. The LOS did not change in the remaining segments. The most significant LOS changes recorded in Segments # 18 (Tea Table – MM 77.5 to MM 79.5; LOS changed from ‘D’ to LOS ‘A’), # 20 (Windley – MM 84.0 to MM 86.0; LOS changed from ‘D’ to LOS ‘C’), # 21 (Plantation – MM 86.0 to MM 91.5; LOS changed from ‘D’ to LOS ‘C’), # 16 (Long – MM 63.0 to MM 73.0; LOS changed from ‘B’ to LOS ‘C’), and # 24 (Cross – MM 106.0 to MM 112.5; LOS changed from ‘B’ to LOS ‘C’).

Compared to 2019 results, the median segment speeds increased in 15 of the 24 segments, ranging between 0.3 mph and 7.0 mph, and decreased in nine segments, ranging from -0.1 mph to -2.1 mph. The largest increase in speed (+7.0 mph) was recorded in Segment # 1 (Stock Island – MM 4.0 to MM 5.0); The largest reduction in speed (-2.1 mph) was recorded in Segment # 16 (Long – MM 63.0 to MM 73.0).

Detailed summary tables of these measured travel speeds by day, segment, and fourteen-day average are contained in Appendix E.

Supplemental Travel Time Runs

Supplemental travel time runs were conducted (as required by the 2021 US 1 LOS Methodology Update) between March 17, 2021 and March 19, 2021 in the four southernmost segments to better reflect AM and PM peak conditions associated with traffic entering and exiting the City of Key West. The supplemental runs indicate that the travel speeds in Segment 1 and 3 are relatively lower during peak hours, as compared to the travel speeds measured during travel time runs conducted using the

staggered schedule. As such, the peak hour LOS for these segments is also lower. Segment 1 had LOS B during peak hour as compared to LOS A. Segment 3 had LOS D during peak hours as compared to LOS B. It should be noted that Segment 3 was only 0.1 mph below the LOS C speed criteria. The LOS for Segments 2 and 4 remained unchanged (LOS A for segment 2 and LOS B for segment 4). A summary table of measured travel speeds by day, segment and three-day average from the supplemental travel runs are also included in Appendix E. It should be noted that the results of the supplemental runs are included in this ATTDS Report for informational purposes only and are not used in the LOS calculations. This information will be reviewed in the future to decide if supplemental runs should be incorporated into future ATTDS and LOS calculations, as directed by the Monroe County BOCC.

Delay

A delay event starts whenever the speed of the test vehicle falls below 5 mph. The delay event continues until the test vehicle's speed increases to 15 mph. During the study, the observers encountered a total of 255 separate delay events. Thirty-eight (38) of these delay events, resulting in 3 hours 4 minutes and 38 seconds, were excluded from the overall and the segment travel time calculations. The excluded delays were caused by non-recurring events, such as accidents and roadside construction.

A detailed listing of the specific sources of delay is included in Appendix H of this report. A summary of the delay data (as compared to 2017 data), is provided in Table 4. The mean delay per trip is the total delay recorded for a given delay event divided by the study's 28 one-way trips. The mean delay per trip is found to be 13 minutes and 41 seconds.

**TABLE 4
DELAY DATA SUMMARY AND COMPARISON**

Delay Source	Number of Events		Total Delay		Excluded Time		Mean Delay Per Event		Mean Delay Per Trip	
	2021	(2017)	2021	(2017)	2021	(2017)	2021	(2017)	2021	(2017)
Traffic Signals	124	213	01:00:08	02:10:29	00:00:00	00:00:00	00:29	00:36	02:09	04:30
Drawbridges	2	0	00:12:00	00:00:00	00:12:00	00:00:00	06:00	00:00	00:26	00:00
Congestion	87	64	02:16:39	03:16:44	00:00:00	00:00:00	01:34	03:04	04:53	07:02
Left Turns	5	18	00:01:20	00:04:44	00:00:00	00:00:00	00:16	00:16	00:03	00:10
Right Turns	1	3	00:00:13	00:00:35	00:00:00	00:00:00	00:13	00:12	00:00	00:01
School Bus	9	12	00:03:14	00:05:09	00:03:14	00:05:09	00:22	00:26	00:07	00:11
Construction	10	0	02:14:56	00:00:00	02:14:56	00:00:00	13:30	00:00	04:49	00:00
Accidents	15	1	00:33:29	00:02:56	00:33:29	00:02:56	02:14	02:56	01:12	00:06
School Zones	1	9	00:00:42	00:08:24	00:00:42	00:08:24	00:42	00:56	00:01	00:18
Special Event	1	11	00:00:17	00:33:51	00:00:17	00:33:51	00:17	3:05	00:01	01:13
Total	255	331	06:22:59	06:22:52	03:04:38	00:50:20	01:30	00:01:09	13:41	13:36

Signal Delays

The second largest recurring delay was caused by traffic signals. During the 2021 study, 124 observable signal delay events were noted in the vicinity of the signalized intersections as compared to 213 delay events in 2017. Traffic signals resulted in a total delay of 1 hour in 2021, as compared to 2 hours and 10 minutes in 2017. Some notable observations related to signal delay during the 2021 study are provided below:

- The mean delay per event for signals in Segments # 10 and 22 was higher than the LOS C threshold value of 35 seconds (deducted as per the methodology).
- The average signal delay per trip for Segments # 10 and 22 was lower (18 seconds) than the 35 second threshold.
- The signal at Atlantic Boulevard (Segment # 22/23) caused the most delay, 14 minutes and 36 seconds, (from a total of 20 delay events), which accounted for 24% of the total signal delay.
- The signal at Tarpon Basin Drive in Key Largo (Segment # 23) caused the second highest delay (from a total of 14 delay events), which accounted for 11% of the total signal delay.
- The Marathon segment (Segment # 13) experienced the highest number of signal delay events (37), as well as signal delay with 15 minutes and 21 seconds delay (26% of the total signal delays).
- The signal at Key Deer Boulevard in the Big Pine segment (Segment # 10) had the highest mean delay per event with only 7 signal delay events, resulting in 4 minutes and 6 seconds.

There were 124 observable signal delay events in 2021 at signalized intersections as compared to 157 delay events in 2019. Traffic signals resulted in a total delay of 1 hour in 2021, as compared to 1 hour 51 minutes in 2019.

It is possible that the signal retiming efforts, as mentioned in previous sections, may have contributed to the reduction in signal delay events and overall delay in 2021.

Accident Delay

The accident-related delays, although non-recurring, were observed to be the fourth highest delay event category during the 2021 study. A total of 15 accident delay events were recorded during the 2021 study, accounting for 33 minutes and 29 seconds of delay. The accident delay accounted for 9% of the total delays. The accident delays were excluded from the overall and segment travel times.

Turning Vehicles Delay

There were five left-turn and one right-turn delay events during the 2021 study. Left-turn delays accounted for 1 minute and 20 seconds, with a mean delay of 16 seconds. Similarly, right-turn delays accounted for 13 seconds with a mean delay of 13 seconds. In accordance with the Floating Car Method and Passing Score procedure, the test car did not pass on the right side of a left turning vehicle within two-lane segments during this year's study.

Drawbridge Delay

The bridge across the Snake Creek was the only drawbridge observed along the entire length of the study segment. There were two drawbridge events during the 2021 study, compared to no events during the 2017 study and two events during the 2019 study.

Drawbridge delays accounted for 12 minutes, with an average delay of 6 minutes per event. The drawbridge delays were excluded from the overall and segment travel times.

Congestion Delay

Congestion related delay represents the largest single recurring delay observed during the 2021 study. There were 87 congestion related delay events, resulting in 2 hours 16 minutes and 39 seconds of delay. It is possible that some of this delay was caused by drawbridge openings, stop and go conditions in the vicinity of signalized intersections, and vehicles turning from through lane. Specific sources of congestion were not always visible to the observers in the test vehicle, especially if the test vehicle was in a long queue; or the delay event has ended (such as red signal indication may have changed to green or the open drawbridge may have been lowered) by the time the test vehicle approached the event location.

Construction Delay

Construction delays accounted for 2 hours 14 minutes and 56 seconds during the 2021 study, as compared to no construction delays during the 2017 study and approximately 10 minutes of construction delay during the 2019 study. Construction related delay represents the second largest single delay observed during the 2021 study. There was significant construction related delay during the 2021 study as compared to 2019 and 2017 studies. This was due to FPL utility work that affected several travel time runs. During this FPL work, flagger operation was used to control traffic, allowing only one direction of travel at a time. The construction delays were excluded from the overall and segment travel times.

Reserve Capacities

The difference between the median speed and the LOS C Standard speed gives the reserve speed, which in turn can be converted to an estimated reserve capacity. The overall median speed of 45.5 mph compared to the LOS C standard of 45 mph results in a positive overall reserve speed of 0.5 mph. This reserve speed is converted into an estimated number of reserve trips using the formula below:

$$\text{Reserve Volume} = \frac{\text{Reserve Speed} \times K \times \text{Overall Length}}{\text{Trip Length}}$$

$$\text{Reserve Volume} = \frac{\text{Reserve speed} \times 1656 \text{ daily trips/mph} \times 112 \text{ miles}}{10 \text{ miles}}$$

Applying the formula for reserve volume to each of the 24 segments of US 1 individually gives maximum reserve volumes for all segments totaling 105,865 trips. These individual reserve volumes may be unobtainable, due to the constraint imposed by the overall reserve volume.

County regulations and FDOT policy allow segments that fail to meet the LOS C standards to receive an allocation not to exceed five percent below the LOS C standard. The so-called five percent allocations were calculated for such segments as follows:

$$5\% \text{ Allocation} = \frac{(\text{median speed} - 95\% \text{ of LOS C}) \times 1656 \times \text{Length}}{\text{Trip Length}}$$

The following two segments were identified to be functioning below the LOS C threshold: Segment #19 (Upper Matecumbe) and Segment #20 (Windley). These two segments have depleted their reserve capacities. Both of these segments are in the Village of Islamorada.

A summary table displaying level of service and reserve capacity values for each segment as well as overall US 1 are contained in Appendix G.

7. SUMMARY

The following is a summary of the 2021 Travel Time and Delay Study results as compared to the 2017 Travel Time and Delay Study:

- a) The average traffic volumes have increased in Big Pine (2.00%) and Upper Matecumbe (3.07%) Keys but have decreased in Marathon Key (-6.30%) as compared to 2017.
- b) The overall travel speed on US 1 based on the 2021 study is 45.5 mph, which is 0.5 mph lower than the 2017 overall travel speed.
- c) As compared to the 2017 data, the median travel speeds in 13 of the 24 segments have increased. They are:

- Stock Island (+10.6 mph)	- Torch (+1.1 mph)
- Boca Chica (+0.3 mph)	- Big Pine (+3.3 mph)
- Big Coppitt (+0.9 mph)	- Bahia Honda (+1.1 mph)
- Saddlebunch (+0.2 mph)	- Marathon (+1.7 mph)
- Sugarloaf (+0.5 mph)	- Tavernier (+2.0 mph)
- Summerland (+1.1 mph)	- Key Largo (+0.6 mph)
- Ramrod (+0.4 mph)	

Median travel speeds in 11 segments have decreased. They are:

- Cudjoe (-0.3 mph)	- L Matecumbe (-1.6 mph) - Village of Islamorada
- 7-Mile Bridge (-0.1 mph)	- Tea Table (-1.0 mph) - Village of Islamorada
- Grassy (-0.2 mph)	- U Matecumbe (-3.9 mph) - Village of Islamorada
- Duck (-0.1 mph)	- Windley (-1.7 mph) - Village of Islamorada
- Long (-0.6 mph)	- Plantation (-5.8 mph) - Village of Islamorada
- Cross (-3.6 mph)	

- d) As compared to the 2017 study, there are LOS changes in nine of the 24 segments – the LOS for five segments have improved, and the LOS for four segments have degraded.
- e) Segment #19 (Upper Matecumbe – MM 79.5 – MM 84.0) changed from LOS ‘D’ to ‘E’. Segment # 20 (Windley – MM 84.0 – MM 86.0) LOS changed from LOS ‘C’ to ‘D’. These two segments have no reserve capacity and should be given special attention.
- f) There were two drawbridge delay events during the 2021 study (accounted for 12 minutes, with an average delay of 6 minutes), as compared to no drawbridge delay events during the 2017 study.
- g) There were 10 construction delay events in 2021 (accounted for 2 hours 14 minutes and 56 seconds), as compared to no construction delay events in 2017.
- h) There were 124 signal related delay events in 2021, resulting in 1 hour and 8 seconds of delay, as compared to 2 hours 10 minutes and 29 seconds in 2017. The signal delay events contributed to an average of 2 minutes and 9 seconds of delay per trip, which is lower than the 2017 average signal delay per trip of 4 minutes and 30 seconds.
- i) Segments with reserve speeds of less than or equal to 3 mph should be given particular attention when approving development applications. Based on the 2021 study, there are six segments in this category (same number of segments as in the 2017 study).

- Duck (MM 60.5 – MM 63.0)	- Windley (84.0 – 86.0)
- Long (MM 63.0 – MM 73.0)	- Plantation (86.0 – 91.5)
- L. Matecumbe (MM 73.0 – MM 77.5)	- Cross (MM 106.0 – MM 112.5)
- U. Matecumbe (MM 79.5 – MM 84.0)	

Following is a summary of the 2021 Travel Time and Delay Study results compared to the 2019 Travel Time and Delay Study:

- a) The average traffic volumes have increased in Big Pine (3.59%) and Upper Matecumbe (6.48%) Keys but have decreased in Marathon Key (-11.67%) as compared to 2019.
- b) The overall travel speed on US 1 based on the 2021 study is 45.5 mph, which is 0.9 mph higher than the 2019 overall travel speed.
- c) As compared to the 2019 data, the median travel speeds in 15 of the 24 segments have increased. They are:

- Stock Island (+7.0 mph)	- Big Pine (+0.3 mph)
- Boca Chica (+4.1 mph)	- Bahia Honda (+0.6 mph)
- Big Coppitt (+1.4 mph)	- Marathon (+1.7 mph)
- Saddlebunch (+1.5 mph)	- Grassy (+0.7 mph)
- Sugarloaf (+0.7 mph)	- Windley (+2.3 mph)- Village of Islamorada
- Cudjoe (+0.7 mph)	- Tavernier (+2.5 mph)
- Summerland (+0.9 mph)	- Key Largo (+0.8 mph)
- Torch (+0.7 mph)	

Median travel speeds in 9 segments have decreased. They are:

- Ramrod (-0.2 mph)	- L Matecumbe (-1.4 mph) - Village of Islamorada
- 7-Mile Bridge (-0.2 mph)	- Tea Table (-0.3 mph) - Village of Islamorada
- Duck (-0.1 mph)	- U Matecumbe (-1.1 mph) - Village of Islamorada
- Long (-2.1 mph)	- Plantation (-0.6 mph)- Village of Islamorada
- Cross (-1.1 mph)	

- d) As compared to the 2019 study, there are LOS changes in nine of the 24 segments – the LOS for seven segments have improved, and the LOS for two segments have degraded.
- e) Segment # 20 (Windley – MM 84.0 – MM 86.0) LOS changed from LOS ‘E’ to ‘D’. The LOS for Segment #19 (Upper Matecumbe – MM 79.5 – MM 84.0) remained at LOS ‘E’. These two segments have no reserve capacity and should be given special attention.
- f) There were two drawbridge delay events during the 2021 study, the same as the 2019 study. Drawbridge delays accounted for 12 minutes, with an average delay of 6 minutes.
- g) There were 10 construction delay events in 2021 (accounted for 2 hours 14 minutes and 56 seconds), as compared to one construction delay event (accounted for 9 minutes and 55 seconds) in 2019.
- h) There were 124 signal related delay events in 2021, resulting in 1 hour and 8 seconds of delay, as compared to 1 hour 51 minutes and 49 seconds in 2019. The signal delay events contributed to 2 minutes and 9 seconds of delay per trip on an average, which is lower when compared to the 2019 average signal delay per trip of 4 minutes.

The following is a list of considerations for review:

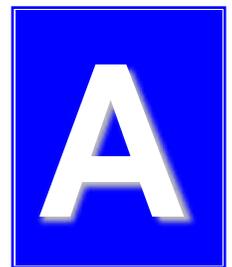
- 1) Under the adopted growth management process, if the overall LOS for US 1 falls below the LOS C Standard, then no additional land development will be allowed unless mitigation measures are implemented. Roadway widening is a typical mitigation measure (or capacity improvement) used by most agencies. However, in Monroe County, road widening (specifically along US 1) is restricted by the adopted comprehensive plan policies to preserve and protect the fragile ecological conditions. There are other remedies that could be explored and evaluated to improve the traffic flow and capacity along US 1. Some examples include:
 - Upgrade the traffic signal infrastructure and/or signal timing at signalized intersections along US 1 to enhance traffic flow.
 - Provide or improve transit service or other multi-modal transportation alternatives.
 - Implement active traffic management and Transportation System Management & Operation type improvements, which include real-time monitoring of traffic flow and implementing measures to address traffic congestion.
 - Add turn lanes at strategic locations to improve roadway capacity.
 - Implement access management improvements (consolidate driveways/access points, modify median openings, etc.) to reduce interruptions to US 1 traffic.
 - Provide and/or improve frontage roads to reduce the impacts to US 1 traffic flow. Improve local roads to minimize US 1 being used as a local street for short trips.
 - Do not allow new traffic signals along US 1, if a safe and/or less restrictive alternative (such as indirect left-turns, a roundabout, etc.) can be provided to accommodate traffic movements.
 - Conduct speed studies on selected segments of US 1 to confirm if the current posted speed limits are correct and modify, if necessary.
- 2) This is the first Travel Time and Delay Study conducted after the COVID-19 pandemic. The traffic volumes were observed to increase in some areas and decrease in other areas, as compared to 2019 and 2017 studies. Therefore, the travel time impacts due to the pandemic appear to be very minimal.

APPENDIX A

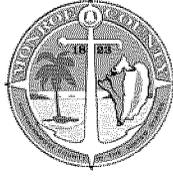
Data Collection Methodology



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AECOM



1
2
3 **MONROE COUNTY, FLORIDA**
4 **MONROE COUNTY BOARD OF COUNTY COMMISSIONERS**
5 **RESOLUTION NO. 064 -2021**
6

7 **A RESOLUTION BY THE MONROE COUNTY BOARD OF**
8 **COUNTY COMMISSIONERS APPROVING UPDATES TO**
9 **THE U.S. 1 LEVEL OF SERVICE (“L.O.S.”)**
10 **METHODOLOGY BASED ON RECOMMENDATIONS**
11 **MADE BY THE U.S. 1 L.O.S. TASK FORCE WHICH**
12 **EVALUATED CONSIDERATIONS IDENTIFIED IN THE**
13 **DRAFT 2019 ARTERIAL TRAVEL TIME AND DELAY**
14 **STUDY (“ATTDS”).**
15

16 **WHEREAS**, in August, 1991, the BOCC adopted the U.S. 1 Level of Service (“L.O.S.”)
17 C as measured by the U.S. 1 L.O.S. Methodology established by the U.S. 1 L.O.S. Task Force;
18 and

19 **WHEREAS**, on December 10, 1997, the BOCC approved an amendment to the U.S. 1
20 L.O.S. Methodology based on recommendations of the U.S. 1 L.O.S. Task Force; and

21 **WHEREAS**, on July 15, 2020, the BOCC considered the Draft 2019 Arterial Travel Time
22 & Delay Study (“ATTDS”), prepared by the County’s traffic consultant, AECOM Technical
23 Services, Inc. (“AECOM”), which identified several considerations regarding methodology; and

24 **WHEREAS**, at the July 15, 2020, meeting, the BOCC directed staff to re-engage the U.S.
25 1 L.O.S. Task Force to evaluate the L.O.S. methodology and consider updates to it based on the
26 considerations identified in the Draft 2019 ATTDS; and

27 **WHEREAS**, on October 21, 2020, the BOCC adopted Resolution No. 355-2020,
28 reconvening the U.S. 1 L.O.S. Task Force and tasking the U.S. 1 L.O.S. Task Force with evaluating
29 the L.O.S. Methodology and potential updates to it based on the considerations identified in the
30 draft 2019 ATTDS; and

31 **WHEREAS**, U.S. 1 L.O.S. Task Force met on November 10, 2020, January 6, 2021, and
32 January 21, 2021, to evaluate the L.O.S. methodology and to consider updates to it based on the
33 considerations identified in the Draft 2019 ATTDS; and

1 **WHEREAS**, U.S. 1 L.O.S. Task Force agreed to the following recommended items
2 through a roll call for vote for the update to the L.O.S. methodology at the January 21, 2021,
3 meeting:

- 4 1. Signal Delay: Increase to 35 seconds (to be consistent with the current Highway
5 Capacity Manual);
6
- 7 2. Signal Delay: Continue to apply to only uninterrupted segments (not overall U.S.-1
8 L.O.S. calculations);
9
- 10 3. Drawbridge Delay: Deduct delays due to drawbridge openings from the time run
11 calculations for both affected segments and overall U.S.-1, using a delay time of 6
12 minutes (average gate closure time based on FDOT data for drawbridge delays), and
13 applying to only those travel runs which were impacted by bridge openings;
14
- 15 4. Overall L.O.S. calculation methodology for segments versus overall U.S.-1 will stay
16 the same;
17
- 18 5. Travel Time Schedule: Conduct 2021 travel time runs based on current schedule. Also,
19 conduct supplemental runs in the southbound direction within Segments 1 to 4 during
20 AM peak (7-8 AM) on Wednesday, Thursday and Friday of the second week.
21 Additionally, conduct supplemental runs in the northbound direction within Segments
22 1 to 4 during the PM Peak (5-6 PM) on Wednesday, Thursday, and Friday of the second
23 week. The results of the supplemental runs will be included in the 2021 ATTDS Report
24 for informational purposes only and will not be used in overall L.O.S. calculations.
25 This information will be reviewed to decide if supplemental runs should be
26 incorporated into future ATTDS and L.O.S. calculations, as directed by the Monroe
27 County BOCC; and
28
- 29 6. Include by reference the Data Collection Methodology into the U.S. 1 L.O.S.
30 Methodology document.
31

32 **NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY**
33 **COMMISSIONERS OF MONROE COUNTY, FLORIDA, THAT:**

34 **Section 1.** The recitals contained herein are true and correct and are hereby
35 incorporated as if fully set forth herein.

36 **Section 2.** The Board of County Commissioners does hereby adopt the
37 recommendations of the U.S. 1 L.O.S. Task Force and the 2021 Updated
38 methodology document, *A Methodology To Assess Level-Of-Service On*
39 *US-1 In The Florida Keys*, attached as Exhibit A, for County use.

40
41 **PASSED AND ADOPTED** by the Board of County Commissioners of Monroe County,
42 Florida, at a regular meeting of the Board held on the 17th day of February, 2021.

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Mayor Michelle Coldiron
Mayor Pro Tem David Rice
Commissioner Craig Cates
Commissioner Eddie Martinez
Commissioner Mike Forster

Yes
Yes
Yes
Yes
Yes



BOARD OF COUNTY COMMISSIONERS
OF MONROE COUNTY, FLORIDA

Michelle Coldiron

BY _____
MAYOR MICHELLE COLDIRON

ATTEST: KEVIN MADOK, CLERK

By *Kevin Madok*
AS DEPUTY CLERK

MONROE COUNTY ATTORNEY
APPROVED AS TO FORM
Peter Morris
PETER MORRIS
ASSISTANT COUNTY ATTORNEY
Date: 2/2/21

FILED FOR RECORD
2021 MAR -4 AM 11:49
CLERK OF COUNTY
MONROE COUNTY, FLORIDA

R.E. De Arazoza
D.S.MaCleod

**A METHODOLOGY TO ASSESS LEVEL-OF-SERVICE
ON US-1 IN THE FLORIDA KEYS**

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**For Presentation at the
Transportation Research Board Annual Meeting
January 1993**

DRAFT UPDATE

January 2021

**Updated by AECOM Technical Services, Inc.
Based on input from the 2019/2020 US-1 LOS Task Force**

ABSTRACT

This paper presents the methodology developed to assess level-of-service (LOS) on US-1 in the Florida Keys. Although predominantly an uninterrupted flow two-lane roadway in the Keys, US-1's uniqueness warrants an alternative LOS evaluation process to that found in the 1985 Highway Capacity Manual.

U.S.-1 extends from the Key West to the Florida mainland with no major roads intersecting it. Furthermore, no other principal arterial serves the Keys or the Keys' resident and tourist population, over 100,000. Its unique geography, land use patterns, trip making characteristics presented a challenge in developing and applying a reasonable and acceptable method to assess its LOS.

A uniform method was developed to assess LOS on U.S.-1 to cover both its overall arterial length from Key West to the Florida mainland, and 24 roadway segments delineated. The methodology employs average travel speed as the main measure of effectiveness. It was developed from basic criteria and principles contained in Chapters 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) of the 1985 Highway Capacity Manual.

The results of the study correlate well with perceived operating conditions on US-1 and over a two-year period the methodology appears to have a good level of reliability. The authors recommend that for uninterrupted flow conditions in developed areas, Chapters 7 and 8 of the Highway Capacity Manual incorporate average travel speed as the main measure of effectiveness to determine LOS.

A METHOD TO ASSESS LEVEL-OF-SERVICE ON US-1 IN THE FLORIDA KEYS

INTRODUCTION

The purpose of this paper is to present the methodology developed by the Monroe County US-1 level-of-service (LOS) Task Force to assess LOS on US-1 (the Overseas Highway) in the Florida Keys (1). The authors are members of the referenced task force.

US-1 which is mostly two-lanes, has unique geographic and trip characteristics. It extends through the Florida Keys covering approximately 180 kilometers (112 miles) from the City of Key West to the Florida mainland (Figure 1). There are 48 bridges crossing water for a total length of 35 km (22 mi), with the longest bridge approximately 11 km (7 mi) long. There is no other road, to provide vehicular access to the Florida Keys from the rest of Florida or anywhere else. Few local roads are 5 km (3 mi) in length. Consequently, US-1 serves not only as a regional principal arterial which serves intra as well as interstate travel, but also serves as the local road for most of the trips within the Keys. US-1 Annual average daily traffic (AADT) volumes range from a low of 4700 to a high of 34200. The road serves a large tourist demand and is one of the most scenic in the United States. The linear geography with the narrow land width of most of the Florida Keys are further characteristics.

Most of the surrounding land use is rural developed and suburban in nature; however, some areas are totally rural and others are urban, such as the Key West and its suburbs. With the exception of the few completely rural segments and the bridges, strip commercial stores, motels and restaurants are very common throughout the Keys along US-1. Numerous driveways and intersecting local roads provide access to the surrounding residential areas.

The US-1 LOS study encompassed approximately 174 km (108 mi) of US-1 from Key West/Stock Island to the Monroe/Dade County Line, broken down as follows:

- 129 km (80 mi) (74%) two-lane uninterrupted flow;
- 32 km (20 mi) (19 %) four-lane uninterrupted flow; and
- 13 km (8 mi) (7%) four-lane urban/suburban interrupted flow.

Part of the growth management process in Florida is to assess roadway LOS to determine if roadway facilities meet standards established by state regulations. The Transportation Research Board Special Report 209 Highway Capacity Manual (HCM) (2) is extensively used throughout Florida as the source document to determine highway capacities and LOS.

HCM Chapter 7 (Rural Multilane Highways), 8 (Rural Two-Lane Highways) and 11 (Urban and Suburban Arterials) were consulted to determine applicability to the unique conditions and vehicular traffic operations and characteristics of the Florida Keys. Only the 13 km (8 mi) of urban/suburban interrupted flow and the small percentage of the two-lane truly rural portions correlate directly to the HCM Chapters 11 and 8.

Thus, the challenge was to develop a methodology to assess arterial LOS along US-1 without deviating from the principles of the HCM. Towards that end a task force was created consisting of representatives from State and local agencies and an engineering consulting firm.

THE NEED TO DEVELOP A LOS MEASUREMENT METHOD

From a state transportation perspective, the overall operating condition of US-1 is important, not the condition of any smaller segment. With Key West as a major tourist destination at the southern end of the Keys and no alternative routes, the logical analysis section of highway extends from Key West to the mainland. From local transportation and development approval perspectives, shorter segments for analysis are desirable.

Chapter 8 of the HCM presents a methodology which applies to typical rural two-lane highways with basically long stretches of roads, and few side intersecting streets and driveways directly connecting to the roads. Chapter 8 methodology relies mainly on "percent time delay" to assess LOS. The HCM further states that "Percent time delay...is defined as the average percent of time that all vehicles are delayed while traveling in platoons due to inability to pass. Percent time delay is difficult to measure directly in the field. The percent of vehicles traveling at headways less than 5 seconds can be used as a surrogate measure in field studies."

Chapter 8 of the HCM also uses average travel speed and capacity utilization as additional measures of effectiveness to assess LOS. However, the HCM states clearly that percent time delay is the primary measure of service quality. Further inspection of the average speeds for level terrain depicted by Table 8-1 of the HCM do not correspond well with the typical operating speeds of US-1 in the Florida Keys. For instance, Table 8-1 shows average speeds ranging from 58 mph (93 kmh) (LOS A) to 45 mph (72 kmh) (LOS D).

The overall weighted posted speed limit for US-1 in the Florida Keys is 79.7 kmh (49.5 mph). The overall median operating speeds along US-1 according to the 1991 and 1992 field studies (3, 4) were 76.8 and 75.5 kmh (47.7 and 46.9 mph), respectively. The field studies showed, for the most part, the survey vehicle(s) was traveling close to the posted speed limit.

It is believed the average motorist in the Florida Keys is mostly concerned with operating at an acceptable average travel speed rather than being concerned about the ability to pass. This is supported by the physical and traffic characteristics of the Keys (e.g., adjacent land development, sight-seeing tourists), local knowledge, and discussions with motorists.

From the above statements, it was clear to the task team that HCM Chapter 8 methodology could not be applied to US-1 for analysis of its two-lane sections.

With regards to the four-lane uninterrupted flow portions of US-1, a similar dilemma occurred. HCM Chapter 7 methodology applies to multi-lane highways with operating characteristics generally unlike those of US-1 through the Florida Keys. For instance, average travel speeds depicted by Table 7-1 of the HCM are also higher than those encountered in the Keys. Further, the methodology inherent in equations (7-1), (7-2) and (7-3) are closely related to those of freeways with their higher service flow rates, which again neither simulate nor resemble those of US-1 in the Keys. The Four-lane portion is found mostly in Key Largo (the northeastern end of the Keys) which has a weighted posted speed limit of 72.5 kmh (45 mph). Key largo is developed with strip commercial and residential development. It has numerous driveway connections and side streets directly accessing US-1.

The remaining 7% of the total US-1 mileage is four-lane interrupted flow. These are the portions encompassing Marathon (in the middle of the Keys) and Stock Island (near Key West). The operating characteristics here are truly urban/suburban and interrupted flow in nature resembling those of HCM Chapter 11. Thus, the methodology of Chapter 11 was employed in assessing LOS on these segments.

From the preceding discussion, it was evident that a distinct method to assess LOS on US-1 had to be developed. The task team's efforts concentrated on keeping consistency with the basic philosophy of the HCM, and yet be sensitive to the Keys uniqueness. Thus, the proposed methodology correlates measured travel speeds along US-1 with LOS speed thresholds developed as part of this study. This is in line with the concept behind the HCM of average travel speed being the main parameter to measure arterial LOS.

METHODOLOGY

Considering the types of trips served by US-1, it was decided to conduct travel time and delay runs to cover both the entire length of US-1 from Key West to the Monroe/Dade County Line (mainland) and for each segment of the highway along the way. Twenty-four segments were selected as depicted by Table 1. Each segment is fairly homogeneous in nature having a uniform roadway cross section and traffic flow.

Travel speeds for the overall length (from Key West to the mainland) provide an indication of the LOS for the regional trips. Travel speeds for each segment also provides an opportunity to assess the impact of local trips. Establishing speed criteria for both the overall length and for each roadway segment satisfies the requirements of the Florida growth management process.

The next step in the process was to determine the number of travel time runs and how, when and to/from where. Runs were started at both ends of US-1. For example, one run started on Stock Island (Key West City limits) and proceeded to the mainland (Dade County). After reaching this point, the vehicle turned back and proceeded to end the run where it started, on Stock Island. On another day the reverse was true (i.e., the run started in Dade County instead of Stock Island). It was decided to perform a total of fourteen two-way runs or twenty-eight in each direction covering the 174 km (108 mi) study portion of US-1. Twenty-eight runs provide enough data for statistical significance. Control points were established at each of the 24 segments to record travel time and speed data specific to each one of those segments. Seven runs were started at Stock Island and seven in Dade County. Each began at staggered hours to cover the varied trip purposes and time frames within the Keys. The surveys were conducted during March, reflecting the area's peak traffic season.

The 2021 travel time runs shall be conducted based on the current schedule. In addition, supplemental runs shall be conducted in the southbound direction within Segments 1 to 4 during AM peak (7-8 am) on Wednesday, Thursday and Friday of the second week. Also, conduct supplemental runs in the northbound direction within Segments 1 to 4 during the PM Peak (5-6pm) on Wednesday, Thursday, and Friday of the second week. The results of the supplemental runs will be included in the 2021 ATTDS Report for informational purposes only and will not be used in overall or segment LOS calculations. This information will be reviewed to decide if supplemental runs should be incorporated into future ATTDS and LOS calculations, as directed by the Monroe County BOCC.

For each run the process provided data (see Exhibit 1, Data Collection Methodology), such as running speed and travel speed, in each direction of US-1. Vehicular traffic counts were also collected at three locations covering seven days.

The travel time runs yielded a total of 28 one-way travel speed values for the overall length of US-1 and for each of the 24 segments. The value selected for analysis was the median speed which would reflect a "typical peak period during the peak season." In other developed parts of Florida the typical peak hour of the peak season approximates the 100th highest hour of the year (5). The median value was also selected, instead of the average, to avoid the influence of extremely high or low speed value at either end of the survey population. The process up to this point provided median travel speeds. The question then became, what LOS do these speeds represent.

The next step was to develop a set of LOS/Speed threshold values for both the overall length of US-1 and the pertinent segments of the highway. Towards this end, the speed ratios between LOS thresholds from Tables 7-1, 8-1 and 11-1 of the HCM were used in the analysis. These ratios were weighted against actual mileage of US-1 in the Florida Keys to represent the prevailing type of flow; two-lane uninterrupted flow, four-lane uninterrupted flow and four-lane interrupted flow. For example, from the level terrain portion of HCM Table 8-1, the ratio between LOS B speed and LOS A speed is $55/58 = 0.948$. The ratio between LOS C/LOS A = $52/58 = 0.897$; the ratio between LOS D/LOS A = $50/58 = 0.862$ and so on. The same process was applied to Tables 7-1 (96.6 kmh) (60 mph) and 11-1. Then each ratio was weighted to take into account the length of the section of US-1 to which that type of traffic flow applied. Once all the ratios were developed, the weight criteria was applied as in the following example:

TYPE OF FLOW	LOS C/LOS A RATIO	WEIGHT
Two-lane uninterrupted	$52/58 = 0.897$	74
Four-lane uninterrupted	$44/50 = 0.880$	19
Four-lane interrupted	$22/35 = 0.629$	07

Therefore, the overall speed ratio between LOS C and LOS A is:

$$[74(0.897)+19(0.880)+7(0.629)]+100=0.875$$

The above process was applied to develop all the required ratios. Further observations with reference to Tables 8-1, 7-1 and 11-1 yielded the following. From Table 8-1 the difference between LOS A and LOS B speeds is 4.8 kmh (3 mph), or 4.8 kmh (3 mph) above an assumed posted speed limit of 88 kmh (55 mph). From Tables 7-1 and 11-1 the differences are 3.2 kmh and 11.3 kmh (2 mph and 7 mph), respectively, with LOS lower than assumed speed limits. Therefore, from these observations plus local knowledge, it was determined that the overall US-1 posted speed limit is 79.7 kmh (49.5 mph) reasonably fell between the LOS A and B thresholds.

This assumption is not far away from the premise that if a vehicle is able to sustain a travel speed equal to the posted speed limit, then it will correspond typically with the upper ranges of LOS (i.e., LOS A or B).

With the above speed differentials and LOS range premise in mind, the US-1 overall speed thresholds for LOS A and B became 82.1 kmh (51 mph) (2.4 kmh (1.5 mph) above 79.7 kmh (49.5) and 77.3 kmh (48 mph), respectively. Applying the developed ratio between LOS C/LOS A to the LOS A speed resulted in 72.5 kmh (45 mph), rounded off (i.e., 0.875×82.1 kmh (51 mph) = 71.8 kmh (44.6 mph)), which then became the threshold for LOS C. After applying all the ratios the overall LOS criteria for US-1 became:

<u>LOS</u>	<u>Speed</u>
A	≥ 82 kmh (51 mph)
B	≥ 77 kmh (48 mph)
C	≥ 72 kmh (45 mph)
D	≥ 68 kmh (42 mph)
E	≥ 58 kmh (36 mph)
F	< 58 kmh (36 mph)

Inspection of the criteria above indicates a close relationship with the speed differentials of both Tables 8-1 and 7-1 of the HCM. Comparing the median speed data for US-1 from the 1991 and 1992 field studies to the above criteria resulted in an overall LOS of C for both years, i.e., 76.8 kmh (47.7 mph) for 1991 and 75.5 kmh (46.9 mph) for 1992. These speeds are 2.9 kmh (1.8 mph) and 4.2 kmh (2.6 mph) below the overall weighted 79.7 kmh (49.5 mph) speed limit, which would correspond to the upper range of LOS C. The authors also believe that LOS C is the appropriate LOS designation for the whole of US-1 from Key West to the mainland.

A final step was still needed to complete the task of developing LOS/Speed threshold values for the segments of US-1. No further work was needed to cover the 7% mileage of the interrupted portions of US-1 found on Marathon and Stock Island, adjacent to Key West. As discussed earlier, these segments correlate with Chapter 11 of the HCM. Therefore, direct application of Table 11-1 LOS/speed criteria for a Class I arterial was made.

The remaining segments fell within the two-lane and four lane uninterrupted flow criteria. It was decided to make LOS A speed criterion 2.4 kmh (1.5 mph) above the weighted posted speed limit in order to keep consistency with the overall criteria. LOS C speed was set 9.7 kmh (6 mph) below LOS A speed consistent with Tables 7-1 and 8-1 of the HCM. LOS B and D speed criteria were set to provide equal increments between LOS A and LOS D (i.e., LOS B 4.8 kmh (3 mph) below LOS A speed and LOS D 4.8 kmh (3 mph) below LOS C speed). LOS E was set 9.7 kmh (6 mph) below the LOS D Speed. This makes the segmental speed differential between LOS thresholds consistent with the differentials in the overall criteria, except for one consideration. On any uninterrupted flow segment, signalized intersection delay would be deducted from the segment's travel time to account for the influence of the traffic signals (i.e., signal delay = 1.0 x 35 seconds average stopped delay). This corresponds to an LOS C delay due to isolated signals. LOS C delay was chosen because LOS C is the state LOS standard for US-1 in the Florida Keys. The rationale behind deducting signal delay from the segment analysis was to recognize the impact of signals in reducing travel time. This provides the required sensitivity in the segment which is not only to assess the impact of regional vehicular trips, but also those that are local in nature. The following illustrates the concept plus one example for the US-1 Segmental LOS/speed relationship.

- The uninterrupted flow segment criteria are:

<u>LOS</u>	<u>SPEED</u>
A	≥ 2.4 kmh (1.5 mph) above the posted speed limit
B	≥ 4.8 kmh (3.0 mph) below LOS A
C	≥ 9.7 kmh (6.0 mph) below LOS A
D	≥ 14.5 kmh (9.0 mph) below LOS A
E	≥ 24 kmh (15.0 mph) below LOS A
F	< 24 kmh (15.0 mph) below LOS A

- A segment having a weighted posted speed limit of 72 kmh (45 mph) would then have this criteria:

<u>LOS</u>	<u>SPEED</u>
A	≥ 74.9 kmh (46.5 mph)
B	≥ 70.0 kmh (43.5 mph)
C	≥ 65.2 kmh (40.5 mph)
D	≥ 60.4 kmh (37.5 mph)
E	≥ 50.7 kmh (31.5 mph)
F	< 50.7 kmh (31.5 mph)

- The LOS/Speed criteria for interrupted flow segments (marathon and Stock Island) are based directly on a Class I arterial from Table 11-1 of the HCM.

<u>LOS</u>	<u>SPEED</u>
A	≥ 56.4 kmh (35 mph)
B	≥ 45.1 kmh (28 mph)
C	≥ 35.4 kmh (22 mph)
D	≥ 27.4 kmh (17 mph)
E	≥ 20.9 kmh (13 mph)
F	< 20.9 kmh (13 mph)

Speed data from both the overall length of US-1 and the individual segments were compared against the applicable LOS/speed thresholds. This provided for an assessment of the facility LOS plus an indication of reserve speed, if any.

Under Florida's and Monroe County's growth management process if the overall LOS for US-1 fell below the LOS C standard, then no additional land development would be allowed to proceed in the Florida Keys. Unless the proposed new development traffic impact were mitigated. If the overall LOS for US-1 was C or better, then additional development could take place in those segments where there was reserve speed available (i.e., segment's speed was higher than the standard threshold).

Besides meeting highway LOS standards there are numerous other considerations in Florida's growth management process pertaining to the Florida Keys that are beyond the scope of this paper. As mentioned in the introduction, the purpose of this study was to present the methodology to assess LOS on US-1.

DATA COLLECTION METHODOLOGY

(Previously Approved by Task Force)

Calibration of the DMI

Prior to beginning the study, the DMI was calibrated over a half-mile course. The calibration procedure set-up by the DMI manufacturer established a calibration factor of 0.682 for the test vehicle, which resulted in measurements within 3 feet of the 5,280-foot distance (0.057%). At this level of accuracy, the DMI would measure the 108 mile distance of US 1 between Stock Island and the Dade County line to within 325 feet, or to within 0.03 mile per hour (mph) of the 45 mph standard for LOS C.

Floating Car Method and Passing Score

The study employed the floating car method, whereby under ideal conditions the test vehicle passes and is passed by an equal number of vehicles (i.e. "goes with the flow"). A passing score was recorded for each segment to document the extent to which this objective was accomplished. Positive scores indicate the number of excess vehicles the test car passed; negative scores indicate the number of excess vehicles that passed the test car; and zero indicates an even balance. The overall passing score consists of the sum of the segment scores.

The passing score provided an objective measure of the traffic flow, allowing the driver to adjust the test car speed accordingly. In the event that the traffic flow was higher than the posted speed limit, as was frequently the case in the Dade County and Boca Chica segments, the test car also traveled above the speed limit. Vehicles turning on or off US 1 were omitted from the passing score.

Employing the floating car method in two-lane segments was fairly straightforward, where the observers frequently encountered platoons of sufficient size to discourage or prohibit passing. When positioned at the rear or in the middle of a platoon, the observers simply traveled with the pack. When positioned as the lead car, the observers avoided delaying the platoon yet kept the platoon within sight.

On two-lane segments the observers occasionally encountered stopped vehicles waiting to turn left, raising the question of whether the test vehicle should leave the lane or paved road surface and pass to the right of the stopped vehicle. When the vehicles ahead of the observers passed to the right of the stopped vehicle, then the observers did also. However, when the test car was the lead car in the platoon, the observers only passed on the right if they could do so without leaving the paved roadway.

Within four-lane segments with light congestion, the observers often encountered traffic traveling in the right lane at or below the posted speed limit, while there was little or no traffic in the left lane. Rather than "floating" below the speed limit in the right lane or traveling at the maximum possible speed in the left lane, the observers traveled at the posted speed limit, which resulted in passing score as high as +10. Thus, in these cases, a passing score of zero is undesirable, since the corresponding speed would fail to reflect the availability of the vacant passing lane.

Within four-lane segments with moderate or heavy congestion, the observers often encountered separate platoons in the right and left lanes, with the left lane typically

moving at a faster speed. Rather than continuously changing lanes to achieve a passing score of zero, the test car "floated" in the faster of the two platoons, which also yielded high passing scores.

Platoon Size

To provide a measure of roadway congestion within each segment, the average number of vehicles traveling in the test car's platoon was recorded, including the test car itself. Within four-lane segments, this number represents the average number of vehicles that traveled in the test car's platoon within the test car's lane.

Treatment of Delay

In accordance with the FDOT Manual on Uniform Traffic Studies, the observers began recording delay when the test car's speed fell to 5 mph and terminated the delay event when the test car's speed rose to 15 mph. Each delay entry was identified, in the DMI memory by a sequential code number. The observers recorded the type and location of the delay on a field data sheet.

When computing both segments and overall travel times, delays due to typical events such as turning movements, traffic signals, and certain types of congestion were included. Unusual or non-recurring delays, such as construction, accidents, school bus, and emergency vehicles were excluded. Delays due to drawbridge openings should be deducted from the segment travel times (all affected segments) and the overall travel times, to account for the influence of the drawbridge openings. A delay of 6 minutes should be deducted from those travel time runs that were impacted by bridge openings. However, regardless of how a particular type of delay was treated in the analysis, all delays of all types were identified and recorded on the field data sheets.

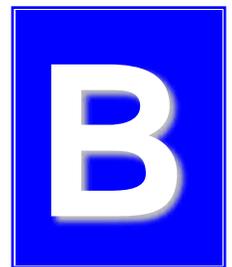
Occasionally an external event slowed traffic speeds, but not enough to meet the 5 mph criteria for a formal delay. Highway construction and maintenance activities were the most common example of this borderline situation. The decision of whether to record these events was made on a case-by-case basis in the field. As long as the observers were traveling at speeds within 5 to 10 mph of the posted speed limit and the event occurred over a distance of about a mile or less, the event was not recorded. However, if the activity caused speeds slower than this or when the observers witnessed active interference, such as bulldozers or flagman blocking the traffic, the event was recorded and later excluded from the analysis.

APPENDIX B

Travel Time Delay Data



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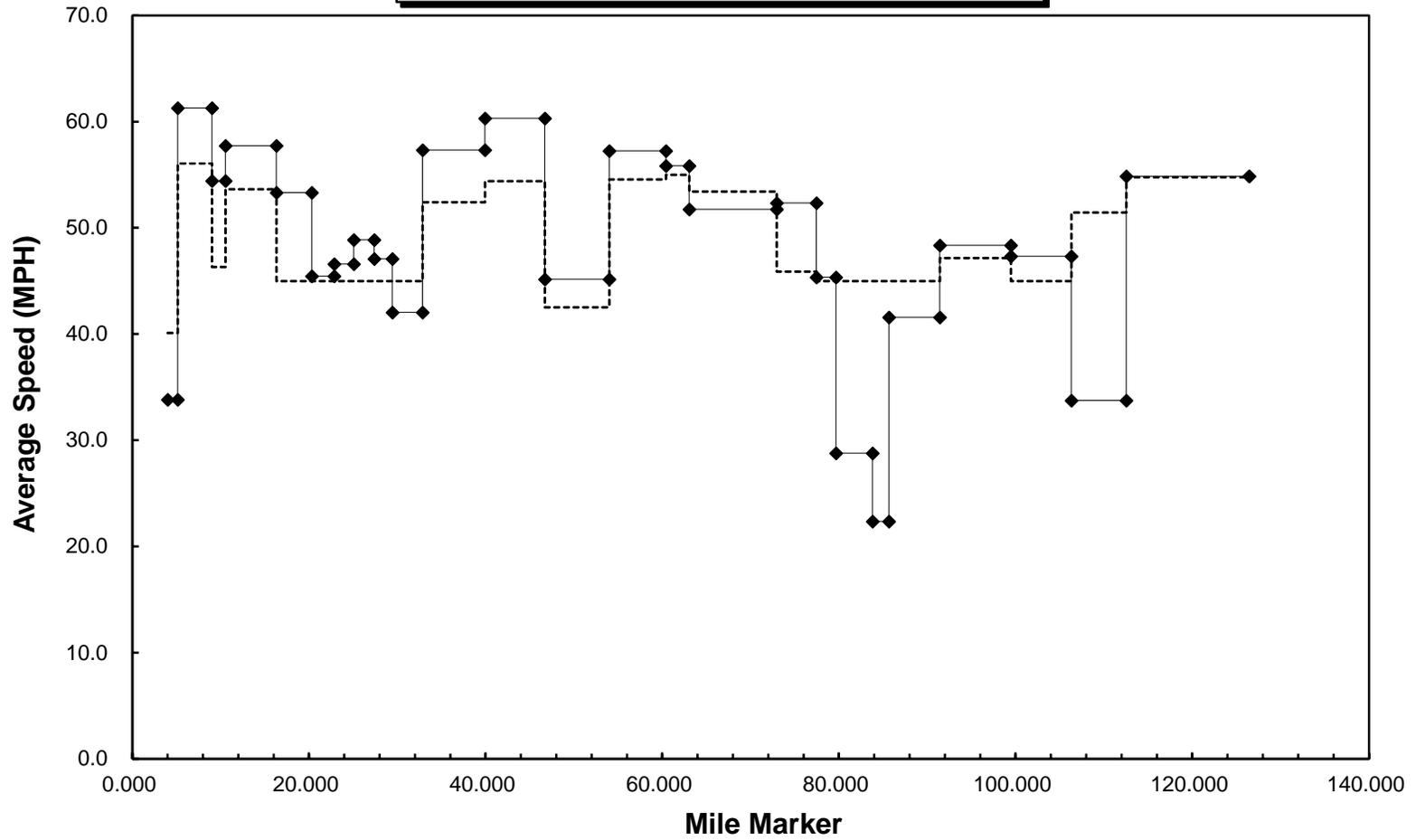
AECOM

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Sunday, March 7, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	03:30:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	06:04:59 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:59	00:01:59		1.118	1.118		33.8	1	TS	0:00:22	1
Rockland Dr	2	00:05:48	00:03:49		5.017	3.899		61.3				
Boca Chica Rd	3	00:07:28	00:01:40		6.529	1.512		54.4				
Harris Ch Br (N)	4	00:13:29	00:06:01		12.318	5.789		57.7				1
Bow Channel Br (N)	5	00:17:58	00:04:29		16.303	3.985		53.3				
Spanish Main Dr	6	00:21:20	00:03:22		18.853	2.550		45.4				
E Shore Dr	7	00:24:11	00:02:51		21.066	2.213		46.6				
Torch-Ramrod Br (S)	8	00:27:02	00:02:51		23.387	2.321		48.9				
N Pine Ch Br (N)	9	00:29:39	00:02:37		25.440	2.053		47.1				
Long Beach Dr	10	00:34:31	00:04:52		28.850	3.410		42.0	7	TS	00:00:13	-2
7-Mile Br (S)	11	00:41:54	00:07:23		35.907	7.057		57.3				3
7-Mile Br (N)	12	00:48:40	00:06:46		42.709	6.802		60.3				
Coco Plum Dr	13	00:58:20	00:09:40		49.985	7.276		45.2	5	TS	00:00:17	14
Toms Harbor Ch Br (S)	14	01:05:04	00:06:44		56.410	6.425		57.3		TS	00:00:05	
Long Key Br (S)	15	01:07:55	00:02:51		59.062	2.652		55.8				
Channel #2 Br (N)	16	01:19:22	00:11:27		68.939	9.877		51.8				1
Lignum V Br (S)	17	01:24:31	00:05:09		73.431	4.492		52.3				
Teatable Relf Br (N)	18	01:27:28	00:02:57		75.661	2.230		45.4				
Whale Harbor Br (S)	19	01:36:04	00:08:36		79.787	4.126		28.8	10+	CG	00:00:57	
Snake Creek Br (N)	20	01:41:04	00:05:00		81.651	1.864		22.4	10+	CG	00:00:44	
Ocean Blvd	21	01:49:23	00:08:19		87.413	5.762		41.6				5
Atlantic Blvd	22	01:59:23	00:10:00		95.471	8.058		48.3	10+	TS	00:00:25	3
C-905	23	02:08:03	00:08:40		102.308	6.837		47.3				18
County Line sign	24	02:19:47	00:11:44	00:01:01	108.538	6.230	0.204	33.7	10+	AC	00:01:01	8
Card Sound Rd	25	02:34:59	00:15:12		122.435	13.897		54.9				
OVERALL		-----	02:19:47	00:01:01	-----	108.538	0.204	46.8				

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
SUNDAY, 03-07-21, 15:30 TO 18:04**



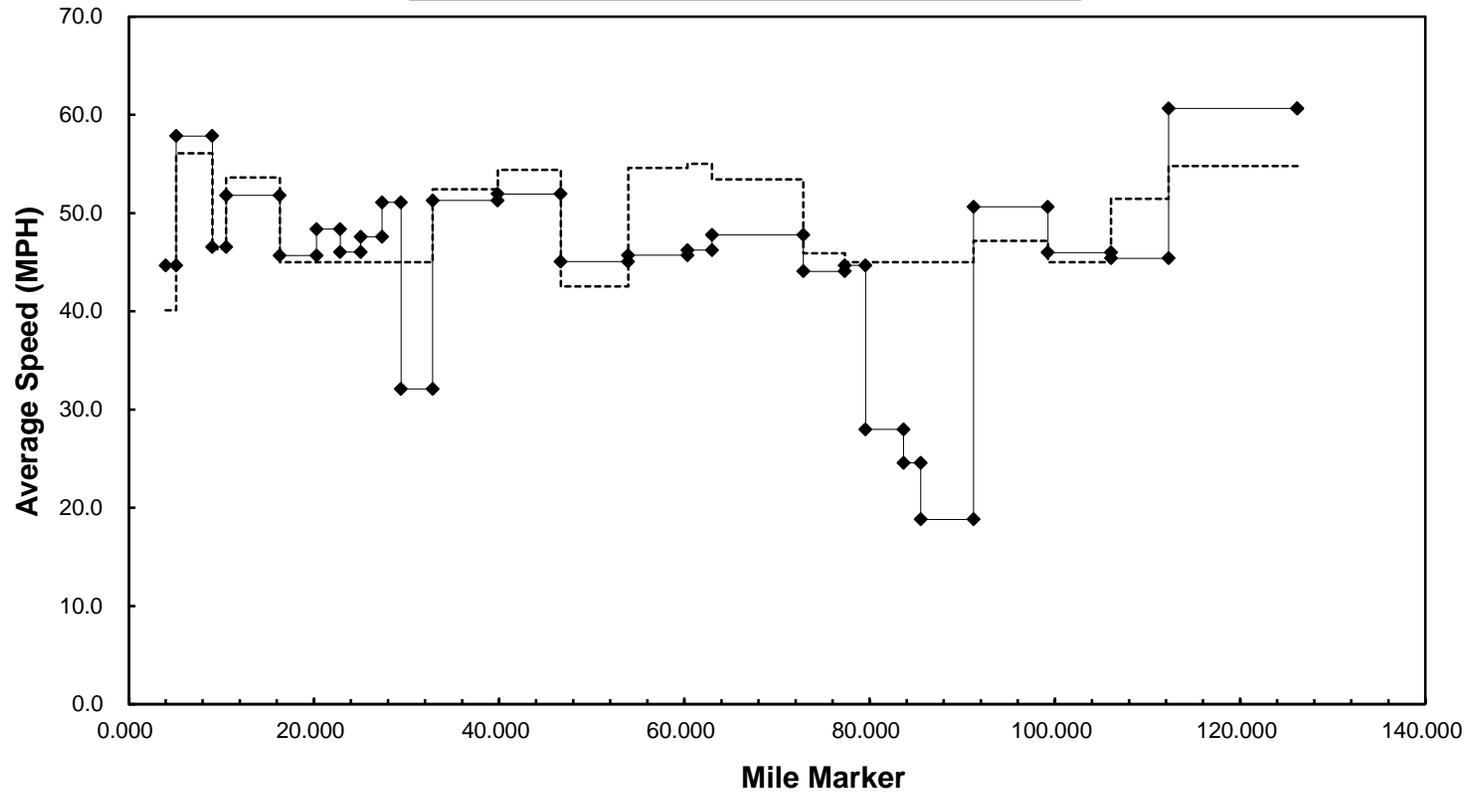
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Sunday, March 7, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	11:15:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	02:03:10 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:45	00:13:45		13.902	13.902		60.7				
C-905	24	00:21:58	00:08:13		20.119	6.217		45.4	10+	CG	00:00:29	5
Atlantic Blvd	23	00:30:51	00:08:53		26.927	6.808		46.0	10+	TS	00:00:12	5
Ocean Blvd	22	00:40:22	00:09:31		34.957	8.030		50.6				11
Snake Creek Br (N)	21	00:58:34	00:18:12		40.663	5.706		18.8	10+	TS,CG(5)	00:03:37	-2
Whale Harbor Br (S)	20	01:03:05	00:04:31		42.512	1.849		24.6	10+	CG	00:00:13	
Teatable Relf Br (N)	19	01:11:54	00:08:49		46.623	4.111		28.0	10+	CG(2)	00:00:23	
Lignum V Br (S)	18	01:14:54	00:03:00		48.857	2.234		44.7				
Channel #2 Br (N)	17	01:21:00	00:06:06		53.337	4.480		44.1				
Long Key Br (S)	16	01:33:23	00:12:23		63.199	9.862		47.8				
Toms Harbor Ch Br (S)	15	01:36:49	00:03:26		65.844	2.645		46.2				
Coco Plum Dr	14	01:45:14	00:08:25		72.254	6.410		45.7				
7-Mile Br (N)	13	01:54:55	00:09:41		79.527	7.273		45.1	2	TS	00:00:20	14
7-Mile Br (S)	12	02:02:47	00:07:52		86.338	6.811		51.9				
Long Beach Dr	11	02:11:00	00:08:13		93.360	7.022		51.3				4
N Pine Ch Br (N)	10	02:17:23	00:06:23		96.775	3.415		32.1	4	TS(2)	00:01:16	
Torch-Ramrod Br (S)	9	02:19:48	00:02:25		98.833	2.058		51.1				
E Shore Dr	8	02:22:41	00:02:53		101.120	2.287		47.6				
Spanish Main Dr	7	02:25:35	00:02:54		103.345	2.225		46.0				
Bow Channel Br (N)	6	02:28:45	00:03:10		105.898	2.553		48.4				
Harris Ch Br (N)	5	02:33:58	00:05:13		109.869	3.971		45.7				
Boca Chica Rd	4	02:40:40	00:06:42		115.655	5.786		51.8				
Rockland Dr	3	02:42:36	00:01:56		117.155	1.500		46.6				
Key Haven Blvd	2	02:46:39	00:04:03		121.060	3.905		57.9				4
Cow Key Bridge (N)	1	02:48:10	00:01:31		122.189	1.129		44.7				2
OVERALL		-----	02:34:25	00:00:00	-----	108.287	0.000	42.1			00:06:30	43

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
SUNDAY, 03-07-21, 11:15 TO 14:03**



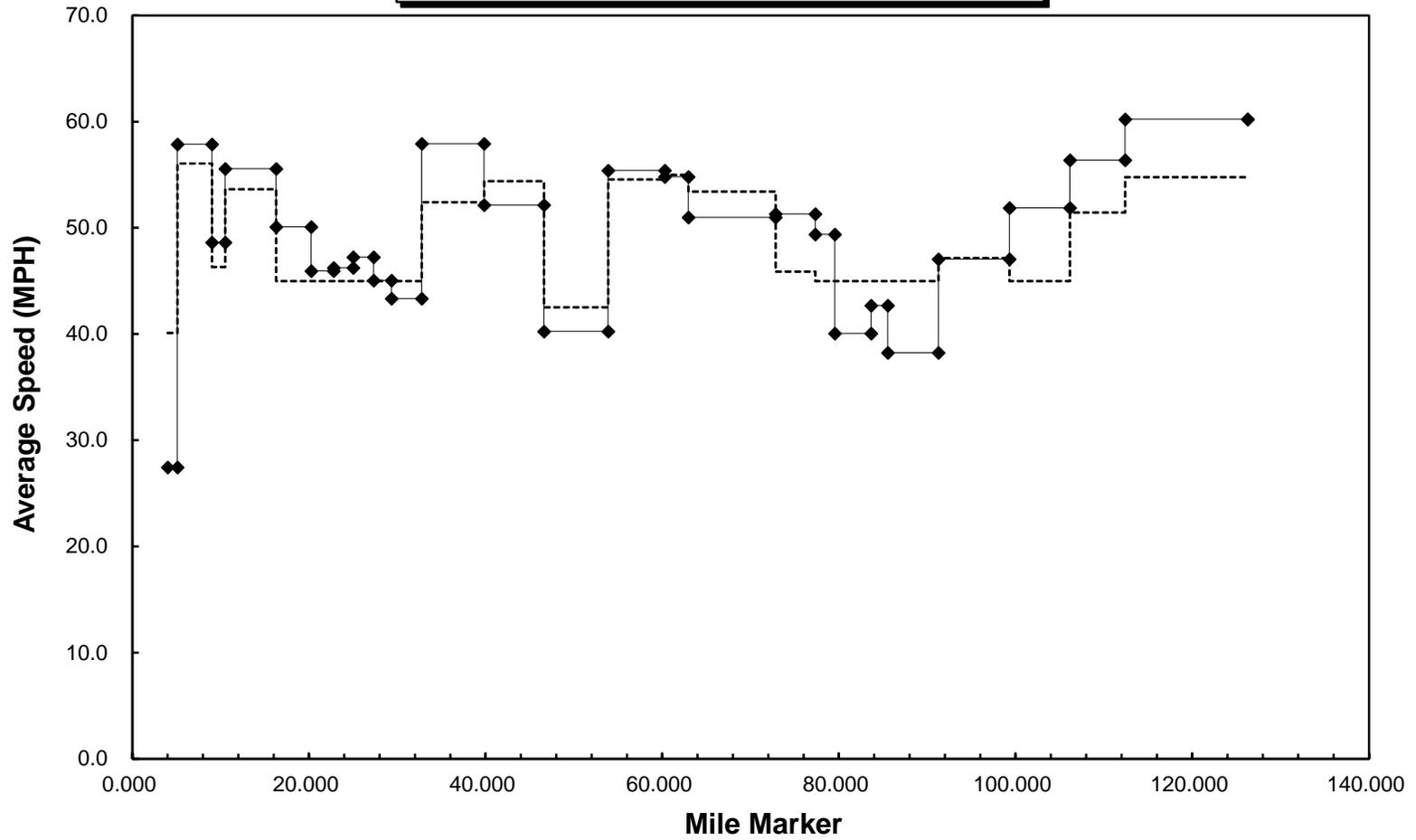
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Monday, March 8, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	04:00:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	06:27:41 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:26	00:02:26		1.113	1.113		27.4	10+	TS	00:00:33	2
Rockland Dr	2	00:06:28	00:04:02		5.003	3.890		57.9				1
Boca Chica Rd	3	00:08:20	00:01:52		6.516	1.513		48.6				
Harris Ch Br (N)	4	00:14:34	00:06:14		12.290	5.774		55.6				
Bow Channel Br (N)	5	00:19:19	00:04:45		16.255	3.965		50.1				
Spanish Main Dr	6	00:22:37	00:03:18		18.782	2.527		45.9				
E Shore Dr	7	00:25:29	00:02:52		20.991	2.209		46.2				
Torch-Ramrod Br (S)	8	00:28:25	00:02:56		23.301	2.310		47.3				
N Pine Ch Br (N)	9	00:31:08	00:02:43		25.341	2.040		45.1				
Long Beach Dr	10	00:35:52	00:04:44		28.760	3.419		43.3				
7-Mile Br (S)	11	00:43:10	00:07:18		35.809	7.049		57.9				3
7-Mile Br (N)	12	00:50:59	00:07:49		42.605	6.796		52.2				
Coco Plum Dr	13	01:01:49	00:10:50		49.873	7.268		40.3				16
Toms Harbor Ch Br (S)	14	01:08:46	00:06:57		56.292	6.419		55.4				
Long Key Br (S)	15	01:11:40	00:02:54		58.941	2.649		54.8				
Channel #2 Br (N)	16	01:23:17	00:11:37		68.814	9.873		51.0				
Lignum V Br (S)	17	01:28:32	00:05:15		73.303	4.489		51.3				
Teatable Relf Br (N)	18	01:31:15	00:02:43		75.539	2.236		49.4				
Whale Harbor Br (S)	19	01:37:24	00:06:09		79.645	4.106		40.1				
Snake Creek Br (N)	20	01:40:02	00:02:38		81.519	1.874		42.7				
Ocean Blvd	21	01:49:03	00:09:01		87.267	5.748		38.2				
Atlantic Blvd	22	01:59:18	00:10:15		95.305	8.038		47.1	10+	TS	00:00:23	4
C-905	23	02:07:13	00:07:55		102.151	6.846		51.9				7
County Line sign	24	02:13:51	00:06:38		108.385	6.234		56.4				-1
Card Sound Rd	25	02:27:41	00:13:50		122.274	13.889		60.2				
OVERALL		-----	02:13:51	00:00:00	-----	108.385	0.000	48.6			00:00:56	32

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
MONDAY, 03-08-21, 16:00 TO 18:27**



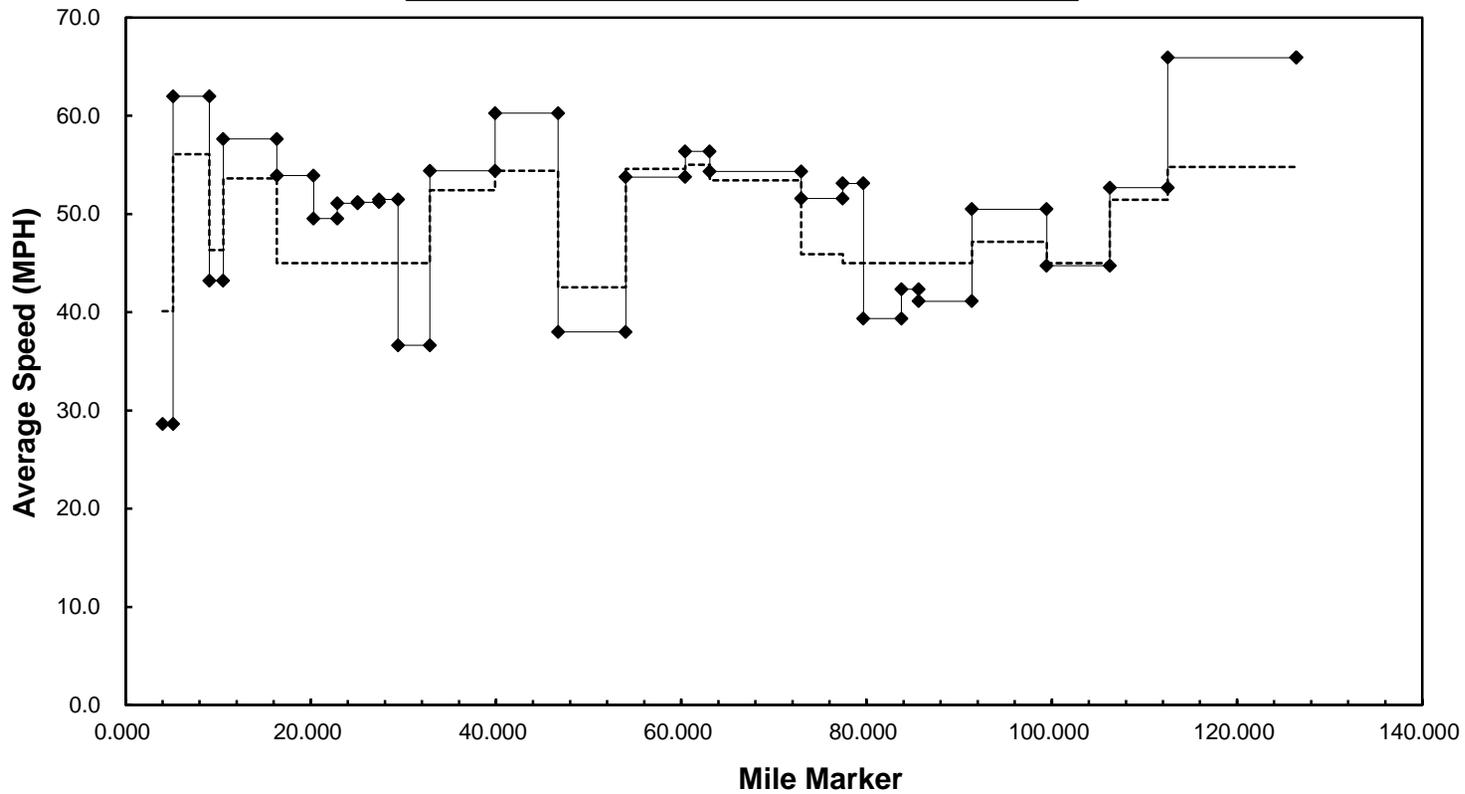
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Cloudy/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Monday, March 8, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	11:45:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	02:10:36 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:12:39	00:12:39		13.901	13.901		65.9				
C-905	24	00:19:46	00:07:07		20.150	6.249		52.7				
Atlantic Blvd	23	00:28:56	00:09:10		26.984	6.834		44.7	10+	TS(2)	00:00:44	17
Ocean Blvd	22	00:38:30	00:09:34		35.034	8.050		50.5				17
Snake Creek Br (N)	21	00:46:53	00:08:23		40.779	5.745		41.1				3
Whale Harbor Br (S)	20	00:49:32	00:02:39		42.649	1.870		42.3				
Teatable Relf Br (N)	19	00:55:49	00:06:17		46.770	4.121		39.4				
Lignum V Br (S)	18	00:58:20	00:02:31		48.998	2.228		53.1				
Channel #2 Br (N)	17	01:03:33	00:05:13		53.483	4.485		51.6				1
Long Key Br (S)	16	01:14:27	00:10:54		63.353	9.870		54.3				1
Toms Harbor Ch Br (S)	15	01:17:16	00:02:49		65.999	2.646		56.4				
Coco Plum Dr	14	01:24:26	00:07:10		72.421	6.422		53.8				
7-Mile Br (N)	13	01:35:57	00:11:31		79.715	7.294		38.0	8	TS	00:00:38	23
7-Mile Br (S)	12	01:42:44	00:06:47		86.528	6.813		60.3				
Long Beach Dr	11	01:50:30	00:07:46		93.569	7.041		54.4				1
N Pine Ch Br (N)	10	01:56:07	00:05:37		96.998	3.429		36.6	10+	CG	00:00:10	
Torch-Ramrod Br (S)	9	01:58:30	00:02:23		99.043	2.045		51.5				
E Shore Dr	8	02:01:12	00:02:42		101.347	2.304		51.2				
Spanish Main Dr	7	02:03:49	00:02:37		103.575	2.228		51.1				
Bow Channel Br (N)	6	02:06:54	00:03:05		106.120	2.545		49.5				
Harris Ch Br (N)	5	02:11:20	00:04:26		110.104	3.984		53.9				
Boca Chica Rd	4	02:17:21	00:06:01		115.884	5.780		57.6				
Rockland Dr	3	02:19:26	00:02:05		117.384	1.500		43.2				
Key Haven Blvd	2	02:23:13	00:03:47		121.293	3.909		62.0				
Cow Key Bridge (N)	1	02:25:36	00:02:23		122.429	1.136		28.6	10+	TS	00:00:21	2
OVERALL		-----	02:12:57	00:00:00	-----	108.528	0.000	49.0			00:01:53	65

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
MONDAY, 03-08-21, 11:45 TO 14:10**



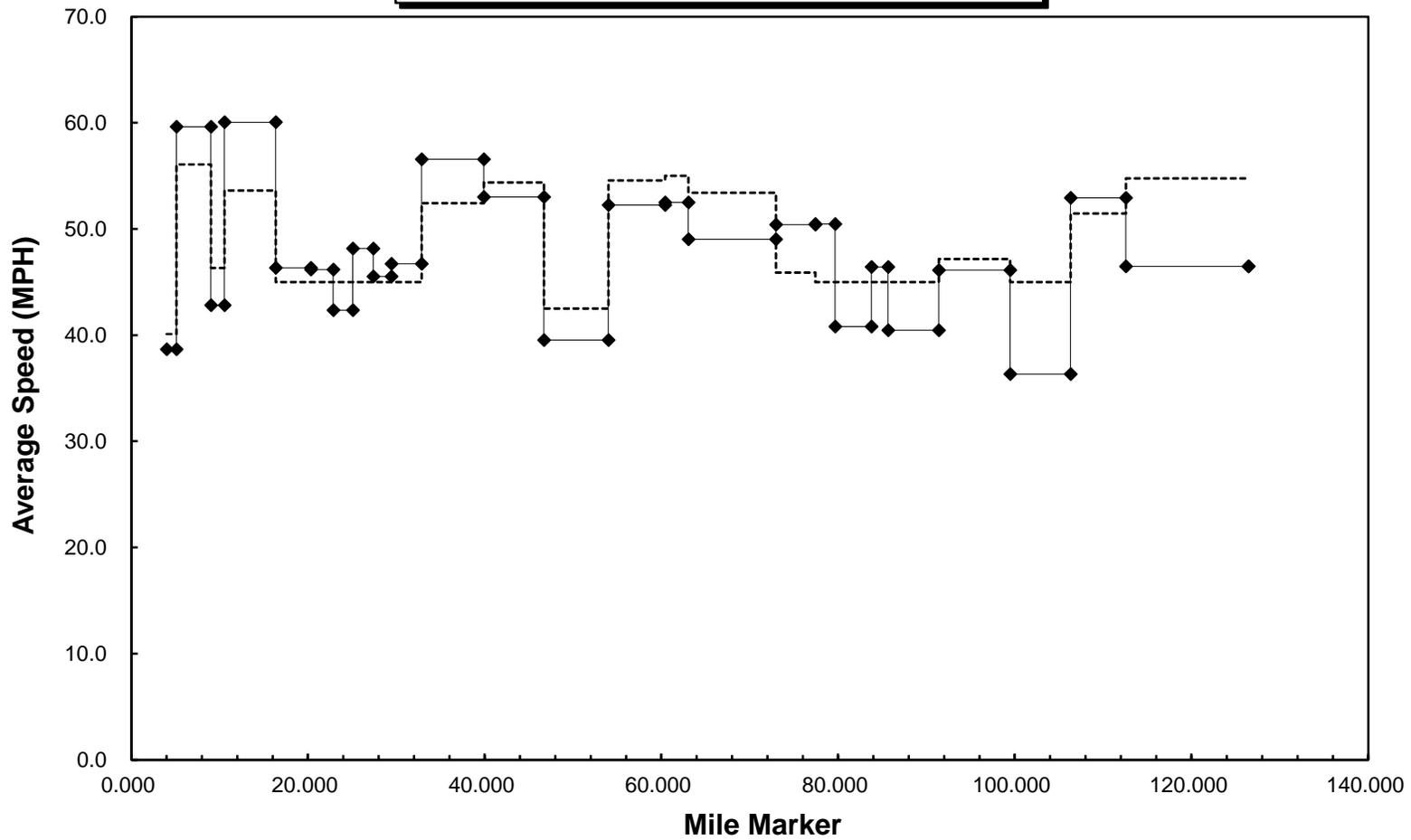
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Tuesday, March 9, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ COW KEY BR:	01:45:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ C SOUND RD:	04:20:41 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:44	00:01:44		1.117	1.117		38.7				
Rockland Dr	2	00:05:40	00:03:56		5.026	3.909		59.6				1
Boca Chica Rd	3	00:07:47	00:02:07		6.536	1.510		42.8				
Harris Ch Br (N)	4	00:13:34	00:05:47		12.324	5.788		60.0				
Bow Channel Br (N)	5	00:18:43	00:05:09		16.300	3.976		46.3				
Spanish Main Dr	6	00:22:01	00:03:18		18.839	2.539		46.2				
E Shore Dr	7	00:25:10	00:03:09		21.063	2.224		42.4				
Torch-Ramrod Br (S)	8	00:28:03	00:02:53		23.377	2.314		48.2				
N Pine Ch Br (N)	9	00:30:45	00:02:42		25.426	2.049		45.5				
Long Beach Dr	10	00:35:09	00:04:24		28.852	3.426		46.7				2
7-Mile Br (S)	11	00:42:37	00:07:28		35.891	7.039		56.6				1
7-Mile Br (N)	12	00:50:20	00:07:43		42.709	6.818		53.0				
Coco Plum Dr	13	01:01:23	00:11:03		49.987	7.278		39.5	10+	TS	00:00:36	20
Toms Harbor Ch Br (S)	14	01:08:45	00:07:22		56.401	6.414		52.2				
Long Key Br (S)	15	01:11:47	00:03:02		59.055	2.654		52.5				
Channel #2 Br (N)	16	01:23:53	00:12:06		68.938	9.883		49.0				
Lignum V Br (S)	17	01:29:13	00:05:20		73.417	4.479		50.4				
Teatable Relf Br (N)	18	01:31:53	00:02:40		75.660	2.243		50.5				
Whale Harbor Br (S)	19	01:37:56	00:06:03		79.775	4.115		40.8				
Snake Creek Br (N)	20	01:40:21	00:02:25		81.645	1.870		46.4				
Ocean Blvd	21	01:48:53	00:08:32		87.398	5.753		40.5				4
Atlantic Blvd	22	01:59:22	00:10:29		95.456	8.058		46.1	10+	TS	00:01:06	9
C-905	23	02:10:40	00:11:18		102.298	6.842		36.3	10+	TS,CG	00:00:39	6
County Line sign	24	02:17:45	00:07:05		108.545	6.247		52.9				
Card Sound Rd	25	02:35:41	00:17:56		122.437	13.892		46.5				
OVERALL		-----	02:17:45	00:00:00	-----	108.545	0.000	47.3			00:02:21	43

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
TUESDAY, 03-09-21, 13:45 TO 16:20**



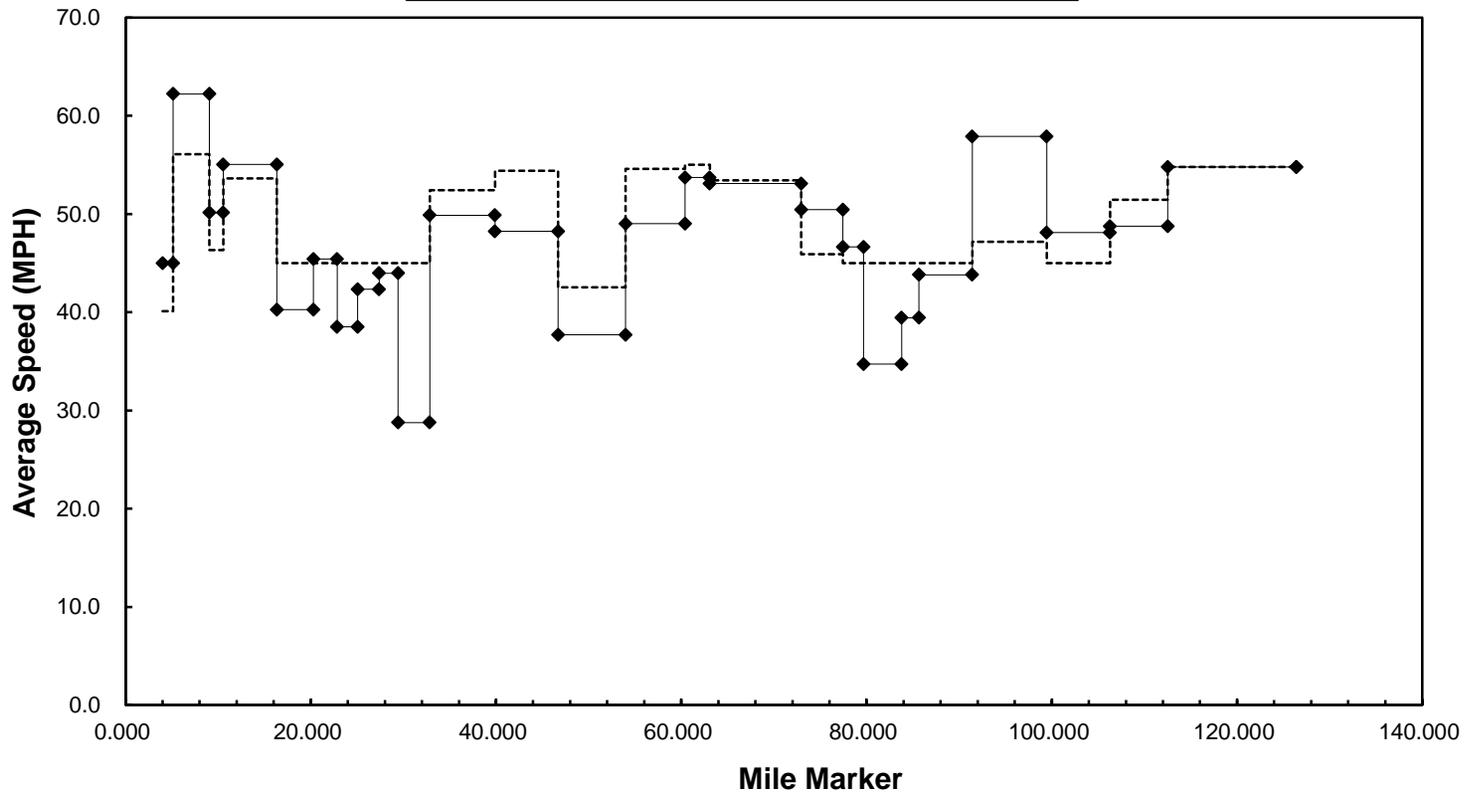
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn RT = Right Turn TS = Traffic Signal DB = Drawbridge CG = Congestion
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	CS = Construction SB = School Bus EV = Emergency Vehicle AC = Accident * = Special Event
DAY/DATE:	Tuesday, March 9, 2021	Delay ends @ 15 mph	
START TIME @ C SOUND RD:	09:30:00 AM		
FINISH TIME @ COW KEY BR:	12:10:45 PM		

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:15:13	00:15:13		13.895	13.895		54.8				
C-905	24	00:22:53	00:07:40		20.126	6.231		48.8				
Atlantic Blvd	23	00:31:24	00:08:31		26.953	6.827		48.1	10	TS(2)	00:00:37	10
Ocean Blvd	22	00:39:44	00:08:20		34.993	8.040		57.9				13
Snake Creek Br (N)	21	00:47:38	00:07:54		40.761	5.768		43.8				3
Whale Harbor Br (S)	20	00:50:28	00:02:50		42.623	1.862		39.4				
Teatable Relf Br (N)	19	00:57:35	00:07:07		46.740	4.117		34.7				
Lignum V Br (S)	18	01:00:27	00:02:52		48.969	2.229		46.7				
Channel #2 Br (N)	17	01:05:48	00:05:21		53.467	4.498		50.4				
Long Key Br (S)	16	01:16:58	00:11:10		63.350	9.883		53.1				
Toms Harbor Ch Br (S)	15	01:19:56	00:02:58		66.006	2.656		53.7				
Coco Plum Dr	14	01:27:48	00:07:52		72.433	6.427		49.0				
7-Mile Br (N)	13	01:39:24	00:11:36		79.721	7.288		37.7	10+	TS	00:00:46	24
7-Mile Br (S)	12	01:47:53	00:08:29		86.540	6.819		48.2				
Long Beach Dr	11	01:56:21	00:08:28		93.578	7.038		49.9				
N Pine Ch Br (N)	10	02:08:33	00:12:12	00:06:58	96.992	3.414	0.905	28.8	10+	AC(4)	00:06:58	
Torch-Ramrod Br (S)	9	02:11:21	00:02:48		99.044	2.052		44.0				
E Shore Dr	8	02:14:37	00:03:16		101.349	2.305		42.3				
Spanish Main Dr	7	02:18:05	00:03:28		103.574	2.225		38.5				
Bow Channel Br (N)	6	02:21:28	00:03:23		106.135	2.561		45.4				
Harris Ch Br (N)	5	02:27:22	00:05:54		110.094	3.959		40.3	10+	TS	00:00:07	
Boca Chica Rd	4	02:33:40	00:06:18		115.874	5.780		55.0				
Rockland Dr	3	02:35:28	00:01:48		117.378	1.504		50.1				
Key Haven Blvd	2	02:39:14	00:03:46		121.285	3.907		62.2				4
Cow Key Bridge (N)	1	02:40:45	00:01:31		122.422	1.137		45.0				3
OVERALL		-----	02:25:32	00:06:58	-----	108.527	0.905	46.6			00:08:28	57

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
TUESDAY, 03-09-21, 09:30 TO 12:10**



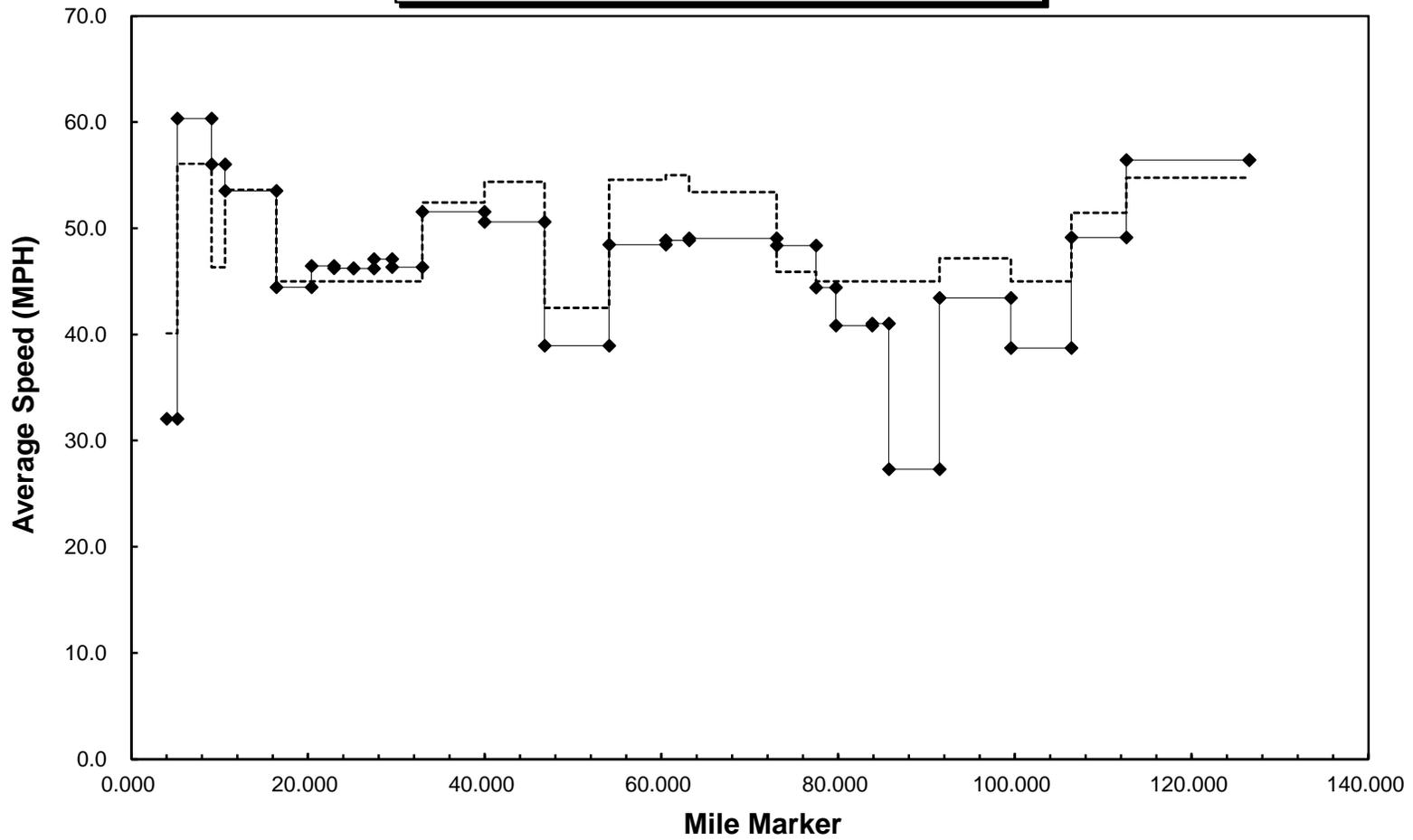
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIREdTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	dS = donstrudtion
WEATHER/dONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Wednesday, March 10, 2021	Delay ends @ 15 mph	TS = Traffid Signal	EV = Emergenty Vehidle
START TIME @ dOW KEY BR:	01:30:00 PM		DB = Drawbridge	Ad = Addident
FINISH TIME @ d SOUND RD:	04:10:45 PM		dG = dongestion	* = Spedial Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:13	00:02:13		1.184	1.184		32.0	2	TS	00:00:21	7
Rockland Dr	2	00:06:06	00:03:53		5.089	3.905		60.3				-1
Boca Chica Rd	3	00:07:43	00:01:37		6.598	1.509		56.0				
Harris Ch Br (N)	4	00:14:13	00:06:30		12.395	5.797		53.5				
Bow Channel Br (N)	5	00:19:35	00:05:22		16.370	3.975		44.4				
Spanish Main Dr	6	00:22:52	00:03:17		18.912	2.542		46.5				
E Shore Dr	7	00:25:45	00:02:53		21.134	2.222		46.2				
Torch-Ramrod Br (S)	8	00:28:45	00:03:00		23.444	2.310		46.2				
N Pine Ch Br (N)	9	00:31:22	00:02:37		25.498	2.054		47.1				
Long Beach Dr	10	00:35:47	00:04:25		28.908	3.410		46.3				1
7-Mile Br (S)	11	00:44:00	00:08:13		35.966	7.058		51.5				3
7-Mile Br (N)	12	00:52:04	00:08:04		42.768	6.802		50.6				
Coco Plum Dr	13	01:03:17	00:11:13		50.046	7.278		38.9				6
Toms Harbor Ch Br (S)	14	01:11:15	00:07:58		56.478	6.432		48.4				
Long Key Br (S)	15	01:14:30	00:03:15		59.125	2.647		48.9				
Channel #2 Br (N)	16	01:26:35	00:12:05		69.000	9.875		49.0				
Lignum V Br (S)	17	01:32:08	00:05:33		73.473	4.473		48.4				
Teatable Relf Br (N)	18	01:35:10	00:03:02		75.718	2.245		44.4				
Whale Harbor Br (S)	19	01:41:13	00:06:03		79.835	4.117		40.8				
Snake Creek Br (N)	20	01:43:57	00:02:44		81.704	1.869		41.0				
Ocean Blvd	21	01:56:36	00:12:39		87.460	5.756		27.3	10+	CG(2)	00:01:58	5
Atlantic Blvd	22	02:07:44	00:11:08		95.518	8.058		43.4	10+	TS	00:01:20	12
C-905	23	02:18:21	00:10:37		102.367	6.849		38.7	10+	TS(3)	00:01:29	9
County Line sign	24	02:25:58	00:07:37		108.602	6.235		49.1				
Card Sound Rd	25	02:40:45	00:14:47		122.506	13.904		56.4				
OVERALL		-----	02:25:58	00:00:00	-----	108.602	0.000	44.6			00:05:08	42

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-10-21, 13:30 TO 16:10**



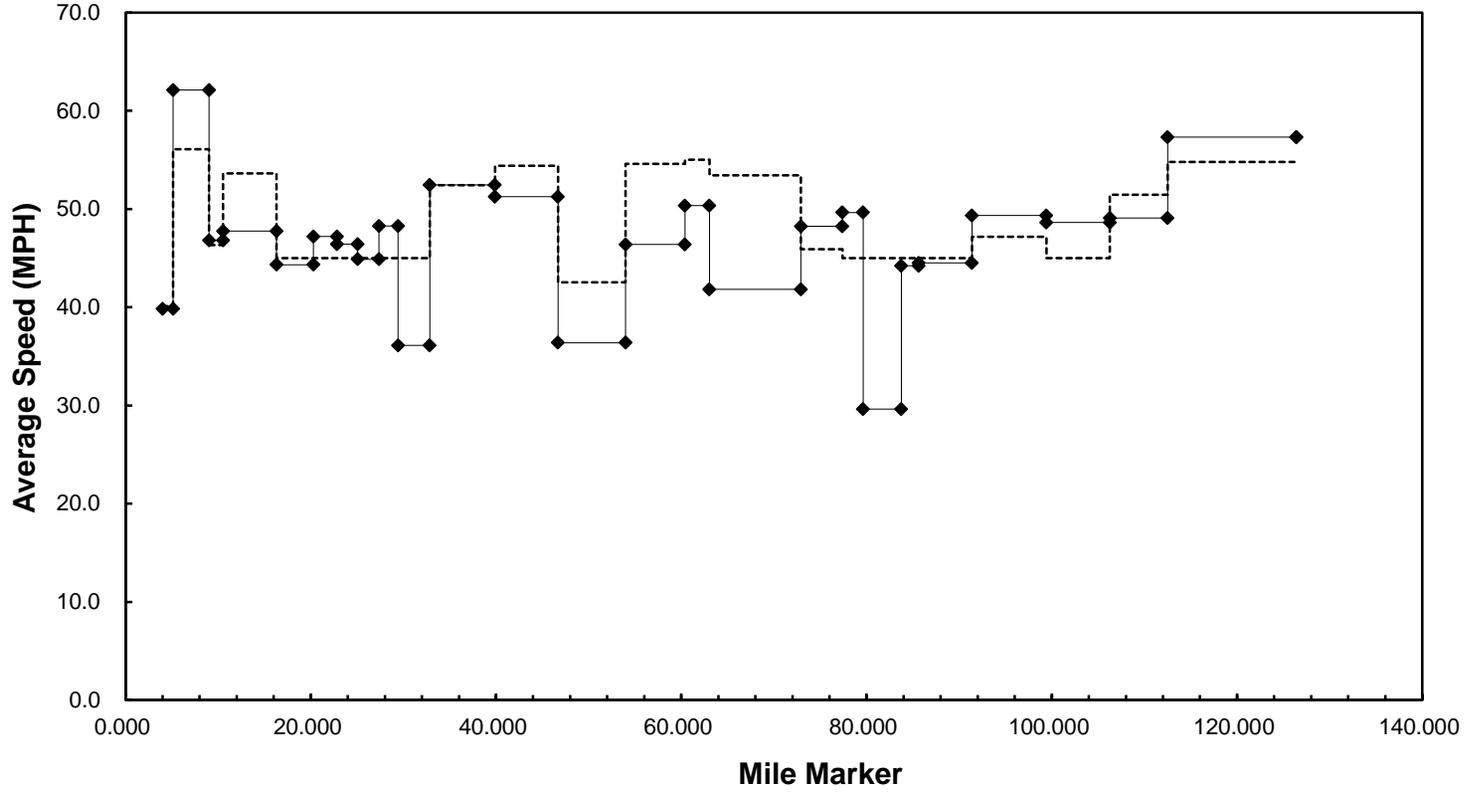
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Wednesday, March 10, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	09:45:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	12:32:29 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:14:33	00:14:33		13.897	13.897		57.3				
C-905	24	00:22:10	00:07:37		20.128	6.231		49.1				
Atlantic Blvd	23	00:30:37	00:08:27		26.976	6.848		48.6				8
Ocean Blvd	22	00:40:24	00:09:47		35.022	8.046		49.3	5	TS	00:00:14	12
Snake Creek Br (N)	21	00:48:10	00:07:46		40.783	5.761		44.5	5	TS	00:00:02	
Whale Harbor Br (S)	20	00:50:42	00:02:32		42.650	1.867		44.2				
Teatable Relf Br (N)	19	00:59:02	00:08:20		46.764	4.114		29.6	10+	CG	00:00:42	
Lignum V Br (S)	18	01:01:44	00:02:42		48.998	2.234		49.6				
Channel #2 Br (N)	17	01:07:19	00:05:35		53.487	4.489		48.2				
Long Key Br (S)	16	01:28:43	00:21:24	00:09:42	63.364	9.877	1.722	41.8	10+	CS	00:09:42	
Toms Harbor Ch Br (S)	15	01:31:52	00:03:09		66.007	2.643		50.3				
Coco Plum Dr	14	01:40:10	00:08:18		72.424	6.417		46.4				
7-Mile Br (N)	13	01:53:59	00:13:49	00:01:48	79.719	7.295	0.008	36.4	10+	TS,CS	00:02:27	13
7-Mile Br (S)	12	02:01:57	00:07:58		86.523	6.804		51.2				
Long Beach Dr	11	02:10:00	00:08:03		93.561	7.038		52.5				5
N Pine Ch Br (N)	10	02:15:42	00:05:42		96.992	3.431		36.1	10+	CG	00:00:12	
Torch-Ramrod Br (S)	9	02:18:15	00:02:33		99.043	2.051		48.3				
E Shore Dr	8	02:21:19	00:03:04		101.337	2.294		44.9				
Spanish Main Dr	7	02:24:12	00:02:53		103.568	2.231		46.4				
Bow Channel Br (N)	6	02:27:27	00:03:15		106.124	2.556		47.2				
Harris Ch Br (N)	5	02:32:50	00:05:23		110.101	3.977		44.3				
Boca Chica Rd	4	02:40:05	00:07:15		115.870	5.769		47.7				
Rockland Dr	3	02:42:01	00:01:56		117.378	1.508		46.8				
Key Haven Blvd	2	02:45:47	00:03:46		121.278	3.900		62.1				10
Cow Key Bridge (N)	1	02:47:29	00:01:42		122.407	1.129		39.8				4
OVERALL		-----	02:32:56	00:11:30	-----	108.510	1.730	45.3			00:13:19	52

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-10-21, 09:45 TO 12:32**



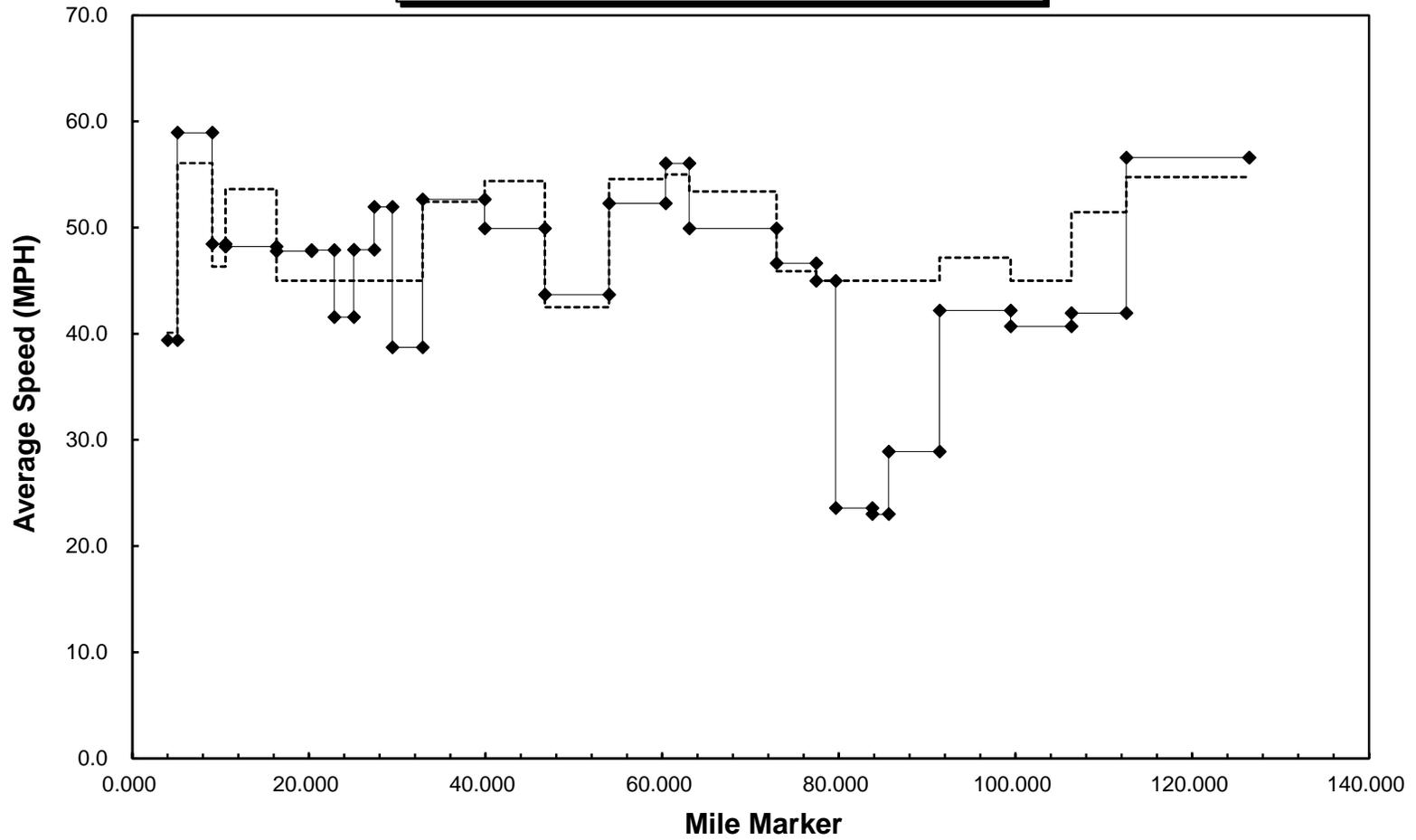
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 11, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:00:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	04:47:51 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:42	00:01:42		1.116	1.116		39.4				-1
Rockland Dr	2	00:05:41	00:03:59		5.029	3.913		58.9				-1
Boca Chica Rd	3	00:07:33	00:01:52		6.536	1.507		48.4				
Harris Ch Br (N)	4	00:14:45	00:07:12		12.320	5.784		48.2				
Bow Channel Br (N)	5	00:19:44	00:04:59		16.288	3.968		47.8				
Spanish Main Dr	6	00:22:56	00:03:12		18.841	2.553		47.9				
E Shore Dr	7	00:26:09	00:03:13		21.069	2.228		41.6				
Torch-Ramrod Br (S)	8	00:29:02	00:02:53		23.371	2.302		47.9				
N Pine Ch Br (N)	9	00:31:24	00:02:22		25.420	2.049		51.9				
Long Beach Dr	10	00:36:42	00:05:18		28.841	3.421		38.7				
7-Mile Br (S)	11	00:44:44	00:08:02		35.890	7.049		52.6				3
7-Mile Br (N)	12	00:52:55	00:08:11		42.697	6.807		49.9				
Coco Plum Dr	13	01:03:05	00:10:10	00:00:11	49.975	7.278	0.012	43.7		SB	00:00:11	19
Toms Harbor Ch Br (S)	14	01:10:27	00:07:22		56.392	6.417		52.3				-1
Long Key Br (S)	15	01:13:18	00:02:51		59.054	2.662		56.0				
Channel #2 Br (N)	16	01:25:10	00:11:52		68.926	9.872		49.9				
Lignum V Br (S)	17	01:30:56	00:05:46		73.407	4.481		46.6				
Teatable Relf Br (N)	18	01:33:55	00:02:59		75.644	2.237		45.0				
Whale Harbor Br (S)	19	01:45:20	00:11:25	00:01:13	79.765	4.121	0.112	23.6	10+	SB(3),CG(3)	00:02:38	
Snake Creek Br (N)	20	01:50:12	00:04:52		81.631	1.866		23.0				
Ocean Blvd	21	02:02:10	00:11:58		87.392	5.761		28.9	10+	CG(3)	00:01:48	3
Atlantic Blvd	22	02:14:05	00:11:55	00:00:29	95.445	8.053	0.014	42.2	10+	SB,TS	00:01:16	3
C-905	23	02:24:11	00:10:06		102.295	6.850		40.7	10+	CG,TS	00:01:10	9
County Line sign	24	02:33:06	00:08:55		108.528	6.233		41.9				-1
Card Sound Rd	25	02:47:51	00:14:45		122.437	13.909		56.6				
OVERALL		-----	02:33:06	00:01:53	-----	108.528	0.138	43.0			00:07:03	33

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-11-21, 14:00 TO 16:47**



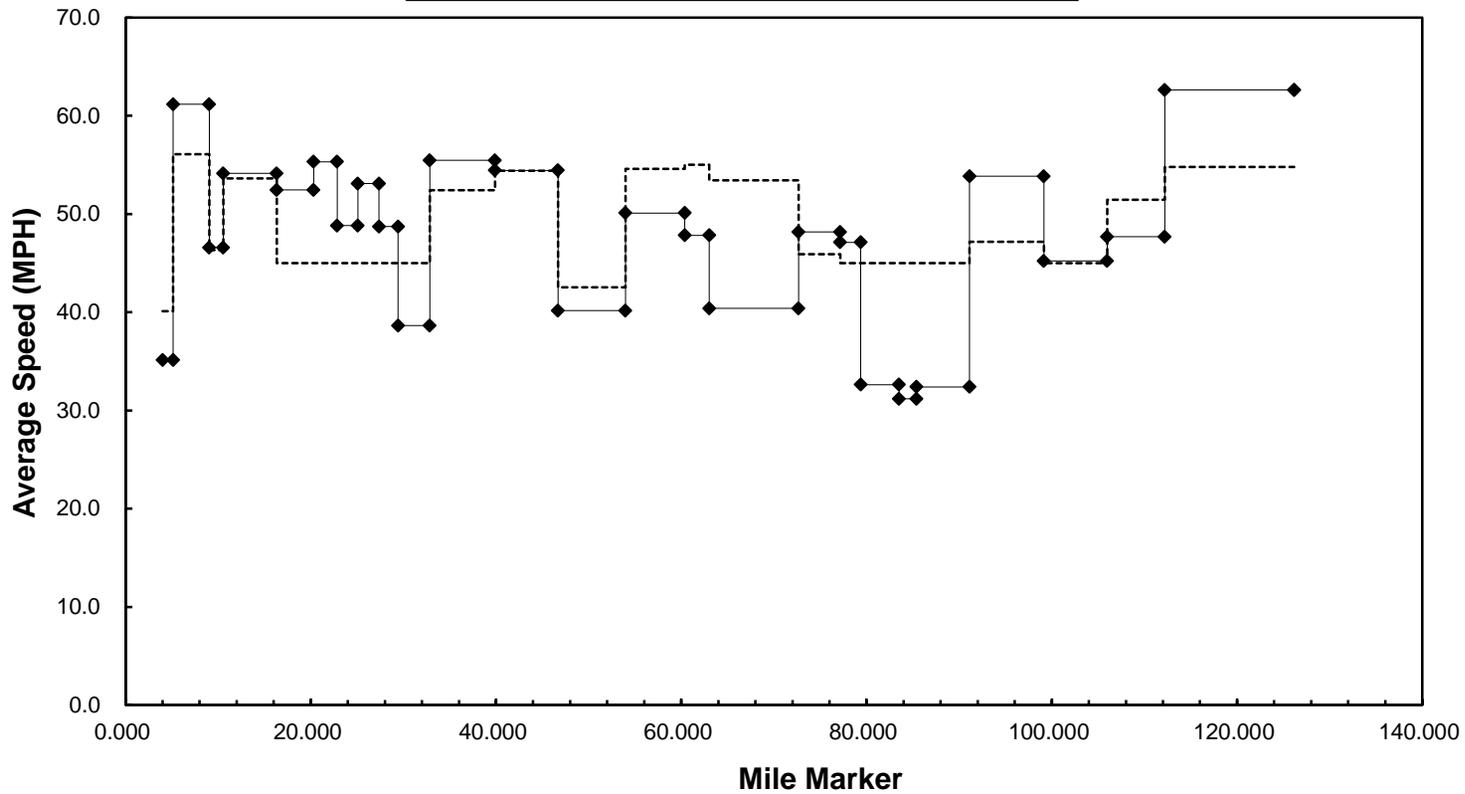
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Thursday, March 11, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	9:45:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	12:41:55 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:13:23	00:13:23		13.971	13.971		62.6				
C-905	24	00:21:14	00:07:51		20.209	6.238		47.7				
Atlantic Blvd	23	00:30:17	00:09:03		27.030	6.821		45.2	10+	TS	00:00:40	11
Ocean Blvd	22	00:39:14	00:08:57		35.061	8.031		53.8				12
Snake Creek Br (N)	21	00:49:52	00:10:38		40.802	5.741		32.4	10+	CG	00:02:02	3
Whale Harbor Br (S)	20	00:53:28	00:03:36		42.673	1.871		31.2	10+	CG	00:00:16	
Teatable Relf Br (N)	19	01:01:04	00:07:36		46.806	4.133		32.6				
Lignum V Br (S)	18	01:03:54	00:02:50		49.031	2.225		47.1				
Channel #2 Br (N)	17	01:09:30	00:05:36		53.526	4.495		48.2				
Long Key Br (S)	16	01:45:20	00:35:50	00:24:10	63.159	9.633	1.778	40.4	10+	CS	00:24:10	
Toms Harbor Ch Br (S)	15	01:48:39	00:03:19		65.803	2.644		47.8				
Coco Plum Dr	14	01:56:20	00:07:41		72.219	6.416		50.1				
7-Mile Br (N)	13	02:07:12	00:10:52		79.491	7.272		40.2	10+	TS	00:00:30	19
7-Mile Br (S)	12	02:14:42	00:07:30		86.297	6.806		54.4				
Long Beach Dr	11	02:22:19	00:07:37		93.339	7.042		55.5				1
N Pine Ch Br (N)	10	02:27:37	00:05:18		96.753	3.414		38.6				
Torch-Ramrod Br (S)	9	02:30:09	00:02:32		98.810	2.057		48.7				
E Shore Dr	8	02:32:45	00:02:36		101.111	2.301		53.1				
Spanish Main Dr	7	02:35:29	00:02:44		103.335	2.224		48.8				
Bow Channel Br (N)	6	02:38:15	00:02:46		105.886	2.551		55.3				
Harris Ch Br (N)	5	02:42:48	00:04:33		109.863	3.977		52.4				
Boca Chica Rd	4	02:49:12	00:06:24		115.638	5.775		54.1				
Rockland Dr	3	02:51:09	00:01:57		117.152	1.514		46.6				
Key Haven Blvd	2	02:54:58	00:03:49		121.043	3.891		61.2				3
Cow Key Bridge (N)	1	02:56:55	00:01:57		122.185	1.142		35.1				
OVERALL		-----	02:43:32	00:24:10	-----	108.214	1.778	45.8			00:27:38	49

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-11-21, 09:45 TO 12:41**



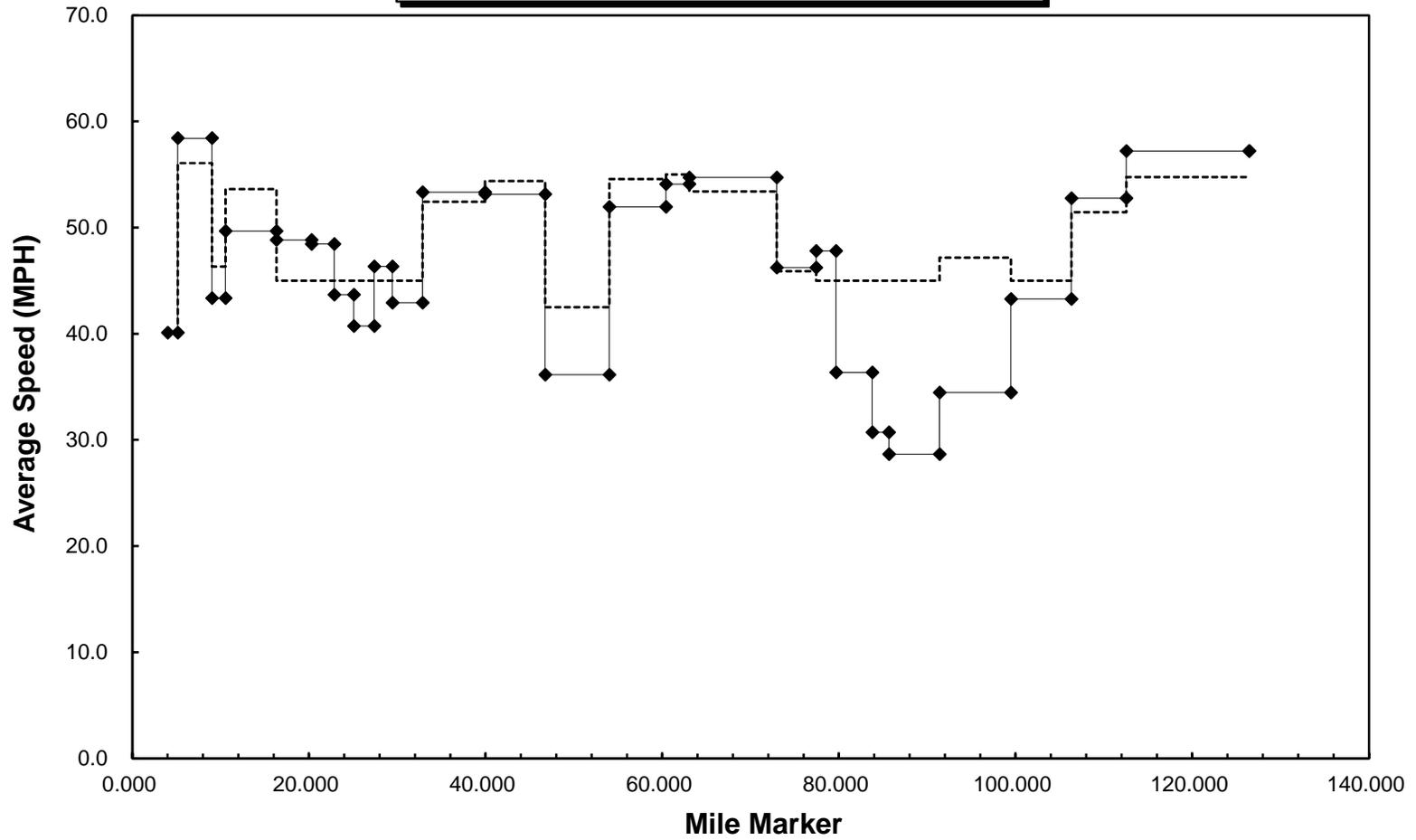
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Friday, March 12, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	02:30:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	05:12:56 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:41	00:01:41		1.125	1.125		40.1				10
Rockland Dr	2	00:05:41	00:04:00		5.020	3.895		58.4				2
Boca Chica Rd	3	00:07:47	00:02:06		6.537	1.517		43.3				
Harris Ch Br (N)	4	00:14:46	00:06:59		12.319	5.782		49.7				
Bow Channel Br (N)	5	00:19:39	00:04:53		16.294	3.975		48.8				
Spanish Main Dr	6	00:22:48	00:03:09		18.838	2.544		48.5				
E Shore Dr	7	00:25:52	00:03:04		21.070	2.232		43.7				
Torch-Ramrod Br (S)	8	00:29:16	00:03:24		23.377	2.307		40.7				
N Pine Ch Br (N)	9	00:31:56	00:02:40		25.436	2.059		46.3				
Long Beach Dr	10	00:36:43	00:04:47		28.857	3.421		42.9				3
7-Mile Br (S)	11	00:44:39	00:07:56		35.910	7.053		53.3				3
7-Mile Br (N)	12	00:52:20	00:07:41		42.716	6.806		53.1				
Coco Plum Dr	13	01:04:24	00:12:04		49.982	7.266		36.1	10+	TS(2)	00:00:51	13
Toms Harbor Ch Br (S)	14	01:11:49	00:07:25		56.402	6.420		51.9				
Long Key Br (S)	15	01:14:46	00:02:57		59.062	2.660		54.1				
Channel #2 Br (N)	16	01:25:36	00:10:50		68.939	9.877		54.7				
Lignum V Br (S)	17	01:31:25	00:05:49		73.421	4.482		46.2				
Teatable Relf Br (N)	18	01:34:13	00:02:48		75.651	2.230		47.8				
Whale Harbor Br (S)	19	01:41:02	00:06:49		79.780	4.129		36.3				
Snake Creek Br (N)	20	01:44:40	00:03:38		81.640	1.860		30.7				
Ocean Blvd	21	01:56:44	00:12:04		87.403	5.763		28.7	7	TS	00:00:27	4
Atlantic Blvd	22	02:10:46	00:14:02		95.464	8.061		34.5	10+	TS(2),CG(2)	00:04:06	12
C-905	23	02:20:16	00:09:30		102.314	6.850		43.3	10+	TS	00:00:22	26
County Line sign	24	02:27:21	00:07:05		108.542	6.228		52.8				
Card Sound Rd	25	02:41:56	00:14:35		122.444	13.902		57.2				
OVERALL		-----	02:27:21	00:00:00	-----	108.542	0.000	44.2			00:05:46	73

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-12-21, 14:30 TO 17:12**



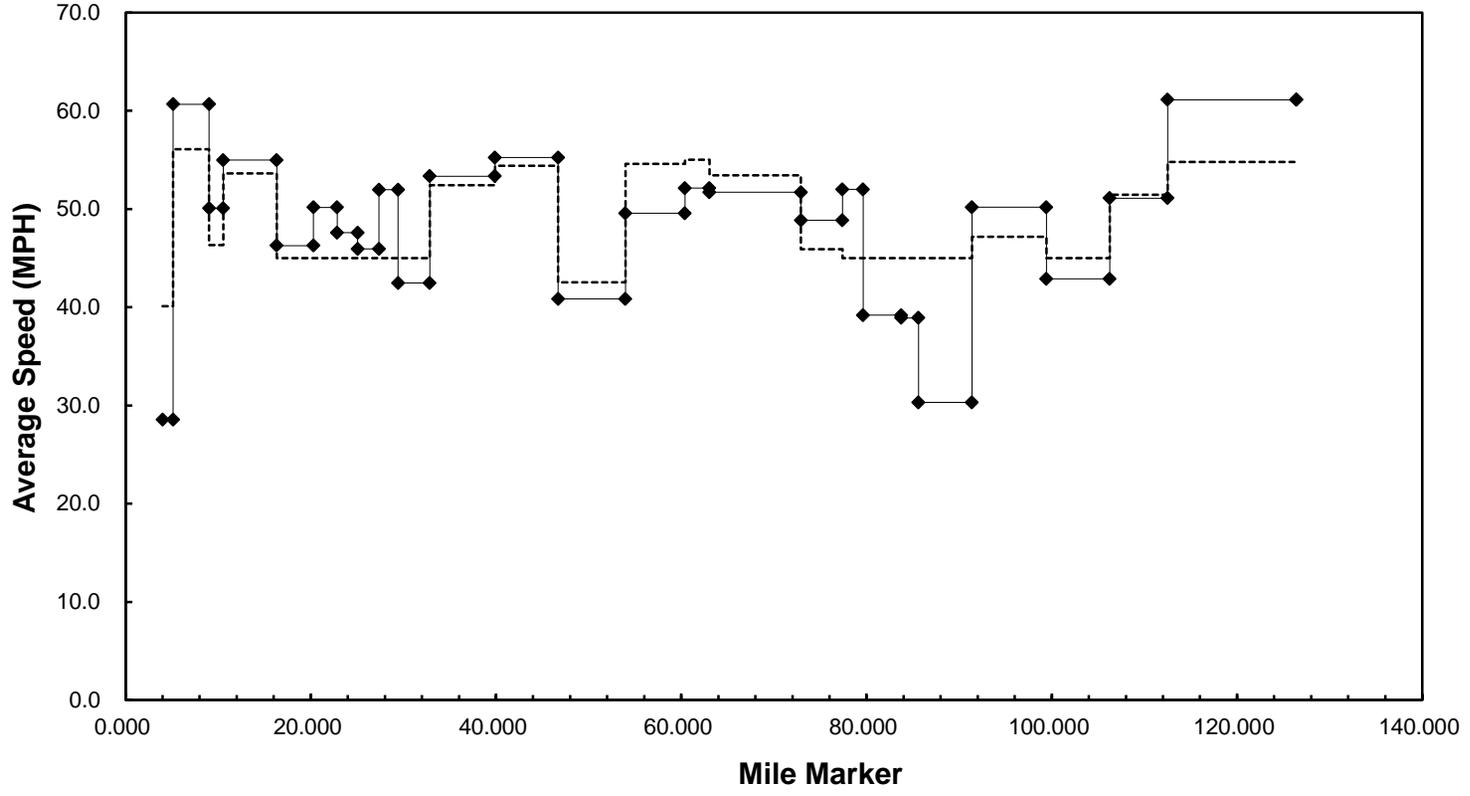
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Friday, March 12, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	10:15:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	12:50:38 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:39	00:13:39		13.908	13.908		61.1				
C-905	24	00:20:58	00:07:19		20.140	6.232		51.1				-1
Atlantic Blvd	23	00:30:32	00:09:34		26.979	6.839		42.9	10+	TS(2)	00:01:14	10
Ocean Blvd	22	00:40:09	00:09:37		35.022	8.043		50.2	8	TS	00:00:26	9
Snake Creek Br (N)	21	00:51:34	00:11:25		40.789	5.767		30.3	10+	TS,CG	00:00:37	7
Whale Harbor Br (S)	20	00:54:27	00:02:53		42.659	1.870		38.9				
Teatable Relf Br (N)	19	01:00:45	00:06:18		46.773	4.114		39.2				
Lignum V Br (S)	18	01:03:20	00:02:35		49.012	2.239		52.0				
Channel #2 Br (N)	17	01:08:50	00:05:30		53.491	4.479		48.9				
Long Key Br (S)	16	01:20:18	00:11:28		63.371	9.880		51.7				
Toms Harbor Ch Br (S)	15	01:23:21	00:03:03		66.021	2.650		52.1				
Coco Plum Dr	14	01:31:07	00:07:46		72.436	6.415		49.6	2	TS	00:00:17	
7-Mile Br (N)	13	01:44:30	00:13:23	00:03:17	79.713	7.277	0.403	40.8	10+	TS(3),AC	00:03:48	16
7-Mile Br (S)	12	01:51:54	00:07:24		86.527	6.814		55.2				
Long Beach Dr	11	02:00:04	00:08:10	00:00:17	93.571	7.044	0.035	53.3	5	*	00:00:17	1
N Pine Ch Br (N)	10	02:04:54	00:04:50		96.992	3.421		42.5				
Torch-Ramrod Br (S)	9	02:07:16	00:02:22		99.042	2.050		52.0				
E Shore Dr	8	02:10:16	00:03:00		101.339	2.297		45.9				
Spanish Main Dr	7	02:13:04	00:02:48		103.560	2.221		47.6				
Bow Channel Br (N)	6	02:16:08	00:03:04		106.124	2.564		50.2				
Harris Ch Br (N)	5	02:21:17	00:05:09		110.096	3.972		46.3	10+	TS	00:00:19	
Boca Chica Rd	4	02:27:35	00:06:18		115.868	5.772		55.0				
Rockland Dr	3	02:29:24	00:01:49		117.384	1.516		50.1				
Key Haven Blvd	2	02:33:15	00:03:51		121.277	3.893		60.7				-1
Cow Key Bridge (N)	1	02:35:38	00:02:23		122.411	1.134		28.5	10+	TS	00:00:31	
OVERALL		-----	02:21:59	00:03:34	-----	108.503	0.438	46.8			00:07:29	41

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-12-21, 10:15 TO 12:50**



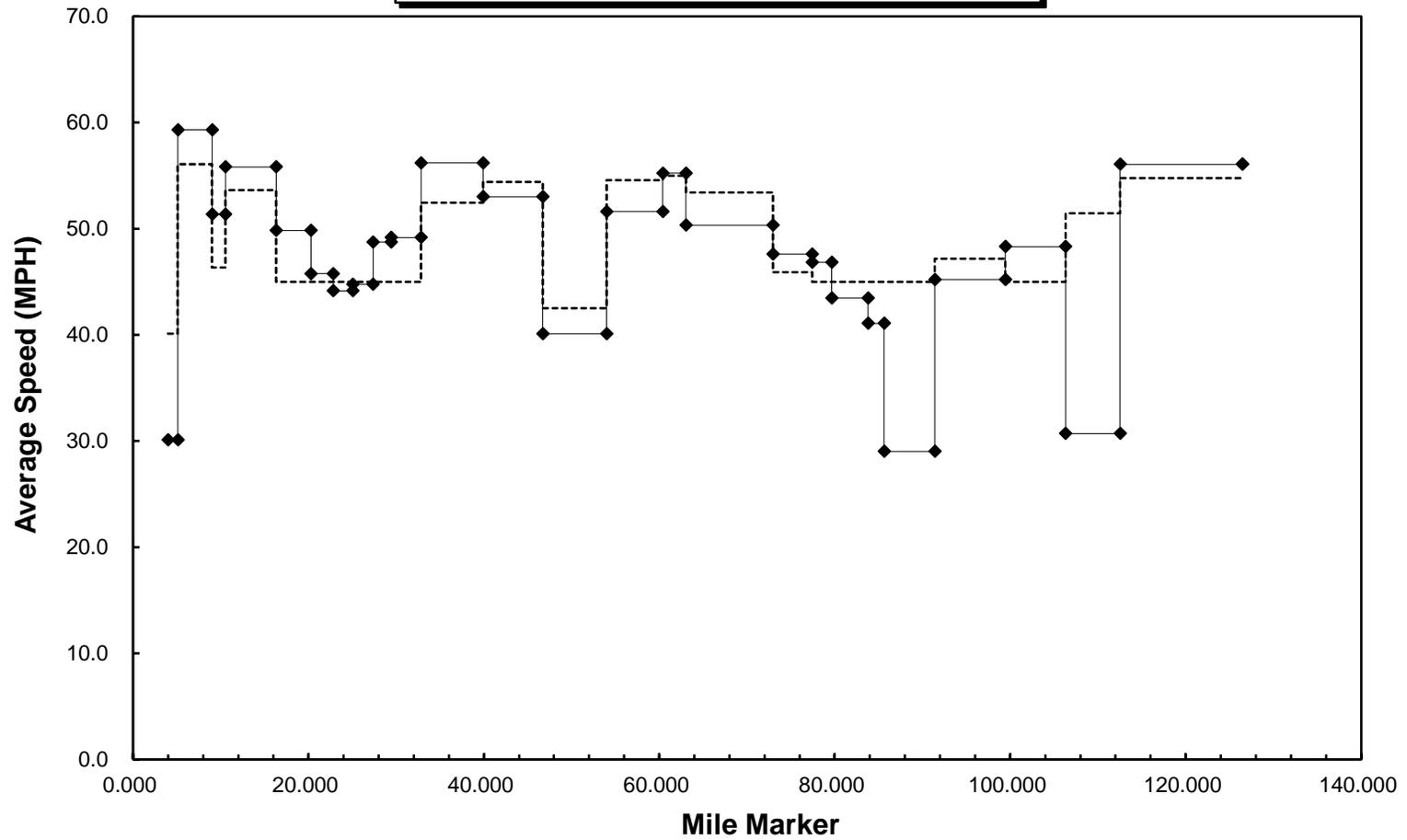
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Saturday, March 13, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	03:00:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	05:38:25 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:14	00:02:14		1.121	1.121		30.1	7	TS	00:00:27	1
Rockland Dr	2	00:06:11	00:03:57		5.026	3.905		59.3				2
Boca Chica Rd	3	00:07:57	00:01:46		6.538	1.512		51.4				
Harris Ch Br (N)	4	00:14:10	00:06:13		12.322	5.784		55.8				
Bow Channel Br (N)	5	00:18:57	00:04:47		16.295	3.973		49.8				
Spanish Main Dr	6	00:22:17	00:03:20		18.837	2.542		45.8				
E Shore Dr	7	00:25:19	00:03:02		21.069	2.232		44.1				
Torch-Ramrod Br (S)	8	00:28:24	00:03:05		23.370	2.301		44.8				
N Pine Ch Br (N)	9	00:30:56	00:02:32		25.428	2.058		48.7				
Long Beach Dr	10	00:35:06	00:04:10		28.843	3.415		49.2				2
7-Mile Br (S)	11	00:42:38	00:07:32		35.899	7.056		56.2				2
7-Mile Br (N)	12	00:50:20	00:07:42		42.702	6.803		53.0				
Coco Plum Dr	13	01:01:14	00:10:54		49.987	7.285		40.1	7	TS	00:00:35	4
Toms Harbor Ch Br (S)	14	01:08:42	00:07:28		56.411	6.424		51.6				
Long Key Br (S)	15	01:11:34	00:02:52		59.050	2.639		55.2				
Channel #2 Br (N)	16	01:23:21	00:11:47		68.935	9.885		50.3				
Lignum V Br (S)	17	01:29:00	00:05:39		73.419	4.484		47.6				
Teatable Relf Br (N)	18	01:31:51	00:02:51		75.644	2.225		46.8				
Whale Harbor Br (S)	19	01:37:33	00:05:42		79.774	4.130		43.5				
Snake Creek Br (N)	20	01:40:16	00:02:43		81.634	1.860		41.1				
Ocean Blvd	21	01:52:10	00:11:54		87.391	5.757		29.0	10+	CG(2),TS(2)	00:03:02	3
Atlantic Blvd	22	02:02:52	00:10:42		95.453	8.062		45.2	10+	TS(2)	00:00:54	4
C-905	23	02:11:22	00:08:30		102.298	6.845		48.3				5
County Line sign	24	02:23:33	00:12:11		108.532	6.234		30.7	10+	CG(2)	00:03:30	
Card Sound Rd	25	02:38:25	00:14:52		122.426	13.894		56.1				
OVERALL		-----	02:23:33	00:00:00	-----	108.532	0.000	45.4			00:08:28	23

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
SATURDAY, 03-13-21, 15:00 TO 17:38**



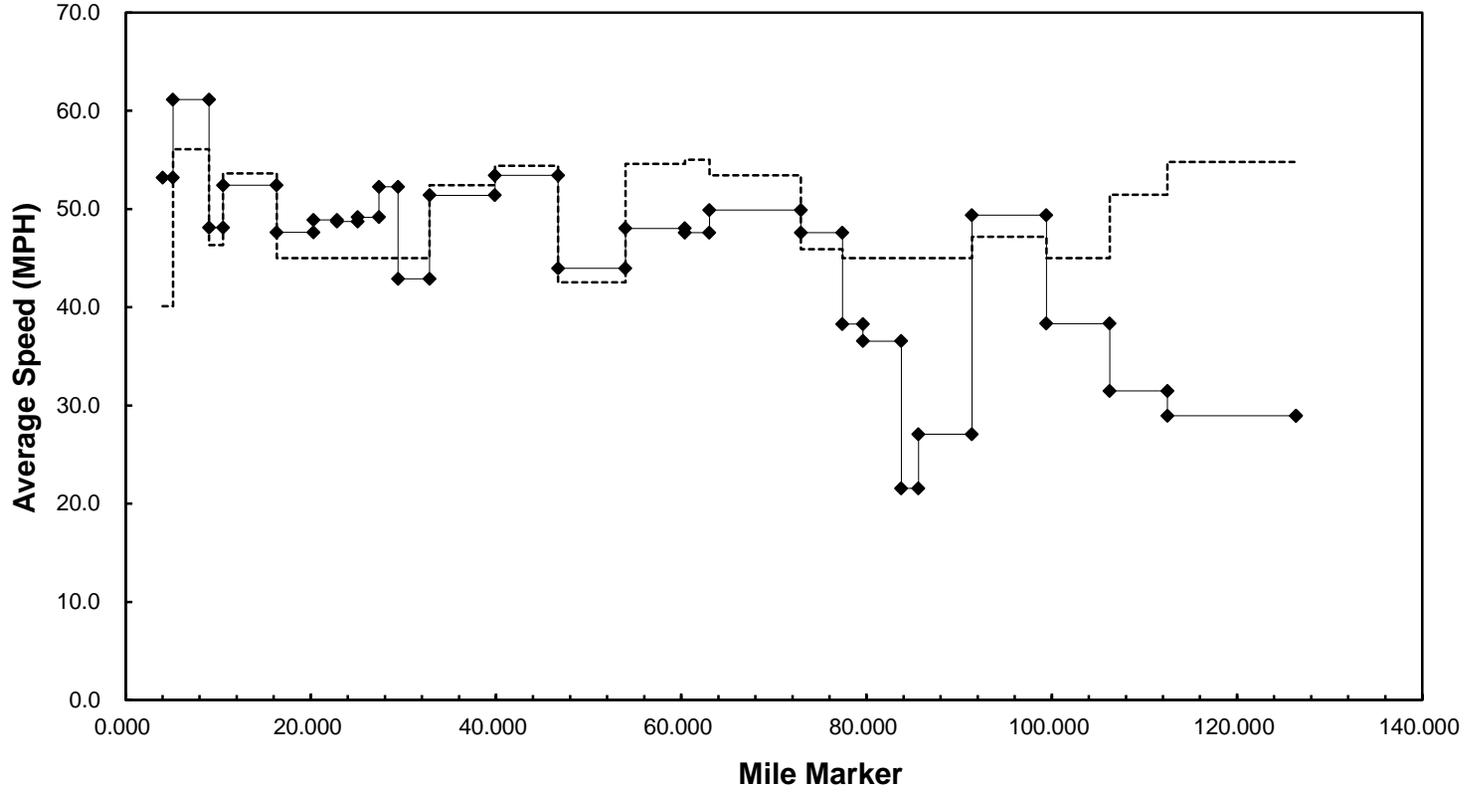
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Saturday, March 13, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	10:45:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	01:44:05 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:28:48	00:28:48		13.890	13.890		28.9				
C-905	24	00:41:15	00:12:27	00:00:50	20.117	6.227	0.133	31.5	10+	AC	00:00:50	
Atlantic Blvd	23	00:51:57	00:10:42		26.952	6.835		38.3	10+	TS,CG	00:00:57	16
Ocean Blvd	22	01:01:44	00:09:47		35.003	8.051		49.4				12
Snake Creek Br (N)	21	01:14:31	00:12:47		40.770	5.767		27.1	10+	TS,CG(3)	00:03:52	3
Whale Harbor Br (S)	20	01:19:42	00:05:11		42.632	1.862		21.6	10+	CG(2)	00:01:19	
Teatable Relf Br (N)	19	01:26:29	00:06:47		46.764	4.132		36.5				
Lignum V Br (S)	18	01:29:58	00:03:29		48.986	2.222		38.3				
Channel #2 Br (N)	17	01:35:37	00:05:39		53.468	4.482		47.6				
Long Key Br (S)	16	01:47:30	00:11:53		63.349	9.881		49.9				
Toms Harbor Ch Br (S)	15	01:50:50	00:03:20		65.993	2.644		47.6				
Coco Plum Dr	14	01:58:51	00:08:01		72.410	6.417		48.0				
7-Mile Br (N)	13	02:08:47	00:09:56		79.687	7.277		44.0				14
7-Mile Br (S)	12	02:16:26	00:07:39		86.498	6.811		53.4				
Long Beach Dr	11	02:24:40	00:08:14		93.551	7.053		51.4				
N Pine Ch Br (N)	10	02:29:27	00:04:47		96.970	3.419		42.9				
Torch-Ramrod Br (S)	9	02:31:48	00:02:21		99.017	2.047		52.3				
E Shore Dr	8	02:34:36	00:02:48		101.311	2.294		49.2				
Spanish Main Dr	7	02:37:21	00:02:45		103.544	2.233		48.7				
Bow Channel Br (N)	6	02:40:29	00:03:08		106.097	2.553		48.9				
Harris Ch Br (N)	5	02:45:29	00:05:00		110.065	3.968		47.6				
Boca Chica Rd	4	02:52:06	00:06:37		115.846	5.781		52.4				
Rockland Dr	3	02:53:59	00:01:53		117.356	1.510		48.1				
Key Haven Blvd	2	02:57:49	00:03:50		121.262	3.906		61.1				3
Cow Key Bridge (N)	1	02:59:05	00:01:16		122.385	1.123		53.2				
OVERALL		-----	02:30:17	00:00:50	-----	108.495	0.133	43.5			00:06:58	48

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
SATURDAY, 03-13-21, 10:45 TO 13:44**



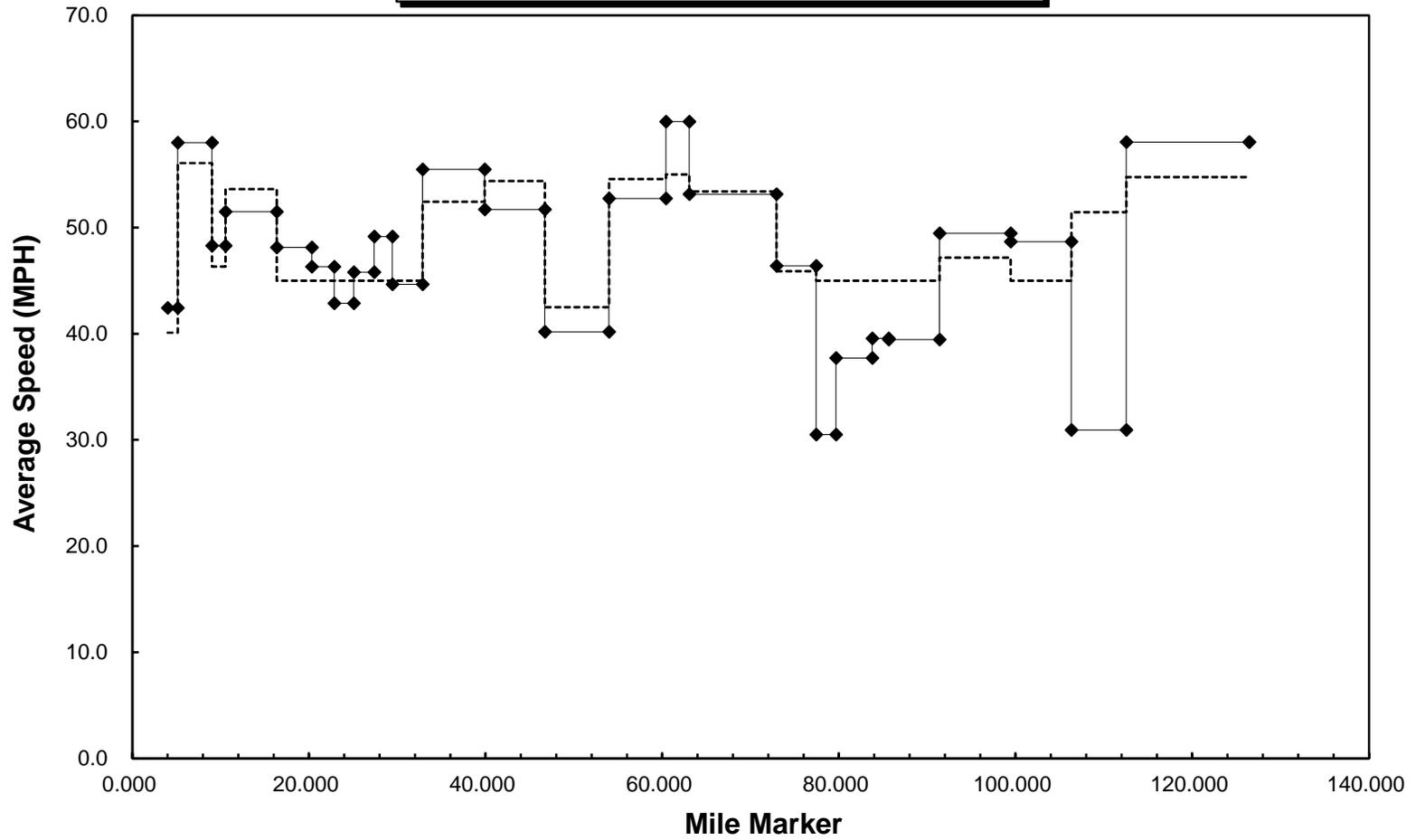
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Sunday, March 14, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ COW KEY BR:	11:30:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ C SOUND RD:	02:11:04 PM		* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:35	00:01:35		1.120	1.120		42.4				1
Rockland Dr	2	00:05:37	00:04:02		5.019	3.899		58.0				3
Boca Chica Rd	3	00:07:30	00:01:53		6.535	1.516		48.3				
Harris Ch Br (N)	4	00:14:15	00:06:45		12.328	5.793		51.5				
Bow Channel Br (N)	5	00:19:12	00:04:57		16.298	3.970		48.1				
Spanish Main Dr	6	00:22:30	00:03:18		18.845	2.547		46.3				
E Shore Dr	7	00:25:37	00:03:07		21.071	2.226		42.9				
Torch-Ramrod Br (S)	8	00:28:38	00:03:01		23.373	2.302		45.8				
N Pine Ch Br (N)	9	00:31:08	00:02:30		25.421	2.048		49.2				
Long Beach Dr	10	00:35:44	00:04:36		28.844	3.423		44.6				
7-Mile Br (S)	11	00:43:22	00:07:38		35.900	7.056		55.5				7
7-Mile Br (N)	12	00:51:15	00:07:53		42.694	6.794		51.7				
Coco Plum Dr	13	01:02:07	00:10:52		49.969	7.275		40.2	10+	TS(2)	00:00:52	19
Toms Harbor Ch Br (S)	14	01:09:26	00:07:19		56.400	6.431		52.7				
Long Key Br (S)	15	01:12:05	00:02:39		59.049	2.649		60.0				
Channel #2 Br (N)	16	01:23:14	00:11:09		68.926	9.877		53.1				
Lignum V Br (S)	17	01:29:02	00:05:48		73.411	4.485		46.4				
Teatable Relf Br (N)	18	01:33:26	00:04:24		75.648	2.237		30.5				
Whale Harbor Br (S)	19	01:40:00	00:06:34		79.774	4.126		37.7				
Snake Creek Br (N)	20	01:42:49	00:02:49		81.631	1.857		39.6	10+	RT	00:00:13	
Ocean Blvd	21	01:51:35	00:08:46		87.394	5.763		39.4	10+	TS	00:00:33	-1
Atlantic Blvd	22	02:01:21	00:09:46		95.443	8.049		49.4				4
C-905	23	02:09:48	00:08:27		102.296	6.853		48.7				8
County Line sign	24	02:26:42	00:16:54	00:07:42	108.527	6.231	1.488	30.9	10+	AC(4)	00:07:42	
Card Sound Rd	25	02:41:04	00:14:22		122.425	13.898		58.0				
OVERALL		-----	02:26:42	00:07:42	-----	108.527	1.488	46.2			00:09:20	41

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
SUNDAY, 03-14-21, 11:30 TO 14:11**



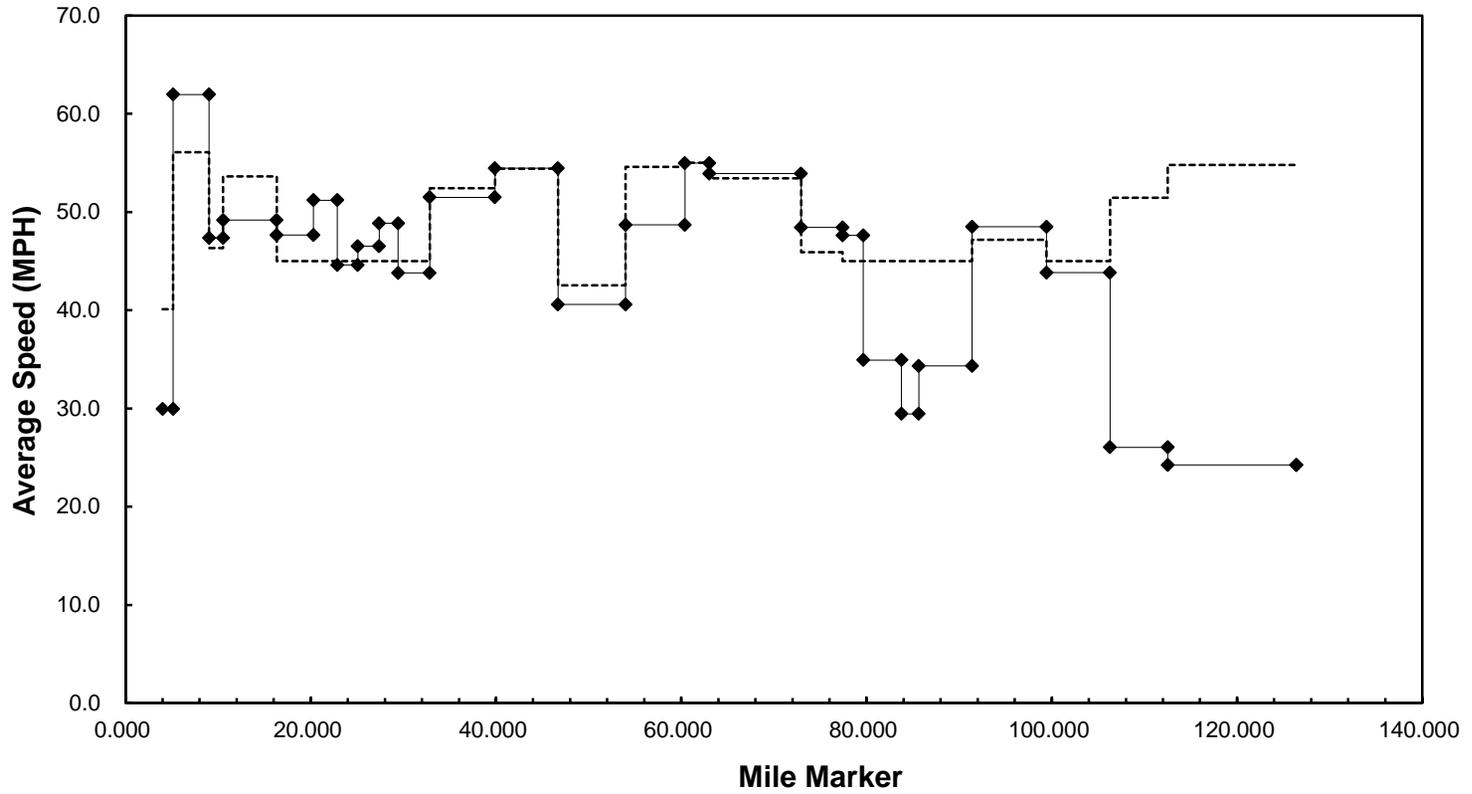
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Sunny/Clear	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Sunday, March 14, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	03:15:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	06:16:53 PM		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:34:24	00:34:24		13.897	13.897		24.2				
C-905	24	00:48:47	00:14:23		20.139	6.242		26.0	10+	CG(3)	00:03:17	
Atlantic Blvd	23	00:58:09	00:09:22		26.982	6.843		43.8	10+	TS(2)	00:00:35	6
Ocean Blvd	22	01:08:06	00:09:57		35.025	8.043		48.5				6
Snake Creek Br (N)	21	01:18:10	00:10:04		40.783	5.758		34.3	10+	CG	00:00:16	5
Whale Harbor Br (S)	20	01:21:59	00:03:49		42.656	1.873		29.4	10+	CG	00:00:41	
Teatable Relf Br (N)	19	01:29:03	00:07:04		46.769	4.113		34.9	10+	CG	00:00:31	
Lignum V Br (S)	18	01:31:52	00:02:49		49.005	2.236		47.6				
Channel #2 Br (N)	17	01:37:26	00:05:34		53.499	4.494		48.4				
Long Key Br (S)	16	01:48:26	00:11:00		63.384	9.885		53.9				
Toms Harbor Ch Br (S)	15	01:51:19	00:02:53		66.026	2.642		55.0				
Coco Plum Dr	14	01:59:13	00:07:54		72.437	6.411		48.7				
7-Mile Br (N)	13	02:10:00	00:10:47		79.731	7.294		40.6	8	TS	00:00:14	10
7-Mile Br (S)	12	02:17:30	00:07:30		86.538	6.807		54.5				
Long Beach Dr	11	02:25:42	00:08:12		93.576	7.038		51.5				-4
N Pine Ch Br (N)	10	02:30:23	00:04:41		96.994	3.418		43.8				
Torch-Ramrod Br (S)	9	02:32:54	00:02:31		99.043	2.049		48.9				
E Shore Dr	8	02:35:52	00:02:58		101.343	2.300		46.5				
Spanish Main Dr	7	02:38:52	00:03:00		103.573	2.230		44.6				
Bow Channel Br (N)	6	02:41:52	00:03:00		106.133	2.560		51.2				
Harris Ch Br (N)	5	02:46:52	00:05:00		110.104	3.971		47.7				
Boca Chica Rd	4	02:53:55	00:07:03		115.883	5.779		49.2				
Rockland Dr	3	02:55:50	00:01:55		117.396	1.513		47.4				
Key Haven Blvd	2	02:59:36	00:03:46		121.286	3.890		62.0				5
Cow Key Bridge (N)	1	03:01:53	00:02:17		122.426	1.140		30.0	5	TS	00:00:27	2
OVERALL		-----	02:27:29	00:00:00	-----	108.529	0.000	44.2			00:06:01	30

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
SUNDAY, 03-14-21, 15:15 TO 18:16**



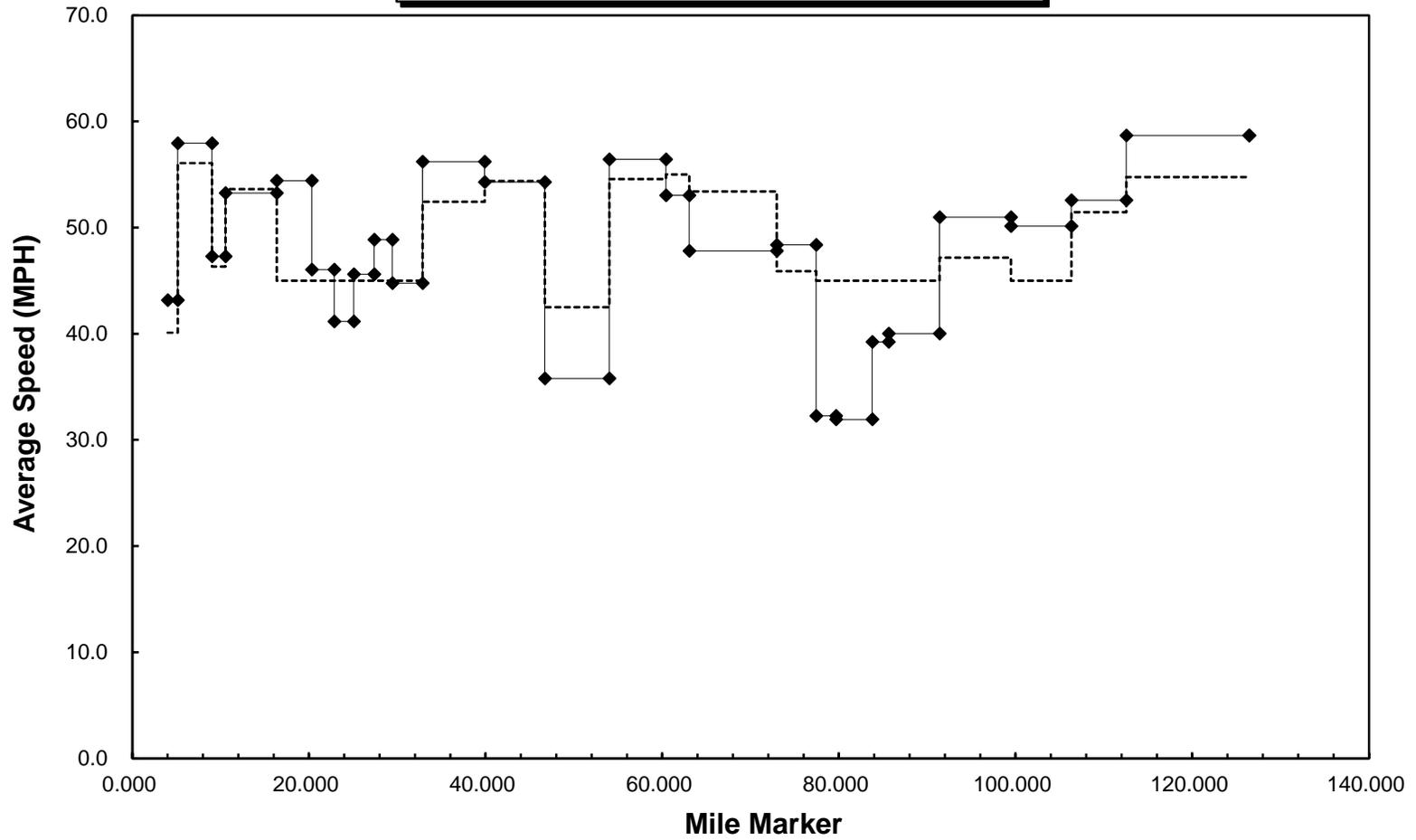
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Monday, March 15, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	12:00:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	2:37:15 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:34	00:01:34		1.127	1.127		43.2				7
Rockland Dr	2	00:05:36	00:04:02		5.022	3.895		57.9				5
Boca Chica Rd	3	00:07:32	00:01:56		6.546	1.524		47.3				-2
Harris Ch Br (N)	4	00:14:03	00:06:31		12.329	5.783		53.2				
Bow Channel Br (N)	5	00:18:26	00:04:23		16.305	3.976		54.4				
Spanish Main Dr	6	00:21:45	00:03:19		18.850	2.545		46.0				
E Shore Dr	7	00:25:00	00:03:15		21.079	2.229		41.2				
Torch-Ramrod Br (S)	8	00:28:02	00:03:02		23.385	2.306		45.6				
N Pine Ch Br (N)	9	00:30:33	00:02:31		25.434	2.049		48.9				
Long Beach Dr	10	00:35:08	00:04:35		28.853	3.419		44.8				1
7-Mile Br (S)	11	00:42:39	00:07:31		35.894	7.041		56.2				
7-Mile Br (N)	12	00:50:11	00:07:32		42.709	6.815		54.3				3
Coco Plum Dr	13	01:02:23	00:12:12		49.983	7.274		35.8	10+	TS(4)	00:01:42	13
Toms Harbor Ch Br (S)	14	01:09:13	00:06:50		56.409	6.426		56.4				
Long Key Br (S)	15	01:12:13	00:03:00		59.061	2.652		53.0				
Channel #2 Br (N)	16	01:29:01	00:16:48	00:04:36	68.943	9.882	0.163	47.8	10+	CS	00:04:36	
Lignum V Br (S)	17	01:34:34	00:05:33		73.417	4.474		48.4				
Teatable Relf Br (N)	18	01:38:43	00:04:09		75.649	2.232		32.3	10+	CG	00:00:56	
Whale Harbor Br (S)	19	01:46:28	00:07:45		79.773	4.124		31.9	10+	CG(2)	00:01:29	
Snake Creek Br (N)	20	01:49:19	00:02:51		81.637	1.864		39.2				
Ocean Blvd	21	01:57:57	00:08:38		87.394	5.757		40.0	4	TS	00:00:12	2
Atlantic Blvd	22	02:07:45	00:09:48	00:00:21	95.450	8.056	0.029	51.0	10+	SB	00:00:21	11
C-905	23	02:15:57	00:08:12		102.302	6.852		50.1				7
County Line sign	24	02:23:04	00:07:07		108.537	6.235		52.6				
Card Sound Rd	25	02:37:17	00:14:13		122.441	13.904		58.7				
OVERALL		-----	02:23:04	00:04:57	-----	108.537	0.192	47.1			00:09:16	47

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
MONDAY, 03-15-21, 12:00 TO 14:37**



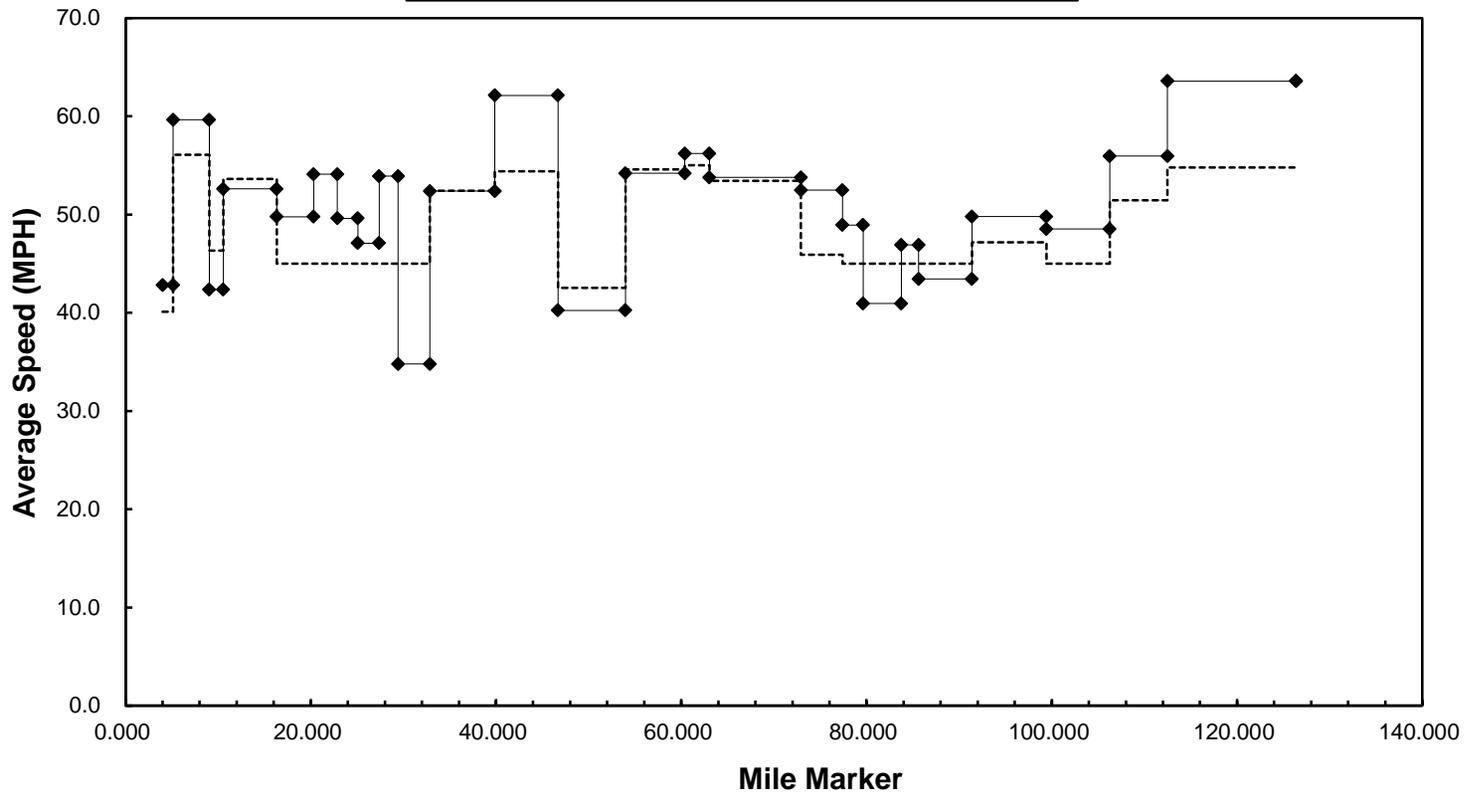
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Monday, March 15, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	03:45:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	06:09:18 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:07	00:13:07		13.902	13.902		63.6				
C-905	24	00:19:48	00:06:41		20.134	6.232		55.9				
Atlantic Blvd	23	00:28:15	00:08:27		26.967	6.833		48.5				18
Ocean Blvd	22	00:37:57	00:09:42		35.015	8.048		49.8				17
Snake Creek Br (N)	21	00:45:54	00:07:57		40.770	5.755		43.4	10+	TS	00:00:18	5
Whale Harbor Br (S)	20	00:48:18	00:02:24		42.646	1.876		46.9				
Teatable Relf Br (N)	19	00:54:20	00:06:02		46.762	4.116		40.9				
Lignum V Br (S)	18	00:57:04	00:02:44		48.991	2.229		48.9				
Channel #2 Br (N)	17	01:02:12	00:05:08		53.481	4.490		52.5				
Long Key Br (S)	16	01:13:13	00:11:01		63.357	9.876		53.8				
Toms Harbor Ch Br (S)	15	01:16:03	00:02:50		66.012	2.655		56.2				
Coco Plum Dr	14	01:23:09	00:07:06		72.427	6.415		54.2				2
7-Mile Br (N)	13	01:34:00	00:10:51		79.704	7.277		40.2	7	TS,LT	00:00:18	1
7-Mile Br (S)	12	01:40:35	00:06:35		86.521	6.817		62.1				
Long Beach Dr	11	01:48:38	00:08:03		93.548	7.027		52.4				3
N Pine Ch Br (N)	10	01:54:32	00:05:54		96.969	3.421		34.8	10+	TS	00:00:56	
Torch-Ramrod Br (S)	9	01:56:49	00:02:17		99.021	2.052		53.9				
E Shore Dr	8	01:59:45	00:02:56		101.323	2.302		47.1				
Spanish Main Dr	7	02:02:26	00:02:41		103.542	2.219		49.6				
Bow Channel Br (N)	6	02:05:16	00:02:50		106.097	2.555		54.1				
Harris Ch Br (N)	5	02:10:04	00:04:48		110.079	3.982		49.8				
Boca Chica Rd	4	02:16:39	00:06:35		115.853	5.774		52.6				
Rockland Dr	3	02:18:47	00:02:08		117.359	1.506		42.4				
Key Haven Blvd	2	02:22:43	00:03:56		121.269	3.910		59.6				2
Cow Key Bridge (N)	1	02:24:18	00:01:35		122.399	1.130		42.8				1
OVERALL		-----	02:11:11	00:00:00	-----	108.497	0.000	49.6			00:01:32	49

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
MONDAY, 03-15-21, 15:45 TO 18:09**



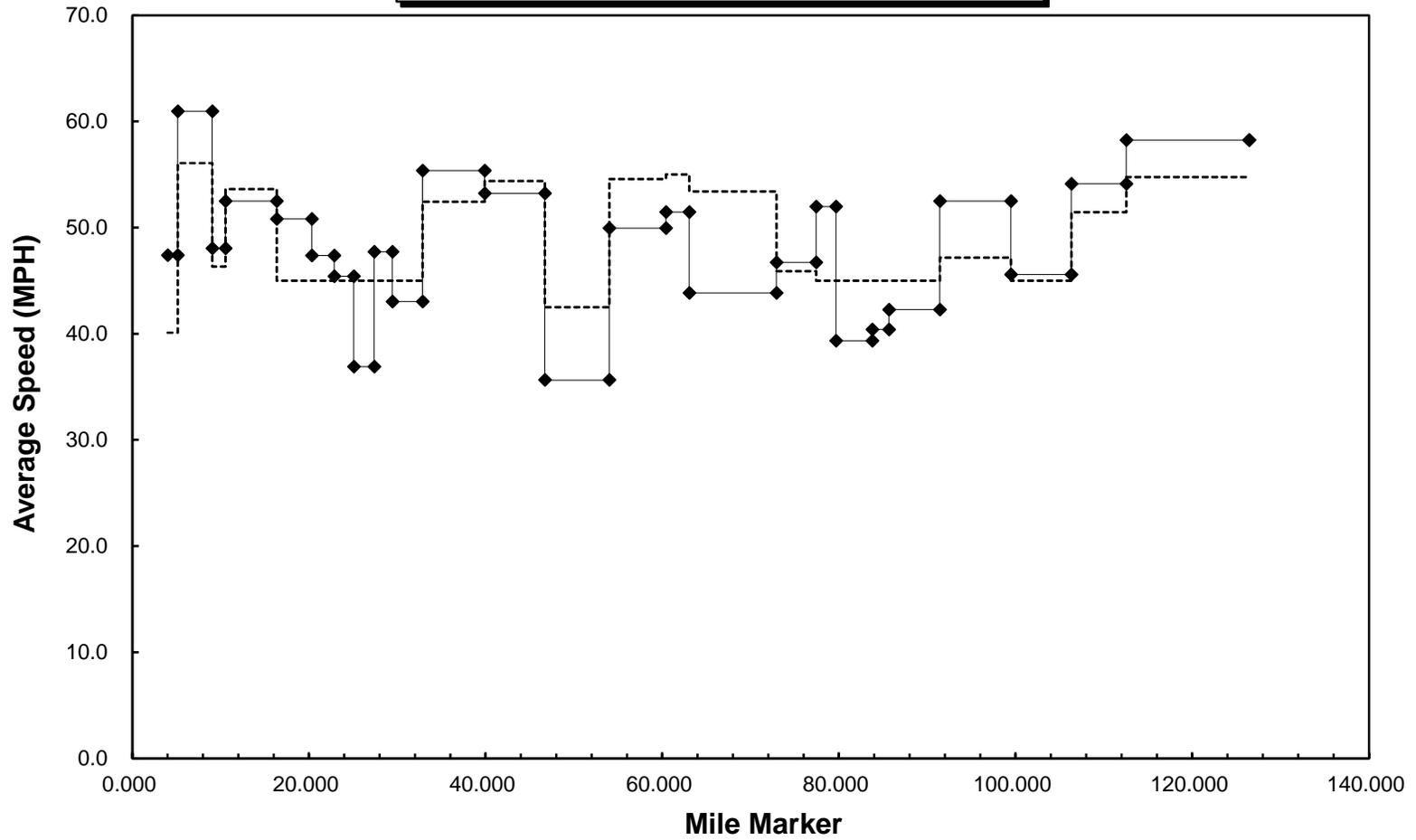
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn RT = Right Turn TS = Traffic Signal DB = Drawbridge CC = Congestion
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	CS = Construction SB = School Bus EV = Emergency Vehicle AC = Accident * = Special Event
DAY/DATE:	Tuesday, March 16, 2021	Delay ends @ 15 mph	
START TIME @ COW KEY BR:	10:45:00 AM		
FINISH TIME @ C SOUND RD:	01:23:55 PM		

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:01:25	00:01:25		1.119	1.119		47.4				2
Rockland Dr	2	00:05:16	00:03:51		5.030	3.911		61.0				3
Boca Chica Rd	3	00:07:09	00:01:53		6.538	1.508		48.0				
Harris Ch Br (N)	4	00:13:46	00:06:37		12.325	5.787		52.5				
Bow Channel Br (N)	5	00:18:28	00:04:42		16.305	3.980		50.8				
Spanish Main Dr	6	00:21:41	00:03:13		18.845	2.540		47.4				
E Shore Dr	7	00:24:37	00:02:56		21.065	2.220		45.4				
Torch-Ramrod Br (S)	8	00:28:22	00:03:45		23.371	2.306		36.9				
N Pine Ch Br (N)	9	00:30:57	00:02:35		25.425	2.054		47.7				
Long Beach Dr	10	00:35:43	00:04:46		28.843	3.418		43.0				1
7-Mile Br (S)	11	00:43:22	00:07:39		35.902	7.059		55.4				5
7-Mile Br (N)	12	00:51:02	00:07:40		42.702	6.800		53.2				
Coco Plum Dr	13	01:03:17	00:12:15		49.980	7.278		35.6	10+	TS(2)	00:01:26	12
Toms Harbor Ch Br (S)	14	01:11:00	00:07:43		56.402	6.422		49.9				
Long Key Br (S)	15	01:14:06	00:03:06		59.061	2.659		51.5				
Channel #2 Br (N)	16	01:33:54	00:19:48	00:06:36	68.934	9.873	0.228	43.8	10+	CS	00:06:36	
Lignum V Br (S)	17	01:39:39	00:05:45		73.410	4.476		46.7				
Teatable Relf Br (N)	18	01:42:14	00:02:35		75.648	2.238		52.0				
Whale Harbor Br (S)	19	01:48:32	00:06:18		79.778	4.130		39.3				
Snake Creek Br (N)	20	01:51:18	00:02:46		81.641	1.863		40.4				
Ocean Blvd	21	01:59:29	00:08:11		87.404	5.763		42.3				4
Atlantic Blvd	22	02:08:41	00:09:12		95.453	8.049		52.5				14
C-905	23	02:17:42	00:09:01		102.302	6.849		45.6	10+	TS	00:00:47	5
County Line sign	24	02:24:36	00:06:54		108.524	6.222		54.1				
Card Sound Rd	25	02:38:55	00:14:19		122.420	13.896		58.2				
OVERALL		-----	02:24:36	00:06:36	-----	108.524	0.228	47.1			00:08:49	46

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
TUESDAY, 03-16-21, 10:45 TO 13:23**



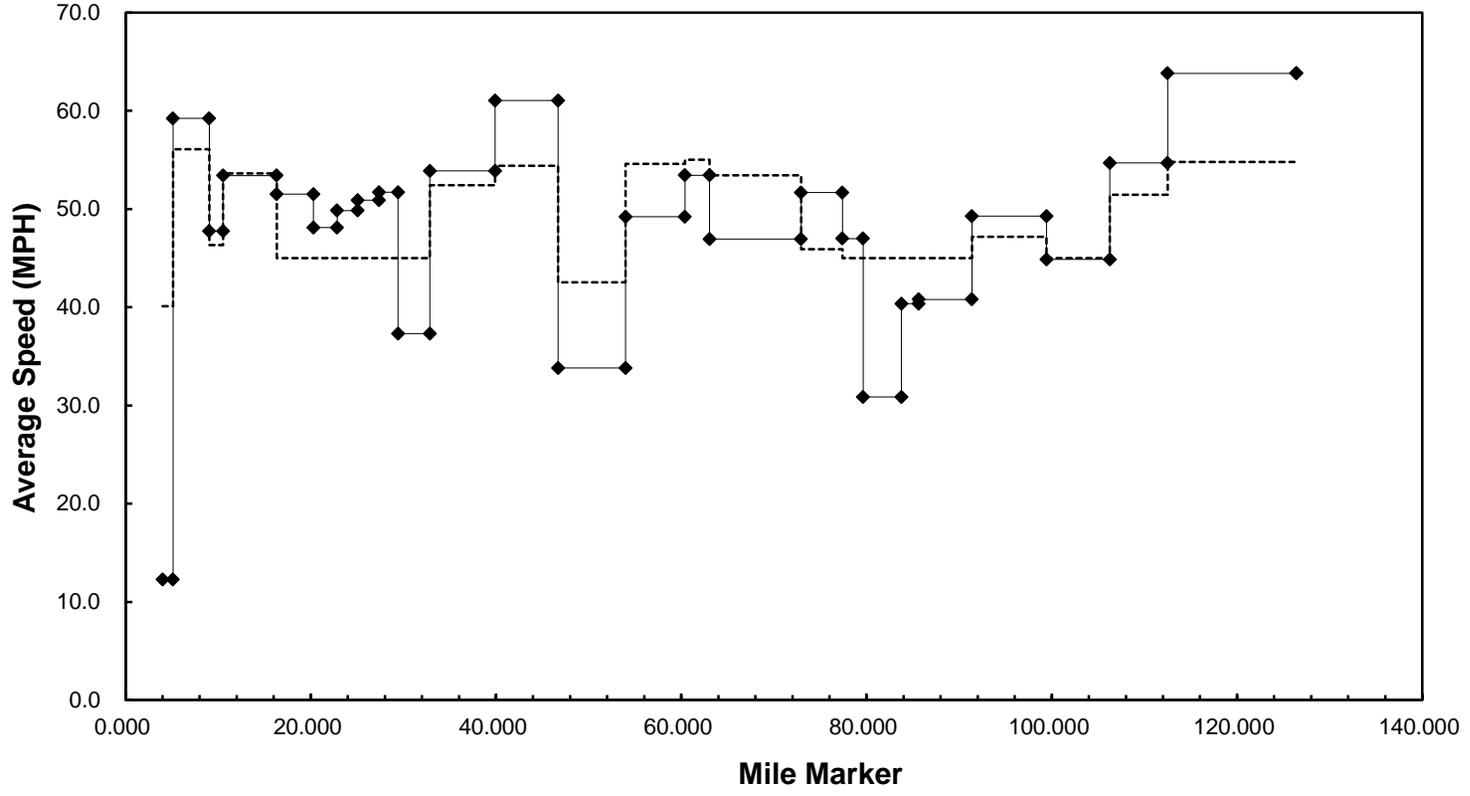
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Cloudy	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Tuesday, March 16, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	02:30:00 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	05:11:38 PM		CC = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:13:05	00:13:05		13.915	13.915		63.8				
C-905	24	00:19:55	00:06:50		20.143	6.228		54.7				
Atlantic Blvd	23	00:29:04	00:09:09		26.983	6.840		44.9	8	TS	00:00:13	12
Ocean Blvd	22	00:38:52	00:09:48		35.030	8.047		49.3				9
Snake Creek Br (N)	21	00:47:52	00:09:00	00:00:42	40.788	5.758	0.115	40.8	10+	LT,SZ	00:00:53	4
Whale Harbor Br (S)	20	00:50:38	00:02:46		42.649	1.861		40.4				
Teatable Relf Br (N)	19	00:58:40	00:08:02		46.779	4.130		30.8	10+	CG	00:00:19	
Lignum V Br (S)	18	01:01:31	00:02:51		49.011	2.232		47.0				
Channel #2 Br (N)	17	01:06:43	00:05:12		53.489	4.478		51.7				
Long Key Br (S)	16	01:24:27	00:17:44	00:06:54	63.367	9.878	1.405	46.9	10+	CS	00:06:54	
Toms Harbor Ch Br (S)	15	01:27:26	00:02:59		66.024	2.657		53.4				
Coco Plum Dr	14	01:35:15	00:07:49		72.434	6.410		49.2				
7-Mile Br (N)	13	01:48:11	00:12:56		79.722	7.288		33.8	10+	TS(4)	00:01:44	13
7-Mile Br (S)	12	01:54:52	00:06:41		86.521	6.799		61.0				
Long Beach Dr	11	02:02:43	00:07:51		93.569	7.048		53.9				
N Pine Ch Br (N)	10	02:08:14	00:05:31		96.999	3.430		37.3	10+	CG	00:00:19	
Torch-Ramrod Br (S)	9	02:10:37	00:02:23		99.053	2.054		51.7				
E Shore Dr	8	02:13:19	00:02:42		101.343	2.290		50.9				
Spanish Main Dr	7	02:16:00	00:02:41		103.572	2.229		49.8				
Bow Channel Br (N)	6	02:19:11	00:03:11		106.124	2.552		48.1				
Harris Ch Br (N)	5	02:23:49	00:04:38		110.101	3.977		51.5				
Boca Chica Rd	4	02:30:19	00:06:30		115.887	5.786		53.4				
Rockland Dr	3	02:32:12	00:01:53		117.386	1.499		47.8				
Key Haven Blvd	2	02:36:10	00:03:58		121.302	3.916		59.2				
Cow Key Bridge (N)	1	02:41:38	00:05:28		122.421	1.119		12.3	10+	TS(2),CG	00:03:26	
OVERALL		-----	02:28:33	00:07:36	-----	108.506	1.520	45.5			00:13:48	38

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
TUESDAY, 03-16-21, 14:30 TO 17:11**



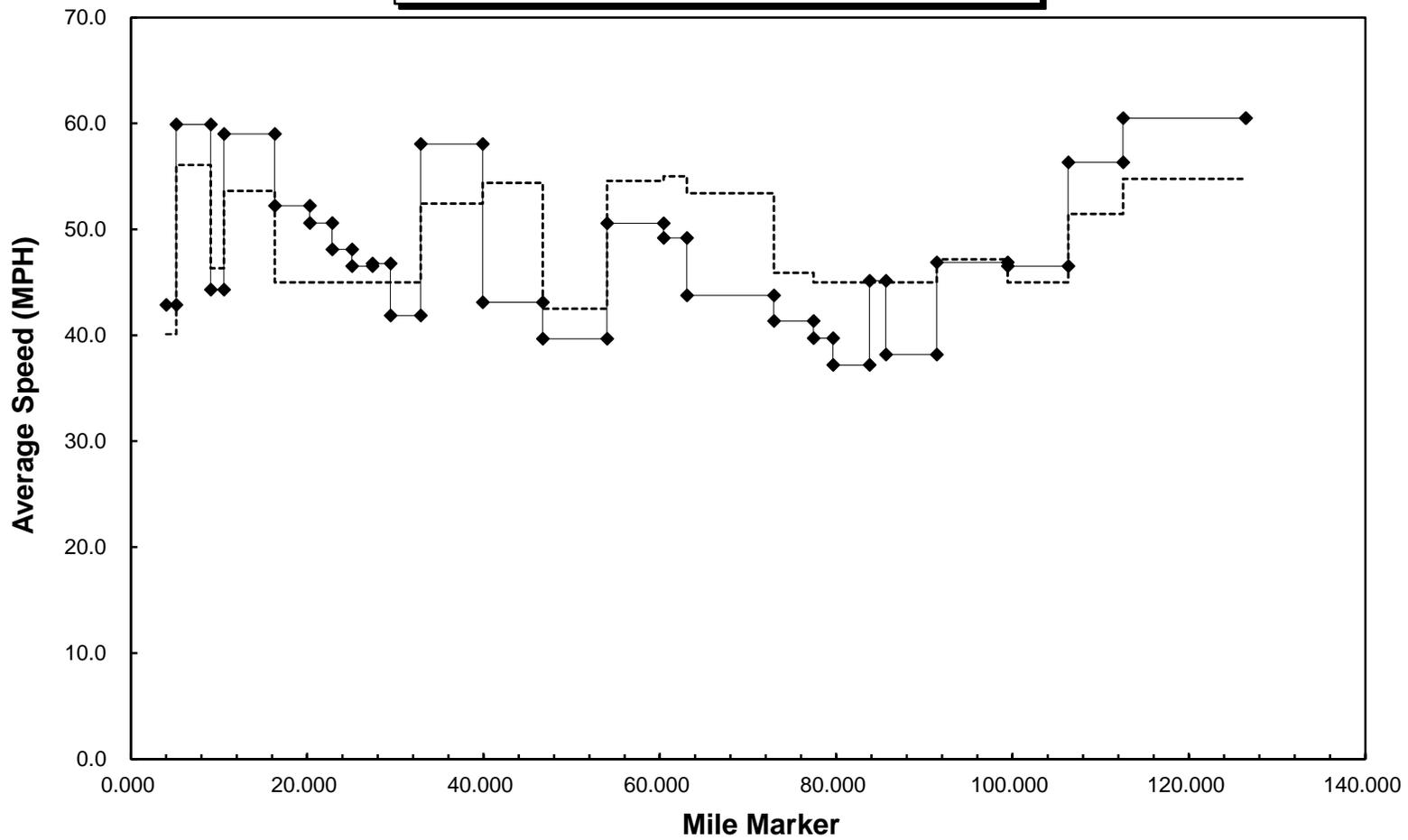
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Wednesday, March 17, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:15:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	12:58:11 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:01:34	00:01:34		1.119	1.119		42.9				5
Rockland Dr	2	00:05:29	00:03:55		5.029	3.910		59.9				6
Boca Chica Rd	3	00:07:31	00:02:02		6.530	1.501		44.3				
Harris Ch Br (N)	4	00:13:24	00:05:53		12.315	5.785		59.0				
Bow Channel Br (N)	5	00:17:58	00:04:34		16.289	3.974		52.2				
Spanish Main Dr	6	00:20:59	00:03:01		18.832	2.543		50.6				
E Shore Dr	7	00:23:46	00:02:47		21.063	2.231		48.1				
Torch-Ramrod Br (S)	8	00:26:45	00:02:59		23.376	2.313		46.5				
N Pine Ch Br (N)	9	00:29:23	00:02:38		25.429	2.053		46.8				
Long Beach Dr	10	00:34:17	00:04:54		28.847	3.418		41.9				1
7-Mile Br (S)	11	00:41:34	00:07:17		35.895	7.048		58.1				1
7-Mile Br (N)	12	00:51:02	00:09:28		42.697	6.802		43.1				
Coco Plum Dr	13	01:02:03	00:11:01		49.978	7.281		39.7	10+	TS	00:00:11	21
Toms Harbor Ch Br (S)	14	01:09:40	00:07:37		56.398	6.420		50.6				
Long Key Br (S)	15	01:12:54	00:03:14		59.048	2.650		49.2				
Channel #2 Br (N)	16	01:35:33	00:22:39	00:09:44	68.928	9.880	0.457	43.8	10+	CS	00:09:44	
Lignum V Br (S)	17	01:42:03	00:06:30		73.406	4.478		41.3				
Teatable Relf Br (N)	18	01:45:25	00:03:22		75.635	2.229		39.7				
Whale Harbor Br (S)	19	01:52:04	00:06:39		79.757	4.122		37.2				
Snake Creek Br (N)	20	01:54:33	00:02:29		81.625	1.868		45.1				
Ocean Blvd	21	02:03:36	00:09:03		87.381	5.756		38.2	10+	TS	00:00:10	1
Atlantic Blvd	22	02:13:55	00:10:19		95.441	8.060		46.9	10+	TS	00:00:36	11
C-905	23	02:22:45	00:08:50		102.290	6.849		46.5				-2
County Line sign	24	02:29:24	00:06:39		108.530	6.240		56.3				
Card Sound Rd	25	02:43:11	00:13:47		122.426	13.896		60.5				
OVERALL		-----	02:29:24	00:09:44	-----	108.530	0.457	46.4			00:10:41	44

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-17-21, 10:15 TO 12:58**



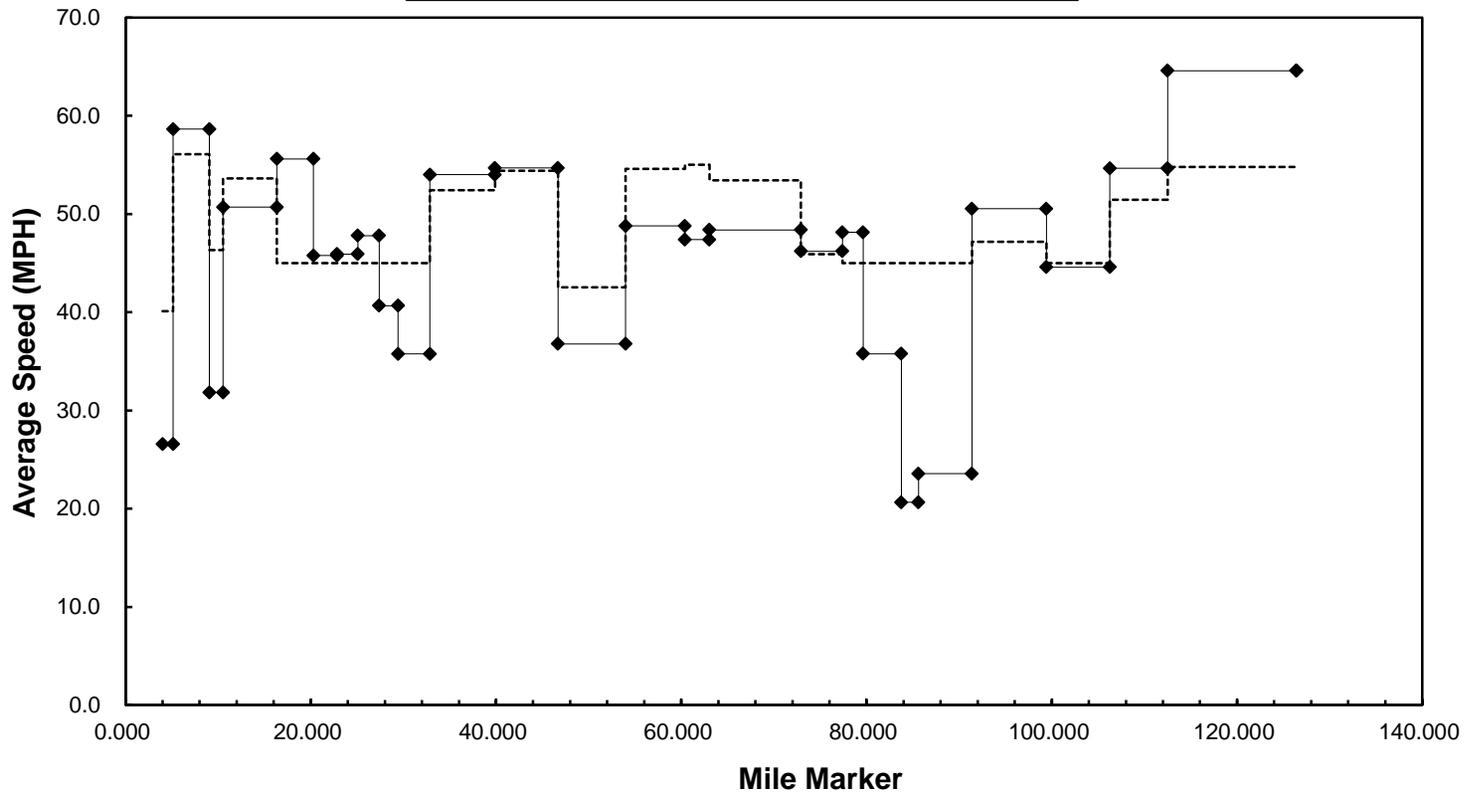
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Cloudy/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Wednesday, March 17, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	04:53:13 PM		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:12:55	00:12:55		13.906	13.906		64.6				
C-905	24	00:19:45	00:06:50		20.130	6.224		54.6				
Atlantic Blvd	23	00:28:58	00:09:13		26.979	6.849		44.6	10+	TS	00:00:19	11
Ocean Blvd	22	00:38:31	00:09:33		35.024	8.045		50.5				
Snake Creek Br (N)	21	00:53:12	00:14:41		40.788	5.764		23.6	10+	CG(5)	00:04:44	7
Whale Harbor Br (S)	20	00:58:38	00:05:26		42.657	1.869		20.6	10+	CG(2)	00:01:20	
Teatable Relf Br (N)	19	01:05:42	00:07:04	00:00:12	46.780	4.123	0.029	35.8	10+	SB	00:00:12	
Lignum V Br (S)	18	01:08:29	00:02:47		49.013	2.233		48.1				
Channel #2 Br (N)	17	01:14:48	00:06:19	00:00:32	53.494	4.481	0.027	46.2	10+	SB	00:00:32	
Long Key Br (S)	16	01:45:34	00:30:46	00:20:58	63.363	9.869	1.967	48.4	10+	CS	00:20:58	
Toms Harbor Ch Br (S)	15	01:48:55	00:03:21		66.009	2.646		47.4				
Coco Plum Dr	14	01:56:48	00:07:53		72.419	6.410		48.8				
7-Mile Br (N)	13	02:08:42	00:11:54		79.713	7.294		36.8	10+	TS(2)	00:00:41	7
7-Mile Br (S)	12	02:16:10	00:07:28		86.518	6.805		54.7				
Long Beach Dr	11	02:23:59	00:07:49		93.554	7.036		54.0				
N Pine Ch Br (N)	10	02:29:43	00:05:44		96.971	3.417		35.8	10	TS	00:00:48	1
Torch-Ramrod Br (S)	9	02:32:45	00:03:02		99.027	2.056		40.7				
E Shore Dr	8	02:35:38	00:02:53		101.324	2.297		47.8				
Spanish Main Dr	7	02:38:33	00:02:55		103.556	2.232		45.9				
Bow Channel Br (N)	6	02:41:54	00:03:21		106.112	2.556		45.8				
Harris Ch Br (N)	5	02:46:11	00:04:17		110.082	3.970		55.6				
Boca Chica Rd	4	02:53:02	00:06:51		115.871	5.789		50.7				
Rockland Dr	3	03:01:39	00:08:37	00:06:24	117.361	1.490	0.314	31.8	10+	AC(2)	00:06:24	
Key Haven Blvd	2	03:05:39	00:04:00		121.271	3.910		58.7				
Cow Key Bridge (N)	1	03:08:13	00:02:34		122.407	1.136		26.6	10+	TS(2)	00:00:43	5
OVERALL		-----	02:55:18	00:28:06	-----	108.501	2.337	43.3			00:36:41	31

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-17-21, 13:45 TO 16:53**



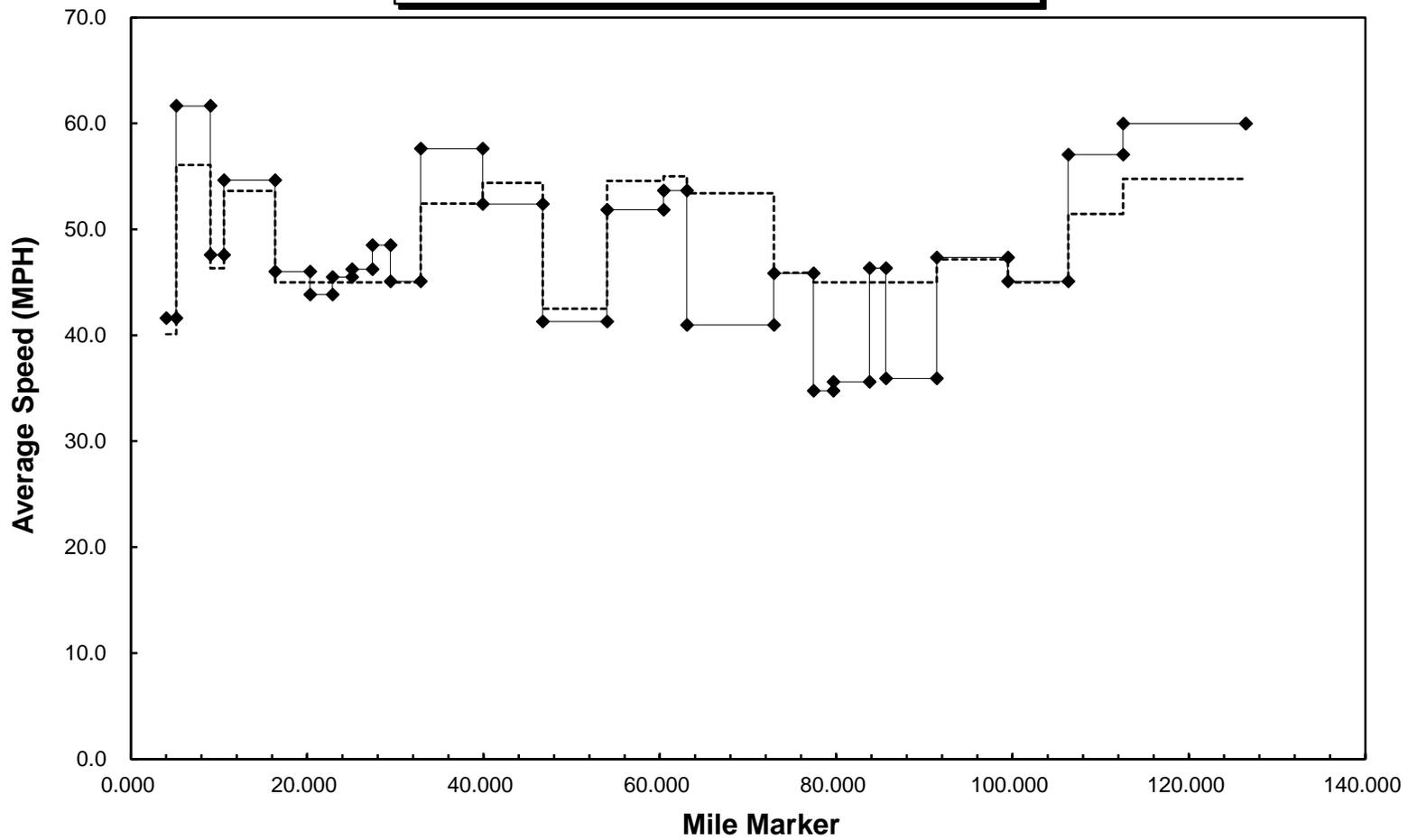
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:00:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	12:54:35 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:01:37	00:01:37		1.121	1.121		41.6				7
Rockland Dr	2	00:05:25	00:03:48		5.025	3.904		61.6				-1
Boca Chica Rd	3	00:07:19	00:01:54		6.532	1.507		47.6				
Harris Ch Br (N)	4	00:13:41	00:06:22		12.328	5.796		54.6				
Bow Channel Br (N)	5	00:18:52	00:05:11		16.303	3.975		46.0				
Spanish Main Dr	6	00:22:21	00:03:29		18.848	2.545		43.8				
E Shore Dr	7	00:25:17	00:02:56		21.072	2.224		45.5				
Torch-Ramrod Br (S)	8	00:28:16	00:02:59		23.371	2.299		46.2				
N Pine Ch Br (N)	9	00:30:49	00:02:33		25.432	2.061		48.5				
Long Beach Dr	10	00:35:22	00:04:33		28.852	3.420		45.1				5
7-Mile Br (S)	11	00:42:42	00:07:20		35.894	7.042		57.6				
7-Mile Br (N)	12	00:50:30	00:07:48		42.702	6.808		52.4				
Coco Plum Dr	13	01:01:05	00:10:35		49.984	7.282		41.3				21
Toms Harbor Ch Br (S)	14	01:08:31	00:07:26		56.405	6.421		51.8				1
Long Key Br (S)	15	01:11:29	00:02:58		59.058	2.653		53.7				
Channel #2 Br (N)	16	01:46:05	00:34:36	00:22:53	68.930	9.872	1.872	41.0	10+	CS	00:22:53	
Lignum V Br (S)	17	01:51:57	00:05:52		73.414	4.484		45.9				
Teatable Relf Br (N)	18	01:55:48	00:03:51		75.645	2.231		34.8				
Whale Harbor Br (S)	19	02:02:45	00:06:57		79.767	4.122		35.6				
Snake Creek Br (N)	20	02:05:10	00:02:25		81.633	1.866		46.3				
Ocean Blvd	21	02:14:47	00:09:37		87.392	5.759		35.9	10+	CG	00:00:32	3
Atlantic Blvd	22	02:25:00	00:10:13		95.454	8.062		47.3	10+	TS	00:00:36	11
C-905	23	02:34:07	00:09:07		102.306	6.852		45.1	10+	TS	00:00:36	10
County Line sign	24	02:40:40	00:06:33		108.534	6.228		57.1				
Card Sound Rd	25	02:54:35	00:13:55		122.442	13.908		60.0				
OVERALL		-----	02:40:40	00:22:53	-----	108.534	1.872	46.4			00:24:37	57

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 10:00 TO 12:54**



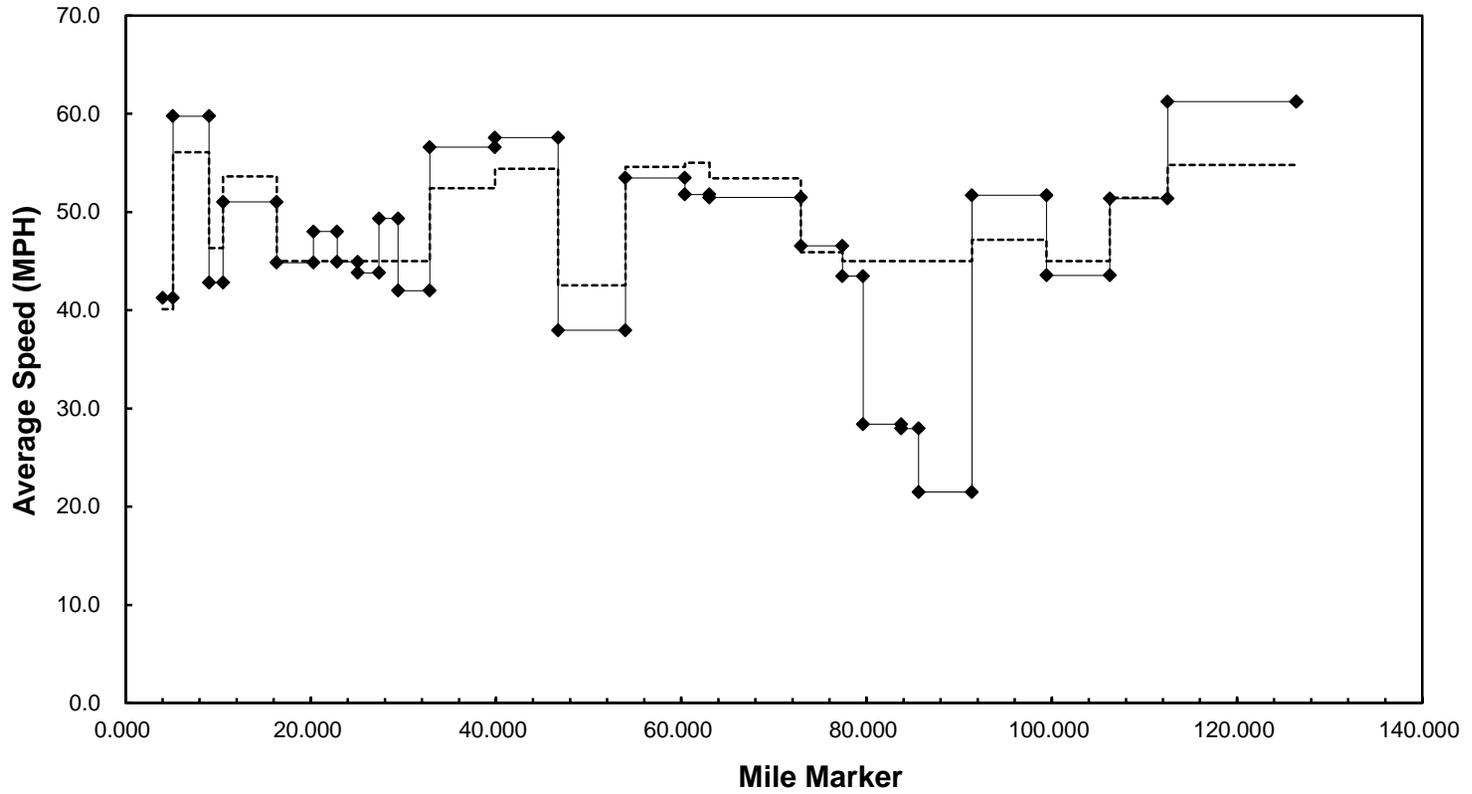
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	01:45:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	04:51:10 PM		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:13:37	00:13:37		13.897	13.897		61.2				
C-905	24	00:20:54	00:07:17		20.132	6.235		51.4				
Atlantic Blvd	23	00:30:19	00:09:25		26.967	6.835		43.6	10+	TS	00:00:36	5
Ocean Blvd	22	00:39:40	00:09:21		35.023	8.056		51.7	10+	TS	00:00:11	7
Snake Creek Br (N)	21	00:55:44	00:16:04		40.777	5.754		21.5	10+	TS(2),CG(3)	00:05:28	5
Whale Harbor Br (S)	20	00:59:44	00:04:00		42.641	1.864		28.0	10+	CG	00:00:52	
Teatable Relf Br (N)	19	01:08:27	00:08:43		46.765	4.124		28.4	10+	CG(2)	00:01:23	
Lignum V Br (S)	18	01:11:32	00:03:05		48.999	2.234		43.5				
Channel #2 Br (N)	17	01:17:19	00:05:47		53.485	4.486		46.5				
Long Key Br (S)	16	01:53:21	00:36:02	00:27:35	63.364	9.879	2.630	51.5	10+	CS	00:27:35	
Toms Harbor Ch Br (S)	15	01:56:25	00:03:04		66.011	2.647		51.8				
Coco Plum Dr	14	02:03:37	00:07:12		72.428	6.417		53.5				
7-Mile Br (N)	13	02:15:07	00:11:30		79.704	7.276		38.0	10+	TS(2)	00:01:06	8
7-Mile Br (S)	12	02:22:13	00:07:06		86.518	6.814		57.6				
Long Beach Dr	11	02:29:41	00:07:28		93.561	7.043		56.6				
N Pine Ch Br (N)	10	02:34:34	00:04:53		96.979	3.418		42.0				
Torch-Ramrod Br (S)	9	02:37:04	00:02:30		99.035	2.056		49.3				
E Shore Dr	8	02:40:13	00:03:09		101.335	2.300		43.8				
Spanish Main Dr	7	02:43:11	00:02:58		103.556	2.221		44.9				
Bow Channel Br (N)	6	02:46:23	00:03:12		106.117	2.561		48.0				
Harris Ch Br (N)	5	02:51:42	00:05:19		110.091	3.974		44.8				
Boca Chica Rd	4	02:58:30	00:06:48		115.873	5.782		51.0				
Rockland Dr	3	03:00:37	00:02:07		117.384	1.511		42.8				
Key Haven Blvd	2	03:04:32	00:03:55		121.285	3.901		59.8				
Cow Key Bridge (N)	1	03:06:10	00:01:38		122.408	1.123		41.3				
OVERALL		-----	02:52:33	00:27:35	-----	108.511	2.630	43.8			00:37:11	25

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 13:45 TO 16:51**



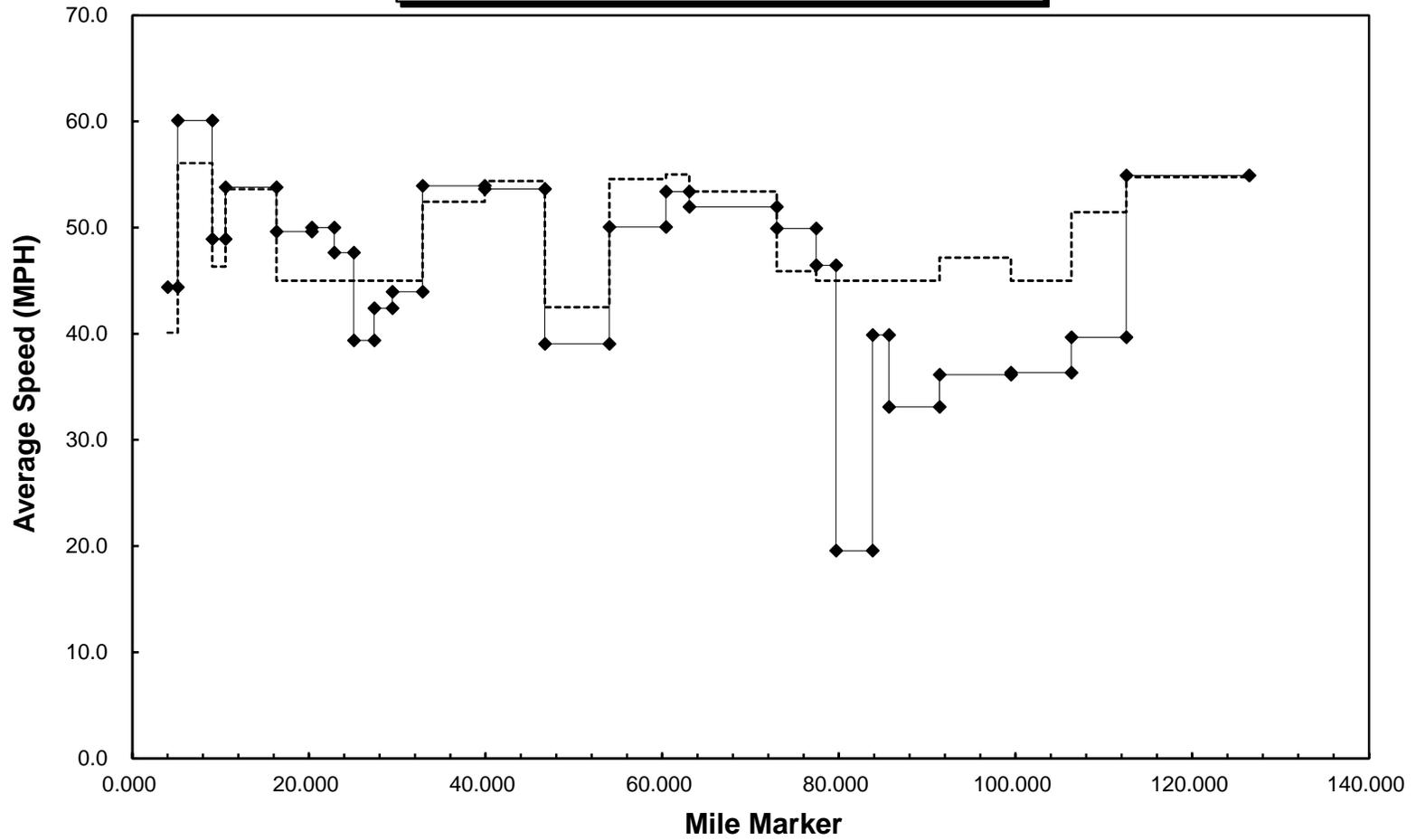
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Sunny/Cloudy	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Friday, March 19, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	10:30:00 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	01:22:34 PM		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:31	00:01:31		1.122	1.122		44.4				4
Rockland Dr	2	00:05:25	00:03:54		5.028	3.906		60.1				3
Boca Chica Rd	3	00:07:16	00:01:51		6.536	1.508		48.9				
Harris Ch Br (N)	4	00:13:43	00:06:27		12.319	5.783		53.8				
Bow Channel Br (N)	5	00:18:32	00:04:49		16.303	3.984		49.6				
Spanish Main Dr	6	00:21:35	00:03:03		18.845	2.542		50.0				
E Shore Dr	7	00:24:23	00:02:48		21.068	2.223		47.6				
Torch-Ramrod Br (S)	8	00:27:54	00:03:31		23.376	2.308		39.4				
N Pine Ch Br (N)	9	00:30:48	00:02:54		25.426	2.050		42.4				
Long Beach Dr	10	00:35:28	00:04:40		28.845	3.419		44.0	8	TS	00:00:09	
7-Mile Br (S)	11	00:43:19	00:07:51		35.900	7.055		53.9				2
7-Mile Br (N)	12	00:50:56	00:07:37		42.708	6.808		53.6				
Coco Plum Dr	13	01:02:07	00:11:11		49.983	7.275		39.0	8	TS	00:00:24	16
Toms Harbor Ch Br (S)	14	01:09:49	00:07:42		56.405	6.422		50.0				
Long Key Br (S)	15	01:12:48	00:02:59		59.060	2.655		53.4				
Channel #2 Br (N)	16	01:24:13	00:11:25		68.942	9.882		51.9				
Lignum V Br (S)	17	01:29:36	00:05:23		73.420	4.478		49.9				
Teatable Relf Br (N)	18	01:32:29	00:02:53		75.652	2.232		46.4				
Whale Harbor Br (S)	19	01:45:09	00:12:40		79.782	4.130		19.6	10+	CG(4)	00:05:38	
Snake Creek Br (N)	20	01:47:57	00:02:48		81.643	1.861		39.9				
Ocean Blvd	21	01:58:23	00:10:26		87.400	5.757		33.1				3
Atlantic Blvd	22	02:11:45	00:13:22		95.451	8.051		36.1	10+	TS	00:03:31	10
C-905	23	02:23:17	00:11:32	00:00:16	102.301	6.850	0.029	36.3	10+	CG,TS,SB	00:01:24	7
County Line sign	24	02:32:42	00:09:25		108.524	6.223		39.7	10+	CG	00:01:03	-1
Card Sound Rd	25	02:47:54	00:15:12		122.431	13.907		54.9				
OVERALL		-----	02:32:42	00:00:16	-----	108.524	0.029	42.7			00:12:09	44

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 10:30 TO 13:22**



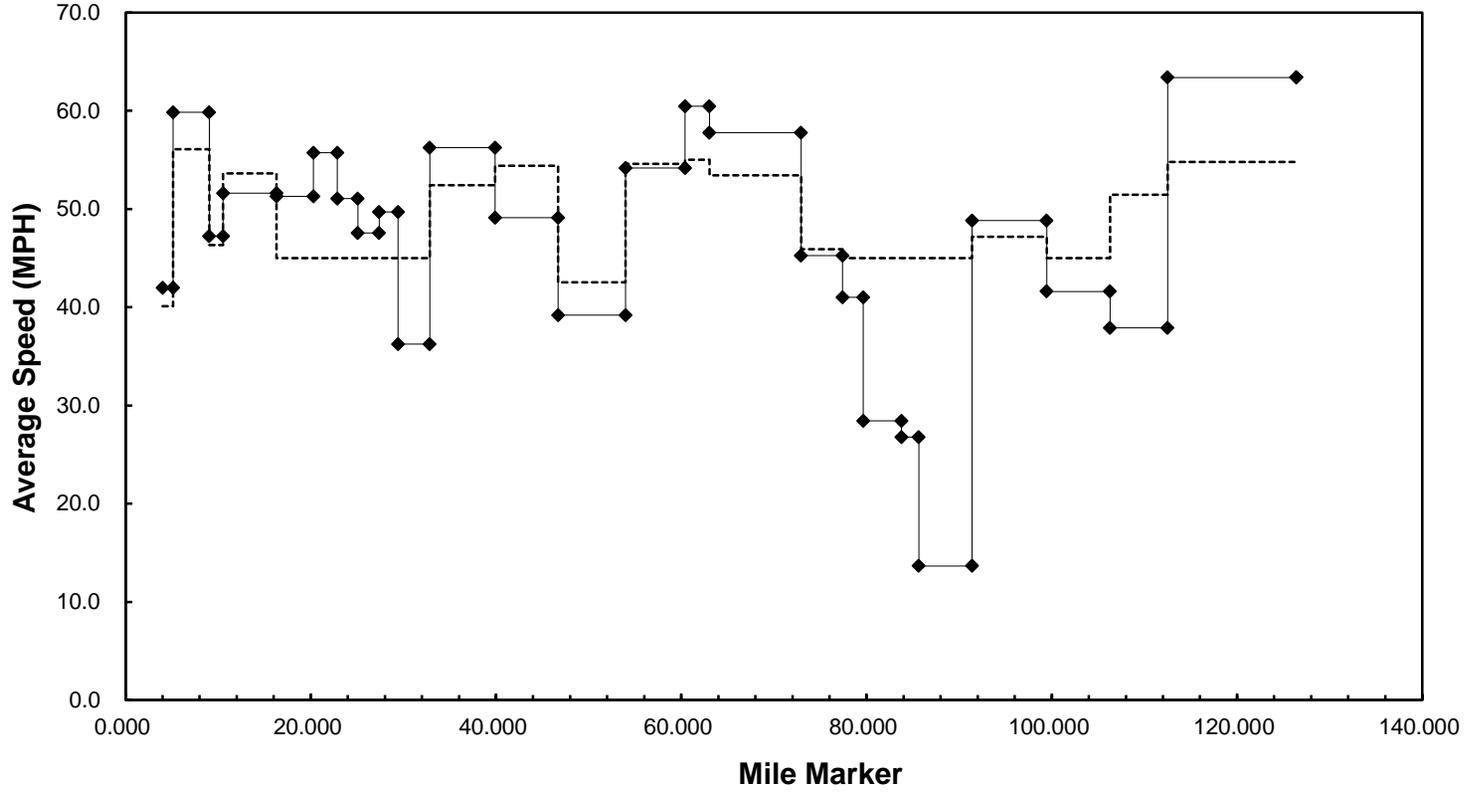
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Friday, March 19, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	02:15:00 PM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	05:09:35 PM		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25	00:13:09	00:13:09		13.896	13.896		63.4				
C-905	24	00:23:01	00:09:52		20.129	6.233		37.9	10+	CG	00:00:45	
Atlantic Blvd	23	00:32:53	00:09:52		26.971	6.842		41.6	10+	TS	00:00:55	-1
Ocean Blvd	22	00:42:46	00:09:53		35.014	8.043		48.8	10+	TS	00:00:27	6
Snake Creek Br (N)	21	01:10:48	00:28:02	00:06:00	40.775	5.761	0.744	13.7	10+	TS(2),CG(4),DB	00:19:17	2
Whale Harbor Br (S)	20	01:14:59	00:04:11		42.641	1.866		26.8				
Teatable Relf Br (N)	19	01:23:42	00:08:43		46.770	4.129		28.4	10+	CG	00:00:55	
Lignum V Br (S)	18	01:26:58	00:03:16		49.002	2.232		41.0				
Channel #2 Br (N)	17	01:32:55	00:05:57		53.489	4.487		45.2				
Long Key Br (S)	16	01:43:11	00:10:16		63.373	9.884		57.8				
Toms Harbor Ch Br (S)	15	01:45:48	00:02:37		66.010	2.637		60.5				
Coco Plum Dr	14	01:52:55	00:07:07		72.434	6.424		54.2	10+	TS	00:00:11	
7-Mile Br (N)	13	02:04:04	00:11:09		79.716	7.282		39.2	10+	TS(2)	00:00:49	16
7-Mile Br (S)	12	02:12:23	00:08:19		86.525	6.809		49.1				
Long Beach Dr	11	02:19:54	00:07:31		93.571	7.046		56.2				-1
N Pine Ch Br (N)	10	02:25:34	00:05:40		96.994	3.423		36.2	10+	TS	00:00:44	
Torch-Ramrod Br (S)	9	02:28:02	00:02:28		99.037	2.043		49.7				
E Shore Dr	8	02:30:56	00:02:54		101.336	2.299		47.6				
Spanish Main Dr	7	02:33:33	00:02:37		103.563	2.227		51.1				
Bow Channel Br (N)	6	02:36:19	00:02:46		106.133	2.570		55.7				
Harris Ch Br (N)	5	02:40:58	00:04:39		110.107	3.974		51.3				
Boca Chica Rd	4	02:47:41	00:06:43		115.885	5.778		51.6				
Rockland Dr	3	02:49:35	00:01:54		117.381	1.496		47.2				
Key Haven Blvd	2	02:53:30	00:03:55		121.288	3.907		59.9				-1
Cow Key Bridge (N)	1	02:55:07	00:01:37		122.419	1.131		42.0				
OVERALL		-----	02:41:58	00:06:00	-----	108.523	0.744	41.5			00:24:03	21

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 14:15 TO 17:09**



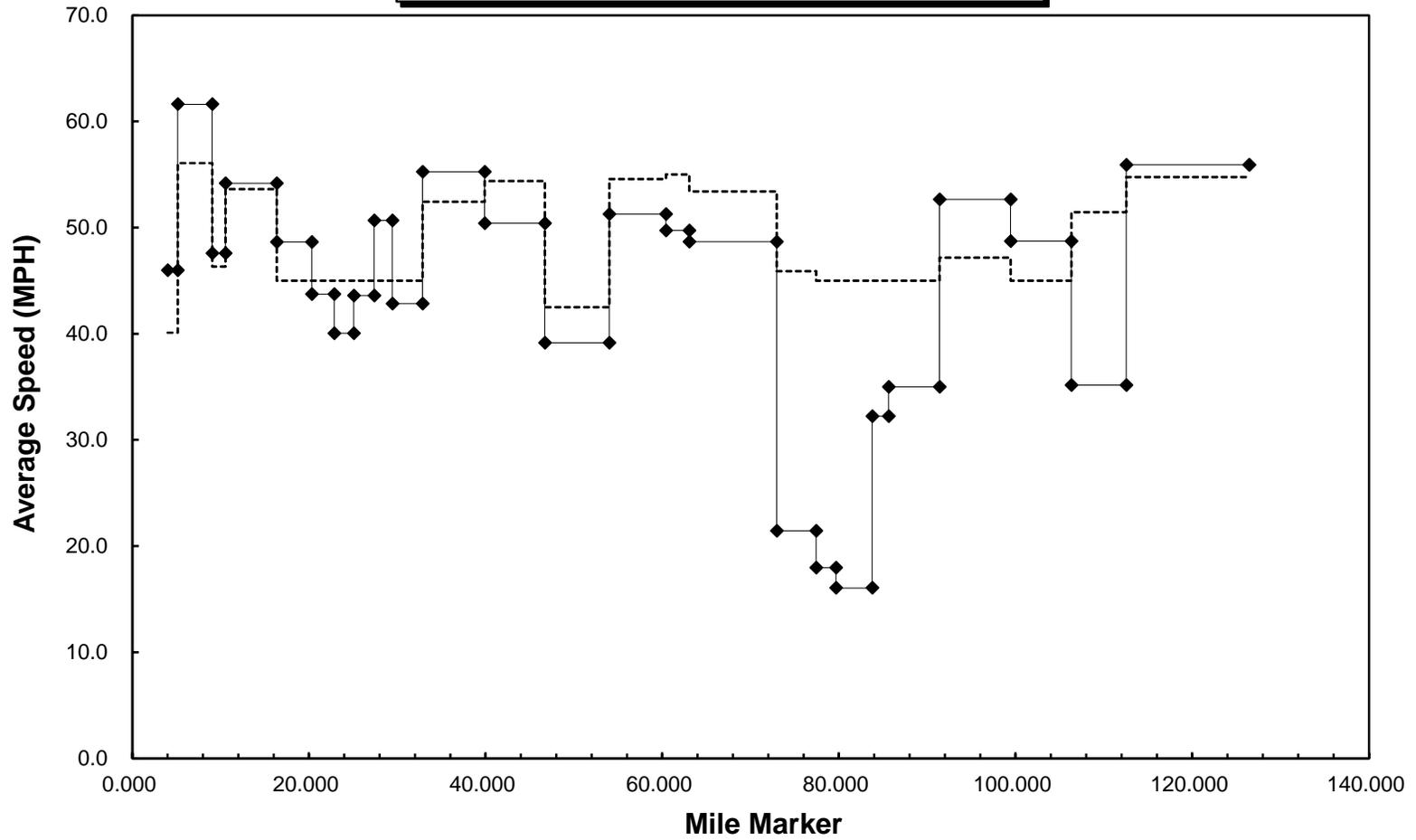
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Saturday, March 20, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ COW KEY BR:	11:00:00 AM		DB = Drawbridge AC = Accident
FINISH TIME @ C SOUND RD:	02:01:24 PM		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:01:28	00:01:28		1.124	1.124		46.0				2
Rockland Dr	2	00:05:16	00:03:48		5.027	3.903		61.6				8
Boca Chica Rd	3	00:07:10	00:01:54		6.534	1.507		47.6				
Harris Ch Br (N)	4	00:13:35	00:06:25		12.326	5.792		54.2				
Bow Channel Br (N)	5	00:18:29	00:04:54		16.299	3.973		48.6				
Spanish Main Dr	6	00:21:59	00:03:30		18.850	2.551		43.7				
E Shore Dr	7	00:25:18	00:03:19		21.063	2.213		40.0				
Torch-Ramrod Br (S)	8	00:28:29	00:03:11		23.376	2.313		43.6	10+	LT	00:00:10	
N Pine Ch Br (N)	9	00:30:55	00:02:26		25.431	2.055		50.7				
Long Beach Dr	10	00:35:42	00:04:47		28.847	3.416		42.8				
7-Mile Br (S)	11	00:43:21	00:07:39		35.892	7.045		55.3				3
7-Mile Br (N)	12	00:51:28	00:08:07		42.711	6.819		50.4				
Coco Plum Dr	13	01:02:37	00:11:09		49.985	7.274		39.1	10+	LT,TS	00:00:41	2
Toms Harbor Ch Br (S)	14	01:10:08	00:07:31		56.407	6.422		51.3				
Long Key Br (S)	15	01:13:20	00:03:12		59.059	2.652		49.7				
Channel #2 Br (N)	16	01:25:31	00:12:11		68.939	9.880		48.7				
Lignum V Br (S)	17	01:38:03	00:12:32		73.420	4.481		21.5	10+	LT,CG	00:05:02	
Teatable Relf Br (N)	18	01:45:30	00:07:27		75.653	2.233		18.0	10+	CG(2)	00:03:38	
Whale Harbor Br (S)	19	02:01:04	00:15:34	00:01:22	79.768	4.115	0.318	16.0	10+	CG(3),DB	00:07:28	
Snake Creek Br (N)	20	02:08:22	00:07:18	00:04:38	81.627	1.859	0.426	32.2	10+	DB	00:04:38	
Ocean Blvd	21	02:18:14	00:09:52		87.383	5.756		35.0	10+	CG,TS	00:00:44	4
Atlantic Blvd	22	02:27:25	00:09:11		95.443	8.060		52.7				8
C-905	23	02:35:51	00:08:26		102.292	6.849		48.7				5
County Line sign	24	02:46:28	00:10:37		108.515	6.223		35.2	10+	CG	00:02:41	1
Card Sound Rd	25	03:01:24	00:14:56		122.430	13.915		55.9				
OVERALL		-----	02:46:28	00:06:00	-----	108.515	0.744	40.3			00:25:02	33

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
SATURDAY, 03-20-21, 11:00 TO 14:01**



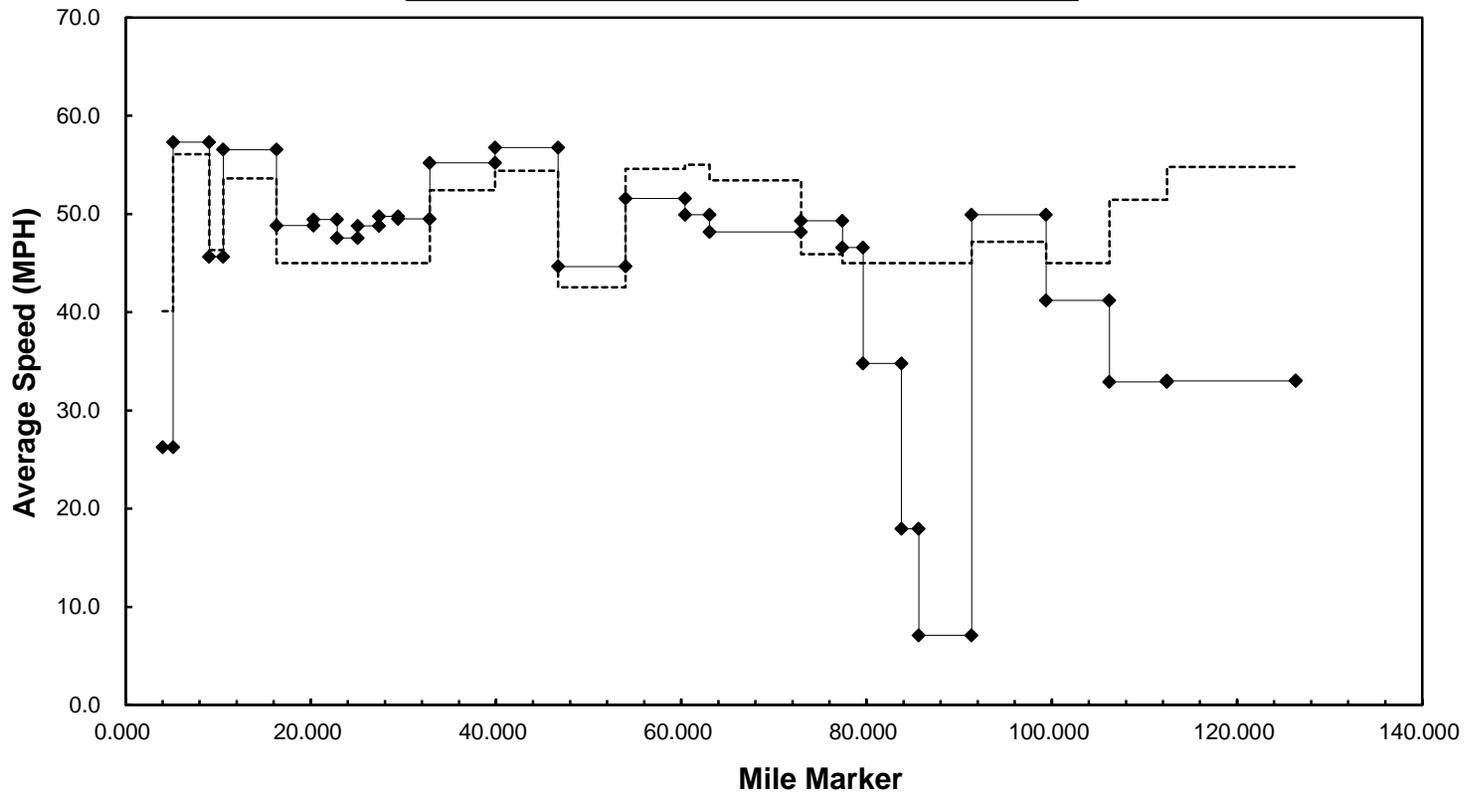
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn RT = Right Turn TS = Traffic Signal DB = Drawbridge CG = Congestion
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	CS = Construction SB = School Bus EV = Emergency Vehicle AC = Accident * = Special Event
DAY/DATE:	Saturday, March 20, 2021	Delay ends @ 15 mph	
START TIME @ C SOUND RD:	02:45:00 PM		
FINISH TIME @ COW KEY BR:	06:18:05 PM		

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25	00:25:15	00:25:15		13.892	13.892		33.0				
C-905	24	00:40:56	00:15:41	00:07:17	20.123	6.231	1.624	32.9	10+	AC(2)	00:07:17	
Atlantic Blvd	23	00:50:53	00:09:57		26.956	6.833		41.2	10+	TS(3)	00:01:13	9
Ocean Blvd	22	01:00:33	00:09:40		34.998	8.042		49.9	10+	TS	00:00:27	14
Snake Creek Br (N)	21	01:48:46	00:48:13		40.701	5.703		7.1	10+	TS(2),CG	00:46:19	1
Whale Harbor Br (S)	20	01:55:00	00:06:14		42.566	1.865		18.0	10+	CG	00:01:40	
Teatable Relf Br (N)	19	02:02:07	00:07:07		46.692	4.126		34.8				
Lignum V Br (S)	18	02:05:00	00:02:53		48.930	2.238		46.6				
Channel #2 Br (N)	17	02:10:27	00:05:27		53.408	4.478		49.3				
Long Key Br (S)	16	02:22:45	00:12:18		63.283	9.875		48.2				
Toms Harbor Ch Br (S)	15	02:25:56	00:03:11		65.931	2.648		49.9				
Coco Plum Dr	14	02:33:24	00:07:28		72.348	6.417		51.6				
7-Mile Br (N)	13	02:43:11	00:09:47		79.629	7.281		44.7	6	TS	00:00:11	17
7-Mile Br (S)	12	02:50:23	00:07:12		86.440	6.811		56.8				
Long Beach Dr	11	02:58:03	00:07:40		93.493	7.053		55.2				3
N Pine Ch Br (N)	10	03:02:12	00:04:09		96.916	3.423		49.5				
Torch-Ramrod Br (S)	9	03:04:40	00:02:28		98.962	2.046		49.8				
E Shore Dr	8	03:07:30	00:02:50		101.266	2.304		48.8				
Spanish Main Dr	7	03:10:18	00:02:48		103.485	2.219		47.5				
Bow Channel Br (N)	6	03:13:24	00:03:06		106.039	2.554		49.4				
Harris Ch Br (N)	5	03:18:18	00:04:54		110.025	3.986		48.8				
Boca Chica Rd	4	03:24:25	00:06:07		115.790	5.765		56.6				
Rockland Dr	3	03:26:24	00:01:59		117.299	1.509		45.7				
Key Haven Blvd	2	03:30:29	00:04:05		121.200	3.901		57.3				2
Cow Key Bridge (N)	1	03:33:05	00:02:36		122.337	1.137		26.2	10+	TS(2)	00:00:41	
OVERALL		-----	03:07:50	00:07:17	-----	108.445	1.624	35.5			00:57:48	46

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
SATURDAY, 03-20-21, 14:45 TO 18:18**



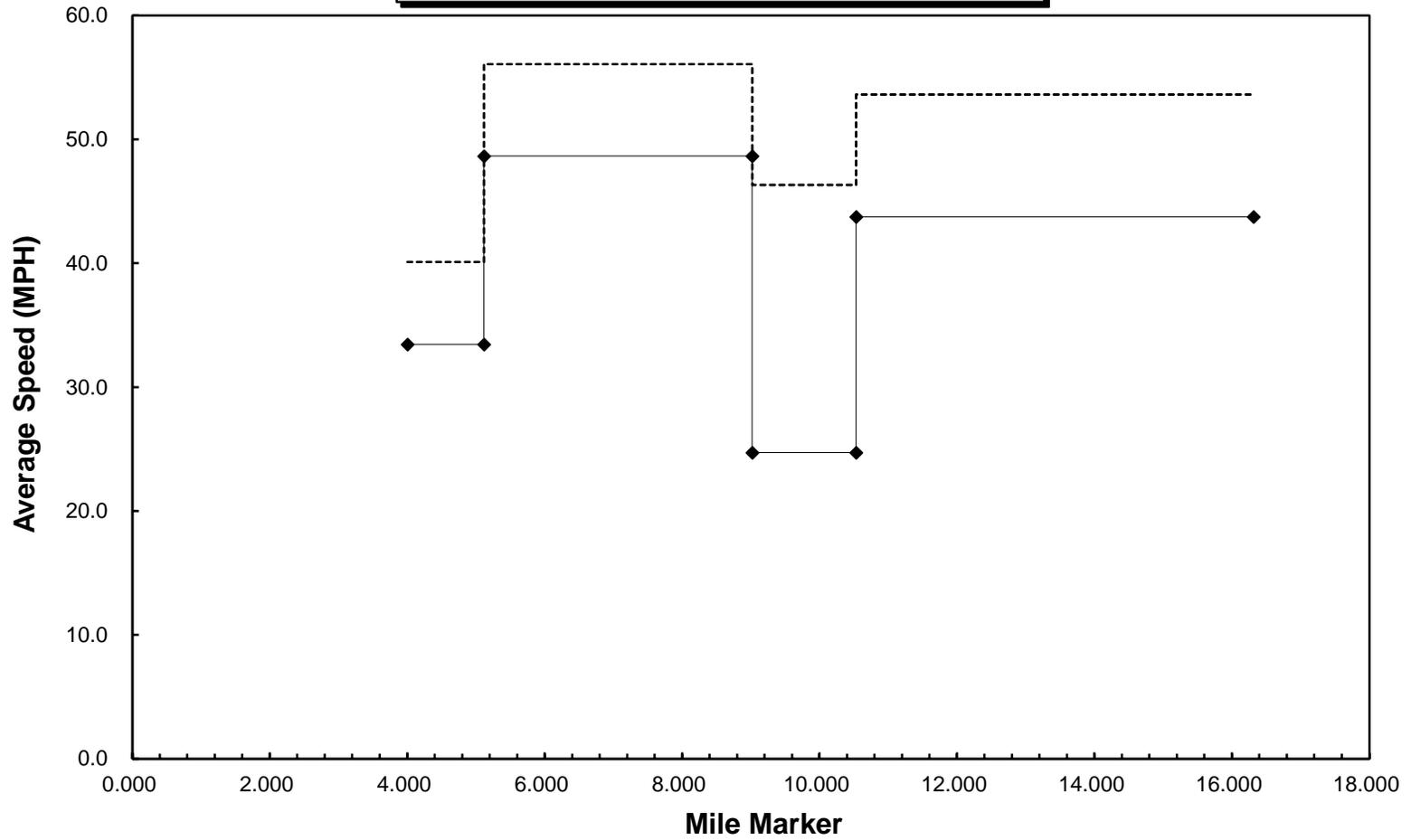
—◆— SEG. SPEED - - - - - AVG. SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Wednesday, March 17, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ COW KEY BR:	05:02:58 PM		DB = Drawbridge AC = Accident
FINISH TIME @ C SOUND RD:	05:52:27 PM Supplemental Run		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:00	00:02:00		1.115	1.115		33.5				-3
Rockland Dr	2	00:37:53	00:35:53	00:33:13	5.018	3.903	1.740	48.7	10+	AC	00:33:13	
Boca Chica Rd	3	00:41:33	00:03:40		6.529	1.511		24.7				
Harris Ch Br (N)	4	00:49:29	00:07:56		12.314	5.785		43.8				
Bow Channel Br (N)	5											
Spanish Main Dr	6											
E Shore Dr	7											
Torch-Ramrod Br (S)	8											
N Pine Ch Br (N)	9											
Long Beach Dr	10											
7-Mile Br (S)	11											
7-Mile Br (N)	12											
Coco Plum Dr	13											
Toms Harbor Ch Br (S)	14											
Long Key Br (S)	15											
Channel #2 Br (N)	16											
Lignum V Br (S)	17											
Teatable Relf Br (N)	18											
Whale Harbor Br (S)	19											
Snake Creek Br (N)	20											
Ocean Blvd	21											
Atlantic Blvd	22											
C-905	23											
County Line sign	24											
Card Sound Rd	25											
OVERALL		-----	00:49:29	00:33:13	-----	12.314	1.740	39.0			00:33:13	-3

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-17-21, 17:03 TO 17:53**



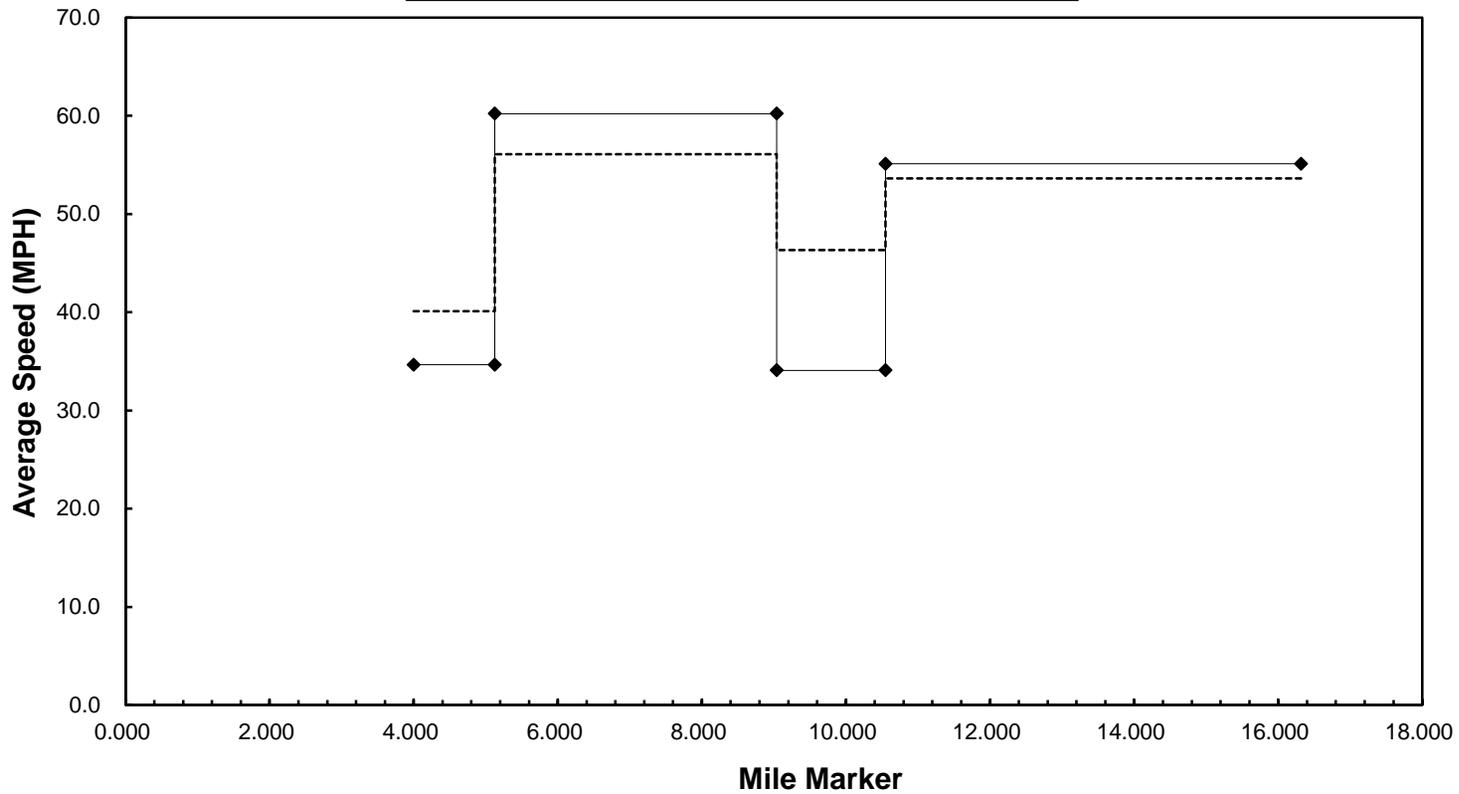
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Wednesday, March 17, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:05:15 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	07:20:18 AM Supplemental Run 1		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.125	0.000		0.0				
Boca Chica Rd	4	00:06:17	00:06:17		115.896	5.771		55.1				
Rockland Dr	3	00:09:12	00:02:55	00:00:17	117.407	1.511	0.015	34.1	8	SB	00:00:17	
Key Haven Blvd	2	00:13:06	00:03:54		121.321	3.914		60.2				1
Cow Key Bridge (N)	1	00:15:03	00:01:57		122.447	1.126		34.6				1
OVERALL		-----	00:15:03	00:00:17	-----	12.322	0.015	50.0			00:00:17	2

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-17-21, 07:06 TO 07:21**



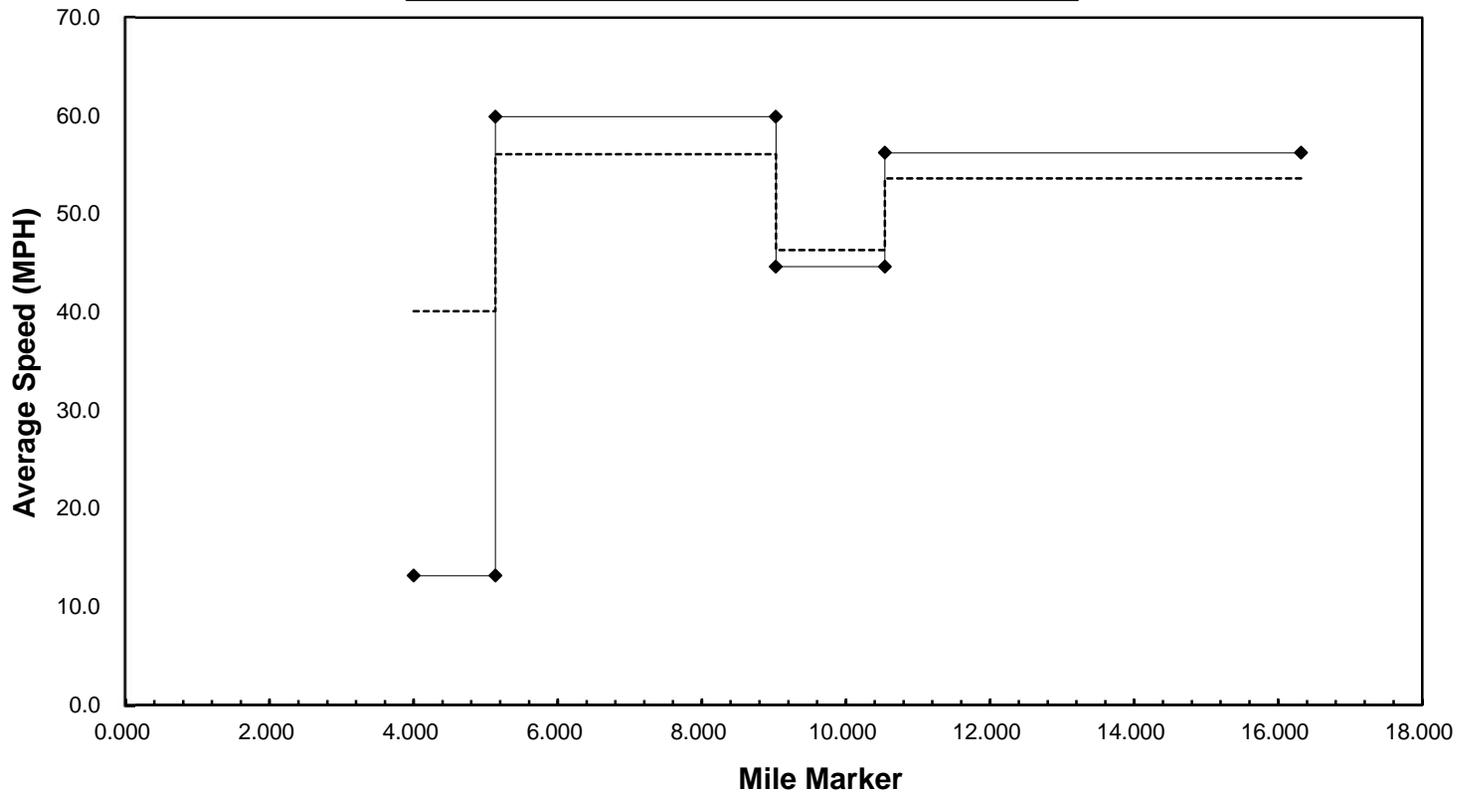
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Cloudy/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Wednesday, March 17, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:36:42 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	07:53:58 aM Supplemental Run 2		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.123	0.000		0.0				
Boca Chica Rd	4	00:06:10	00:06:10		115.902	5.779		56.2				
Rockland Dr	3	00:08:12	00:02:02		117.415	1.513		44.6				
Key Haven Blvd	2	00:12:06	00:03:54		121.309	3.894		59.9				3
Cow Key Bridge (N)	1	00:17:16	00:05:10		122.443	1.134		13.2	10+	CG,TS(2)	00:03:06	1
OVERALL		-----	00:17:16	00:00:00	-----	12.320	0.000	42.8			00:03:06	4

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
WEDNESDAY, 03-17-21, 07:37 TO 07:54**



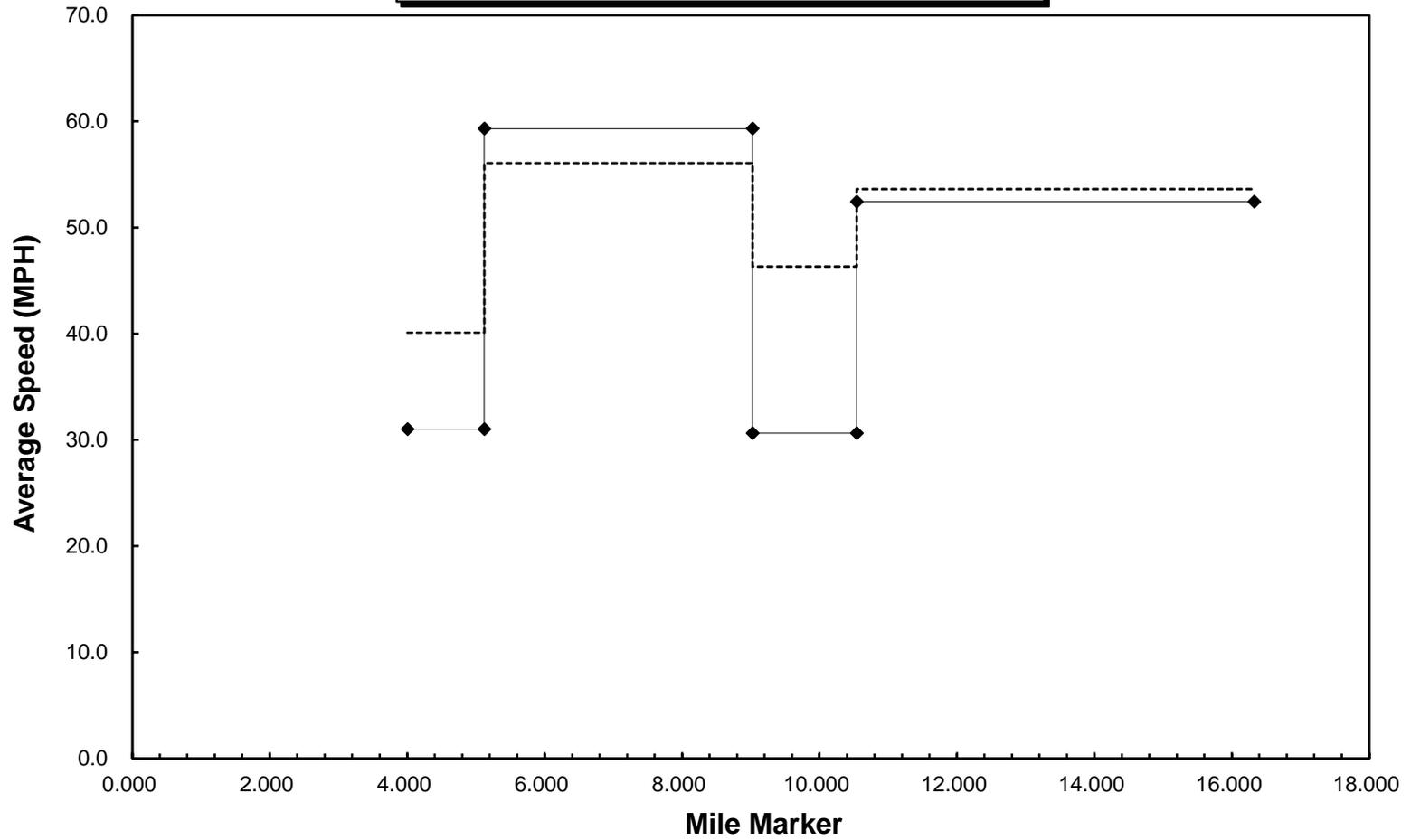
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	05:03:08 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	05:18:50 PM Supplemental Run 1		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:10	00:02:10		1.120	1.120		31.0	10+	CG	00:00:19	1
Rockland Dr	2	00:06:07	00:03:57		5.025	3.905		59.3				4
Boca Chica Rd	3	00:09:05	00:02:58		6.540	1.515		30.6				
Harris Ch Br (N)	4	00:15:42	00:06:37		12.324	5.784		52.4				
Bow Channel Br (N)	5											
Spanish Main Dr	6											
E Shore Dr	7											
Torch-Ramrod Br (S)	8											
N Pine Ch Br (N)	9											
Long Beach Dr	10											
7-Mile Br (S)	11											
7-Mile Br (N)	12											
Coco Plum Dr	13											
Toms Harbor Ch Br (S)	14											
Long Key Br (S)	15											
Channel #2 Br (N)	16											
Lignum V Br (S)	17											
Teatable Relf Br (N)	18											
Whale Harbor Br (S)	19											
Snake Creek Br (N)	20											
Ocean Blvd	21											
Atlantic Blvd	22											
C-905	23											
County Line sign	24											
Card Sound Rd	25											
OVERALL		-----	00:15:42	00:00:00	-----	12.324	0.000	47.1			00:00:19	5

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 17:03 TO 17:19**



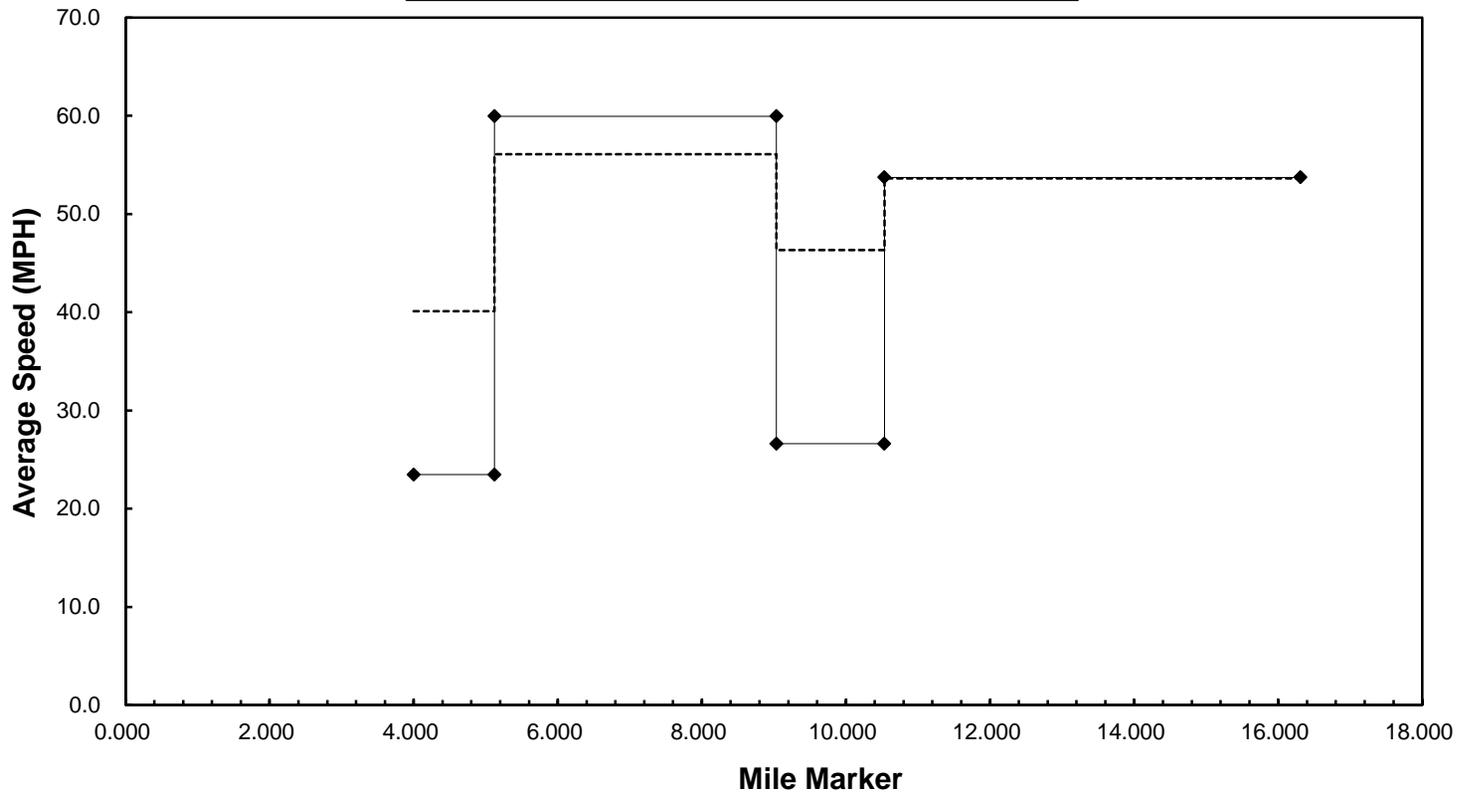
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:05:46 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	07:22:23 PM Supplemental Run 1		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.131	0.000		0.0				
Boca Chica Rd	4	00:06:27	00:06:27		115.907	5.776		53.7				
Rockland Dr	3	00:09:50	00:03:23		117.408	1.501		26.6	10+	CG	00:00:35	
Key Haven Blvd	2	00:13:45	00:03:55		121.322	3.914		60.0				5
Cow Key Bridge (N)	1	00:16:37	00:02:52		122.443	1.121		23.5	10+	TS,CG	00:00:52	
OVERALL		-----	00:16:37	00:00:00	-----	12.312	0.000	44.5			00:01:27	5

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 7:05 TO 7:23**



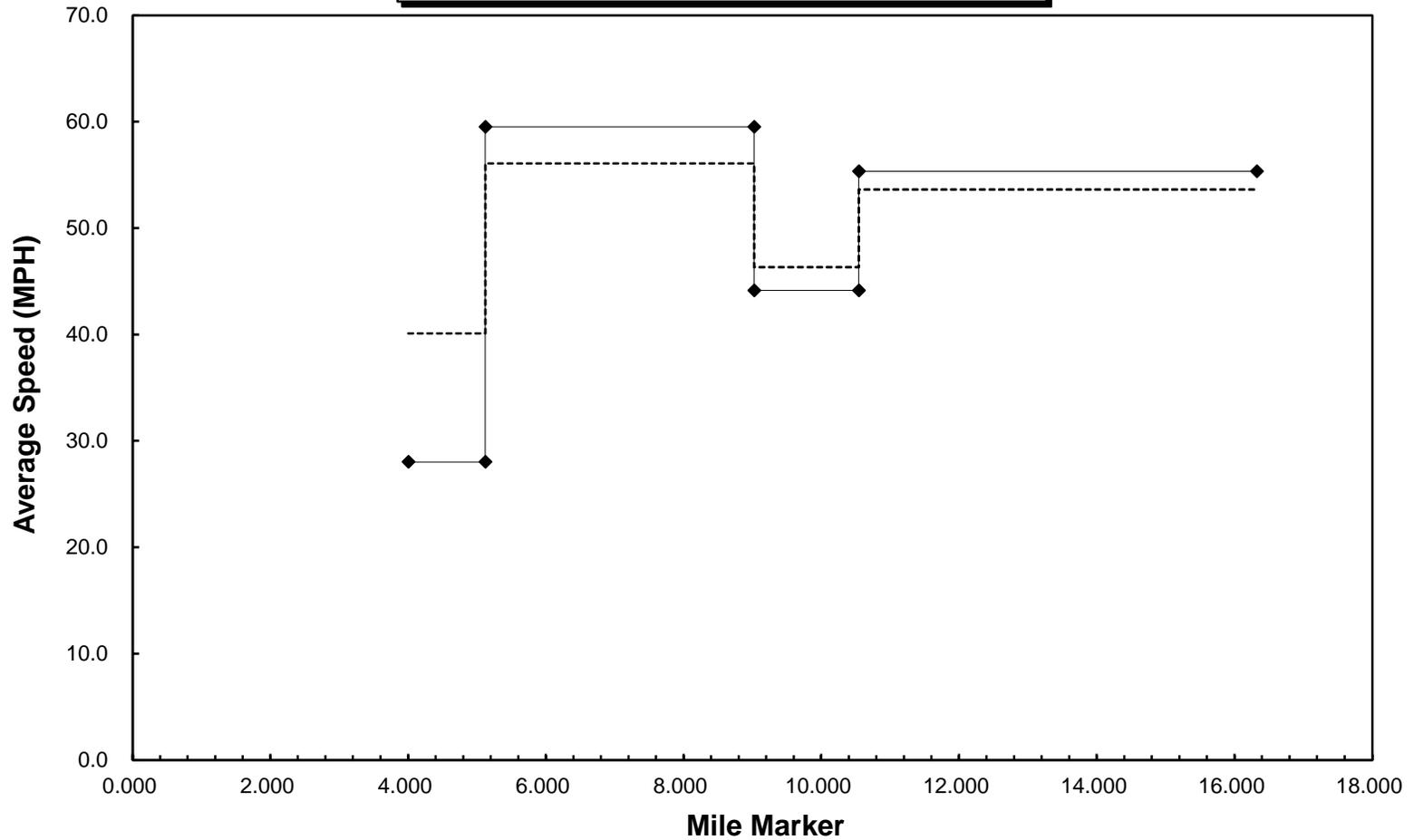
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIREdTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	dS = donstrudtion
WEATHER/dONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffid Signal	EV = Emergendy Vehidle
START TIME @ dOW KEY BR:	05:36:49 PM		DB = Drawbridge	Ad = Addident
FINISH TIME @ d SOUND RD:	05:51:29 PM Supplemental Run 2		dG = dongestion	* = Spedial Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:24	00:02:24		1.121	1.121		28.0	10+	TS	00:00:34	
Rockland Dr	2	00:06:20	00:03:56		5.023	3.902		59.5				3
Boca Chica Rd	3	00:08:24	00:02:04		6.543	1.520		44.1				
Harris Ch Br (N)	4	00:14:40	00:06:16		12.324	5.781		55.4				
Bow Channel Br (N)	5											
Spanish Main Dr	6											
E Shore Dr	7											
Torch-Ramrod Br (S)	8											
N Pine Ch Br (N)	9											
Long Beach Dr	10											
7-Mile Br (S)	11											
7-Mile Br (N)	12											
Coco Plum Dr	13											
Toms Harbor Ch Br (S)	14											
Long Key Br (S)	15											
Channel #2 Br (N)	16											
Lignum V Br (S)	17											
Teatable Relf Br (N)	18											
Whale Harbor Br (S)	19											
Snake Creek Br (N)	20											
Ocean Blvd	21											
Atlantic Blvd	22											
C-905	23											
County Line sign	24											
Card Sound Rd	25											
OVERALL		-----	00:14:40	00:00:00	-----	12.324	0.000	50.4			00:00:34	3

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 17:37 TO 17:52**



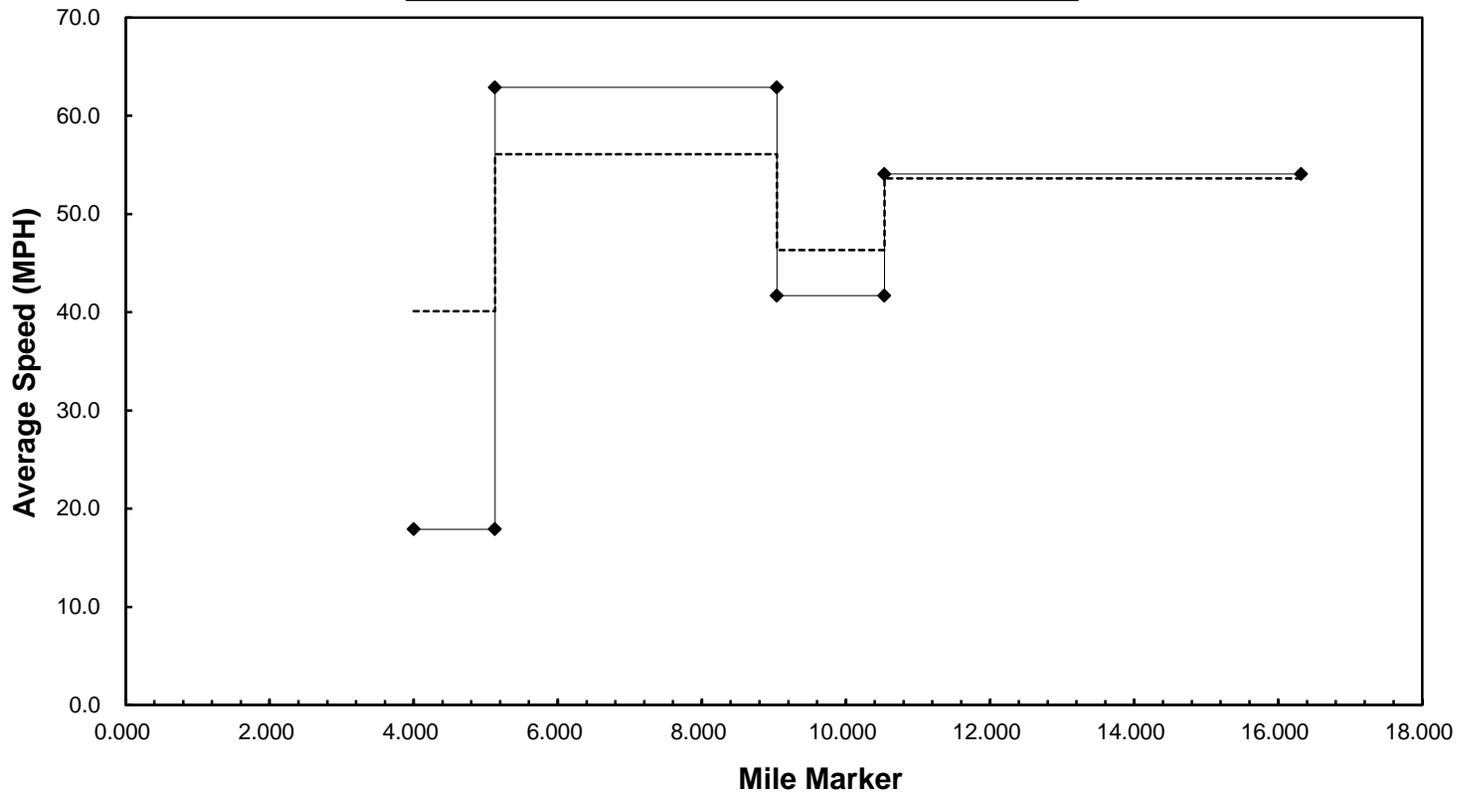
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Thursday, March 18, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:35:37 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	07:51:42 AM Supplemental Run 2		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.122	0.000		0.0				
Boca Chica Rd	4	00:06:25	00:06:25		115.906	5.784		54.1				
Rockland Dr	3	00:08:34	00:02:09		117.400	1.494		41.7				
Key Haven Blvd	2	00:12:18	00:03:44		121.313	3.913		62.9				
Cow Key Bridge (N)	1	00:16:05	00:03:47		122.442	1.129		17.9	10+	CG	00:02:35	-1
OVERALL		-----	00:16:05	00:00:00	-----	12.320	0.000	46.0			00:02:35	-1

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
THURSDAY, 03-18-21, 07:36 TO 07:52**



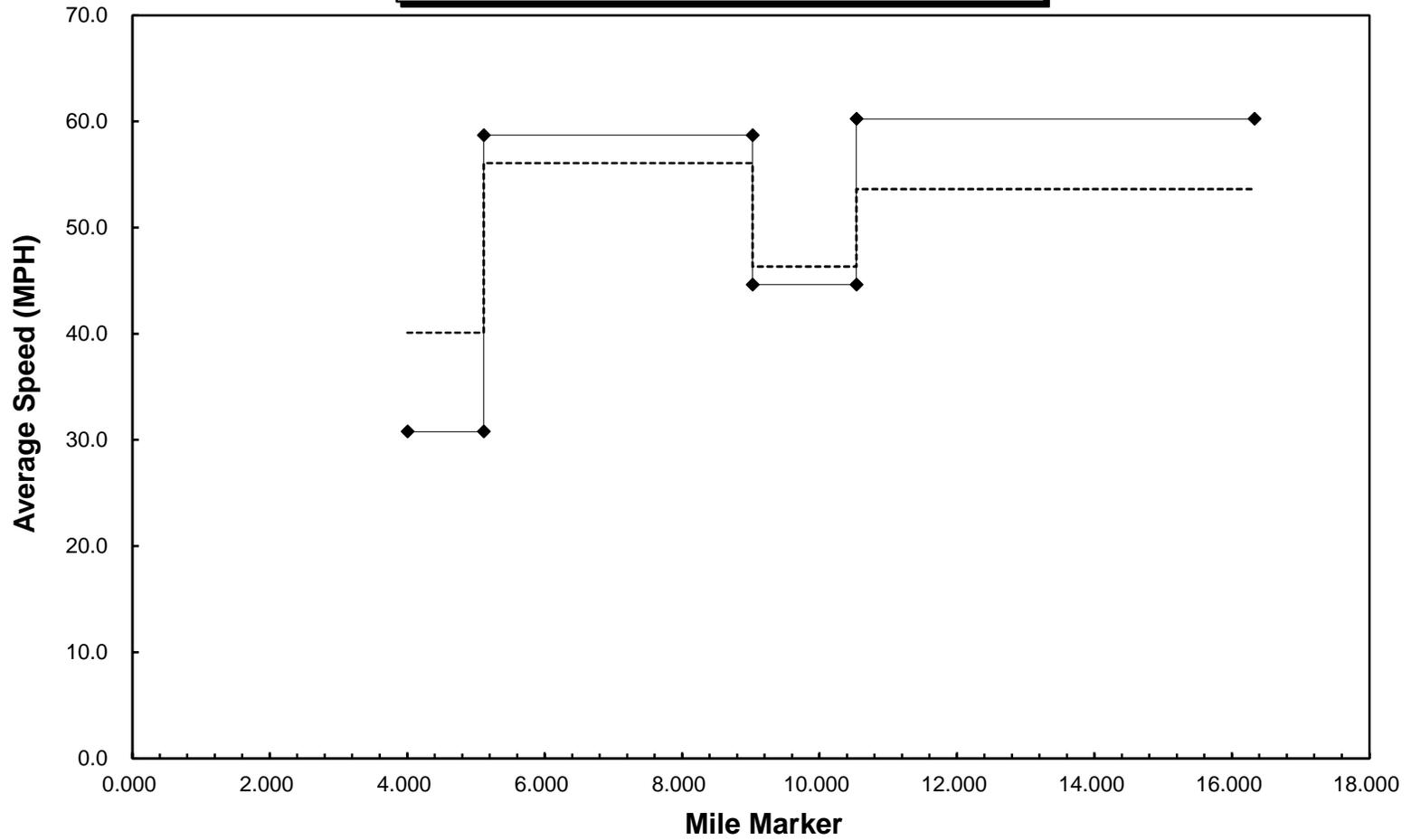
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	KK		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Friday, March 19, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ COW KEY BR:	05:13:02 PM		DB = Drawbridge AC = Accident
FINISH TIME @ C SOUND RD:	05:27:00 PM Supplemental Run 1		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
Key Haven Blvd	1	00:02:10	00:02:10		1.112	1.112		30.8	10+	TS	00:00:18	7
Rockland Dr	2	00:06:10	00:04:00		5.025	3.913		58.7				
Boca Chica Rd	3	00:08:12	00:02:02		6.537	1.512		44.6				
Harris Ch Br (N)	4	00:13:58	00:05:46		12.327	5.790		60.2				
Bow Channel Br (N)	5											
Spanish Main Dr	6											
E Shore Dr	7											
Torch-Ramrod Br (S)	8											
N Pine Ch Br (N)	9											
Long Beach Dr	10											
7-Mile Br (S)	11											
7-Mile Br (N)	12											
Coco Plum Dr	13											
Toms Harbor Ch Br (S)	14											
Long Key Br (S)	15											
Channel #2 Br (N)	16											
Lignum V Br (S)	17											
Teatable Relf Br (N)	18											
Whale Harbor Br (S)	19											
Snake Creek Br (N)	20											
Ocean Blvd	21											
Atlantic Blvd	22											
C-905	23											
County Line sign	24											
Card Sound Rd	25											
OVERALL		-----	00:13:58	00:00:00	-----	12.327	0.000	53.0			00:00:18	7

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 17:13 TO 17:27**



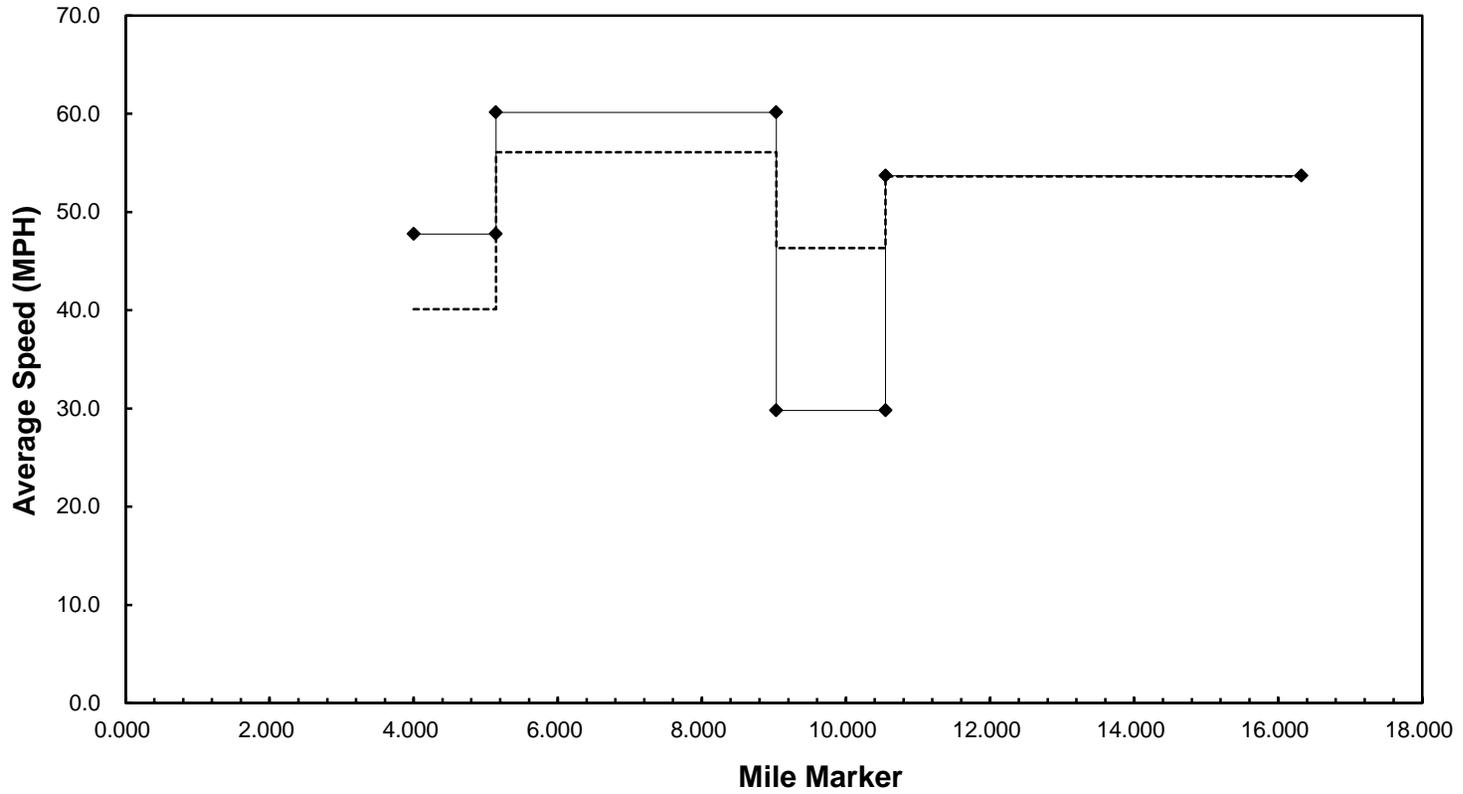
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	BH	Delay begins @ 5 mph	LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay ends @ 15 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Friday, March 19, 2021		TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:04:40 AM		DB = Drawbridge	AC = Accident
FINISH TIME @ COW KEY BR:	07:20:09 AM Supplemental Run 1		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.126	0.000		0.0				
Boca Chica Rd	4	00:06:27	00:06:27		115.899	5.773		53.7				
Rockland Dr	3	00:10:10	00:03:43	00:00:45	117.415	1.516	0.042	29.8	10+	SB(2)	00:00:45	
Key Haven Blvd	2	00:14:03	00:03:53		121.308	3.893		60.1				-3
Cow Key Bridge (N)	1	00:15:29	00:01:26		122.449	1.141		47.8				4
OVERALL		-----	00:15:29	00:00:45	-----	12.323	0.042	50.0			00:00:45	1

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 07:05 TO 07:21**



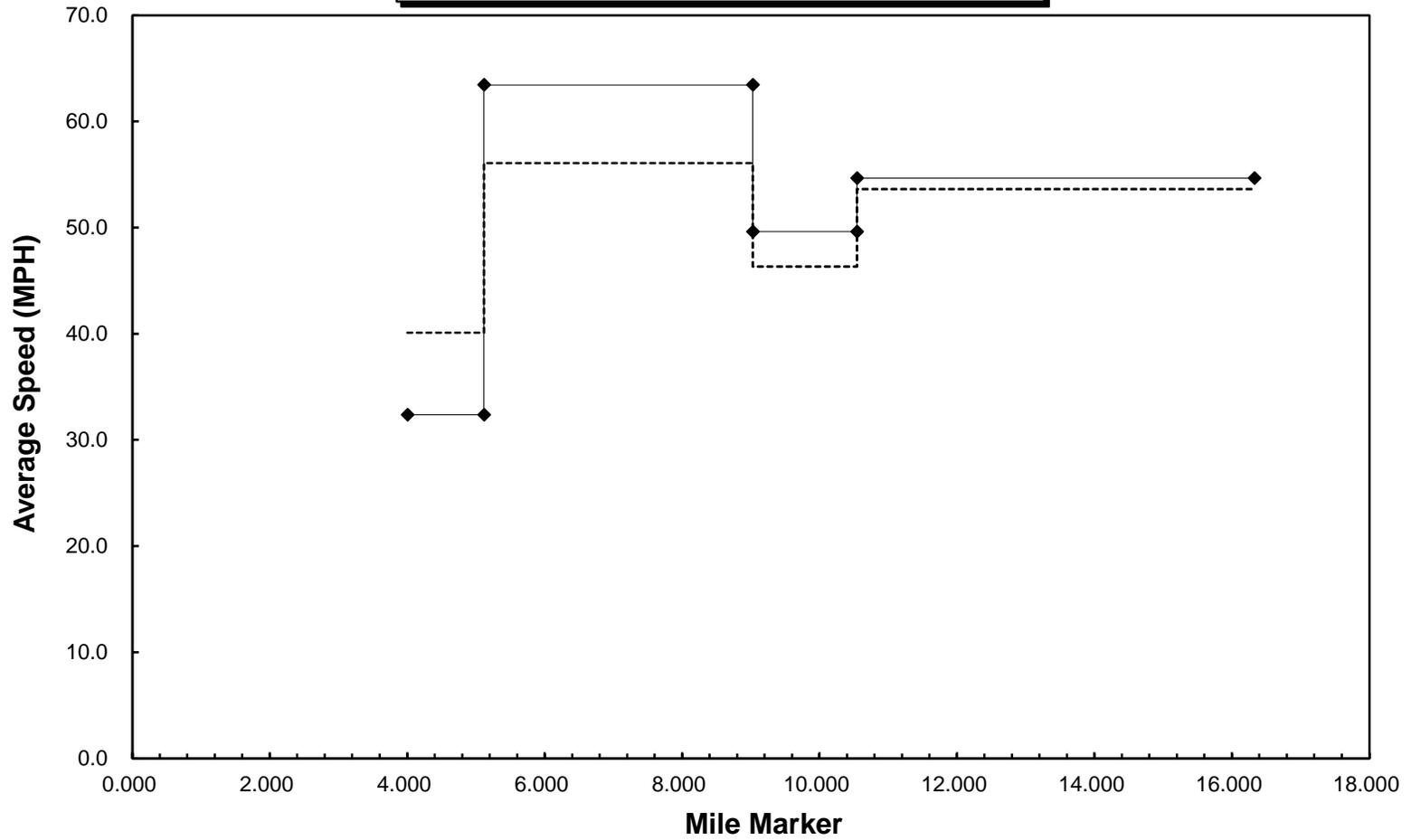
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Northbound	DEFINITION OF DELAY	TYPES OF DELAY	
OBSERVERS:	KK		LT = Left Turn	CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn	SB = School Bus
DAY/DATE:	Friday, March 19, 2021	Delay ends @ 15 mph	TS = Traffic Signal	EV = Emergency Vehicle
START TIME @ COW KEY BR:	05:44:39 PM		DB = Drawbridge	AC = Accident
FINISH TIME @ C SOUND RD:	05:58:36 PM Supplemental Run 2		CG = Congestion	* = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Cow Key Bridge (N)	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
Key Haven Blvd	1	00:02:04	00:02:04		1.115	1.115		32.4	10+	TS	00:00:31	5
Rockland Dr	2	00:05:46	00:03:42		5.027	3.912		63.4				2
Boca Chica Rd	3	00:07:36	00:01:50		6.543	1.516		49.6				
Harris Ch Br (N)	4	00:13:57	00:06:21		12.327	5.784		54.7				
Bow Channel Br (N)	5											
Spanish Main Dr	6											
E Shore Dr	7											
Torch-Ramrod Br (S)	8											
N Pine Ch Br (N)	9											
Long Beach Dr	10											
7-Mile Br (S)	11											
7-Mile Br (N)	12											
Coco Plum Dr	13											
Toms Harbor Ch Br (S)	14											
Long Key Br (S)	15											
Channel #2 Br (N)	16											
Lignum V Br (S)	17											
Teatable Relf Br (N)	18											
Whale Harbor Br (S)	19											
Snake Creek Br (N)	20											
Ocean Blvd	21											
Atlantic Blvd	22											
C-905	23											
County Line sign	24											
Card Sound Rd	25											
OVERALL		-----	00:13:57	00:00:00	-----	12.327	0.000	53.0			00:00:31	7

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 NORTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 17:45 TO 17:59**



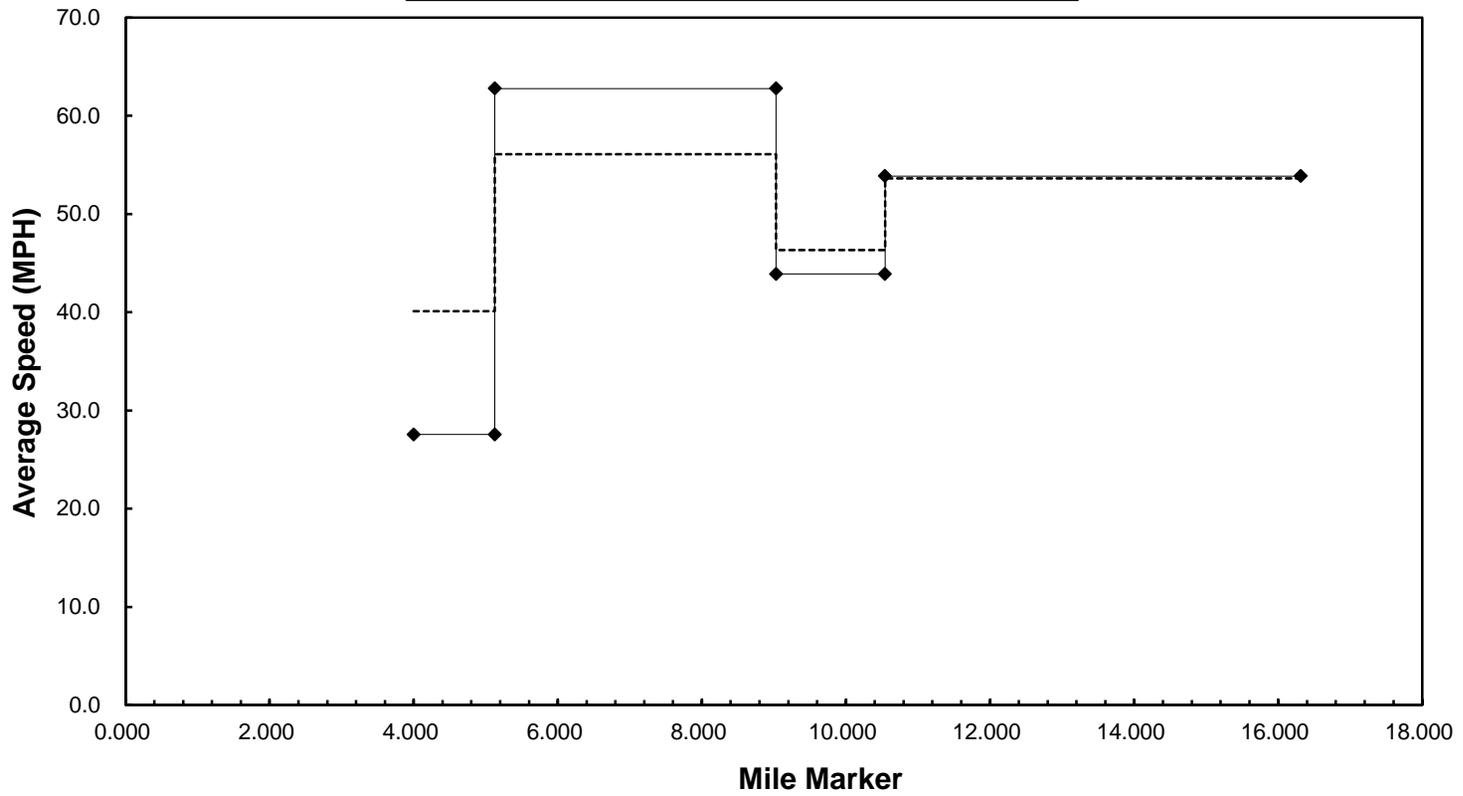
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

ROAD/DIRECTION:	US-1, Southbound	DEFINITION OF DELAY	TYPES OF DELAY
OBSERVERS:	BH		LT = Left Turn CS = Construction
WEATHER/CONDITIONS:	Clear/Sunny	Delay begins @ 5 mph	RT = Right Turn SB = School Bus
DAY/DATE:	Friday, March 19, 2021	Delay ends @ 15 mph	TS = Traffic Signal EV = Emergency Vehicle
START TIME @ C SOUND RD:	07:36:46 AM		DB = Drawbridge AC = Accident
FINISH TIME @ COW KEY BR:	07:51:27 AM Supplemental Run 2		CG = Congestion * = Special Event

Control Point	End Segment #	Cumulative Time	Segment Time	Excluded Time	Cumulative Distance	Segment Distance	Excluded Distance	Segment Travel Speed	Platoon Size	Delay Type	Segment Delay	Passing Score
Card Sound Rd	Begin	00:00:00	00:00:00	-----	0.000	0.000	-----	-----	-	--	-----	-
County Line sign	25											
C-905	24											
Atlantic Blvd	23											
Ocean Blvd	22											
Snake Creek Br (N)	21											
Whale Harbor Br (S)	20											
Teatable Relf Br (N)	19											
Lignum V Br (S)	18											
Channel #2 Br (N)	17											
Long Key Br (S)	16											
Toms Harbor Ch Br (S)	15											
Coco Plum Dr	14											
7-Mile Br (N)	13											
7-Mile Br (S)	12											
Long Beach Dr	11											
N Pine Ch Br (N)	10											
Torch-Ramrod Br (S)	9											
E Shore Dr	8											
Spanish Main Dr	7											
Bow Channel Br (N)	6											
Harris Ch Br (N)	5	00:00:00	00:00:00		110.124	0.000		0.0				
Boca Chica Rd	4	00:06:26	00:06:26		115.899	5.775		53.9				
Rockland Dr	3	00:08:30	00:02:04		117.411	1.512		43.9				
Key Haven Blvd	2	00:12:14	00:03:44		121.317	3.906		62.8				
Cow Key Bridge (N)	1	00:14:41	00:02:27		122.442	1.125		27.6	10+	TS	00:00:41	
OVERALL		-----	00:14:41	00:00:00	-----	12.318	0.000	50.3			00:00:41	0

Note: Segment 25 (Dade County) is excluded from the "OVERALL" measurements.

**US - 1 SOUTHBOUND TRAVEL SPEEDS
FRIDAY, 03-19-21, 07:37 TO 07:52**



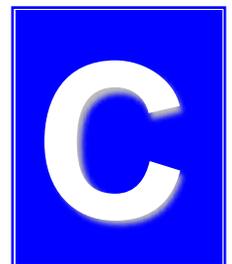
—◆— SEG. SPEED - - - - - AVG. POSTED SPEED

APPENDIX C

2021 Traffic Volume Summary



**A
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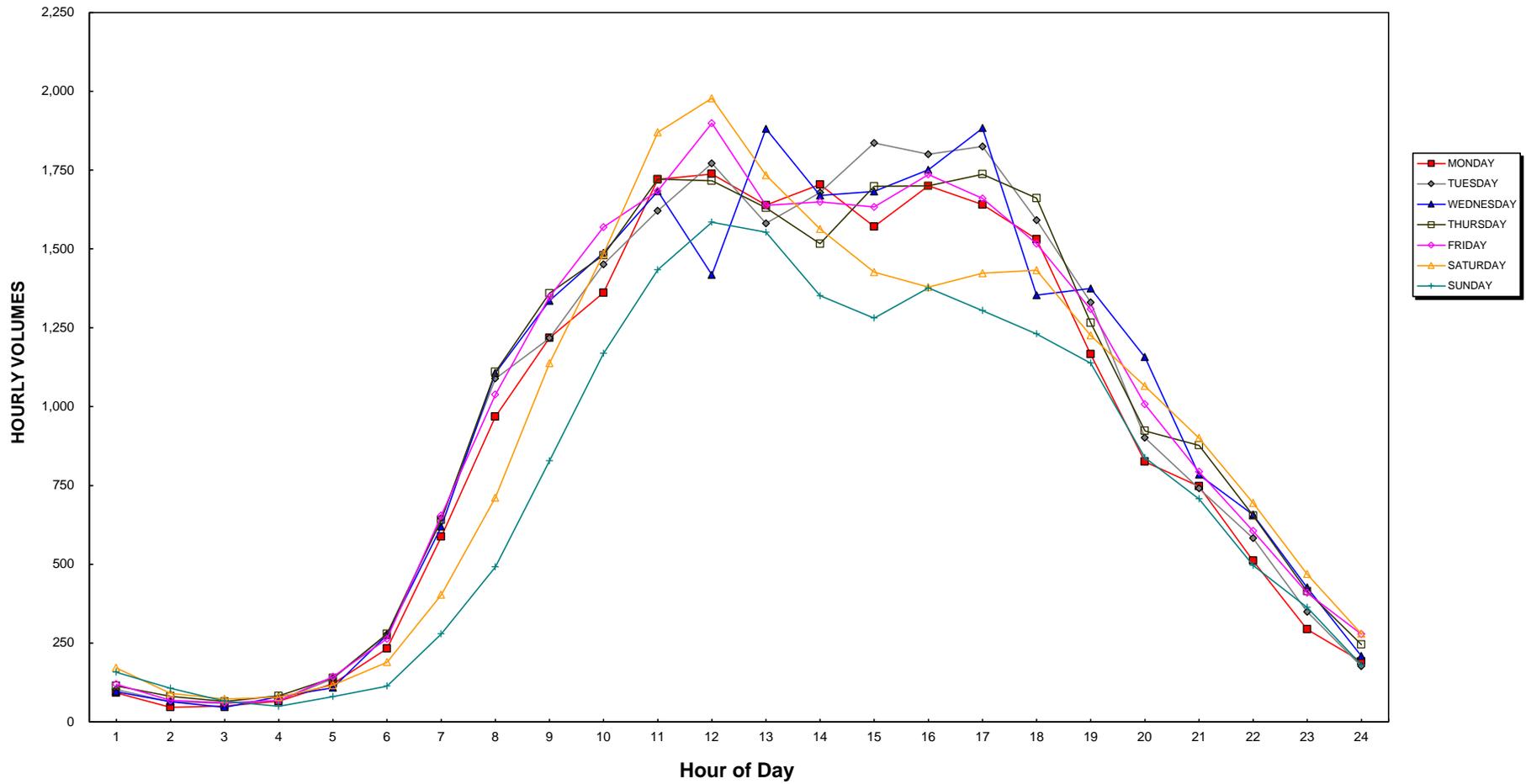
AECOM

2021 TRAFFIC VOLUME SUMMARY
BIG PINE KEY (MM 29): NORTH PINE CHANNEL BRIDGE

Hour Ending	Monday 03/15/2021			Tuesday 03/16/2021			Wednesday 03/17/2021			Thursday 03/18/2021			Friday 03/19/2021			Saturday 03/20/2021			Sunday 03/21/2021		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	48	44	92	57	45	102	49	46	95	68	46	114	65	54	119	90	81	171	94	63	157
2 AM	25	21	46	33	31	64	36	28	64	36	45	81	27	41	68	42	48	90	68	38	106
3 AM	23	27	50	18	40	58	23	23	46	34	30	64	26	34	60	31	41	72	33	32	65
4 AM	32	33	65	26	41	67	33	47	80	42	40	82	20	47	67	38	40	78	23	26	49
5 AM	57	64	121	67	70	137	52	56	108	66	73	139	58	85	143	59	57	116	43	37	80
6 AM	85	147	232	102	175	277	96	179	275	102	177	279	108	155	263	105	84	189	64	49	113
7 AM	228	359	587	203	442	645	211	408	619	245	395	640	251	403	654	204	199	403	149	130	279
8 AM	389	579	968	451	638	1,089	458	649	1,107	472	638	1,110	485	553	1,038	336	375	711	286	205	491
9 AM	560	658	1,218	574	643	1,217	589	746	1,335	651	708	1,359	673	674	1,347	587	550	1,137	491	337	828
10 AM	692	669	1,361	704	747	1,451	753	734	1,487	791	689	1,480	840	729	1,569	811	673	1,484	677	492	1,169
11 AM	850	870	1,720	752	869	1,621	812	871	1,683	924	797	1,721	857	827	1,684	1025	845	1,870	790	644	1,434
12 NOON	838	900	1,738	825	946	1,771	569	849	1,418	826	890	1,716	926	973	1,899	956	1022	1,978	807	778	1,585
1 PM	766	873	1,639	701	880	1,581	949	932	1,881	758	872	1,630	802	836	1,638	815	919	1,734	663	890	1,553
2 PM	762	942	1,704	769	910	1,679	691	978	1,669	754	762	1,516	828	821	1,649	641	922	1,563	616	735	1,351
3 PM	728	843	1,571	851	985	1,836	758	924	1,682	752	946	1,698	805	828	1,633	642	784	1,426	579	702	1,281
4 PM	826	874	1,700	882	918	1,800	939	812	1,751	879	821	1,700	835	901	1,736	605	774	1,379	602	774	1,376
5 PM	806	834	1,640	958	867	1,825	997	886	1,883	852	885	1,737	833	827	1,660	672	751	1,423	629	676	1,305
6 PM	816	715	1,531	853	738	1,591	597	756	1,353	849	812	1,661	745	771	1,516	668	764	1,432	594	637	1,231
7 PM	679	487	1,166	826	504	1,330	854	520	1,374	708	558	1,266	687	622	1,309	584	642	1,226	554	584	1,138
8 PM	473	352	825	543	358	901	769	388	1,157	548	375	923	512	495	1,007	526	539	1,065	453	385	838
9 PM	454	293	747	480	260	740	464	320	784	491	386	877	436	357	793	453	447	900	401	306	707
10 PM	335	176	511	378	204	582	446	211	657	423	231	654	372	233	605	409	285	694	306	190	496
11 PM	190	103	293	235	114	349	288	138	426	280	134	414	238	171	409	300	168	468	225	138	363
12 MID-NIGHT	110	81	191	113	63	176	155	53	208	162	83	245	165	113	278	175	104	279	94	86	180
Daily Total	10,772	10,944	21,716	11,401	11,488	22,889	11,588	11,554	23,142	11,713	11,393	23,106	11,594	11,550	23,144	10,774	11,114	21,888	9,241	8,934	18,175
AADT*	9,508	9,660	19,169	10,064	10,140	20,204	10,229	10,199	20,427	10,339	10,057	20,396	10,234	10,195	20,429	9,510	9,810	19,321	8,157	7,886	16,043

* AADT = Raw Count*Seasonal Factor*Axle Factor
5-Day ADT 22,799
7-Day ADT 22,009
2019 Seasonal Factor 0.91
2019 Axle Factor 0.97
5-Day AADT 20,125
7-Day AADT 19,427

US-1 NON-DIRECTIONAL HOURLY VOLUMES
BIG PINE KEY (MM 29) 03-15-2021 TO 03-21-2021



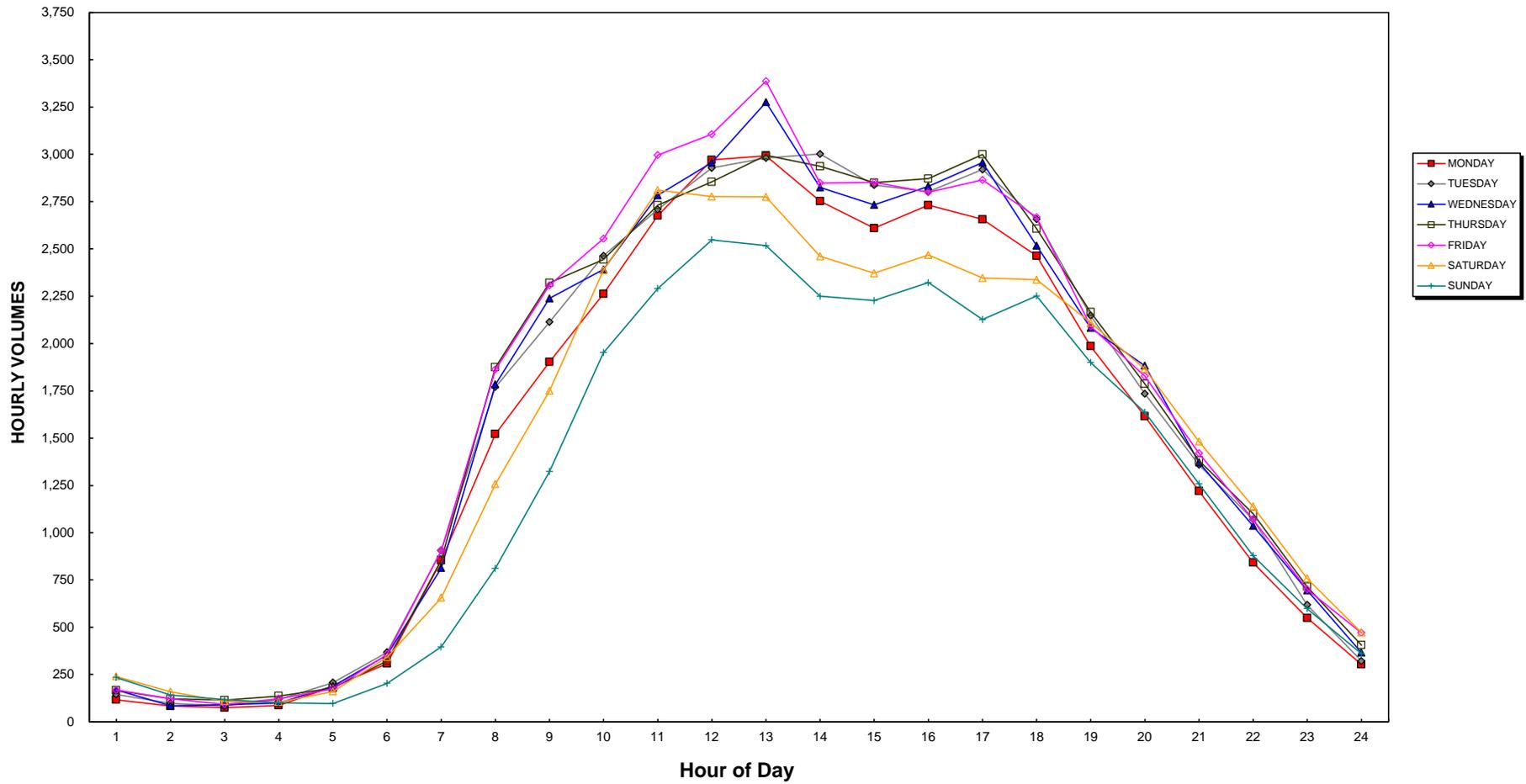
2021 TRAFFIC VOLUME SUMMARY
MARATHON (MM 50): NORTH OF SOMBRERO BEACH ROAD

Hour Ending	Monday 03/15/2021			Tuesday 03/16/2021			Wednesday 03/17/2021			Thursday 03/18/2021			Friday 03/19/2021			Saturday 03/20/2021			Sunday 03/21/2021		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	58	58	116	72	73	145	83	86	169	84	82	166	84	84	168	134	105	239	144	90	234
2 AM	41	42	83	42	56	98	43	42	85	68	53	121	62	59	121	80	79	159	80	61	141
3 AM	32	42	74	27	56	83	42	48	90	41	73	114	38	54	92	41	67	108	78	39	117
4 AM	32	54	86	51	67	118	39	60	99	67	69	136	40	82	122	49	54	103	43	58	101
5 AM	77	108	185	82	125	207	71	117	188	68	110	178	71	103	174	81	79	160	53	43	96
6 AM	121	186	307	148	219	367	143	210	353	118	204	322	154	202	356	181	160	341	104	99	203
7 AM	358	495	853	334	571	905	292	521	813	339	517	856	367	538	905	338	318	656	177	219	396
8 AM	707	814	1,521	779	990	1,769	728	1055	1,783	827	1047	1,874	870	991	1,861	585	672	1,257	430	381	811
9 AM	895	1007	1,902	1029	1085	2,114	1056	1182	2,238	1123	1198	2,321	1168	1139	2,307	887	862	1,749	686	637	1,323
10 AM	1065	1197	2,262	1128	1336	2,464	1136	1255	2,391	1254	1189	2,443	1284	1270	2,554	1267	1120	2,387	1039	913	1,952
11 AM	1290	1386	2,676	1231	1477	2,708	1288	1495	2,783	1358	1373	2,731	1421	1575	2,996	1391	1420	2,811	1183	1108	2,291
12 NOON	1417	1553	2,970	1379	1549	2,928	1431	1526	2,957	1412	1442	2,854	1586	1520	3,106	1356	1421	2,777	1250	1298	2,548
1 PM	1432	1560	2,992	1423	1557	2,980	1481	1795	3,276	1533	1462	2,995	1654	1733	3,387	1339	1436	2,775	1307	1210	2,517
2 PM	1312	1440	2,752	1307	1695	3,002	1332	1492	2,824	1357	1579	2,936	1445	1403	2,848	1159	1302	2,461	1090	1160	2,250
3 PM	1240	1369	2,609	1337	1501	2,838	1317	1415	2,732	1337	1513	2,850	1417	1434	2,851	1216	1156	2,372	1053	1174	2,227
4 PM	1346	1385	2,731	1443	1359	2,802	1494	1337	2,831	1543	1328	2,871	1386	1413	2,799	1225	1242	2,467	1139	1183	2,322
5 PM	1300	1356	2,656	1476	1443	2,919	1470	1487	2,957	1396	1604	3,000	1472	1392	2,864	1121	1225	2,346	1062	1065	2,127
6 PM	1268	1196	2,464	1329	1328	2,657	1273	1244	2,517	1376	1230	2,606	1305	1363	2,668	1127	1211	2,338	1072	1179	2,251
7 PM	1100	886	1,986	1204	943	2,147	1124	958	2,082	1143	1023	2,166	1083	1008	2,091	1047	1063	2,110	1014	886	1,900
8 PM	916	699	1,615	1050	684	1,734	1179	704	1,883	1025	761	1,786	1005	822	1,827	953	913	1,866	930	706	1,636
9 PM	718	502	1,220	839	520	1,359	806	565	1,371	793	588	1,381	819	601	1,420	827	655	1,482	758	500	1,258
10 PM	543	299	842	725	345	1,070	654	382	1,036	700	400	1,100	649	420	1,069	699	438	1,137	554	324	878
11 PM	329	220	549	384	234	618	473	222	695	455	259	714	410	290	700	460	298	758	373	225	598
12 MID-NIGHT	166	137	303	199	122	321	228	138	366	241	164	405	255	215	470	283	189	472	219	141	360
Daily Total	17,763	17,991	35,754	19,018	19,335	38,353	19,183	19,336	38,519	19,658	19,268	38,926	20,045	19,711	39,756	17,846	17,485	35,331	15,838	14,699	30,537
AADT*	15,679	15,881	31,560	16,787	17,067	33,854	16,933	17,068	34,001	17,352	17,008	34,360	17,694	17,399	35,093	15,753	15,434	31,187	13,980	12,975	26,955

* AADT = Raw Count*Seasonal Factor*Axle Factor

5-Day ADT 38,262
7-Day ADT 36,739
2019 Seasonal Factor 0.91
2019 Axle Factor 0.97
5-Day AADT 33,774
7-Day AADT 32,430

**US-1 NON-DIRECTIONAL HOURLY VOLUMES
MARATHON (MM 50) 03-15-2021 TO 03-21-2021**



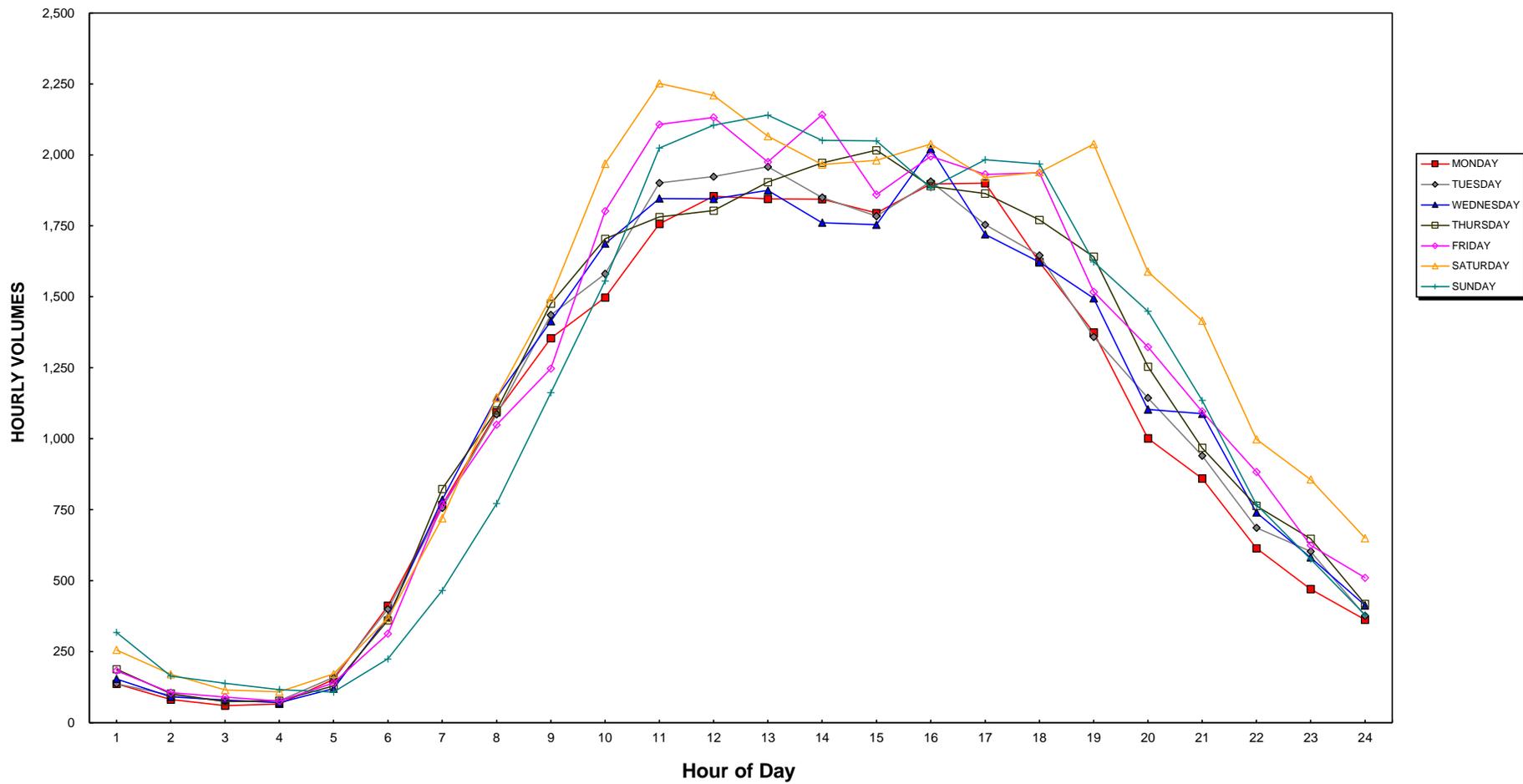
**2021 TRAFFIC VOLUME SUMMARY
UPPER MATECUMBE (MM 84): WHALE HARBOR CHANNEL BRIDGE**

Hour Ending	Monday 03/15/2021			Tuesday 03/16/2021			Wednesday 03/17/2021			Thursday 03/18/2021			Friday 03/19/2021			Saturday 03/20/2021			Sunday 03/21/2021		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1 AM	89	47	136	91	46	137	92	62	154	116	72	188	123	60	183	155	101	256	201	117	318
2 AM	48	33	81	48	48	96	51	40	91	50	52	102	59	46	105	82	88	170	96	68	164
3 AM	22	38	60	28	48	76	34	46	80	35	39	74	36	54	90	62	53	115	73	65	138
4 AM	32	34	66	29	48	77	33	37	70	31	46	77	39	37	76	61	48	109	78	38	116
5 AM	46	106	152	58	101	159	40	80	120	48	81	129	46	93	139	78	93	171	43	65	108
6 AM	104	307	411	104	296	400	77	294	371	86	274	360	83	230	313	137	231	368	76	148	224
7 AM	165	602	767	167	589	756	173	612	785	175	648	823	205	563	768	240	480	720	150	315	465
8 AM	366	727	1,093	328	758	1,086	358	787	1,145	378	722	1,100	449	600	1,049	443	702	1,145	292	480	772
9 AM	534	820	1,354	492	944	1,436	454	960	1,414	545	931	1,476	581	666	1,247	675	822	1,497	508	654	1,162
10 AM	626	871	1,497	601	980	1,581	628	1059	1,687	690	1014	1,704	807	995	1,802	916	1053	1,969	767	789	1,556
11 AM	823	934	1,757	795	1106	1,901	815	1031	1,846	817	964	1,781	1007	1100	2,107	1083	1169	2,252	969	1055	2,024
12 NOON	787	1068	1,855	864	1059	1,923	888	957	1,845	832	972	1,804	1038	1094	2,132	1066	1144	2,210	1002	1103	2,105
1 PM	859	986	1,845	958	1000	1,958	910	965	1,875	882	1022	1,904	997	978	1,975	1012	1054	2,066	1027	1113	2,140
2 PM	943	901	1,844	850	1000	1,850	916	845	1,761	976	996	1,972	1100	1041	2,141	921	1045	1,966	995	1056	2,051
3 PM	904	891	1,795	830	954	1,784	891	863	1,754	1041	975	2,016	887	973	1,860	960	1021	1,981	974	1075	2,049
4 PM	955	942	1,897	990	916	1,906	1034	987	2,021	945	944	1,889	988	1007	1,995	935	1103	2,038	921	963	1,884
5 PM	1037	863	1,900	1018	736	1,754	963	757	1,720	1047	817	1,864	972	959	1,931	938	982	1,920	975	1008	1,983
6 PM	914	708	1,622	1058	588	1,646	987	635	1,622	1045	726	1,771	1172	765	1,937	910	1029	1,939	1113	855	1,968
7 PM	750	624	1,374	877	482	1,359	939	556	1,495	1027	614	1,641	924	593	1,517	929	1109	2,038	981	642	1,623
8 PM	613	388	1,001	720	424	1,144	711	392	1,103	766	488	1,254	778	545	1,323	897	692	1,589	943	506	1,449
9 PM	584	276	860	662	278	940	765	323	1,088	633	335	968	677	419	1,096	887	529	1,416	836	299	1,135
10 PM	419	195	614	470	216	686	501	239	740	571	192	763	588	295	883	633	365	998	541	227	768
11 PM	336	134	470	396	207	603	458	124	582	487	161	648	388	236	624	572	284	856	410	166	576
12 MID-NIGHT	286	76	362	227	149	376	323	90	413	294	124	418	347	163	510	462	188	650	286	93	379
Daily Total	12,242	12,571	24,813	12,661	12,973	25,634	13,041	12,741	25,782	13,517	13,209	26,726	14,291	13,512	27,803	15,054	15,385	30,439	14,257	12,900	27,157
AADT*	10,806	11,096	21,902	11,176	11,451	22,627	11,511	11,246	22,758	11,931	11,660	23,591	12,615	11,927	24,542	13,288	13,580	26,869	12,585	11,387	23,971

* AADT = Raw Count*Seasonal Factor*Axle Factor

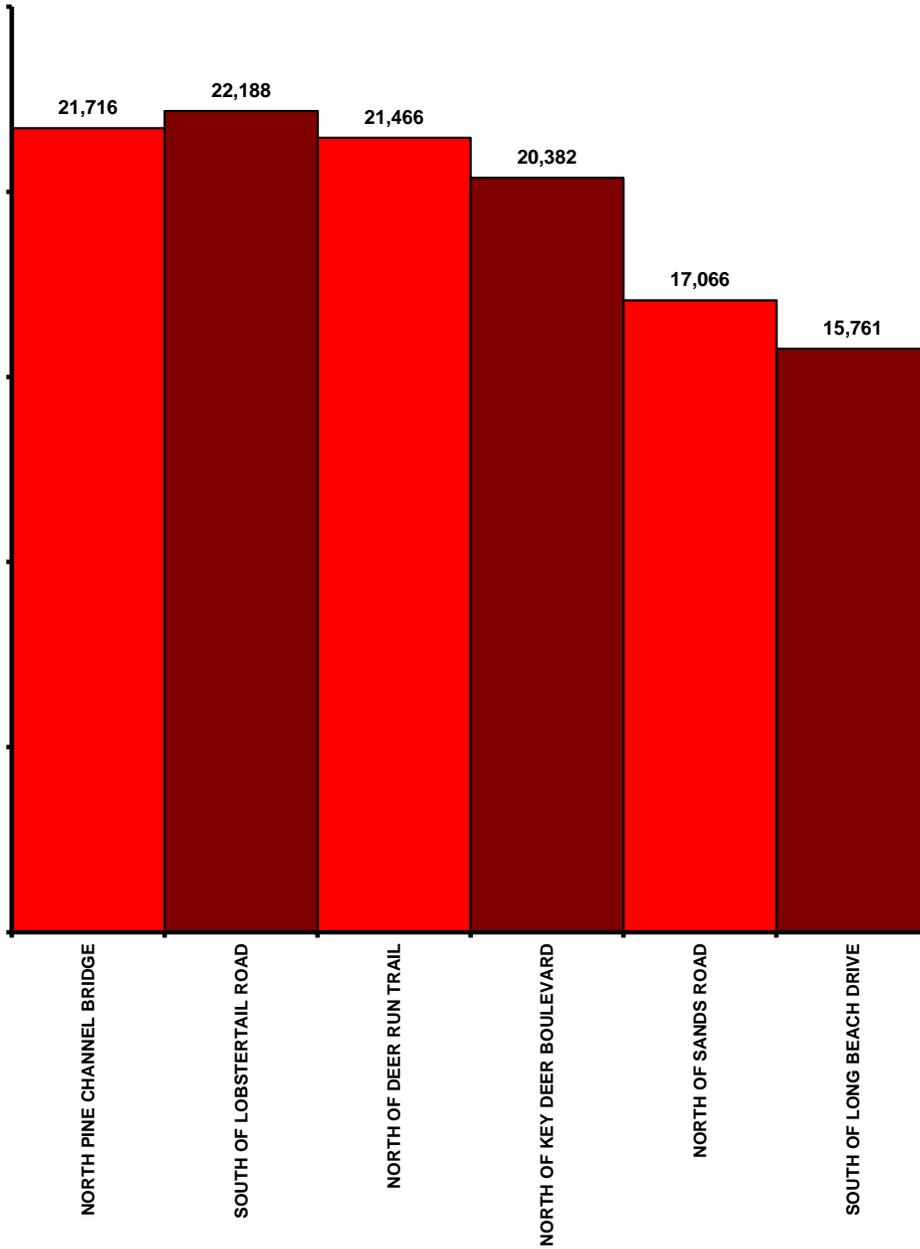
5-Day ADT 26,152
7-Day ADT 26,908
2019 Seasonal Factor 0.91
2019 Axle Factor 0.97
5-Day AADT 23,084
7-Day AADT 23,751

**US-1 NON-DIRECTIONAL HOURLY VOLUMES
UPPER MATECUMBE (MM 84) 03-15-2021 TO 03-21-2021**



TO KEY WEST
←

TO MARATHON
→

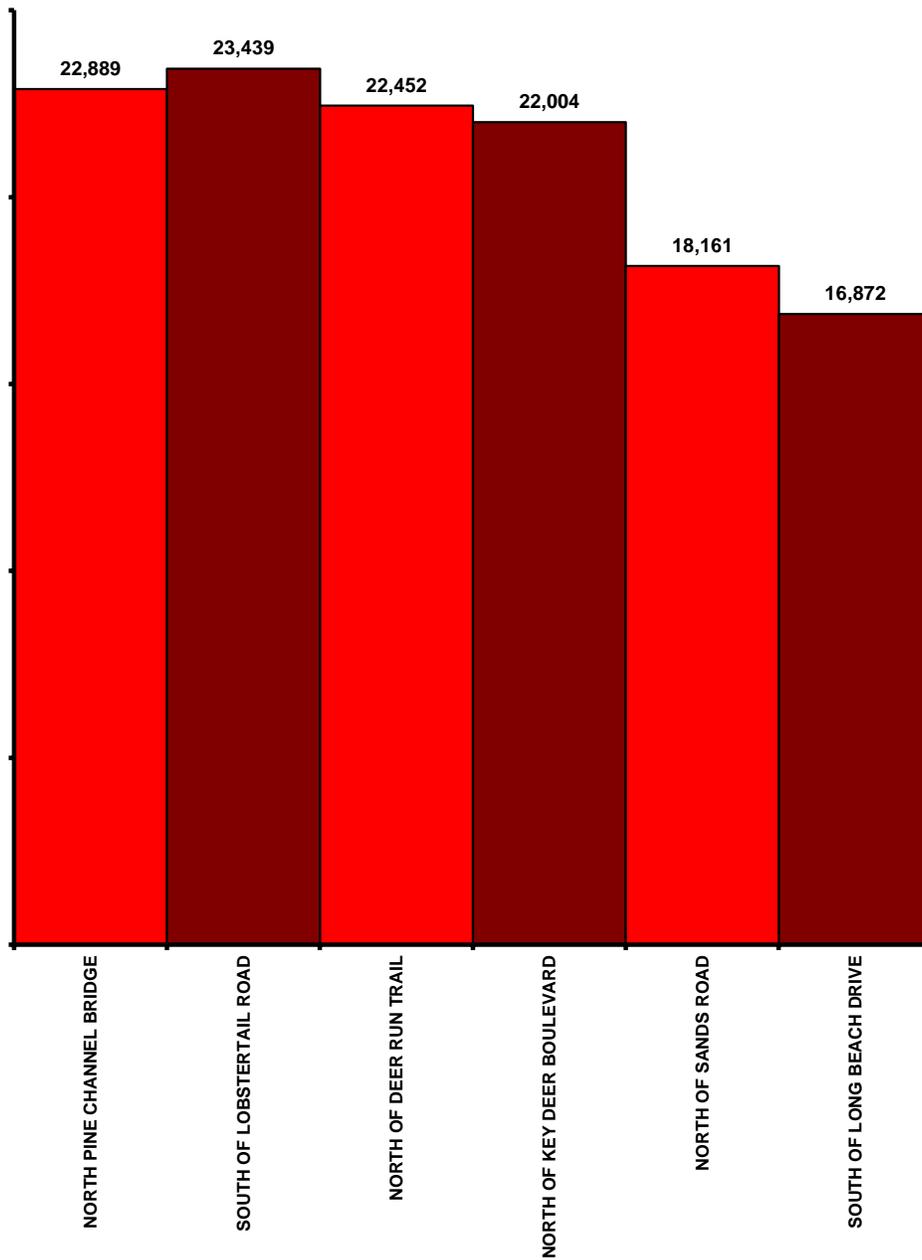


2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-1
TWO-WAY DAILY VOLUMES
US 1 - MONDAY

TO KEY WEST
←

TO MARATHON
→

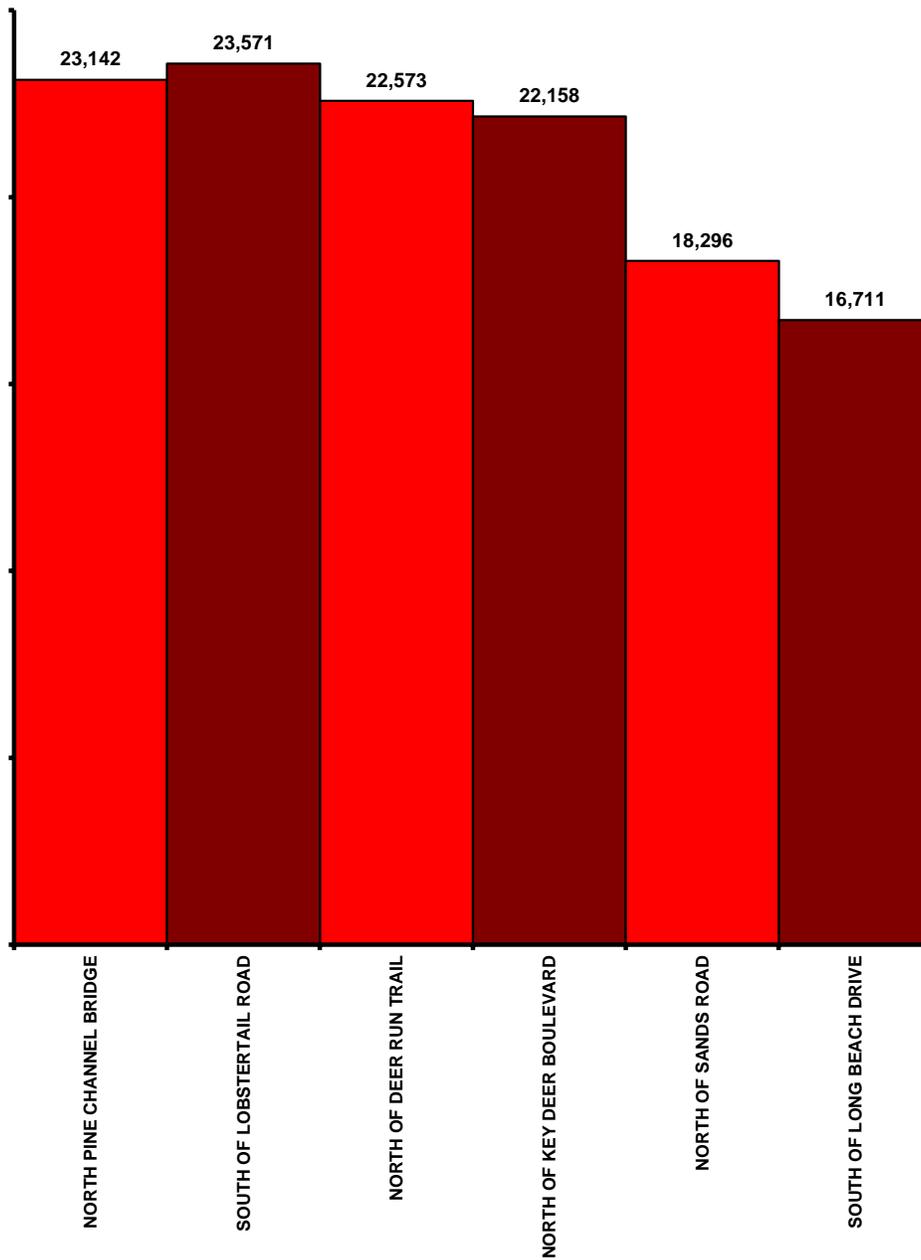


2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-2
TWO-WAY DAILY VOLUMES
US 1 - TUESDAY

TO KEY WEST
←

TO MARATHON
→

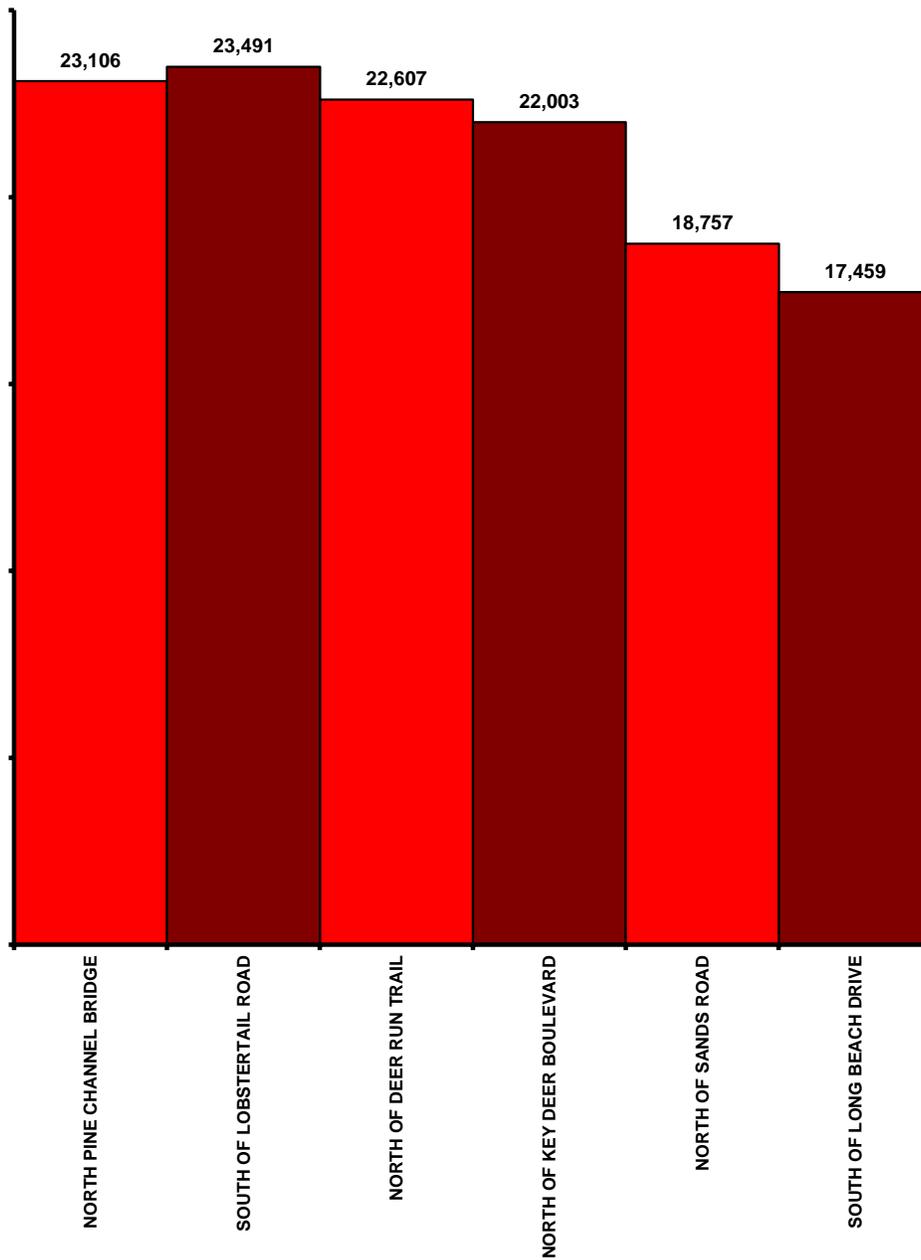


2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-3
TWO-WAY DAILY VOLUMES
US 1 - WEDNESDAY

TO KEY WEST
←

TO MARATHON
→

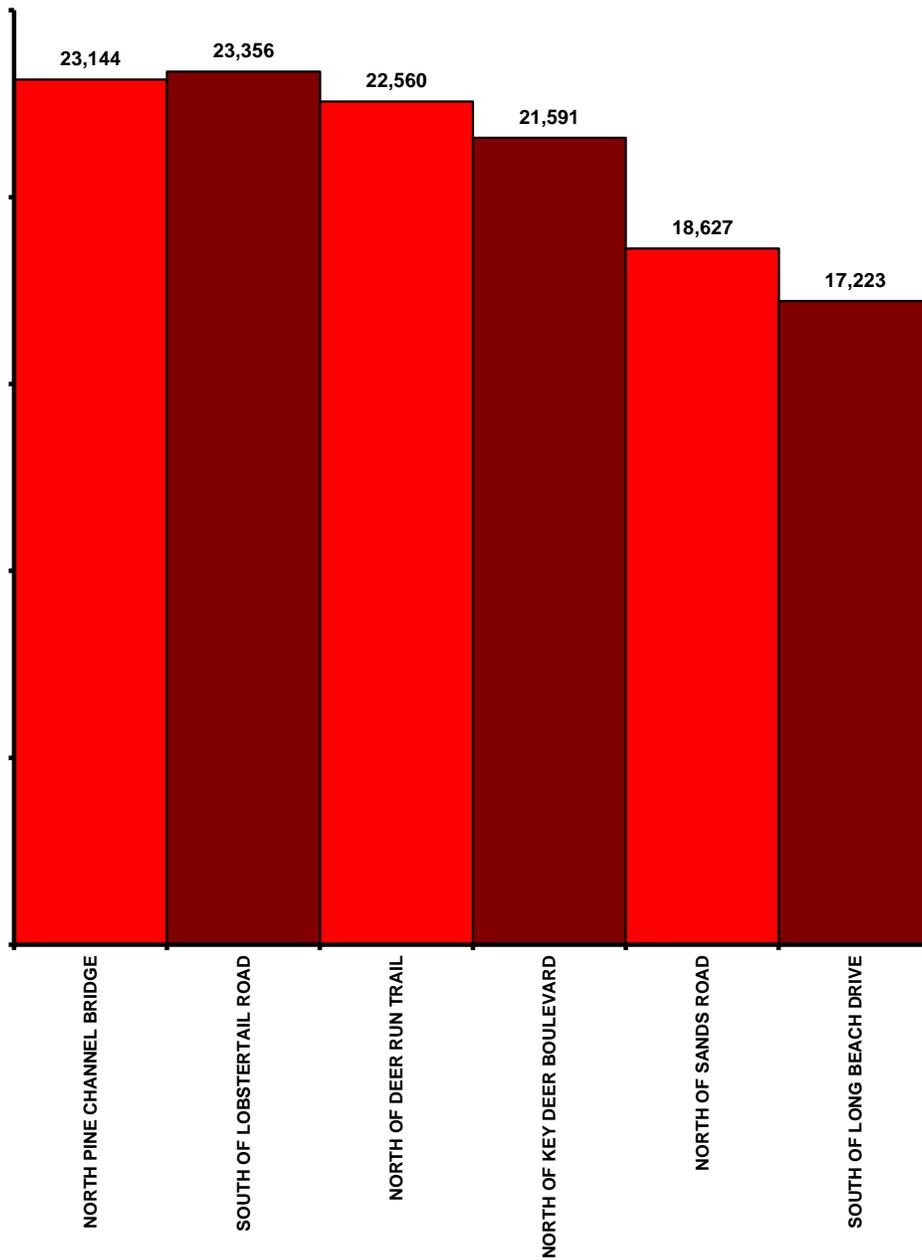


2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-4
TWO-WAY DAILY VOLUMES
US 1 - THURSDAY

TO KEY WEST
←

TO MARATHON
→

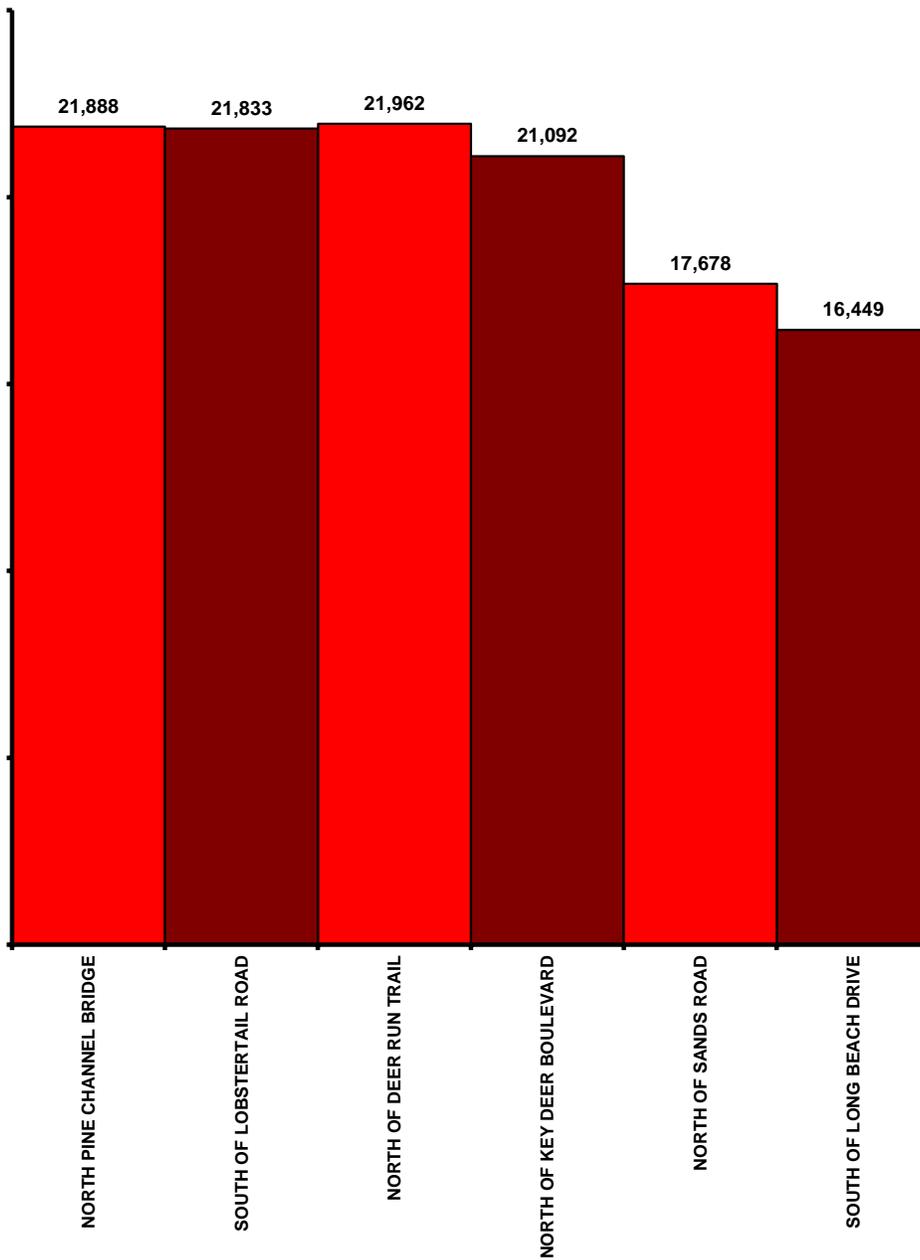


2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-5
TWO-WAY DAILY VOLUMES
US 1 - FRIDAY

TO KEY WEST
←

TO MARATHON
→



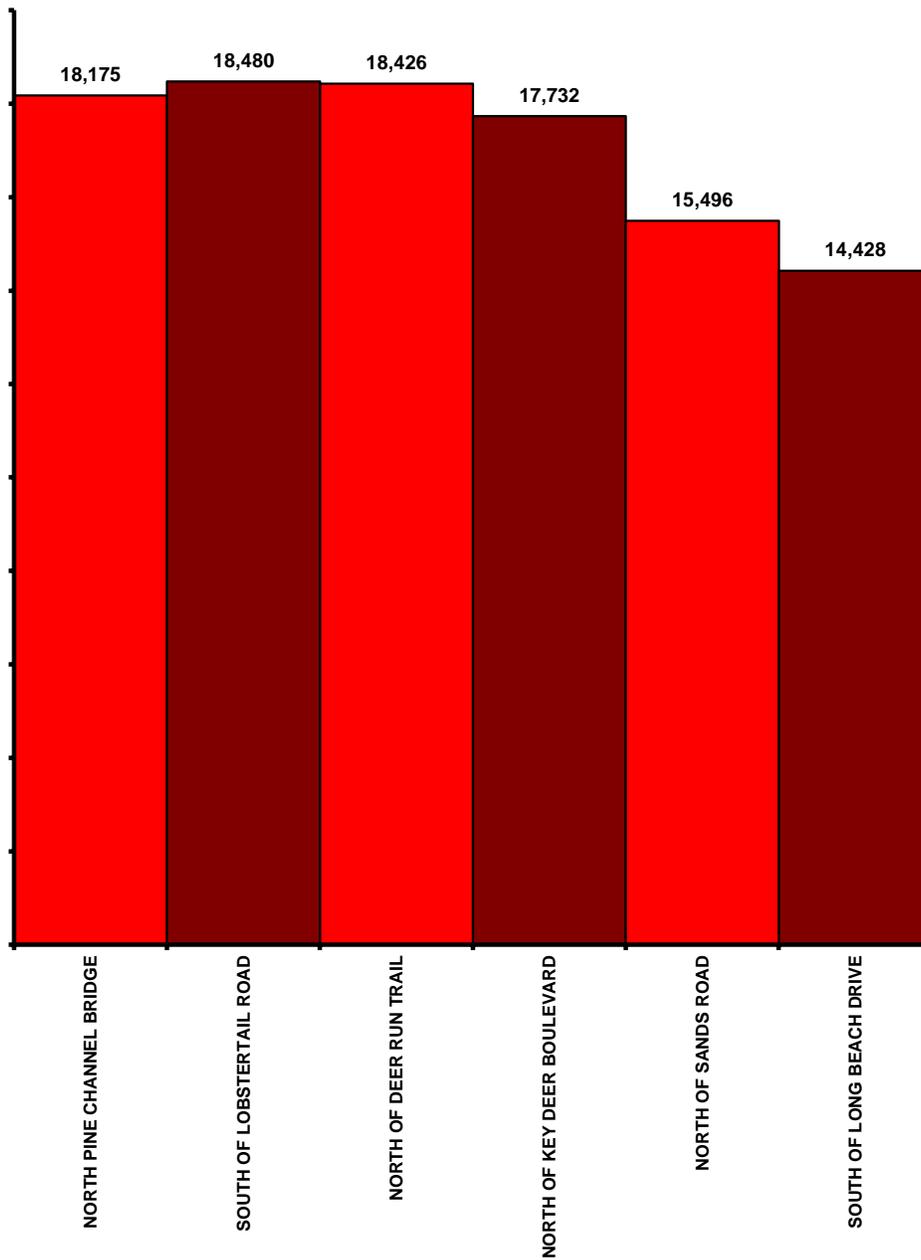
2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

EXHIBIT C-6
TWO-WAY DAILY VOLUMES
US 1 - SATURDAY

TO KEY WEST



TO MARATHON



2021
TRAVEL TIME DELAY STUDY
MONROE COUNTY, FLORIDA

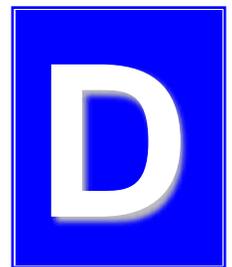
EXHIBIT C-7
TWO-WAY DAILY VOLUMES
US 1 - SUNDAY

APPENDIX D

Historical Count Data



A P P E N D I X



AECOM

HISTORICAL COUNT DATA

	1993		1994		1995		1996		1997		1998		1999		2000		2001		2002		2003	
	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change
Big Pine																						
5 – Day Average	23,811	-13.47%	20,604	-13.47%	27,533	33.63	24,270	11.85%	25,295	4.22%	24,224	-4.23%	25,819	6.58%	26,846	3.98%	23,403	-12.38%	22,612	-3.38%	23,341	3.22%
7 – Day Average	23,893	-14.01%	20,545	-14.01%	26,885	30.86%	23,476	-12.68%	24,371	3.81%	23,786	-2.40%	24,955	4.91%	26,070	4.47%	22,648	-13.13%	21,937	-3.14%	22,788	3.88%
AA DT	-	-10.11%	17,743	-10.11%	22,688	27.87%	21,186	-6.62%	21,496	1.46%	19,866	-7.58%	20,843	4.92%	21,774	4.47%	19,991	-8.19%	19,364	-3.14%	20,115	3.88%
Marathon																						
5 – Day Average	34,515	-8.78%	31,484	-8.78%	35,771	13.62%	33,620	-6.01%	34,528	2.70%	35,417	-2.57%	38,619	9.04%	36,431	-5.67%	33,777	-7.29%	36,989	9.51%	36,817	-0.47%
7 – Day Average	33,517	-9.15%	30,449	-9.15%	34,278	12.58%	31,919	-6.88%	32,800	2.76%	34,305	-4.59%	36,818	7.33%	34,742	-5.64%	32,106	-7.59%	35,442	10.39%	35,984	1.53%
AA DT	27,688	-5.02%	26,297	-5.02%	28,927	10.00%	27,924	-3.47%	28,930	3.60%	28,651	-0.96%	30,750	7.33%	29,017	-5.64%	28,340	-2.33%	31,285	10.39%	31,763	1.53%
Upper Matecumbe																						
5 – Day Average	22,312	-1.72%	21,929	-1.72%	24,026	9.56%	22,987	-4.32%	24,539	6.75%	24,988	1.83%	26,512	6.10%	26,642	0.49%	24,177	-9.25%	26,589	9.98%	26,759	0.64%
7 – Day Average	23,358	-2.87%	22,687	-2.87%	24,260	6.93%	22,826	-5.91%	24,489	7.29%	25,504	4.14%	26,465	3.77%	26,831	1.38%	24,719	-7.87%	26,475	7.10%	26,514	0.15%
AA DT	19,296	1.54%	19,593	1.54%	20,473	4.49%	20,083	-1.90%	21,599	7.55%	21,301	-1.38%	22,103	3.77%	22,410	1.39%	21,819	-2.64%	23,369	7.10%	23,404	0.15%

HISTORICAL COUNT DATA (Continued)

	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change
Big Pine																						
5 – Day Average	23,341	3.22%	23,108	-0.0101	24,304	5.17%	22,451	-7.62%	25,235	12.40%	21,495	-14.82%	21,242	-1.18%	20,651	-2.78%	20,468	-0.88%	21,056	2.87%	20,986	-0.33%
7 – Day Average	22,788	3.88%	22,538	-1.10%	23,788	5.55%	21,691	-8.82%	25,550	17.79%	20,612	-19.33%	20,656	0.21%	20,115	-2.62%	20,070	-0.22%	20,579	2.53%	20,066	-2.49%
AA DT	20,115	3.88%	19,894	-1.10%	19,844	-0.25%	18,095	-8.81%	20,215	11.72%	16,308	-19.33%	16,680	2.28%	17,842	6.97%	17,684	-0.88%	18,011	1.85%	17,943	-0.38%
Marathon																						
5 – Day Average	36,817	-0.47%	37,604	2.14%	37,405	-0.53%	35,388	-5.39%	36,742	3.83%	34,414	-6.34%	34,193	-0.64%	31,883	-6.76%	32,156	0.85%	34,145	6.19%	34,097	-0.14%
7 – Day Average	35,984	1.53%	36,563	1.61%	36,085	-1.32%	33,414	-7.40%	34,811	4.18%	31,731	-8.85%	32,298	1.79%	30,548	-5.42%	31,097	1.79%	32,985	6.07%	32,783	-0.61%
AA DT	31,763	1.53%	32,274	1.61%	30,102	-7.22%	27,874	-7.40%	27,542	-1.19%	25,106	-8.84%	26,081	3.88%	27,547	5.62%	27,782	0.85%	29,208	5.13%	29,153	-0.19%
Upper Matecumbe																						
5 – Day Average	26,759	0.64%	27,194	1.63%	27,980	2.89%	23,982	-14.29%	27,933	16.47%	23,416	-16.17%	23,071	-1.47%	22,588	-2.09%	24,326	7.69%	24,561	0.97%	23,656	-3.68%
7 – Day Average	26,514	0.15%	27,561	3.95%	27,693	0.48%	23,916	-13.64%	28,410	18.79%	23,024	-18.96%	23,016	-0.03%	22,634	-1.66%	24,508	8.27%	24,936	1.75%	23,164	-7.11%
AA DT	23,404	0.15%	24,328	3.95%	22,927	-6.11%	19,951	-12.98%	23,455	17.56%	19,008	-18.96%	18,585	-2.23%	19,516	5.01%	21,017	7.69%	21,009	-0.04%	20,226	-3.73%

HISTORICAL COUNT DATA (Continued)

	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025	
	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change	Count	Change
Big Pine																						
5 – Day Average	22,833	8.80%			21,915	-4.02%			22,408	2.25%			22,799	1.74%								
7 – Day Average	22,106	10.17%			21,595	-2.31%			21,722	0.59%			22,009	1.32%								
AA DT	20,139	12.24%			19,047	-5.42%			18,753	-1.54%			19,427	3.59%								
Marathon																						
5 – Day Average	38,824	13.86%			39,382	1.44%			43,041	9.29%			38,262	-11.10%								
7 – Day Average	38,144	16.35%			39,239	2.87%			42,530	8.39%			36,739	-13.62%								
AA DT	34,243	17.46%			34,609	1.07%			36,716	6.09%			32,430	-11.67%								
Upper Matecumbe																						
5 – Day Average	26,079	10.24%			25,598	-1.84%			25,856	1.01%			26,152	1.14%								
7 – Day Average	25,817	11.45%			26,126	1.20%			25,837	-1.11%			26,908	4.15%								
AA DT	23,002	13.72%			23,043	0.18%			22,305	-3.20%			23,751	6.48%								

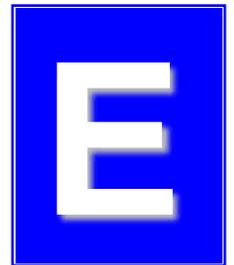
Note: For the years that the Travel Time Delay study is not scheduled (2014, 2016), volumes were obtained from the nearest FDOT FTI count site which may only have three (3) days of data.

APPENDIX E

2021 Travel Speed Summary Data and Statistics



**A
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AECOM

2021 TRAVEL SPEED DATA

	Stok Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Largo	Cross	Date	
	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	
Sunday 03-07-21 Northbound Southbound	33.8 44.7	61.3 57.9	54.4 46.6	57.7 51.8	53.3 45.7	45.4 48.4	46.6 46.0	48.9 47.6	47.1 51.1	42.0 32.1	57.3 51.3	60.3 51.9	45.2 45.1	57.3 45.7	55.8 46.2	51.8 47.8	52.3 44.1	45.4 44.7	28.8 28.0	22.4 24.6	41.6 18.8	48.3 50.6	47.3 46.0	33.7 45.4	54.9 60.7	46.8 42.1
Monday 03-08-21 Northbound Southbound	27.4 28.6	57.9 62.0	48.6 43.2	55.6 57.6	50.1 53.9	45.9 49.5	46.2 51.1	47.3 51.2	45.1 51.5	43.3 36.6	57.9 54.4	52.2 60.3	40.3 38.0	55.4 53.8	54.8 56.4	51.0 54.3	51.3 51.6	49.4 53.1	40.1 39.4	42.7 42.3	38.2 41.1	47.1 50.5	51.9 44.7	56.4 52.7	60.2 65.9	48.6 49.0
Tuesday 03-09-21 Northbound Southbound	38.7 45.0	59.6 62.2	42.8 50.1	60.0 55.0	46.3 40.3	46.2 45.4	42.4 38.5	48.2 42.3	45.5 44.0	46.7 28.8	56.6 49.9	53.0 48.2	39.5 37.7	52.2 49.0	52.5 53.7	49.0 53.1	50.4 50.4	50.5 46.7	40.8 34.7	46.4 39.4	40.5 43.8	46.1 48.1	36.3 48.8	52.9 48.8	46.5 54.8	47.3 46.6
Wednesday 03-10-21 Northbound Southbound	32.0 39.8	60.3 62.1	56.0 46.8	53.5 47.7	44.4 44.3	46.5 47.2	46.2 46.4	46.2 44.9	47.1 48.3	46.3 36.1	51.5 52.5	50.6 51.2	38.9 36.4	48.4 46.4	48.9 50.3	49.0 41.8	48.4 48.2	44.4 49.6	40.8 29.6	41.0 44.2	27.3 44.5	43.4 49.3	38.7 48.6	49.1 49.1	56.4 57.3	44.6 45.3
Thursday 03-11-21 Northbound Southbound	39.4 35.1	58.9 61.2	48.4 46.6	48.2 54.1	47.8 52.4	47.9 55.3	41.6 48.8	47.9 53.1	51.9 48.7	38.7 38.6	52.6 55.5	49.9 54.4	43.7 40.2	52.3 50.1	56.0 47.8	49.9 40.4	46.6 48.2	45.0 47.1	23.6 32.6	23.0 31.2	28.9 32.4	42.2 53.8	40.7 45.2	41.9 47.7	56.6 62.6	43.0 45.8
Friday 03-12-21 Northbound Southbound	40.1 28.5	58.4 60.7	43.3 50.1	49.7 55.0	48.8 46.3	48.5 50.2	43.7 47.6	40.7 45.9	46.3 52.0	42.9 42.5	53.3 53.3	53.1 55.2	36.1 40.8	51.9 49.6	54.1 52.1	54.7 51.7	46.2 48.9	47.8 52.0	36.3 39.2	30.7 38.9	28.7 30.3	34.5 50.2	43.3 42.9	52.8 51.1	57.2 61.1	44.2 46.8
Saturday 03-13-21 Northbound Southbound	30.1 53.2	59.3 61.1	51.4 48.1	55.8 52.4	49.8 47.6	45.8 48.9	44.1 48.7	44.8 49.2	48.7 52.3	49.2 42.9	56.2 51.4	53.0 53.4	40.1 44.0	51.6 48.0	55.2 47.6	50.3 49.9	47.6 47.6	46.8 38.3	43.5 36.5	41.1 21.6	29.0 27.1	45.2 49.4	48.3 38.3	30.7 31.5	56.1 28.9	45.4 43.5
Sunday 03-14-21 Northbound Southbound	42.4 30.0	58.0 62.0	48.3 47.4	51.5 49.2	48.1 47.7	46.3 51.2	42.9 44.6	45.8 46.5	49.2 48.9	44.6 43.8	55.5 51.5	51.7 54.5	40.2 40.6	52.7 48.7	60.0 55.0	53.1 53.9	46.4 48.4	30.5 47.6	37.7 34.9	39.6 29.4	39.4 34.3	49.4 48.5	48.7 43.8	30.9 26.0	58.0 24.2	46.2 44.2
Monday 03-15-21 Northbound Southbound	43.2 42.8	57.9 59.6	47.3 42.4	53.2 52.6	54.4 49.8	46.0 54.1	41.2 49.6	45.6 47.1	48.9 53.9	44.8 34.8	56.2 52.4	54.3 62.1	35.8 40.2	56.4 54.2	53.0 56.2	47.8 53.8	48.4 52.5	32.3 48.9	31.9 40.9	39.2 46.9	40.0 43.4	51.0 49.8	50.1 48.5	52.6 55.9	58.7 63.6	47.1 49.6
Tuesday 03-16-21 Northbound Southbound	47.4 12.3	61.0 59.2	48.0 47.8	52.5 53.4	50.8 51.5	47.4 48.1	45.4 49.8	36.9 50.9	47.7 51.7	43.0 37.3	55.4 53.9	53.2 61.0	35.6 33.8	49.9 49.2	51.5 53.4	43.8 46.9	46.7 51.7	52.0 47.0	39.3 30.8	40.4 40.4	42.3 40.8	52.5 49.3	45.6 44.9	54.1 54.7	58.2 63.8	47.1 45.5
Wednesday 03-17-21 Northbound Southbound	42.9 26.6	59.9 58.7	44.3 31.8	59.0 50.7	52.2 55.6	50.6 45.8	48.1 45.9	46.5 47.8	46.8 40.7	41.9 35.8	58.1 54.0	43.1 54.7	39.7 36.8	50.6 48.8	49.2 47.4	43.8 48.4	41.3 46.2	39.7 48.1	37.2 35.8	45.1 20.6	38.2 23.6	46.9 50.5	46.5 44.6	56.3 54.6	60.5 64.6	46.4 43.3
Thursday 03-18-21 Northbound Southbound	41.6 41.3	61.6 59.8	47.6 42.8	54.6 51.0	46.0 44.8	43.8 48.0	45.5 44.9	46.2 43.8	48.5 49.3	45.1 42.0	57.6 56.6	52.4 57.6	41.3 38.0	51.8 53.5	53.7 51.8	41.0 51.5	45.9 46.5	34.8 43.5	35.6 28.4	46.3 28.0	35.9 21.5	47.3 51.7	45.1 43.6	57.1 51.4	60.0 61.2	46.4 43.8
Friday 03-19-21 Northbound Southbound	44.4 42.0	60.1 59.9	48.9 47.2	53.8 51.6	49.6 51.3	50.0 55.7	47.6 51.1	39.4 47.6	42.4 49.7	44.0 36.2	53.9 56.2	53.6 49.1	39.0 39.2	50.0 54.2	53.4 60.5	51.9 57.8	49.9 45.2	46.4 41.0	19.6 28.4	39.9 26.8	33.1 13.7	36.1 48.8	36.3 41.6	39.7 37.9	54.9 63.4	42.7 41.5
Saturday 03-20-21 Northbound Southbound	46.0 26.2	61.6 57.3	47.6 45.7	54.2 56.6	48.6 48.8	43.7 49.4	40.0 47.5	43.6 48.8	50.7 49.8	42.8 49.5	55.3 55.2	50.4 56.8	39.1 44.7	51.3 51.6	49.7 49.9	48.7 48.2	21.5 49.3	18.0 46.6	16.0 34.8	32.2 18.0	35.0 7.1	52.7 49.9	48.7 41.2	35.2 32.9	55.9 33.0	40.3 35.5
Highest Speed	53.2	62.2	56.0	60.0	55.6	55.7	51.1	53.1	53.9	49.5	58.1	62.1	45.2	57.3	60.5	57.8	52.5	53.1	43.5	46.9	44.5	57.9	51.9	57.1	65.9	49.6
Lowest Speed	12.3	57.3	31.8	47.7	40.3	43.7	38.5	36.9	40.7	28.8	49.9	43.1	33.8	45.7	46.2	40.4	21.5	18.0	16.0	18.0	7.1	34.5	36.3	26.0	24.2	35.5

2021 TRAVEL SPEED DATA

	Stock Island	Boca Chica	Big Coppitt	Saddlebunch	Sugarloaf	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Bahia Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Matecumbe	Tea Table	U. Matecumbe	Windley	Plantation	Tavernier	Largo	Cross	Dade	OVERALL	
	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0		
TRAVEL SPEED ANALYSIS																											
<i>Mean</i>	37.3	60.0	46.9	53.5	48.9	48.3	45.8	46.2	48.5	41.2	54.5	53.6	39.6	51.2	52.7	49.5	47.2	44.2	33.8	35.1	32.9	48.3	44.6	45.8	55.7	45.0	
<i>Median</i>	40.0	59.9	47.5	53.5	48.8	47.9	46.1	46.5	48.8	42.7	54.8	53.2	39.6	51.4	53.2	49.9	48.2	46.6	35.3	39.3	34.7	49.4	45.0	49.1	58.1	45.5	
<i>Standard Deviation</i>	8.7	1.5	4.4	3.1	3.5	3.1	3.2	3.5	3.1	5.0	2.3	4.1	2.9	2.8	3.6	4.3	5.7	7.6	6.7	9.0	9.5	4.8	4.0	9.7	10.4	2.9	
<i>Highest Speed</i>	53.2	62.2	56.0	60.0	55.6	55.7	51.1	53.1	53.9	49.5	58.1	62.1	45.2	57.3	60.5	57.8	52.5	53.1	43.5	46.9	44.5	57.9	51.9	57.1	65.9	49.6	
<i>Lowest Speed</i>	12.3	57.3	31.8	47.7	40.3	43.7	38.5	36.9	40.7	28.8	49.9	43.1	33.8	45.7	46.2	40.4	21.5	18.0	16.0	18.0	7.1	34.5	36.3	26.0	24.2	35.5	
<i>95% Confidence Interval</i>	3.2	0.6	1.6	1.1	1.3	1.1	1.2	1.3	1.1	1.8	0.8	1.5	1.1	1.0	1.3	1.6	2.1	2.8	2.5	3.4	3.5	1.8	1.5	3.6	3.8	1.1	
<i>Upper Speed</i>	40.6	60.5	48.5	54.6	50.2	49.4	47.0	47.5	49.6	43.0	55.3	55.1	40.7	52.3	54.1	51.1	49.3	47.0	36.2	38.4	36.4	50.1	46.1	49.4	59.5	46.0	
<i>Lower Speed</i>	34.1	59.4	45.3	52.4	47.6	47.1	44.6	44.9	47.3	39.3	53.6	52.1	38.5	50.2	51.4	47.9	45.1	41.4	31.3	31.7	29.3	46.5	43.1	42.2	51.9	43.9	
LOS ANALYSIS																											
<i>Posted Speed</i>	40.1	54.7	46.3	53.6	45.0	45.0	45.0	45.0	45.0	45.0	52.4	54.4	42.5	54.6	55.0	53.4	52.5	45.0	45.0	45.0	43.0	47.2	45.0	51.4	54.8	49.7	
<i>Signal Adjustment</i>	N/A	N/A	N/A	N/A	6.8	N/A	N/A	N/A	N/A	5.9	N/A	N/A	N/A	2.1	N/A	N/A	N/A	N/A	N/A	N/A	5.9	3.1	5.4	N/A	N/A	N/A	
<i>Level of Service Median</i>	A	A	B	B	A	A	B	A	A	A	A	B	A	C	C	C	C	A	E	D	C	A	A	C	N/A	C	
<i>95% Upper</i>	A	A	A	B	A	A	A	A	A	A	A	B	A	C	B	C	C	A	E	D	B	A	A	C	N/A	C	
<i>95% Lower</i>	B	A	B	B	A	A	B	B	A	B	B	C	A	C	C	D	D	C	F	E	E	A	A	E	N/A	D	
<i>LOS C Standard</i>	22.0	50.2	41.8	49.1	33.7	40.5	40.5	40.5	40.5	34.6	47.9	49.9	22.0	48.0	50.5	48.9	48.0	40.5	40.5	40.5	32.6	39.6	35.1	46.9	N/A	45.0	
<i>Reserve</i>	18.0	9.7	5.6	4.3	15.1	7.4	5.6	6.0	8.3	8.1	6.9	3.3	17.6	3.4	2.7	1.0	0.2	6.1	-5.2	-1.2	2.0	9.8	9.9	2.2	N/A	0.5	

2021 TRAVEL SPEED DATA (SUPPLEMENTAL RUNS)

	<i>Stock Island</i>	<i>Boca Chica</i>	<i>Big Coppitt</i>	<i>Saddlebunch</i>	
	1.0	2.0	3.0	4.0	
Wednesday 03-17-21 Northbound	33.5	48.7	24.7	43.8	39.0
Southbound	34.6	60.2	34.1	55.1	50.0
Wednesday 03-17-21 Southbound	13.2	59.9	44.6	56.2	42.8
Thursday 03-18-21 Northbound	31.0	59.3	30.6	52.4	47.1
Southbound	23.5	60.0	26.6	53.7	44.5
Thursday 03-18-21 Northbound	28.0	59.5	44.1	55.4	50.4
Southbound	17.9	62.9	41.7	54.1	46.0
Friday 03-19-21 Northbound	30.8	58.7	44.6	60.2	53.0
Southbound	47.8	60.1	29.8	53.7	50.0
Friday 03-19-21 Northbound	32.4	63.4	49.6	54.7	53.0
Southbound	27.6	62.8	43.9	53.9	50.3
Highest Speed	47.8	63.4	49.6	60.2	53.0
Lowest Speed	13.2	48.7	24.7	43.8	39.0

2021 TRAVEL SPEED DATA (SUPPLEMENTAL RUNS)

PAGE 2 OF 2

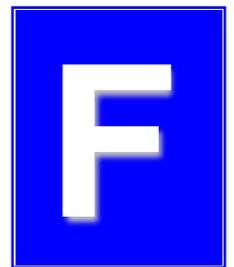
	Stock Island 1.0	Boca Chica 2.0	Big Coppitt 3.0	Saddlebunch 4.0	OVERALL
TRAVEL SPEED ANALYSIS					
<i>Mean</i>	29.1	59.6	37.7	53.9	47.8
<i>Median</i>	30.8	60.0	41.7	54.1	50.0
<i>Standard Deviation</i>	9.1	4.0	8.7	3.9	4.4
<i>Highest Speed</i>	47.8	63.4	49.6	60.2	53.0
<i>Lowest Speed</i>	13.2	48.7	24.7	43.8	39.0
<i>95% Confidence Interval</i>	3.4	1.5	3.2	1.5	1.6
<i>Upper Speed</i>	32.5	61.1	40.9	55.4	49.5
<i>Lower Speed</i>	25.7	58.1	34.5	52.5	46.2
LOS ANALYSIS					
<i>Posted Speed</i>	40.1	56.1	46.3	53.6	49.5
<i>Signal Adjustment</i>	N/A	N/A	N/A	N/A	N/A
<i>Level of Service Median</i>	B	A	D	B	B
<i>95% Upper</i>	F	A	D	A	B
<i>95% Lower</i>	B	A	E	B	C
<i>LOS C Standard</i>	22.0	51.6	41.8	49.1	45.0
<i>Reserve</i>	8.8	8.4	-0.1	4.9	5.0

APPENDIX F

Comparisons of Historical Travel Speed Data

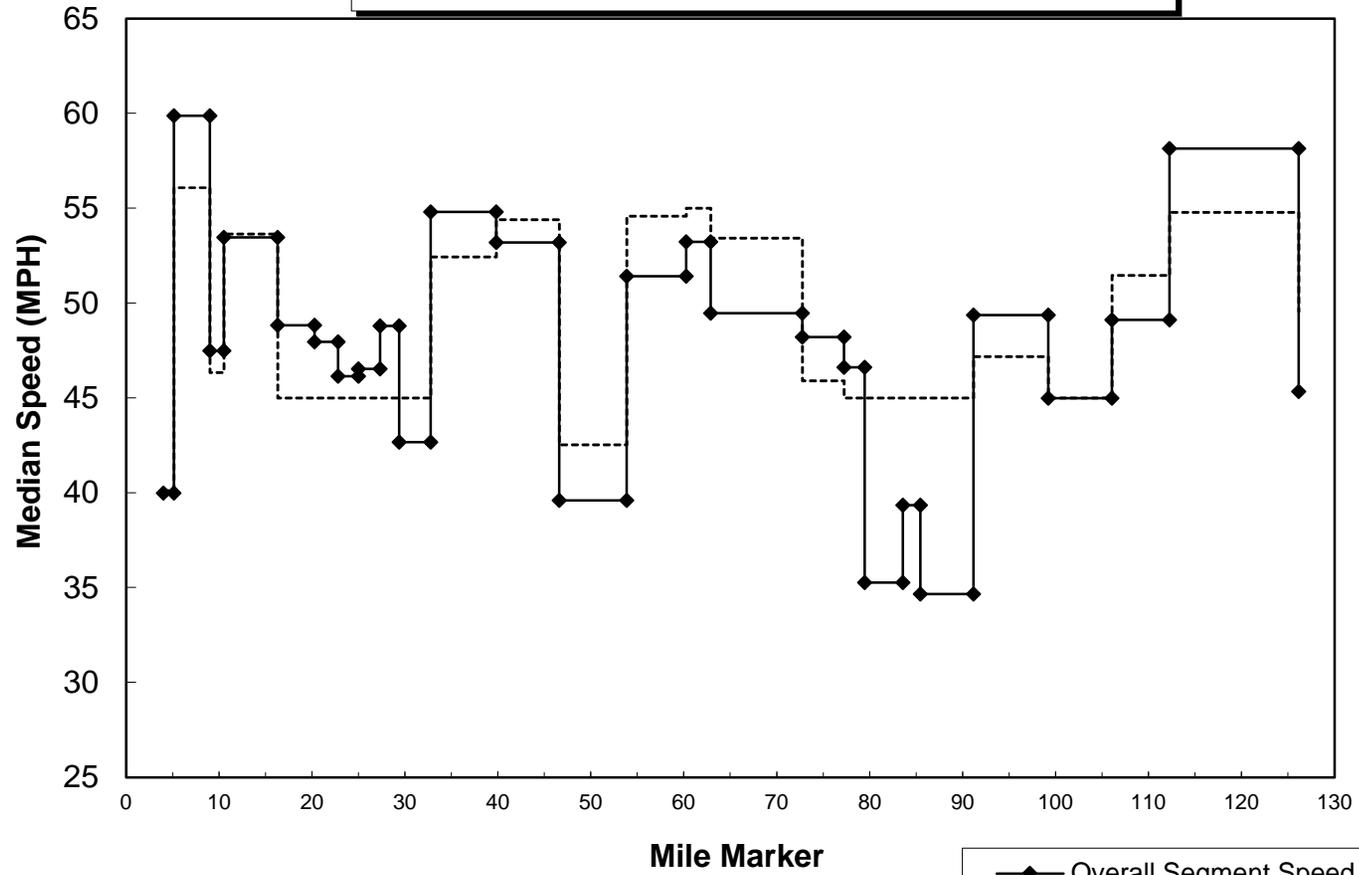


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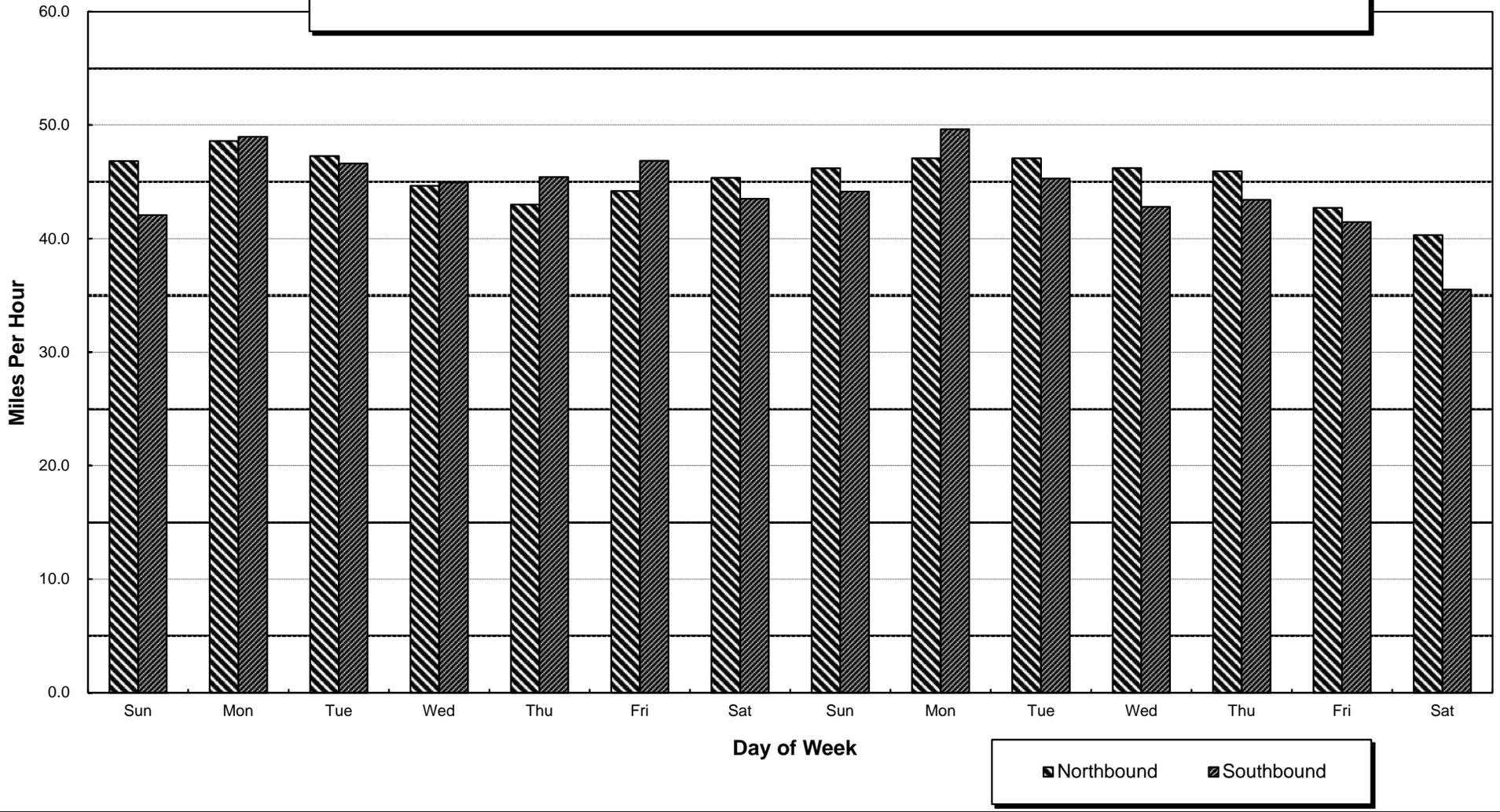
AECOM

US - 1 MEDIAN NON-DIRECTIONAL SPEEDS 2021

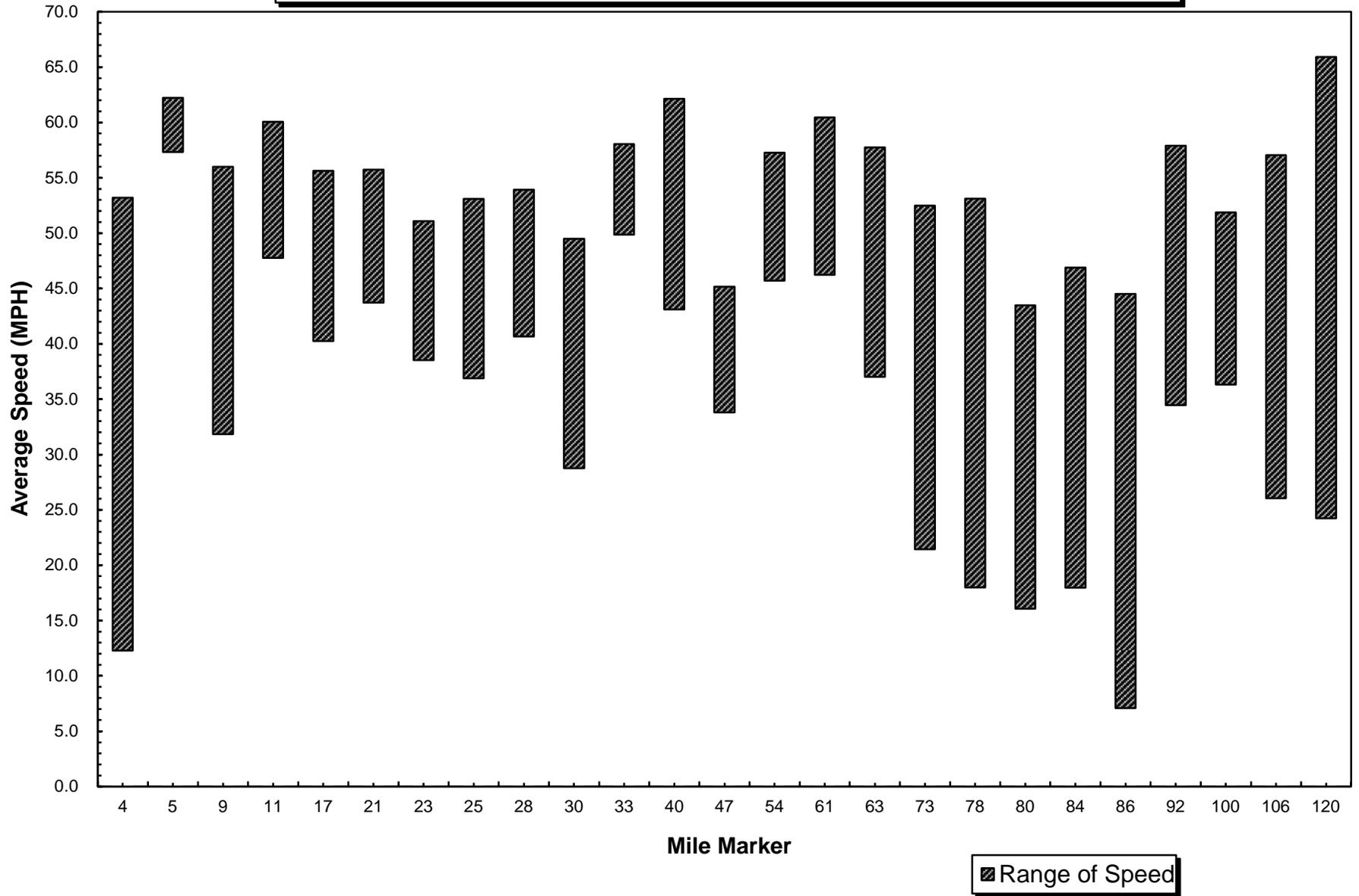


—◆— Overall Segment Speed
- - - - - Avg. Posted Speed

US -1 OVERALL TRAVEL SPEEDS BY DAY OF WEEK 2021



US - 1 RANGE OF NON-DIRECTIONAL TRAVEL SPEEDS 2021



COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 1 OF 2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Overall
	Stock Island	Boca Chica	Big Cabbage	Saddlebunch	Supperfoot	Cudjoe	Summerland	Ramrod	Torch	Big Pine	Baha Honda	7-Mile Bridge	Marathon	Grassy	Duck	Long	L. Macomb	Tea Table	U. Macomb	Wireley	Plantation	Tavernier	Key Largo	Cross	Date	
Mean (mph)																										
2021	37.3	60.0	46.9	53.5	48.9	48.3	45.8	46.2	48.5	41.2	54.5	53.6	39.6	51.2	52.7	49.5	47.2	44.2	33.8	35.1	32.9	48.3	44.6	45.8	55.7	45.0
2019	33.0	56.1	45.8	51.8	47.8	47.1	45.0	46.4	47.9	41.1	53.7	52.9	38.1	51.2	53.9	51.6	49.4	46.6	34.6	35.5	33.6	44.7	44.0	45.4	52.7	44.4
2017	27.7	59.2	47.4	53.1	47.5	47.7	45.2	46.2	47.7	38.6	53.3	53.6	37.7	51.8	53.6	50.9	50.1	47.7	36.7	38.7	37.6	46.1	43.4	49.1	56.9	45.0
2015	33.1	57.7	46.8	52.2	47.7	46.4	44.4	46.5	47.2	35.2	51.8	52.3	37.6	50.8	50.1	48.3	48.5	45.6	37.0	35.1	36.3	47.2	44.8	50.0	55.1	44.8
2013	33.0	56.4	45.5	52.1	47.1	47.4	44.9	45.9	47.0	39.9	53.6	53.5	35.9	48.9	44.1	50.8	49.3	47.8	40.5	38.3	39.4	47.4	43.6	52.1	57.5	45.7
2012	33.5	56.8	44.9	52.3	46.0	46.4	43.8	46.5	46.6	37.4	52.4	54.1	36.7	51.4	53.3	52.4	49.1	46.4	40.4	41.4	39.2	48.1	45.9	50.9	55.9	46.1
2011	32.9	58.1	44.8	52.5	47.3	47.3	46.1	46.6	47.7	37.8	53.1	55.3	36.5	51.4	53.8	51.8	49.7	49.4	40.8	41.8	41.7	48.8	44.7	52.1	55.2	46.9
2010	32.7	57.4	45.1	51.6	47.9	47.2	45.8	46.4	46.2	39.2	53.8	53.9	36.6	51.4	54.6	52.2	49.6	49.0	40.7	43.4	40.2	47.5	46.1	51.0	49.1	46.6
2009	34.7	56.7	42.2	51.6	46.4	47.4	45.0	47.5	47.5	35.3	51.7	55.2	38.4	49.8	50.4	51.4	51.0	47.8	39.9	39.4	39.2	47.8	46.0	50.7	51.5	46.3
2008	31.4	54.7	44.3	51.7	46.9	46.8	45.5	47.1	46.6	35.0	52.1	54.9	37.8	50.7	53.5	51.8	50.5	49.6	41.9	44.1	41.4	46.8	43.7	38.2	52.0	45.5
2007	33.6	58.3	46.1	52.0	47.1	49.9	45.7	47.9	46.8	36.9	54.3	55.3	37.9	50.9	53.0	51.6	51.2	49.3	41.0	40.1	40.1	49.4	46.4	37.7	54.0	45.6
2006	31.8	57.2	46.5	52.6	48.1	48.3	46.2	46.0	47.5	37.8	53.3	54.2	36.4	50.3	54.6	52.4	49.2	49.5	39.5	40.8	41.7	49.2	45.9	42.6	56.5	45.9
2005	29.5	54.4	44.3	49.7	46.4	47.2	45.4	47.5	46.8	35.1	51.7	54.5	34.4	49.3	51.2	49.4	49.1	47.9	39.8	40.4	38.7	46.6	44.2	43.9	56.0	44.2
2004	31.8	57.5	46.2	52.5	48.1	47.5	46.3	46.2	48.4	37.2	52.5	52.7	34.9	50.1	54.1	52.7	50.1	48.6	41.4	39.4	38.5	48.1	45.2	45.7	57.6	45.1
Change(1)	4.4	3.9	1.1	1.7	1.1	1.2	0.8	-0.1	0.6	0.1	0.8	0.7	1.5	0.0	-1.2	-2.1	-2.2	-2.4	-0.8	-0.5	-0.7	3.6	0.6	0.5	3.0	0.6
Change(2)	1.7	3.3	1.6	2.0	-0.9	5.1	1.1	-1.6	2.1	3.1	1.1	0.7	-0.1	0.1	0.6	-1.3	-2.5	-5.2	-6.5	-6.6	-5.6	-0.5	-2.5	-3.9	-0.8	-1.9
Median (mph)																										
2021	40.0	59.9	47.5	53.5	48.8	47.9	46.1	46.5	48.8	42.7	54.8	53.2	39.6	51.4	53.2	49.9	48.2	46.6	35.3	39.3	34.7	49.4	45.0	49.1	58.1	45.5
2019	33.0	55.8	46.1	52.0	48.1	47.2	45.2	46.7	48.1	42.4	54.2	53.4	37.9	50.7	53.3	52.0	49.6	46.9	36.4	37.0	35.3	46.9	44.2	50.2	55.9	44.6
2017	29.4	59.6	46.6	53.3	48.3	48.2	45.0	46.1	47.7	39.4	53.7	53.3	37.9	51.6	53.3	50.5	49.8	47.6	39.2	41.0	40.5	47.4	44.4	52.7	57.6	46.0
2015	32.9	58.1	47.2	51.7	47.5	46.9	44.1	46.6	47.5	38.0	52.1	52.6	37.9	51.5	50.1	48.8	48.4	45.7	38.5	37.9	38.5	48.5	44.8	52.0	55.8	45.1
2013	33.1	57.1	46.5	51.2	47.4	48.0	44.9	45.8	47.9	40.1	53.7	54.9	35.8	51.0	47.8	51.2	49.9	47.4	40.2	41.2	41.3	46.9	43.9	52.9	58.3	45.9
2012	32.0	57.0	45.3	52.6	46.4	45.4	44.7	45.8	47.4	39.2	53.5	53.5	36.7	51.0	53.0	52.6	49.2	45.2	40.7	41.3	41.9	48.7	46.9	52.2	57.2	47.0
2011	33.7	58.4	45.9	52.8	46.7	46.8	46.0	46.4	48.0	38.7	53.4	55.1	36.4	51.3	53.7	52.2	49.6	49.2	41.9	42.7	41.5	48.8	44.8	52.4	55.5	47.1
2010	34.0	57.3	43.8	52.3	48.0	47.1	45.9	45.4	46.5	39.7	53.8	53.8	36.7	47.2	54.0	53.1	49.2	49.6	41.4	45.6	41.3	47.7	45.8	50.7	48.9	46.9
2009	34.2	56.7	42.3	52.4	46.8	47.0	44.7	47.6	47.9	37.9	51.7	55.4	38.2	50.3	51.3	51.3	51.4	48.5	40.8	42.2	39.6	48.2	46.0	52.1	51.1	46.6
2008	31.7	55.5	45.7	51.6	47.2	47.7	46.4	47.7	46.6	35.7	52.3	56.1	37.3	50.7	54.4	52.3	51.0	50.0	42.1	43.8	41.9	47.6	44.4	38.3	52.0	46.4
2007	34.6	57.9	45.2	52.2	47.8	48.5	45.6	48.1	47.1	39.0	54.1	55.1	37.7	50.9	52.9	51.3	51.1	49.8	41.4	42.4	41.8	49.9	45.7	37.1	53.9	45.7
2006	31.2	57.7	46.2	52.1	48.1	48.1	45.7	46.3	48.2	38.0	54.3	53.9	36.0	50.3	53.9	52.1	49.0	50.1	40.6	41.4	42.2	49.0	45.9	44.0	56.5	45.9
2005	30.2	55.8	44.7	50.9	46.6	47.8	45.7	47.8	46.8	36.4	52.6	56.6	35.2	49.5	53.6	50.8	50.0	49.9	39.1	41.8	39.4	47.7	44.7	44.4	57.5	45.3
2004	32.0	58.2	46.1	53.7	48.3	48.1	46.4	46.4	47.6	38.4	52.5	53.1	35.2	50.3	54.4	52.9	50.5	49.0	40.9	41.8	40.0	48.3	45.5	45.0	58.4	45.4
Change(1)	7.0	4.1	1.4	1.5	0.7	0.7	0.9	-0.2	0.7	0.3	0.6	-0.2	1.7	0.7	-0.1	-2.1	-1.4	-0.3	-1.2	2.4	-0.6	2.5	0.7	-1.1	2.3	0.8
Change(2)	3.9	3.8	0.8	1.7	-1.5	4.9	1.3	-1.8	2.3	3.8	1.5	0.8	-0.1	0.3	0.6	-0.8	-2.2	-3.1	-4.8	-4.1	-4.0	1.2	-1.8	-2.1	1.3	-1.4
Highest (mph)																										
2021	53.2	62.2	56.0	60.0	55.6	55.7	51.1	53.1	53.9	49.5	58.1	62.1	45.2	57.3	60.5	57.8	52.5	53.1	43.5	46.9	44.5	57.9	51.9	57.1	65.9	49.6
2019	47.3	59.9	56.6	56.7	52.6	50.7	50.3	52.7	53.2	52.1	58.6	57.1	46.4	57.4	60.2	58.0	56.5	55.5	44.3	48.9	46.1	52.5	50.0	56.2	60.6	50.5
2017	44.0	60.4	51.5	58.9	51.8	52.6	51.1	52.8	51.0	46.4	57.3	61.0	43.1	57.1	59.2	57.6	56.9	59.4	48.0	48.6	45.2	51.4	49.0	57.4	65.6	49.4
2015	47.1	59.9	55.8	57.5	52.0	51.3	50.8	50.2	52.3	44.6	59.4	58.0	46.5	55.0	57.3	53.9	57.8	55.4	43.4	46.7	46.4	51.9	49.3	57.1	61.4	49.1
2013	45.2	61.0	53.4	58.1	51.6	50.5	49.0	53.4	55.9	56.6	57.0	59.2	42.6	55.0	66.6	56.7	55.7	54.2	45.7	48.6	55.7	53.5	49.9	56.5	62.6	48.4
2012	47.8	64.5	52.7	58.8	51.3	54.8	49.7	51.6	53.1	45.0	59.6	59.9	50.6	57.4	61.2	60.4	56.2	54.1	45.1	62.8	47.5	53.1	51.9	59.4	61.0	49.2
2011	42.0	62.5	53.1	57.8	55.3	55.9	52.1	52.0	52.3	45.4	57.1	61.3	41.1	60.1	64.8	58.4	57.0	59.4	47.4	49.4	54.9	55.3	50.6	58.3	60.0	48.7
2010	46.3	61.5	54.5	58.5	60.9	51.9	52.6	57.8	51.8	46.4	60.0	61.0	42.6	50.5	78.5	57.1	54.8	55.9	45.4	49.3	53.6	51.9	51.0	56.3	53.4	48.4
2009	41.6	61.7	49.9	55.9	53.2	52.6	51.0	52.6	52.4	45.1	56.3	59.3	44.0	54.3	60.4	56.0	55.7	54.4	45.8	55.2	45.2	50.9	51.6	59.2	55.9	48.4
2008	45.4	59.1	49.5	56.2	50.6	51.1	49.2	50.6	52.4	42.9	54.9	58.9	44.4	54.6	57.4	54.8	54.6	59.0	47.5	56.3	46.5	50.7	54.0	50.8	57.4	48.2
2007	47.3	65.9	58.9	57.0	56.5	66.0	54.6	56.7	53.3	55.6	59.0	65.4	43.9	58.4	62.0	60.6	56.0	56.8	47.3	52.0	46.5	54.5	60.0	54.5	62.6	48.3
2006	44.4	60.2	54.7	59.3	57.5	54.0	53.8	53.4	52.2	44.6	58.7	61.0	47.4	57.0	61.8	60.0	56.3	61.5	48.2	51.1	51.0	55.3	52.9	48.7	61.4	48.3
2005	40.9	58.5	49.7	56.1	51.2	51.6	51.9	53.2	53.3	44.4	59.4	64.8	40.3	58.5	57.7	56.1	57.6	57.3	45.5	48.7	45.7	50.2	49.2	55.6	61.0	48.4
2004	59.7	62.4	56.9	61.4	54.0	51.8	63.5	52.6	65.2	45.4	59.0	59.5	41.5	55.8	58.9	56.8	56.2	56.2	48.5	50.9	43.9	52.8	53.4	55.6	62.4	47

COMPARISON OF HISTORICAL TRAVEL SPEED DATA (SHEET 2 OF 2)

	1 Stock Island	2 Boca Chica	3 Big Coppitt	4 Seadrift	5 Sugarloaf	6 Cudjoe	7 Summerland	8 Ramrod	9 Torch	10 Big Pine	11 Bahia Honda	12 7-Mile Bridge	13 Marathon	14 Grassy	15 Duck	16 Long	17 L. Matecumbe	18 Tea Table	19 U. Matecumbe	20 Windley	21 Flamingo	22 Tavernier	23 Key Largo	24 Cross	25 Dade	Overall
Mean (mph)																										
2003	35.7	56.8	45.3	52.4	47.8	47.2	45.4	46.7	47.1	38.2	54.4	54.2	36.8	50.0	52.6	51.5	49.5	48.6	41.1	39.6	40.5	50.1	48.3	47.4	57.9	45.9
2002	34.0	56.6	45.8	51.5	48.0	47.9	44.4	44.3	44.2	32.3	51.1	51.8	36.1	50.3	54.3	52.4	50.7	49.2	41.6	38.9	40.1	48.9	46.1	48.3	55.3	45.8
2001	35.3	59.4	48.2	53.5	49.0	48.4	44.7	47.3	47.0	31.5	54.7	53.9	37.9	50.8	53.8	54.4	51.4	50.4	40.5	37.5	41.3	49.8	47.4	48.4	58.1	46.4
2000	31.9	58.6	47.0	53.2	48.8	49.0	45.0	47.4	45.4	35.1	52.7	52.6	38.0	51.0	53.8	52.2	50.7	50.2	39.9	37.7	37.5	48.9	46.4	42.3	57.8	45.7
1999	28.5	57.1	45.8	52.7	51.0	47.5	44.9	47.1	46.8	34.1	52.7	52.5	37.4	49.8	53.1	51.4	50.5	49.8	41.0	37.5	42.2	49.0	46.8	49.1	57.9	46.2
1998	28.8	57.3	46.4	52.1	50.0	48.2	44.7	47.1	46.3	33.3	52.7	52.8	38.2	51.6	52.1	50.9	50.2	48.8	40.8	36.7	38.4	48.9	47.2	48.4	58.2	45.9
1997	32.4	58.4	47.2	53.1	50.2	48.9	45.6	47.1	46.2	35.4	53.5	51.7	40.5	52.0	53.0	52.2	50.8	49.5	41.7	35.0	40.5	49.9	46.6	45.8	58.4	46.7
1996	31.5	57.2	48.2	52.9	50.1	47.8	44.9	48.1	46.9	35.8	53.7	52.4	39.1	51.7	53.6	50.3	51.0	48.9	41.2	38.4	40.5	49.6	46.4	47.7	56.2	46.8
1995	35.5	57.8	47.4	52.5	50.9	47.5	44.4	46.8	46.4	34.6	53.5	52.2	39.5	51.3	51.1	51.5	50.9	49.2	41.8	40.2	41.7	49.7	49	50.6	57.9	47.4
1994	35.9	57.7	47.2	51.7	50.9	49.0	45.4	47.5	46.8	35.0	53.2	52.1	39.3	50.9	53.5	51.2	50.2	50.1	41.6	39.3	41.6	49.7	48.6	49.3	57.2	46.7
1993	36.7	57.9	47.8	53.0	50.8	49.1	44.9	48.8	47.3	35.4	53.0	51.2	40.4	52.0	53.2	52.0	50.9	49.6	41.8	41.1	42.2	49.3	47.5	49.7	57.3	47.2
1992	35.6	56.7	45.3	51.5	49.8	43.2	44.7	47.8	46.4	38.1	53.4	52.9	39.7	51.1	52.1	50.8	49.7	49.4	40.3	41.7	38.5	48.8	47.1	49.7	56.5	46.9
Change(1)	4.4	3.9	1.1	1.7	1.1	1.2	0.8	-0.1	0.6	0.1	0.8	0.7	1.5	0.0	-1.2	-3.1	-2.3	-2.4	-0.9	-0.5	-0.9	3.5	0.6	0.5	3.0	0.4
Change(2)	1.7	3.3	1.6	2.0	-0.9	5.1	1.1	-1.6	2.1	3.1	1.1	0.7	-0.1	0.1	0.6	-2.4	-2.6	-5.2	-6.6	-6.6	-5.8	-0.6	-2.5	-3.9	-0.8	-2.1
Median (mph)																										
2003	35.8	58.0	46.1	52.3	48.3	47.5	45.3	46.7	47.2	39.7	54.2	54.3	38.2	50.9	53.0	52.3	50.1	49.2	41.4	42.2	41.3	49.9	48.4	47.7	58.9	46.1
2002	33.3	57.1	45.7	51.3	47.9	48.1	45.6	47.3	46.7	35.4	53.2	52.4	35.8	50.7	54.0	52.5	51.5	50.0	41.2	41.2	42.3	48.6	45.4	51.1	57.5	47.1
2001	34.6	59.6	48.6	53.0	49.2	47.6	44.9	47.5	47.6	32.9	54.7	53.2	37.7	51.3	55.1	54.5	51.3	50.0	41.2	39.5	42.5	49.7	47.5	48.9	58.5	46.9
2000	30.5	58.4	46.9	53.5	49.4	48.7	45.3	47.1	47.1	35.8	53.0	52.4	38.2	50.8	53.5	52.5	50.7	50.3	41.2	39.5	39.0	48.8	46.8	47.7	58.2	46.4
1999	27.3	57.0	45.5	52.8	51.4	47.6	45.2	47.8	47.7	34.1	52.1	52.6	37.4	50.7	53.1	52.1	50.4	49.6	41.6	38.4	42.0	49.1	45.7	50.5	57.6	46.7
1998	30.1	57.3	46.0	52.6	50.0	48.2	45.0	47.0	46.6	33.9	52.6	52.6	37.6	52.3	52.5	51.4	50.2	48.6	40.6	38.3	41.4	48.8	47.3	52.7	58.4	45.7
1997	32.6	58.5	46.1	53.4	49.9	48.5	45.1	47.6	46.8	36.7	53.2	52.8	40.1	51.9	52.4	52.3	51.3	50.7	42.0	38.4	41.6	50.5	47.4	49.1	58.8	46.5
1996	30.7	57.3	48.0	52.4	49.3	47.7	45.0	48.8	46.7	37.0	53.9	52.5	38.9	52.0	53.7	51.0	51.6	48.6	41.2	41.2	42.6	49.3	46.0	50.7	56.8	47.1
1995	34.7	57.3	47.5	52.2	50.9	47.4	44.5	47.3	46.4	35.1	53.6	51.8	39.3	51.0	51.5	51.2	51.9	49.5	41.7	41.1	43.1	49.6	48.6	52.2	58.2	47.8
1994	36.2	57.6	47.5	52.4	51.4	48.9	45.6	46.9	47.3	36.0	53.0	52.1	39.2	51.8	52.4	51.6	50.3	50.3	42.0	40.9	42.6	49.9	48.7	50.2	57.6	47.3
1993	37.1	57.9	48.2	53.3	51.1	49.2	45.3	49.4	47.4	37.7	53.5	51.3	40.5	52.7	53.9	51.4	50.7	49.1	41.9	41.4	43.7	49.2	47.6	50.6	57.3	47.4
1992	36.1	56.1	46.7	51.8	50.3	43.0	44.8	48.3	46.5	38.9	53.3	52.4	39.7	51.1	52.6	50.7	50.4	49.7	40.1	43.4	38.7	48.2	46.8	51.2	56.8	46.9
Change(1)	7.0	4.1	1.4	1.5	0.7	0.7	0.9	-0.2	0.7	0.3	0.6	-0.2	1.7	0.7	-0.1	-2.5	-1.4	-0.3	-1.4	2.4	-0.6	2.5	0.7	-1.1	2.3	0.6
Change(2)	3.9	3.8	0.8	1.7	-1.5	4.9	1.3	-1.8	2.3	3.8	1.5	0.8	-0.1	0.3	0.6	-1.2	-2.2	-3.1	-5.1	-4.1	-4.0	1.1	-1.8	-2.1	1.3	-1.7
Highest (mph)																										
2003	44.7	65.4	56.6	59.1	52.9	55.1	49.2	51.7	63.6	45.9	57.7	64.6	44.2	53.4	61.4	61.8	56.1	56.1	45.7	50.7	47.0	59.2	55.9	59.0	64.7	49.0
2002	44.8	64.1	59.2	56.2	55.2	53.6	51.4	52.1	52.4	43.6	56.9	58.5	51.7	52.5	61.8	58.3	56.7	57.8	52.1	53.8	53.2	53.7	50.9	55.0	64.4	49.3
2001	57.8	69.0	57.3	68.7	54.1	55.8	52.8	54.8	62.2	40.4	64.1	61.7	44.8	56.9	58.3	58.7	59.0	62.5	48.6	47.0	74.0	55.6	52.4	61.3	62.8	49.4
2000	45.5	66.6	57.2	61.1	54.8	57.7	51.0	56.6	54.0	44.7	57.5	57.3	43.6	56.1	59.0	56.0	56.1	71.7	44.3	50.5	46.0	53.9	52.6	55.6	64.5	49.0
1999	45.1	64.2	53.2	60.5	57.2	54.7	49.2	52.3	52.9	41.4	58.1	59.3	43.9	52.4	60.1	58.1	55.7	58.5	44.5	50.2	50.8	52.4	51.8	59.3	63.1	48.4
1998	37.6	66.1	57.1	59.2	57.0	55.5	49.8	53.5	53.7	43.9	56.6	59.9	45.7	56.2	56.6	57.3	56.9	57.6	47.2	47.8	51.5	52.0	51.7	59.1	62.4	48.8
1997	51.8	62.1	68.0	61.1	58.9	57.4	52.1	60.6	52.6	49.6	59.5	60.3	46.2	61.0	61.4	58.1	54.0	55.6	45.1	59.9	60.4	52.5	48.9	61.1	63.0	50.7
1996	42.4	64.9	55.7	61.6	58.5	54.5	50.5	52.2	54.9	42.9	60.3	61.5	45.8	56.5	59.9	57.0	55.1	56.0	45.8	46.8	47.1	53.9	50.6	63.1	62.4	49.7
1995	48.3	63.0	53.6	61.8	63.1	54.6	50.4	53.7	51.9	44.0	57.1	60.4	44.7	56.9	59.2	56.8	56.8	55.1	46.2	47.6	48.0	54.2	55.3	59.1	63.4	50.1
1994	48.2	61.5	54.7	57.9	55.5	54.4	49.5	55.7	54.5	41.2	56.7	59.1	44.5	55.2	69.6	54.6	57.3	56.5	45.0	46.6	48.1	53.4	52.7	58.6	63.5	50.1
1993	44.1	63.2	55.3	59.9	55.9	56.3	49.6	54.5	55.2	44.9	56.5	58.6	45.1	55.8	58.2	57.0	59.1	60.4	45.5	47.3	47.5	53.2	51.1	56.9	61.2	49.7
1992	45.0	62.6	53.8	55.2	53.7	50.7	51.9	52.4	52.6	45.2	59.0	60.7	43.7	58.0	57.7	58.0	55.8	56.1	48.1	49.3	44.0	58.2	53.4	56.4	63.1	48.8
Change(1)	5.9	2.3	-0.5	3.3	3.1	5.0	0.8	0.4	0.7	-2.6	-0.5	5.1	-1.2	-0.1	0.3	-0.3	-4.0	-2.4	-0.8	-2.0	-1.6	5.4	1.9	0.9	5.4	-0.9
Change(2)	8.2	-0.4	2.2	4.8	1.9	5.0	-0.8	0.7	1.3	4.3	-0.9	1.4	1.5	-0.7	2.8	-0.2	-3.3	-3.0	-4.6	-2.4	0.5	-0.3	-1.5	0.7	2.8	0.8
Lowest (mph)																										
2003	26.1	44.6	31.8	45.5	40.8	37.3	40.8	40.5	31.4	24.8	46.7	42.2	28.1	42.6	42.5	42.8	40.7	26.2	27.8	21.2	25.7	44.3	40.6	23.7	48.4	41.5
2002	23.5	48.0	37.9	48.7	38.5	42.3	23.1	7.6	8.0	8.5	20.4	43.8	25.6	44.0	47.9	46.4	39.7	28.6	32.5	19.3	27.9	44.3	38.7	17.9	19.9	39.2
2001	21.2	53.0	39.5	46.6	42.6	42.1	38.5	38.7	8.0	16.2	46.6	46.8	32.4	44.5	43.7	47.2	43.7	43.1	28.1	16.2	12.8	44.8	41.5	32.3	50.8	40.3
2000	21.5	54.2	26.5	43.2	38.3	43.3	38.0	39.9	10.4	21.6	47.7	47.5	31.3	46.5	48.9	46.4	44.5	35.6	29.8	15.7	23.1	44.1	36.6	17.5	47.6	40.2
1999	19.7	50.6	37.4	41.4	41.7	37.8	39.1																			

APPENDIX G

2021 Level of Service and Reserve Capacity



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2021 LEVEL OF SERVICE AND RESERVE CAPACITY

SEGMENT	LENGTH (miles)	FACILITY TYPE	POSTED SPEED		ADJ. FOR SIGNAL (mph)	ADJUSTED LOS C CRITERIA (mph)	MEDIAN TRAVEL SPEED (mph)	LOS	RESERVE SPEED (mph)	2021		2017
			Limits (mph)	Average (mph)						MAXIMUM RESERVE	5% ALLOCATION	MAXIMUM RESERVE
										VOLUME (trips)	BELOW LOS C (trips)	VOLUME (trips)
1 Stock Island (4.0 - 5.0)	1.10	4-L/D	30/35/45	40.1	N/A	22.0	40.0	A	18.0	3,279	3,474	1,348
2 Boca Chica (5.0- 9.0)	3.9	4-L/D	45/55	54.7	N/A	50.2	59.9	A	9.7	6,265	7,876	6,071
3 Big Coppitt (9.0- 10.5)	1.5	2-L/U	45/55	46.3	N/A	41.8	47.5	B	5.6	1,391	1,921	1,341
4 Saddlebunch (10.5- 16.5)	5.8	2-L/U	45/55	53.6	N/A	49.1	53.5	B	4.3	4,130	6,513	4,034
5 Sugarloaf (16.5- 20.5)	3.9	2-L/U	45	45.0	6.8	33.7	48.8	A	15.1	9,752	10,856	7,944
6 Cudjoe (20.5- 23.0)	2.5	2-L/U	45	45.0	N/A	40.5	47.9	A	7.4	3,064	3,920	3,188
7 Summerland (23.0- 25.0)	2.2	2-L/U	45	45.0	N/A	40.5	46.1	B	5.6	2,040	2,791	1,639
8 Ramrod (25.0- 27.5)	2.3	2-L/U	45	45.0	N/A	40.5	46.5	A	6.0	2,285	3,063	2,133
9 Torch (27.5- 29.5)	2.1	2-L/U	45	45.0	N/A	40.5	48.8	A	8.3	2,886	3,589	2,504
10 Big Pine (29.5- 33.0)	3.4	2-L/U	45	45.0	5.9	34.6	42.7	A	8.1	4,561	5,511	1,295
11 Bahia Honda (33.0- 40.0)	7.0	2-L/U (70%) 4-L/D (30%)	45/50/55	52.4	N/A	47.9	54.8	A	6.9	7,998	10,730	6,723
12 7-Mile Bridge (40.0- 47.0)	6.8	2-L/U	45/55	54.4	N/A	49.9	53.2	B	3.3	3,716	6,508	3,603
13 Marathon (47.0- 54.0)	7.3	2-L/U (13%) 4-L/D (87%)	35/45	42.5	N/A	22.0	39.6	A	17.6	21,276	22,590	19,221
14 Grassy (54.0- 60.5)	6.4	2-L/U	45/55	54.6	2.1	48.0	51.4	C	3.4	3,603	6,183	3,286
15 Duck (60.5- 63.0)	2.7	2-L/U	55	55.0	N/A	50.5	53.2	C	2.7	1,207	2,344	1,252
16 Long (63.0- 73.0)	9.9	2-L/U	45/50/55	53.4	N/A	48.9	49.9	C	1.0	1,639	5,619	2,459
17 L Matecumbe (73.0- 77.5)	4.5	2-L/U	45/50/55	52.5	N/A	48.0	48.2	C	0.2	149	1,939	224
18 Tea Table (77.5- 79.5)	2.2	2-L/U	45	45.0	N/A	40.5	46.6	A	6.1	2,222	2,965	(692)
19 U Matecumbe (79.5- 84.0)	4.1	2-L/U	45	45.0	N/A	40.5	35.3	E	-5.2	(3,531)	(2,187)	(883)
20 Windley (84.0- 86.0)	1.9	2-L/U	45	45.0	N/A	40.5	39.3	D	-1.2	(378)	271	157
21 Plantation (86.0- 91.5)	5.8	2-L/U	35/45	43.0	5.9	32.6	34.7	C	2.0	1,921	3,524	3,266
22 Tavernier (91.5- 99.5)	8.0	4-L/D	45/50	47.2	3.1	39.6	49.4	A	9.8	12,983	15,580	8,876
23 Key Largo (99.5- 106.0)	6.8	4-L/D	45	45.0	5.4	35.1	45.0	A	9.9	11,148	13,095	8,333
24 Cross (106.0- 112.5)	6.2	2-L/U	45/55	51.4	N/A	46.9	49.1	C	2.2	2,259	4,618	5,852
Overall	108.3					45.0	45.5	C	0.5	N/A		

2021 LEVEL OF SERVICE AND RESERVE CAPACITY (SUPPLEMENTAL RUNS - FOR INFORMATIONAL PURPOSES ONLY)

SEGMENT	LENGTH (miles)	FACILITY TYPE	POSTED SPEED		ADJ. FOR SIGNAL (mph)	ADJUSTED LOS C CRITERIA (mph)	MEDIAN TRAVEL SPEED (mph)	LOS	RESERVE SPEED (mph)	2021	
			Limits (mph)	Average (mph)						MAXIMUM RESERVE VOLUME (trips)	5% ALLOCATION BELOW LOS C (trips)
1 Stock Island (4.0 - 5.0)	1.10	4-L/D	30/35/45	40.1	N/A	22.0	30.8	B	8.8	1,603	1,802
2 Boca Chica (5.0- 9.0)	3.9	4-L/D	45/55	56.1	N/A	51.6	60.0	A	8.4	5,425	7,077
3 Big Coppitt (9.0- 10.5)	1.5	2-L/U	45/55	46.3	N/A	41.8	41.7	D	-0.1	(25)	484
4 Saddlebunch (10.5- 16.5)	5.8	2-L/U	45/55	53.6	N/A	49.1	54.1	B	4.9	4,706	7,113

Supplemental travel time runs were conducted (as required by the 2021 US 1 LOS Methodology Update) between March 17, 2021 and March 19, 2021 in the four southernmost segments to better reflect AM and PM peak conditions associated with traffic entering and exiting the City of Key West.

The supplemental runs indicate that the travel speeds in Segment 1 and 3 are relatively lower during peak hours, as compared to the travel speeds measured during travel time runs conducted using the staggered schedule. As such, the peak hour LOS for these segments is also lower. Segment 1 had LOS B during peak hour as compared to LOS A during non-peak hours. Segment 3 had LOS D during peak hours as compared to LOS B during non-peak hours. It should be noted that Segment 3 was only 0.1 mph below the LOS C speed criteria. The LOS for Segments 2 and 4 remained unchanged (LOS A for segment 2 and LOS B for segment 4). The results of the supplemental runs are included in the 2021 ATTDS Report for informational purposes only and are not used in the overall LOS calculations. This information is to be reviewed to decide if supplemental runs should be incorporated into future ATTDS and LOS calculations, as directed by the Monroe County BOCC. Further discussions and changes to the methodology would be required to incorporate supplemental runs into the future ATTDS. Supplemental runs have the advantage of capturing the peak hour travel times in the lower keys. However, the schedule for the supplemental runs would not be consistent with the staggered schedule for the overall travel time study which captures most peak hour conditions along the other portions of US 1 in Monroe County.

APPENDIX H

Summary of Delay Events



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2021 TTDS DELAY DATA SUMMARY

Seg.#	Day 1 Sun Mar 07 2021			Day 2 Mon Mar 08 2021			Day 3 Tue Mar 09 2021			Day 4 Wed Mar 10 2021			Day 5 Thu Mar 11 2021			Day 6 Fri Mar 12 2021			Day 7 Sat Mar 13 2021			Day 8 Sun Mar 14 2021			Day 9 Mon Mar 15 2021			Day 10 Tue Mar 16 2021			Day 11 Wed Mar 17 2021			Day 12 Thu Mar 18 2021			Day 13 Fri Mar 19 2021			Day 14 Sat Mar 20 2021			TOTAL			
NB	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time	type of delay	time	Excluded Time										
1	TS	0:00:22	0:00:00	TS	0:00:33	0:00:00	0	0:00:00	0:00:00	TS	0:00:21	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS	0:00:27	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:01:43									
2	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
4	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
5	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
6	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
7	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
8	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:10									
9	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
10	TS	0:00:13	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:22									
11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00									
13	TS	0:00:17	0:00:00	0	0:00:00	0:00:00	TS	0:00:36	0:00:00	0	0:00:00	0:00:00	SB	0:00:11	0:00:11	TS(2)	0:00:51	0:00:00	TS	0:00:35	0:00:00	TS(2)	0:00:52	0:00:00	TS(4)	0:01:42	0:00:00	TS(2)	0:01:26	0:00:00	TS	0:00:11	0:00:00	0	0:00:00	0:00:00	TS	0:00:24	0:00:00	LT,TS	0:00:41	0:00:00	0:00:35			
14	TS	0:00:05	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:05						
15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00						
16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CS	0:04:36	0:04:36	CS	0:06:36	0:06:36	CS	0:09:44	0:09:44	CS	0:22:53	0:22:53	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00			
17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:05									
18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CG	0:00:56	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:04						
19	CG	0:00:57	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	SB(3),CG(3)	0:02:38	0:01:13	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CG(2)	0:01:29	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CG(4)	0:05:38	0:00:00	CG(3),DB	0:07:28	0:01:22	0:00:15			
20	CG	0:00:44	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:05									
21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CG(2)	0:01:58	0:00:00	CG(3)	0:01:48	0:00:00	TS	0:00:27	0:00:00	CG(2),TS(2)	0:03:02	0:00:00	TS	0:00:33	0:00:00	TS	0:00:12	0:00:00	0	0:00:00	0:00:00	TS	0:00:10	0:00:00	CG	0:00:32	0:00:00	0	0:00:00	0:00:00	CG,TS	0:00:44	0:00:00	0:00:26
22	TS	0:00:25	0:00:00	TS	0:00:23	0:00:00	TS	0:01:06	0:00:00	TS	0:01:20	0:00:00	SB,TS	0:01:16	0:00:29	TS(2),CG(2)	0:04:06	0:00:00	TS(2)	0:00:54	0:00:00	0	0:00:00	0:00:00	SB	0:00:21	0:00:21	0	0:00:00	0:00:00	TS	0:00:36	0:00:00	TS	0:00:36	0:00:00	TS	0:03:31	0:00:00	0	0:00:00	0:00:00	0:00:13			
23	0	0:00:00	0:00:00	0	0:00:00	0:00:00	TS,CG	0:00:39	0:00:00	TS(3)	0:01:29	0:00:00	CG,TS	0:01:10	0:00:00	TS	0:00:22	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:11						
24	AC	0:01:01	0:01:01	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	CG(2)	0:03:30	0:00:00	AC(4)	0:07:42	0:07:42	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:14			
25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0:00:00						
TOTAL =	0:04:04	0:01:01		0:00:56	0:00:00		0:02:21	0:00:00		0:05:08	0:00:00		0:07:03	0:01:53		0:05:46	0:00:00		0:08:28	0:00:00		0:09:20	0:07:42		0:09:16	0:04:57		0:08:49	0:06:36		0:10:41	0:09:44		0:24:37	0:22:53		0:12:09									

NB	EXCLUDED FROM OVERALL TIME	EXCLUDED FROM SEGMENT TIME	TOTAL	TS	# OF TS	DB	# OF DB	AC	# OF AC	LT	# OF LT	SPECIAL EVENT	# OF SE	RT	# OF RT	CG	# OF CG	SB	# OF SB	CS	# OF CS	SZ	# OF SZ	TOTAL #
			DELAY TIME	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY	EVENTS	DELAY
1	00:00:00	00:00:00	00:01:43	00:01:43	4																			4
2	00:00:00	00:00:00	00:00:00																					0
3	00:00:00	00:00:00	00:00:00																					0
4	00:00:00	00:00:00	00:00:00																					0
5	00:00:00	00:00:00	00:00:00																					0
6	00:00:00	00:00:00	00:00:00																					0
7	00:00:00	00:00:00	00:00:00																					0
8	00:00:00	00:00:00	00:00:10							00:00:10	1													1
9	00:00:00	00:00:00	00:00:00																					0
10	00:00:00	00:00:00	00:00:22	00:00:22	2																			2
11	00:00:00	00:00:00	00:00:00																					0
12	00:00:00	00:00:00	00:00:00																					0
13	00:00:11	00:00:11	00:07:46	00:07:06	16					00:00:29	1							00:00:11	1					18
14	00:00:00	00:00:00	00:00:05	00:00:05	1																			1
15	00:00:00	00:00:00	00:00:00																					0
16	00:43:49	00:43:49	00:43:49																	00:43:49	4			4
17	00:00:00	00:00:00	00:05:02							00:00:18	1					00:04:44	1							2
18	00:00:00	00:00:00	00:04:34													00:04:34	3							3
19	00:02:35	00:02:35	00:18:10			00:01:22	0.5									00:15:35	13	00:01:13	3					16.5
20	00:04:38	00:04:38	00:05:35			00:04:38	0.5							00:00:13	1	00:00:44	1							2.5
21	00:00:00	00:00:00	00:09:26	00:02:27	7											00:06:59	9							16
22	00:00:50	00:00:50	00:14:34	00:10:36	12											00:03:08	2	00:00:50	2					16
23	00:00:16	00:00:16	00:06:27	00:04:58	9											00:01:13	3	00:00:16	1					13
24	00:08:43	00:08:43	00:15:57					00:08:43	5							00:07:14	4							9
25	00:00:00	00:00:00	00:00:00																					0
TOTAL	01:01:02	01:01:02	02:13:40	00:27:17	51	00:06:00	1	00:08:43	5	00:00:57	3	00:00:00	0	00:00:13	1	00:44:11	36	00:02:30	7	00:43:49	4	00:00:00	0	108
SB																								0
25	00:00:00	00:00:00	00:00:00																					0
24	00:08:07	00:08:07	00:12:38					00:08:07	3							00:04:31	5							8
23	00:00:00	00:00:00	00:08:15	00:07:35	18											00:00:40	1							19
22	00:00:00	00:00:00	00:01:45	00:01:45	5																			5
21	00:06:42	00:06:42	01:27:25	00:05:18	11	00:06:00	1			00:00:11	1					01:15:14	24					00:00:42	1	38
20	00:00:00	00:00:00	00:06:21													00:06:21	9							9
19	00:00:12	00:00:12	00:04:25													00:04:13	8	00:00:12	1					9
18	00:00:00	00:00:00	00:00:00																					0
17	00:00:32	00:00:32	00:00:32															00:00:32	1					1

16	01:29:19	01:29:19	01:29:19																01:29:19	5			5	
15	00:00:00	00:00:00	00:00:00																				0	
14	00:00:00	00:00:00	00:00:28	00:00:28	2																		2	
13	00:05:05	00:05:05	00:13:32	00:08:15	21			00:03:17	1	00:00:12	1								00:01:48	1			24	
12	00:00:00	00:00:00	00:00:00																				0	
11	00:00:17	00:00:17	00:00:17									0:00:17	1										1	
10	00:06:58	00:06:58	00:11:23	00:03:44	5			00:06:58	4							00:00:41	3						12	
9	00:00:00	00:00:00	00:00:00																				0	
8	00:00:00	00:00:00	00:00:00																				0	
7	00:00:00	00:00:00	00:00:00																				0	
6	00:00:00	00:00:00	00:00:00																				0	
5	00:00:00	00:00:00	00:00:26	00:00:26	2																		2	
4	00:00:00	00:00:00	00:00:00																				0	
3	00:06:24	00:06:24	00:06:24					00:06:24	2														2	
2	00:00:00	00:00:00	00:00:00																				0	
1	00:00:00	00:00:00	00:06:09	00:05:20	9											00:00:49	1						10	
TOTAL	02:03:36	02:03:36	04:09:19	00:32:51	73	00:06:00	1	00:24:46	10	00:00:23	2	00:00:17	1	00:00:00	0	01:32:29	51	00:00:44	2	01:31:07	6	00:00:42	1	147
COMB. (NB & SB) =	03:04:38	03:04:38	06:22:59	01:00:08	124	00:12:00	2	00:33:29	15	00:01:20	5	00:00:17	1	00:00:13	1	02:16:40	87	00:03:14	9	02:14:56	10	00:00:42	1	255
Mean Delay per Event			00:01:30	00:00:29		00:06:00		00:02:14		00:00:16		00:00:17		00:00:13		00:01:34		00:00:22		00:13:30		00:00:42		
Mean Delay per Trip			00:13:41	00:02:09		00:00:26		00:01:12		00:00:03		00:00:01		00:00:00		00:04:53		00:00:07		00:04:49		00:00:01		

SUMMARY OF DELAY EVENTS

2021 TTDS

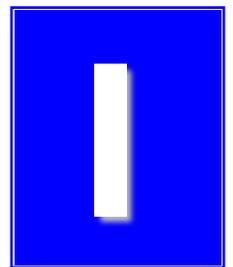
Delay Source	Segment Number	Segment Limits			Number of Events	Total Delay	Mean Delay Per Event	Mean Delay Per Trip	
		From	To	Length (miles)					
Traffic Signal	1	Cow Key Bridge (N) - MM 4.0	Key Haven Blvd - MM 5.0	1.1	13	00:07:03	00:00:33	00:00:15	
	5	Harris Channel Bridge (N) - MM 16.5	Bow Channel Bridge (N) -MM 20.5	3.9	2	00:00:26	00:00:13	00:00:01	
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.4	7	00:04:06	00:00:35	00:00:09	
	13	7-Mile Bridge (N) -MM 47.0	Coco Plum Drive -MM 54.0	7.3	37	00:15:21	00:00:25	00:00:33	
	14	Cocoa Plum Dr - MM 54.0	Toms Harbor Ch Br (S) - MM 60.5	6.4	3	00:00:33	00:00:11	00:00:01	
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.8	18	00:07:45	00:00:26	00:00:17	
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8.0	17	00:12:21	00:00:44	00:00:26	
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.8	27	00:12:33	00:00:28	00:00:27	
					Subtotal	124	01:00:08	00:00:29	00:02:09
	Congestion	1	Cow Key Bridge (N) - MM 4.0	Key Haven Blvd - MM 5.0	1.1	1	00:00:49	00:00:49	00:00:02
10		N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.4	3	00:00:41	00:00:14	00:00:01	
17		Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	1	00:04:44	00:04:44	00:00:10	
18		Lignumvitae Bridge (S) -MM 77.5	Tea Table Relief Bridge (N) -MM 79.5	2.2	3	00:04:34	00:01:31	00:00:10	
19		Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.1	21	00:19:48	00:00:57	00:00:42	
20		Whale Harbor Br (S) - MM 84.0	Snake Creek Br (N) - MM 86.0	1.9	10	00:07:05	00:00:42	00:00:15	
21		Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.8	33	01:22:13	00:02:29	00:02:56	
22		Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8.0	2	00:03:08	00:01:34	00:00:07	
23		Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.8	4	00:01:53	00:00:28	00:00:04	
24		C-905 - MM 106.0	County Line Sign - MM 112.5	6.2	9	00:11:45	00:01:18	00:00:25	
				Subtotal	87	02:16:40	00:01:34	00:04:53	
Left Turn/Right Turn	8	East Shore Drive - MM 25.0	Torch Ramrod Bridge (S) - MM 27.5	2.3	1	00:00:10	00:00:10	00:00:00	
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.3	2	00:00:41	00:00:20	00:00:01	
	17	Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	1	00:00:18	00:00:18	00:00:01	
	20	Whale Harbor Br (S) - MM 84.0	Snake Creek Br (N) - MM 86.0	1.9	1	00:00:13	00:00:13	00:00:00	
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.8	1	00:00:11	00:00:11	00:00:00	
					Subtotal	6	00:01:33	00:00:15	00:00:03
Drawbridge Signal	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.1	0.5	00:01:22	00:02:44	00:00:03	
	20	Whale Harbor Br (S) - MM 84.0	Snake Creek Br (N) - MM 86.0	1.9	0.5	00:04:38	00:09:16	00:00:10	
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.8	1	00:06:00	00:06:00	00:00:13	
					Subtotal	2	00:12:00	00:06:00	00:00:26
Construction / Accident / School Bus / School Zone / Special Events	3	Rockland Drive - MM 9.0	Boca Chica Rd -MM 10.5	1.5	2	00:06:24	00:03:12	00:00:14	
	10	N Pine Channel Br (N) - MM 29.5	Long Beach Dr - MM 33.0	3.4	4	00:06:58	00:01:44	00:00:15	
	11	Long Beach Dr - MM 33.0	7-Mile Bridge (S) -MM 40.0	7.0	1	00:00:17	00:00:17	00:00:01	
	13	7-Mile Bridge (N) -MM 47.0	Cocoa Plum Drive -MM 54.0	7.3	3	00:05:16	00:01:45	00:00:11	
	16	Long Key Bridge (S) -MM 63.0	Channel #2 Br (N) - MM 73.0	9.9	9	02:13:08	00:14:48	00:04:45	
	17	Channel #2 Br (N) - MM 73.0	Lignum V Br (S) - MM 77.5	4.5	1	00:00:32	00:00:32	00:00:01	
	19	Tea Table Relief Bridge (N) - MM 79.5	Whale Harbor Bridge (S) -MM 84.0	4.1	4	00:01:25	00:00:21	00:00:03	
	21	Snake Creek Br (N) - MM 86.0	Ocean Blvd - MM 91.5	5.8	1	00:00:42	00:00:42	00:00:01	
	22	Ocean Blvd - MM 91.5	Atlantic Blvd - MM 99.5	8.0	2	00:00:50	00:00:25	00:00:02	
	23	Atlantic Blvd - MM 99.5	C-905 (Flashing Light) - MM 106.0	6.8	1	00:00:16	00:00:16	00:00:01	
	24	C-905 (Flashing Light) - MM 106.0	County Line Sign - MM 112.5	6.2	8	00:16:50	00:02:06	00:00:36	
					Subtotal	36	02:52:38	00:04:48	00:06:10
	All Sources				TOTAL	255	06:22:59	00:01:30	00:13:41

APPENDIX I

2021 Data Collection Schedule



A P P E N D I X



AECOM

2021 *Monroe County Travel Time & Delay Study* 2021

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
<i>February/March</i>						
<i>28 Feb</i>	<i>1 Mar</i>	<i>2 Mar</i>	<i>3 Mar</i>	<i>4 Mar</i>	<i>5 Mar</i>	<i>6 Mar</i>
<i>7 Mar</i> <i>1 - HS 11:15am</i> <i>2 - KW 3:30pm</i>	<i>8 Mar</i> <i>3 - HS 11:45am</i> <i>4 - KW 4:00pm</i>	<i>9 Mar</i> <i>5 - HS 9:30am</i> <i>6 - KW 1:45pm</i>	<i>10 Mar</i> <i>7 - HS 9:45am</i> <i>8 - KW 1:30pm</i>	<i>11 Mar</i> <i>9 - HS 9:45am</i> <i>10 - KW 2:00pm</i>	<i>12 Mar</i> <i>11 - HS 10:15am</i> <i>12 - KW 2:30pm</i>	<i>13 Mar</i> <i>13 - HS 10:45am</i> <i>14 - KW 3:00pm</i>
<i>14 Mar</i> <i>15 - KW 11:30am</i> <i>16 - HS 3:15pm</i>	<i>15 Mar</i> <i>17 - KW 12:00pm</i> <i>18 - HS 3:45pm</i>	<i>16 Mar</i> <i>19 - KW 10:45am</i> <i>20 - HS 2:30pm</i>	<i>17 Mar</i> <i>21 - KW 10:15am</i> <i>22 - HS 1:45pm</i>	<i>18 Mar</i> <i>23 - KW 10:00am</i> <i>24 - HS 1:45pm</i>	<i>19 Mar</i> <i>25 - KW 10:30am</i> <i>26 - HS 2:15pm</i>	<i>20 Mar</i> <i>27 - KW 11:00am</i> <i>28 - HS 2:45pm</i>
<i>21 Mar</i>	<i>22 Mar</i>	<i>23 Mar</i>	<i>24 Mar</i>	<i>25 Mar</i>	<i>26 Mar</i>	<i>27 Mar</i>

- Notes:
1. Data should be downloaded from the DMI and QCd immediately after every travel run.
 2. A copy of the raw data sheet should be faxed/emailed to the office every day.
 3. Vehicle tire pressure should be checked before every run and maintained as constant.
 4. HS - Start at Homestead; KW - Start at Key West.

2021 Monroe County Travel Time & Delay Study – Supplemental Runs

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
<i>February/March</i>						
<i>28 Feb</i>	<i>1 Mar</i>	<i>2 Mar</i>	<i>3 Mar</i>	<i>4 Mar</i>	<i>5 Mar</i>	<i>6 Mar</i>
<i>7 Mar</i>	<i>8 Mar</i>	<i>9 Mar</i>	<i>10 Mar</i>	<i>11 Mar</i>	<i>12 Mar</i>	<i>13 Mar</i>
<i>14 Mar</i>	<i>15 Mar</i>	<i>16 Mar</i>	<i>17 Mar</i>	<i>18 Mar</i>	<i>19 Mar</i>	<i>20 Mar</i>
			<i>1,2 - HC 8:00am</i> <i>3 - KW 5:00pm</i>	<i>4,5 - HC 8:00am</i> <i>6,7 - KW 5:00pm</i>	<i>8,9 - HC 8:00am</i> <i>10,11 - KW 5:00pm</i>	
<i>21 Mar</i>	<i>22 Mar</i>	<i>23 Mar</i>	<i>24 Mar</i>	<i>25 Mar</i>	<i>26 Mar</i>	<i>27 Mar</i>

Notes:

1. Data should be downloaded from the DMI and QCd immediately after every travel run.
2. A copy of the raw data sheet should be faxed/emailed to the office every day.
3. Vehicle tire pressure should be checked before every run and maintained as constant.
4. HC - Start at Harris Channel Bridge; KW - Start at Key West.