DOCUMENT ADDENDUM
PROJECT TRAFFIC AND INTERSECTION ANALYSIS
TECHNICAL MEMORANDUM

S. R. 39
FROM I-4 TO U.S. 301
HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

Work Program Item Segment Nos: 255099 1 & 256289 1
Federal Aid Project No: F-321-1(4)

This proposed project involves multi-lane improvements to S.R. 39 and the proposed extension of the Alexander Street Bypass from I-4 in Hillsborough County to U.S. 301 in Pasco County, a distance of approximately 21.2 km (13.2 mi)

Prepared for:

Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612

April 2001

The attached Project Traffic and Intersection Analysis Technical Memorandum was completed in November 1999. This addendum provides updated project information that was not available in the previous Project Traffic and Intersection Analysis Technical Memorandum that was available for public review prior to and at the Public Hearing that was held on April 20, 2000. This addendum improves consistency between the Project Traffic and Intersection Analysis Technical Memorandum and the Environmental Assessment/Finding of No Significant Impact (EA/FONSI) that was approved by the (FHWA) on November 14, 2000.

INTRODUCTION

Through the PD&E Study process, the FDOT evaluated the expansion of S.R. 39 to a four-lane facility from the vicinity of Joe McIntosh Road in Hillsborough County to the vicinity of U.S. 301 in Pasco County (Addendum Figure 1). In addition, the FDOT evaluated the extension of Alexander Street Bypass as a four-lane facility from Interstate 4 (I-4) northward to S.R. 39 in the vicinity of Joe McIntosh Road.

The S.R. 39 corridor is functionally classified as a north/south minor arterial facility between I-4 and U.S. 301. S.R. 39 is part of the Federal-Aid Primary and State Highway System and is classified as an emergency evacuation route. The project limits extend from I-4 in Plant City and Hillsborough County to U.S. 301 in Pasco County, a distance of 21.2 kilometers (km) [13.2 miles (mi)].

The existing S.R. 39 within the project limits contains a two-lane undivided typical section with 3.658 meter (m) [12 foot (ft)] wide travel lanes, 1.219 m (4 ft) paved shoulders, and open roadside ditches on both sides of the roadway. The existing right-of-way (ROW) varies from 18.288 m (60 ft) to 45.720 m (150 ft).

S.R. 39 is currently a two-lane undivided roadway with drainage ditches adjacent to the existing roadway. A CSX Transportation railroad line parallels the existing roadway on

the east side of S.R. 39 for approximately 17.7 km (11.0 mi) from the existing S.R. 39 and I-4 intersection to a point just north of Crystal Springs in Pasco County.

PROPOSED IMPROVEMENTS

The FHWA approved project involves multi-lane improvements to S.R. 39 and the planned extension of the Alexander Street Bypass from I-4 in Hillsborough County to U.S. 301 in Pasco County, a distance of approximately 21.2 km (13.2 mi). The Alexander Street Bypass portion from I-4 to the vicinity of Joe McIntosh Road is approximately 4.02 km (2.5 mi). This new alignment alternative is located to the west of S.R. 39 between I-4 and Joe McIntosh Road due to significant land use constraints on S.R. 39, including the Memorial Park Cemetery in the vicinity of I-4. Overall, improvements will consist of a four-lane divided roadway on new alignment (the Alexander Street Bypass) and improvement to S.R. 39 north of the merge point with the Alexander Street Bypass northward. The existing S.R. 39 north of the merge point will be improved from a two-lane undivided roadway to a four-lane divided facility.

DOCUMENT SPECIFIC UPDATES

This update to the Project Traffic and Intersection Analysis Technical Memorandum includes the following:

- Project Location Map has been updated (Addendum Figure 1).
- This project is currently described in the EA/FONSI as multi-lane improvements to S.R. 39 and the proposed extension of the Alexander Street Bypass from I-4 in Hillsborough County to U.S. 301 in Pasco County.

PROJECT TRAFFIC AND INTERSECTION ANALYSIS TECHNICAL MEMORANDUM

S. R. 39
FROM I-4 TO U.S. 301
HILLSBOROUGH AND PASCO COUNTIES, FLORIDA

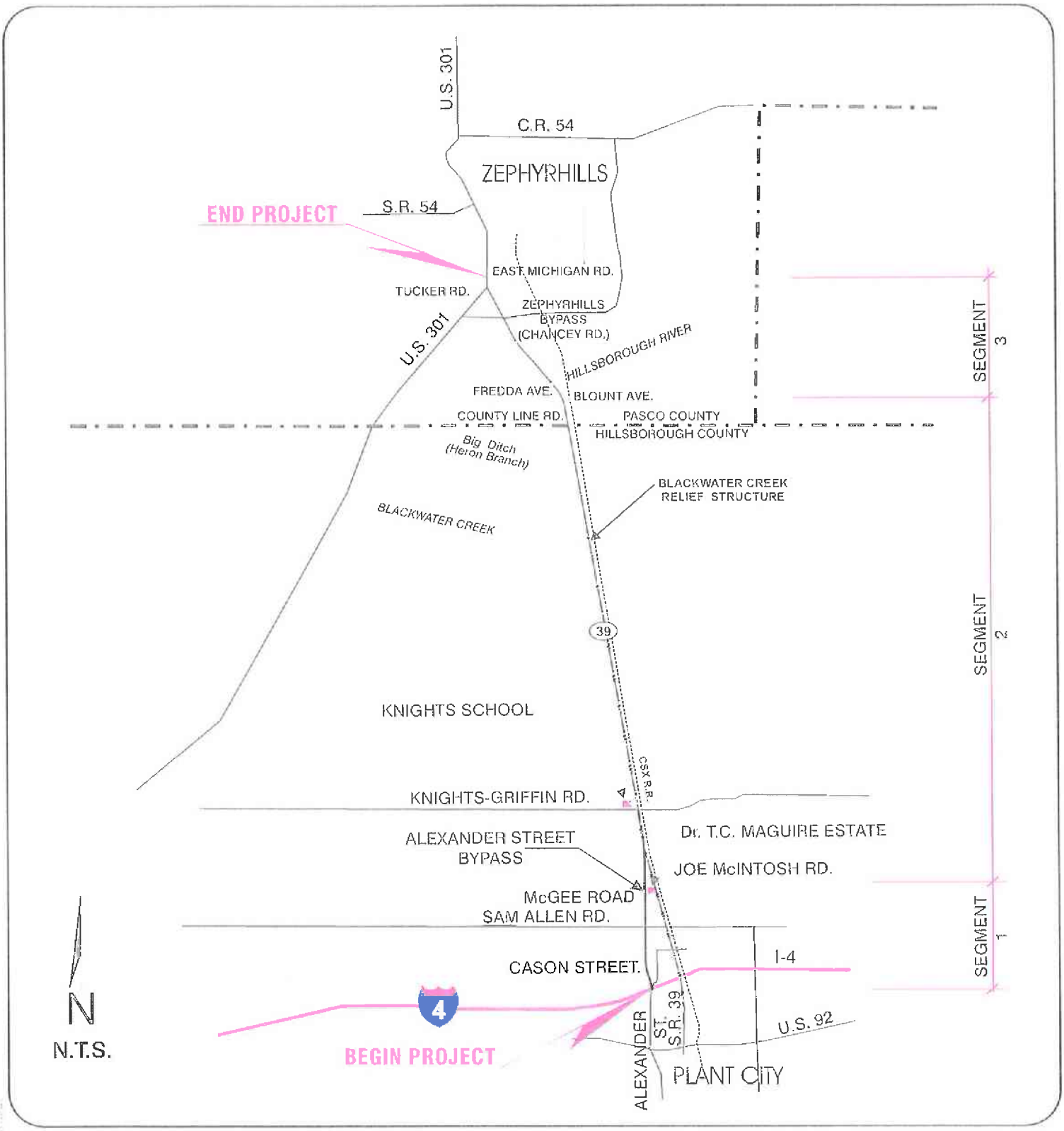
Work Program Item Segment Nos: 255099 1 & 256289 1
Federal Aid Project No: F-321-1(4)

This proposed project involves multi-lane improvements to S.R. 39 and the proposed extension of the Alexander Street Bypass from I-4 in Hillsborough County to U.S. 301 in Pasco County, a distance of approximately 21.2 km (13.2 mi)

Prepared for:

Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612

November 3, 1999



FLORIDA DEPARTMENT OF TRANSPORTATION

S.R. 39

From I-4 to U.S. 301
Pasco County, Florida

PROJECT LOCATION MAP

Work Program Item Segment # 255099 1 & 256289 1
FAP #: F-321-1(4)

FIGURE 1

CERTIFICATION

PROJECT TRAFFIC VOLUMES

W.P.I. Number: 7113335

State Project Number: 10200-1508

Description: This project involves the multi-laning of State Road 39 from north of I-4 to U.S. 301 in Hillsborough and Pasco Counties, Florida

"I have followed the Project Traffic Forecasting Procedures, adopted by the Florida Department of Transportation, and have arrived at the project traffic volumes. I have found these to be consistent with this historical traffic data and other available information."

11/3/99
Date

John Wright
John Wright, P.E.
Senior Traffic Engineer
Parsons Brinckerhoff Quade & Douglas, Inc.

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INTRODUCTION

The purpose of this technical memorandum is to present a traffic analysis for SR 39 from I-4 to US 301, a length of approximately 13.5 miles, and for the proposed Alexander Street Extension from I-4 to SR 39 in the vicinity of Sam Allen Road, a length of approximately 1.5 miles. The project begins at I-4 on the north side of Plant City, in Hillsborough County, and ends at US 301 on the south side of Zephyrhills, in Pasco County. The project location is illustrated on Figure 1.

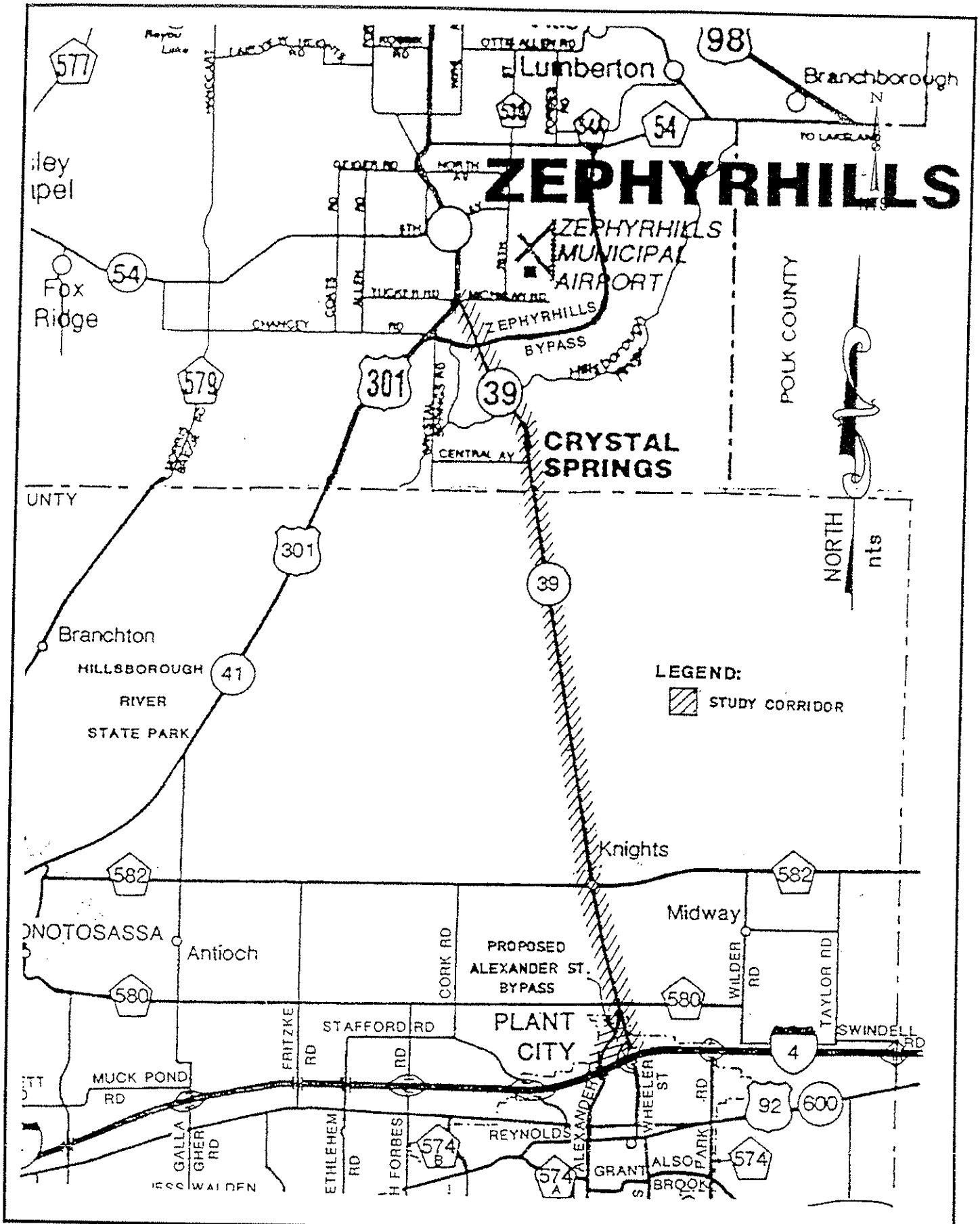
SR 39 is a north-south arterial roadway that extends as a state road from SR 60 on the south end to US 301 in Pasco County on the north end.

The purpose of this memorandum is two-fold: 1) to document the existing conditions along SR 39, including existing traffic characteristics, traffic demand, and levels of service (LOS); and 2) to provide estimated year 2010 and 2020 conditions, including traffic demand, geometric requirements, and LOS.

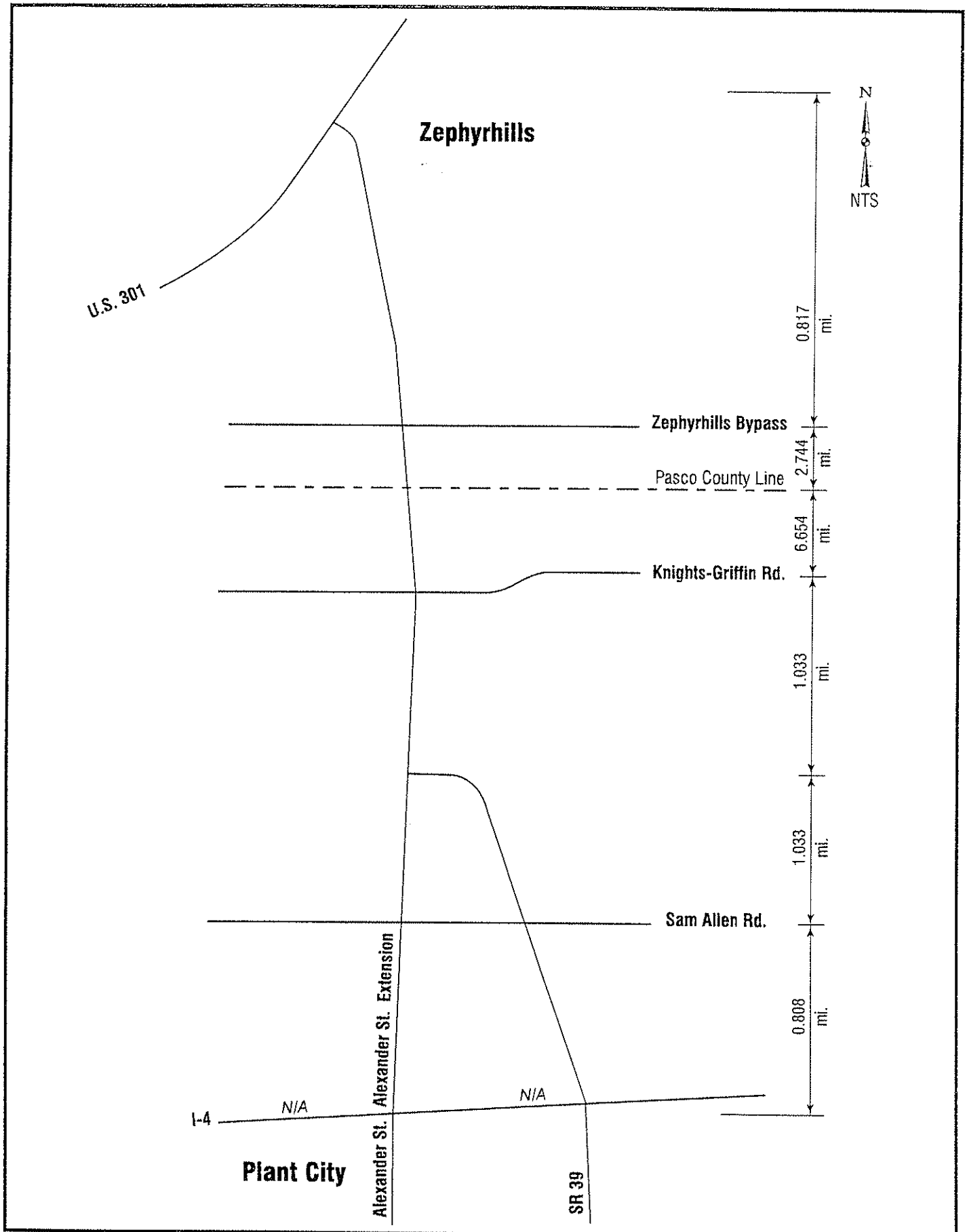
STUDY AREA

The project limits for this study begin on the north side of I-4 at the northern limits of the current I-4 reconstruction project. This project does not include the interchanges of I-4 with SR 39 or with Alexander Street. The project ends at US 301 and includes the intersection of SR 39/US 301.

A review of the SR 39 corridor from north of I-4 in Plant City to US 301 in Zephyrhills concluded that only four intersecting roadways currently serve as thoroughfares. These roadways are Sam Allen Road, Knights-Griffin Road, Zephyrhills Bypass and US 301/Michigan Avenue. Therefore, only the intersections of these roadways with SR 39 were selected for detailed intersection



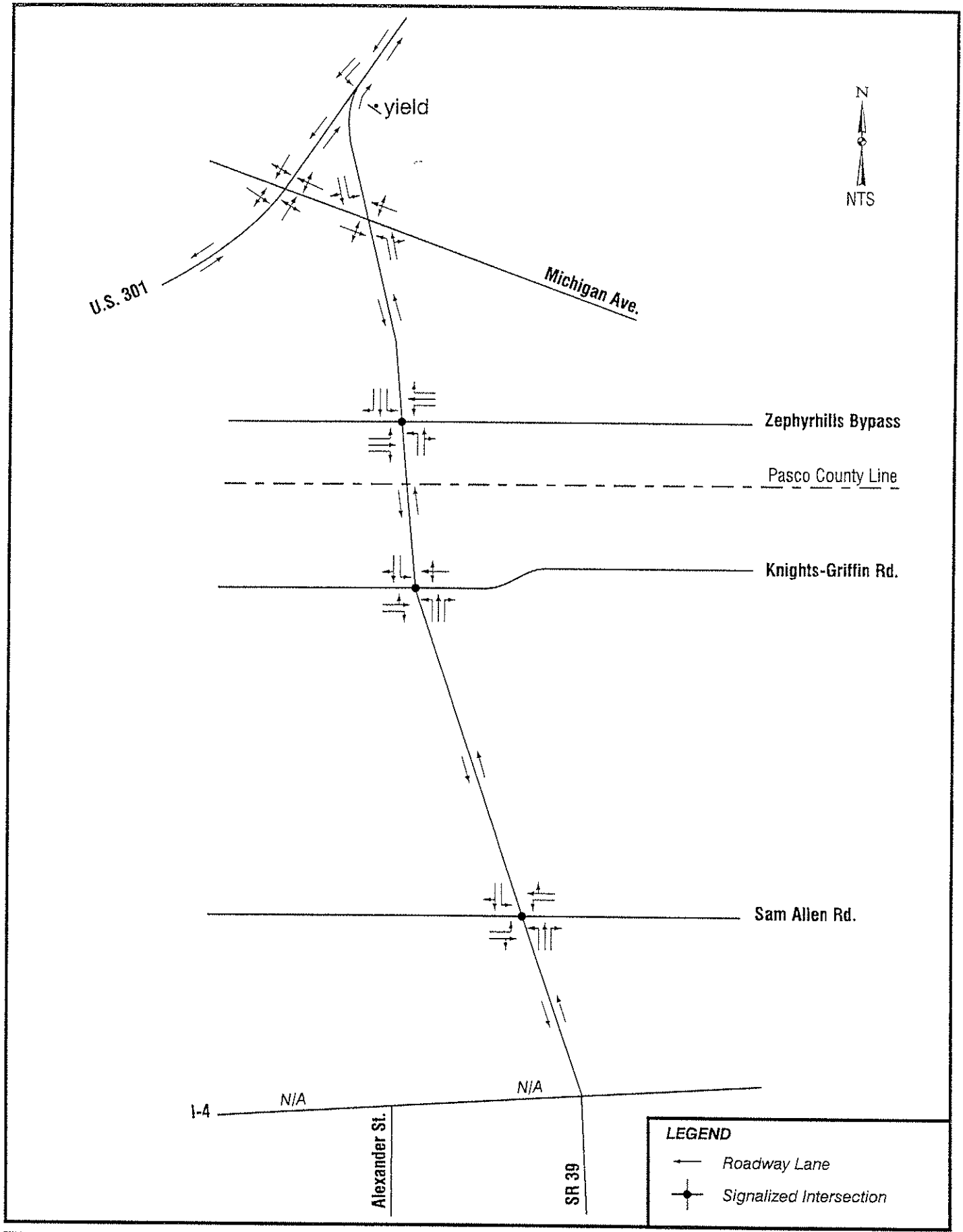
PROJECT LOCATION	State Road 39 PD&E Study Project Traffic and Intersection Analysis Technical Memorandum	FIGURE 1



STUDY AREA

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 2



NO BUILD ALTERNATIVE ROADWAY NETWORK

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 3

1998 AADT Volumes

1998 AADT volumes on SR 39 and the intersecting major roadways were developed by straight line interpolation between the 1996 AADT volumes and projected year 2005 AADT volumes for the same roadway links. The 1998 estimated AADT volume on SR 39 between I-4 and Sam Allen Road was adjusted downward to reflect a decline in traffic volumes on this segment of SR 39 in 1997, probably due to the ongoing construction at the SR 39/I-4 interchange. The 1997 AADT volume data used to make these adjustments are contained in the study report titled, "Interchange Operational Analysis Report, Interstate 4 Corridor, Thonotosassa Road (SR 566) to Park Road (SR 553), February 18, 1999." The 1996 and projected 2005 AADT volumes used to estimate the 1998 AADT volumes are contained in Appendix A. The estimated 1998 AADT volumes developed by this procedure are illustrated on Figure 4.

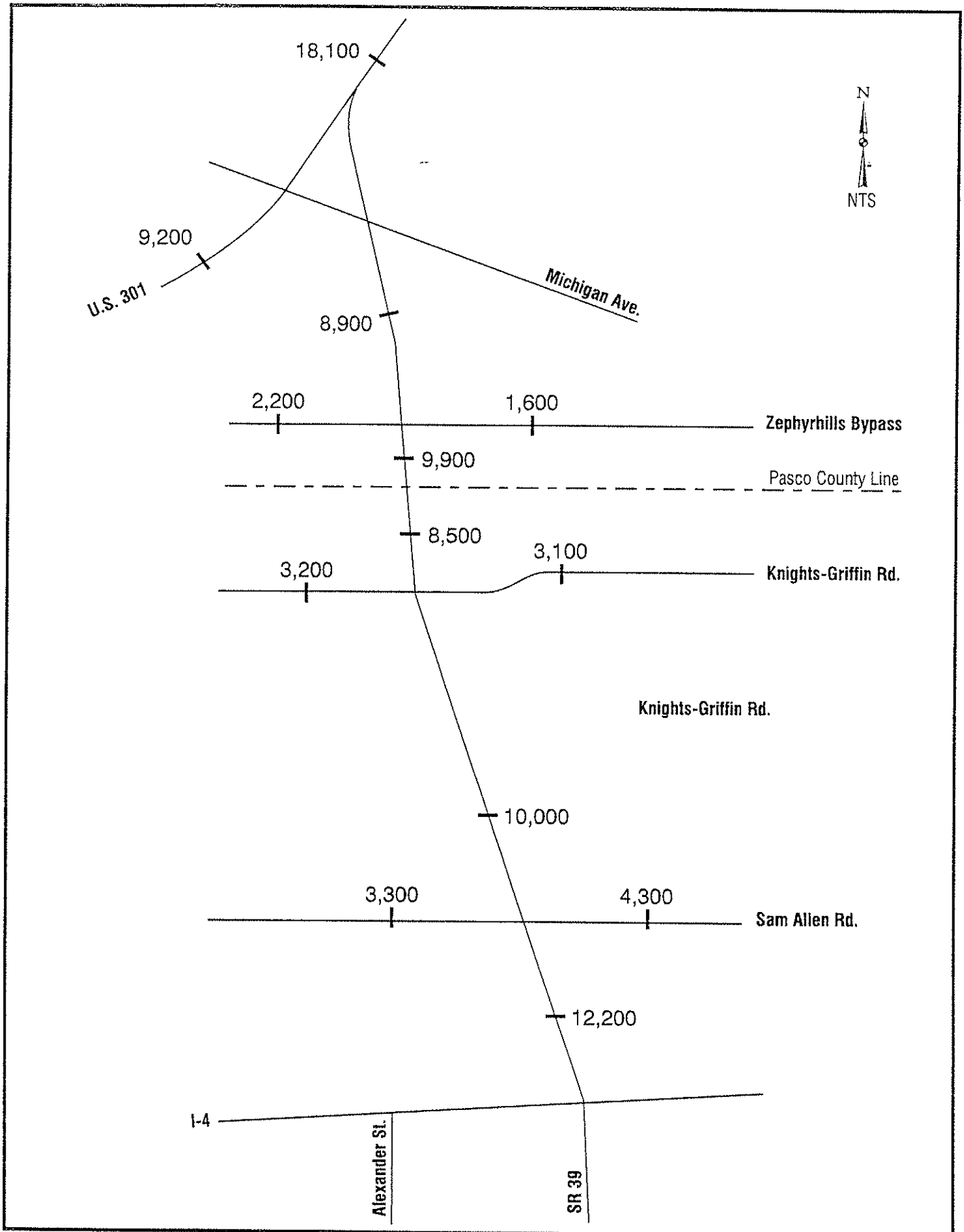
Peak Hour Traffic Volumes

Vehicle turning movement counts were conducted between the hours of 6:00AM to 9:00AM, 11:00AM to 1:00PM and 3:00PM to 6:00PM on September 21 and 22, 1998 at the following four intersections:

1. SR 39/Sam Allen Road
2. SR 39/Knights-Griffin Road
3. SR 39/Zephyrhills Bypass
4. SR 39/US 301/Michigan Avenue

The summary sheets for these counts are contained in Appendix B.

The intersection turning movement count data was analyzed to identify the peak traffic volume hours. The analysis determined that the peak traffic hours occurred between 6:00AM and 8:00AM, and between 4:00PM and 6:00PM, the traditional AM and PM peak traffic periods.



1998 AADT VOLUMES	State Road 39 PD&E Study Project Traffic and Intersection Analysis Technical Memorandum	FIGURE 4

The peak hours for the four study intersections are as follows:

Intersection	AM Peak Hour	PM Peak Hour
1. SR 39/Sam Allen Road	7:00AM-8:00AM	5:00PM-6:00PM
2. SR 39/Knights-Griffin Road	7:00AM-8:00AM	5:00PM-6:00PM
3. SR 39/Zephyrhills Bypass	6:00AM-7:00AM	4:00PM-5:00PM
4. SR 39/US 301	7:00AM-8:00AM	5:00PM-6:00PM

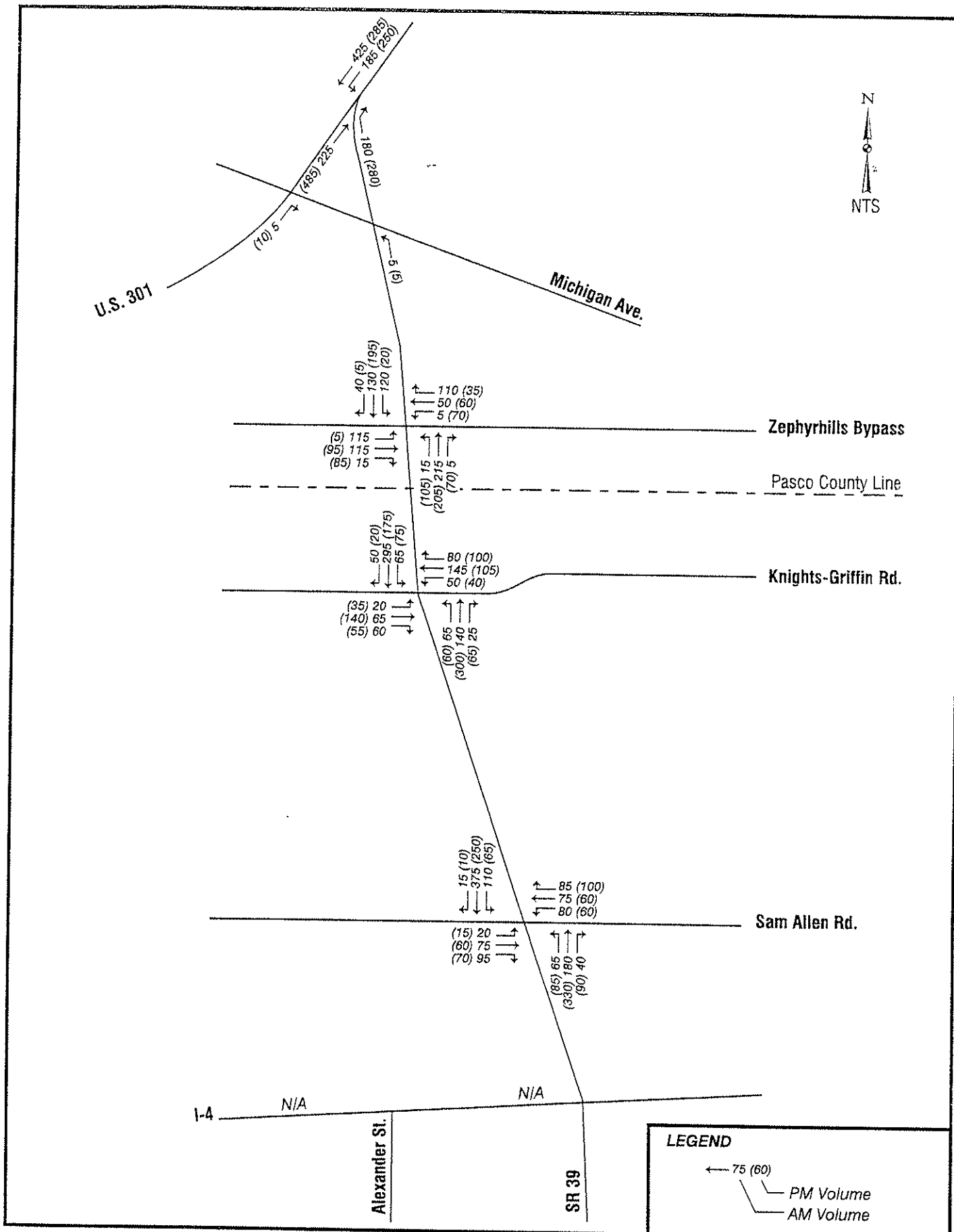
The AM and PM peak hour traffic volumes were adjusted to design hour conditions by applying a factor of 1.03 for Hillsborough County and 1.07 for Pasco County, from the 1997 Weekly Volume Factor Reports provided by District 7 Planning. The resulting 1998 AM and PM design hour volumes for the four study intersections are illustrated on Figure 5.

Truck, Bus, Pedestrian and Bicycle Volumes

The AM and PM peak period intersection turning movement counts also identified truck and bus (primarily school bus) volumes and the pedestrian and bicycle volumes at each of the four study intersections. The count summary sheets contained in Appendix B show that there was no significant pedestrian or bicycle volumes observed.

Existing Traffic Control And Posted Speed Limits

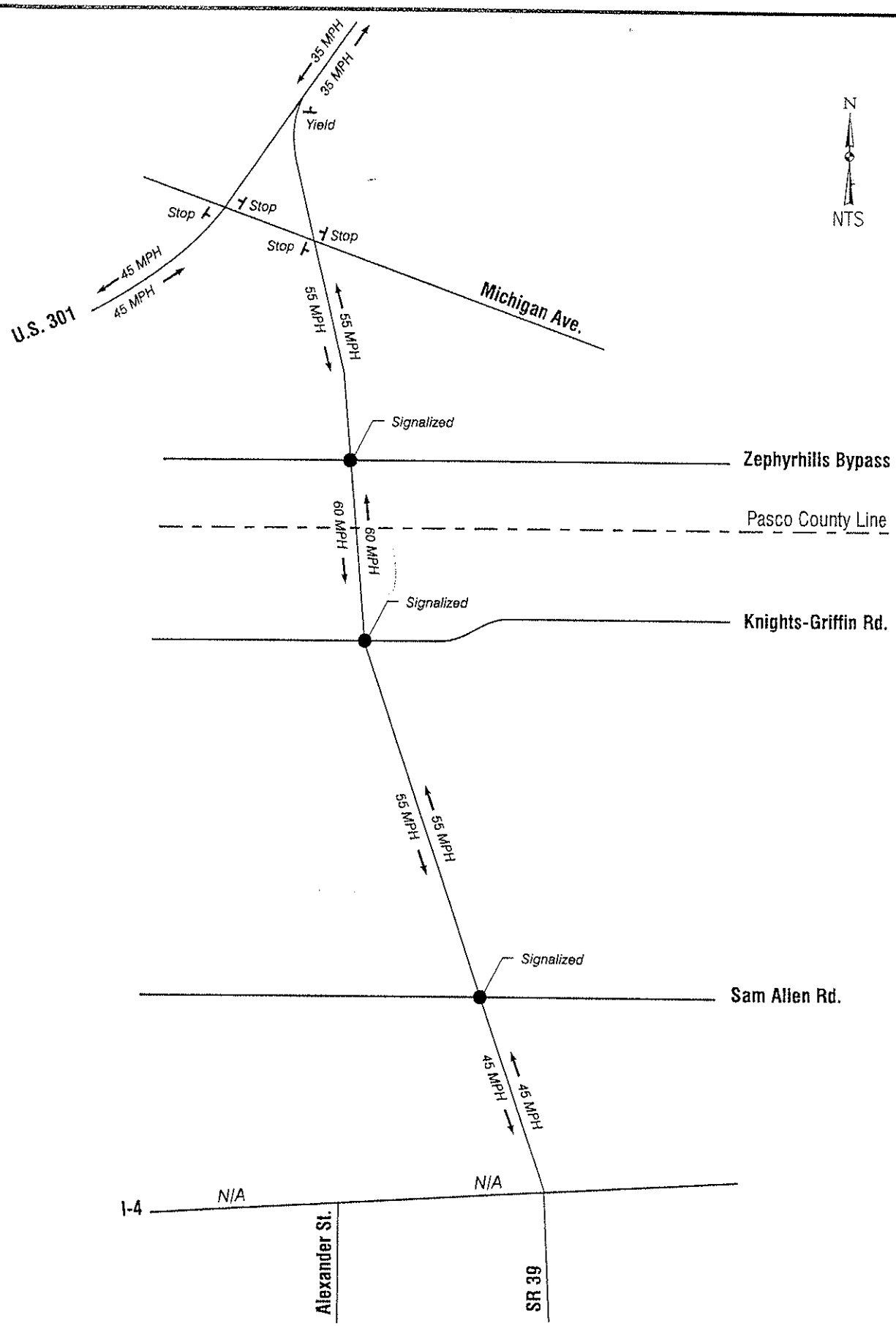
During the field review of the SR 39 corridor, the posted speed limits on SR 39 and on the four intersecting thoroughfare roadways were observed. The current posted speed limits on the study area roadways are illustrated on Figure 6.



1998 AM AND PM DESIGN HOUR INTERSECTION TURNING MOVEMENT VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 5



EXISTING TRAFFIC CONTROL AND POSTED SPEED LIMITS

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 6

These eight crash experience summaries are contained in Appendix C. Using the crash data contained in Appendix C, Safety Ratios were calculated for the four intersections and four roadway segments previously listed. A summary of the calculated Safety Ratios is contained in Tables 1 and 2.

TABLE 1

SUMMARY OF CALCULATED SAFETY RATIOS

INTERSECTIONS

Year	Safety Ratio			
	Street Intersecting With SR 39			
	Sam Allen Road	Knights-Griffin Rd.	Zephyrhills Bypass	US 301
1993	0.867	0.422	2.049	0.000
1994	0.610	0.542	1.117	0.000
1995	0.717	0.417	0.311	0.156
1996	0.540	0.696	1.279	0.000
1997	1.701	0.529	0.551	0.000

TABLE 2

SUMMARY OF CALCULATED SAFETY RATIOS

ROADWAY SEGMENTS

Year	Safety Ratio			
	SR 39 Roadway Segment			
	I-4 to Sam Allen Road	Sam Allen Rd. to Knights-Griffin Road	Knights-Griffin Road to Zephyrhills Bypass	Zephyrhills Bypass to US 301
1993	2.801	0.802	0.000	0.000
1994	1.867	0.692	0.474	0.000
1995	0.682	0.848	0.835	0.000
1996	1.678	0.765	0.678	0.000
1997	0.000	0.000	0.000	0.426

TABLE 3

RESULTS OF UNSIGNALIZED INTERSECTION LOS ANALYSIS

1998 CONDITIONS

Intersection			Level of Service		
			Left	Through	Right
SR 39/US 301	NB	AM	A	-	A
		PM	A	-	B
	SB	AM	-	-	-
		PM	-	-	-
	EB	AM	-	-	A
		PM	-	-	B
	WB	AM	A	-	-
		PM	B	-	-

TABLE 4

RESULTS OF SIGNALIZED INTERSECTION LOS ANALYSIS

1998 CONDITIONS

Intersection		Average Delay (Seconds)	LOS
SR 39/Sam Allen Road	AM	11.6	B
	PM	11.2	B
SR 39/Knights Griffin Rd.	AM	9.8	B
	PM	9.7	B
SR 39/Zephyrhills Road	AM	9.0	B
	PM	8.9	B

TABLE 5

RESULTS OF ROADWAY SEGMENT LOS ANALYSIS

1998 CONDITIONS

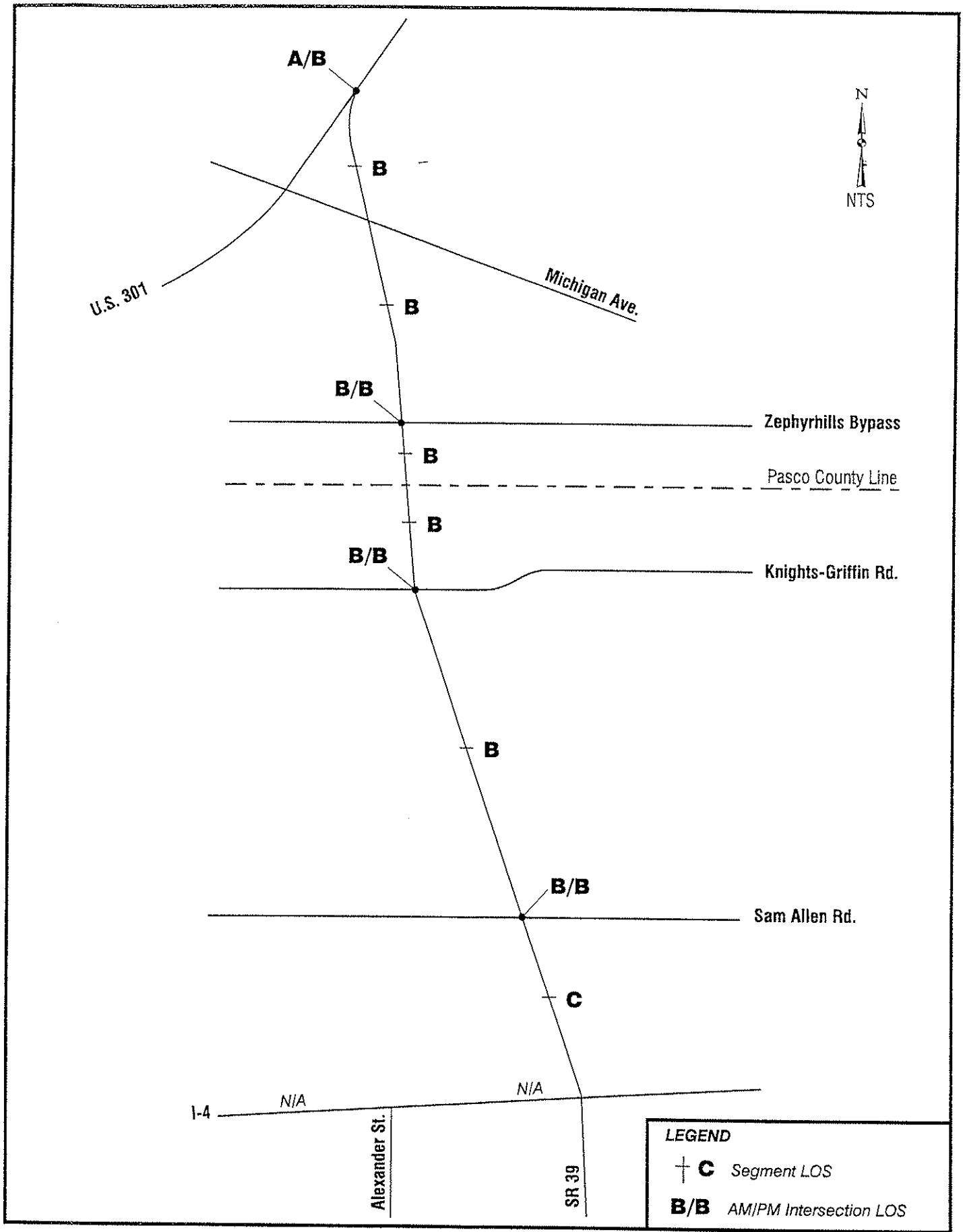
Road Segment	AADT Volume	Level of Service
I-4 to Sam Allen Road	12,200	C
Sam Allen Road to Knights- Griffin Road	10,000	B
Knights-Griffins Road to Pasco County Line	8,500	B
Pasco County Line to Zephyrhills Bypass	9,900	B
Zephyrhills Bypass to US 301	8,900	B

FUTURE CONDITIONS

The extension of Alexander Street from I-4 to SR 39 will add two (2) new intersections to the study area as follows:

1. Alexander Street Extension/Sam Allen Road
2. Alexander Street Extension/SR 39

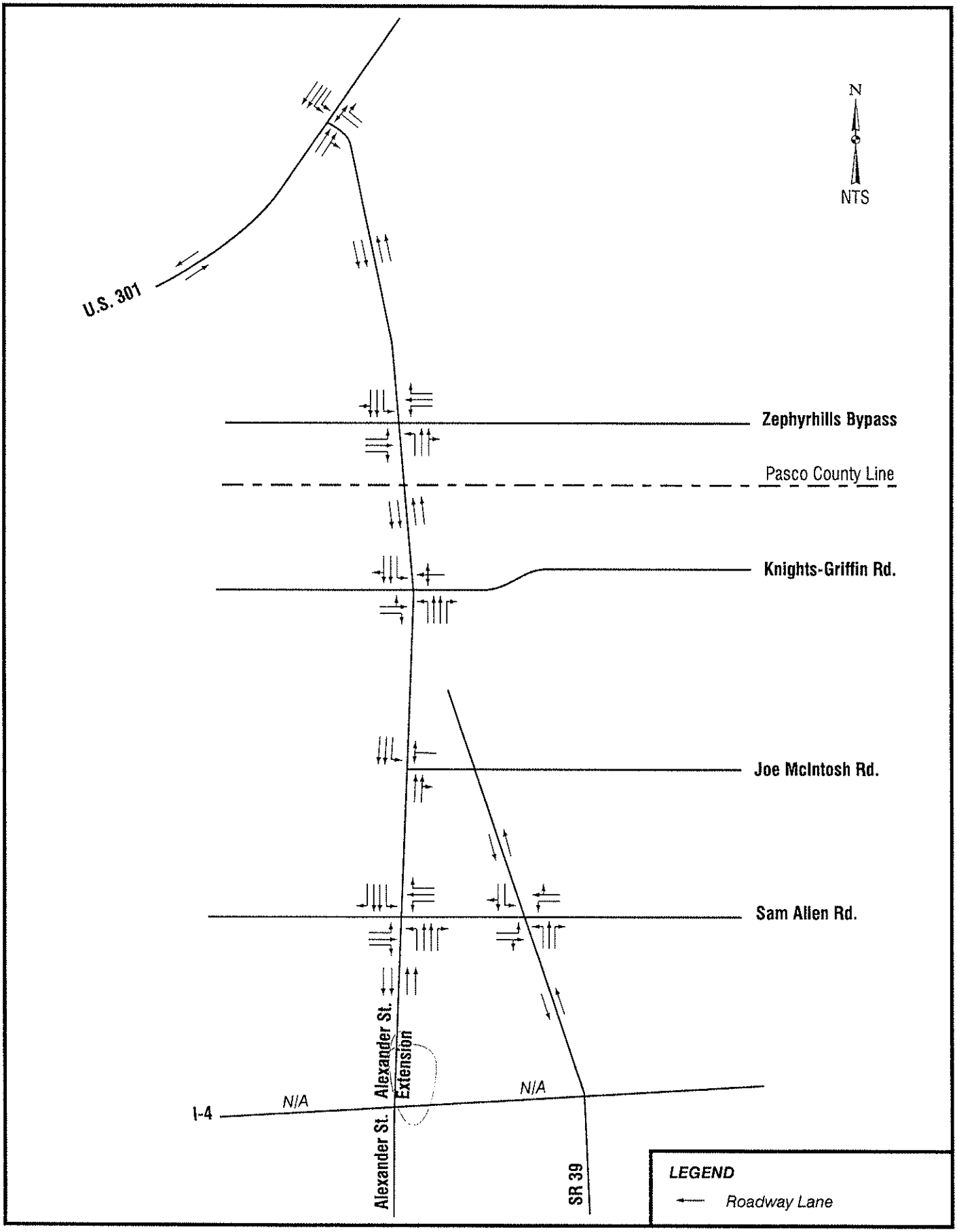
The Build alternative proposes that the Alexander Street Extension - SR 39 alignment, within the project limits, be constructed as a four-lane divided roadway. The existing segment of SR 39 between I-4 and the Alexander Street Extension is proposed to remain a two-lane undivided roadway. The proposed lane use on the Alexander Street Extension, and on SR 39 including the six (6) study intersections, is illustrated on Figure 8, which represents the Build alternative roadway network.



RESULTS OF LOS ANALYSIS
EXISTING CONDITIONS

State Road 39 PD&E Study
Project Traffic and Intersection
Analysis Technical Memorandum

FIGURE
7



BUILD ALTERNATIVE ROADWAY NETWORK

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 8

Year 2010 And 2020 Traffic Forecasts

Design traffic data for the years 2005 and 2020 for the Build and No-Build alternatives was provided by the District 7 Planning office and is contained in Appendix A. Design traffic factors (K, D and T) are summarized in Table 6.

TABLE 6
DESIGN TRAFFIC FACTORS

Roadway	K Factor	D Factor	24-Hour Truck Factor	Design Hour Truck Factor
US 301	10.56%	54.1%	8.0%	4.0%
Alexander Street Extension	9.54%	59.5%	14.0%	7.0%
Zephyrhills Bypass (Chaney Rd.)	9.54%	59.5%	6.0%	3.0%
Knights-Griffin Rd.	9.54%	59.5%	6.0%	3.0%
Sam Allen Rd.	9.54%	59.5%	6.0%	3.0%

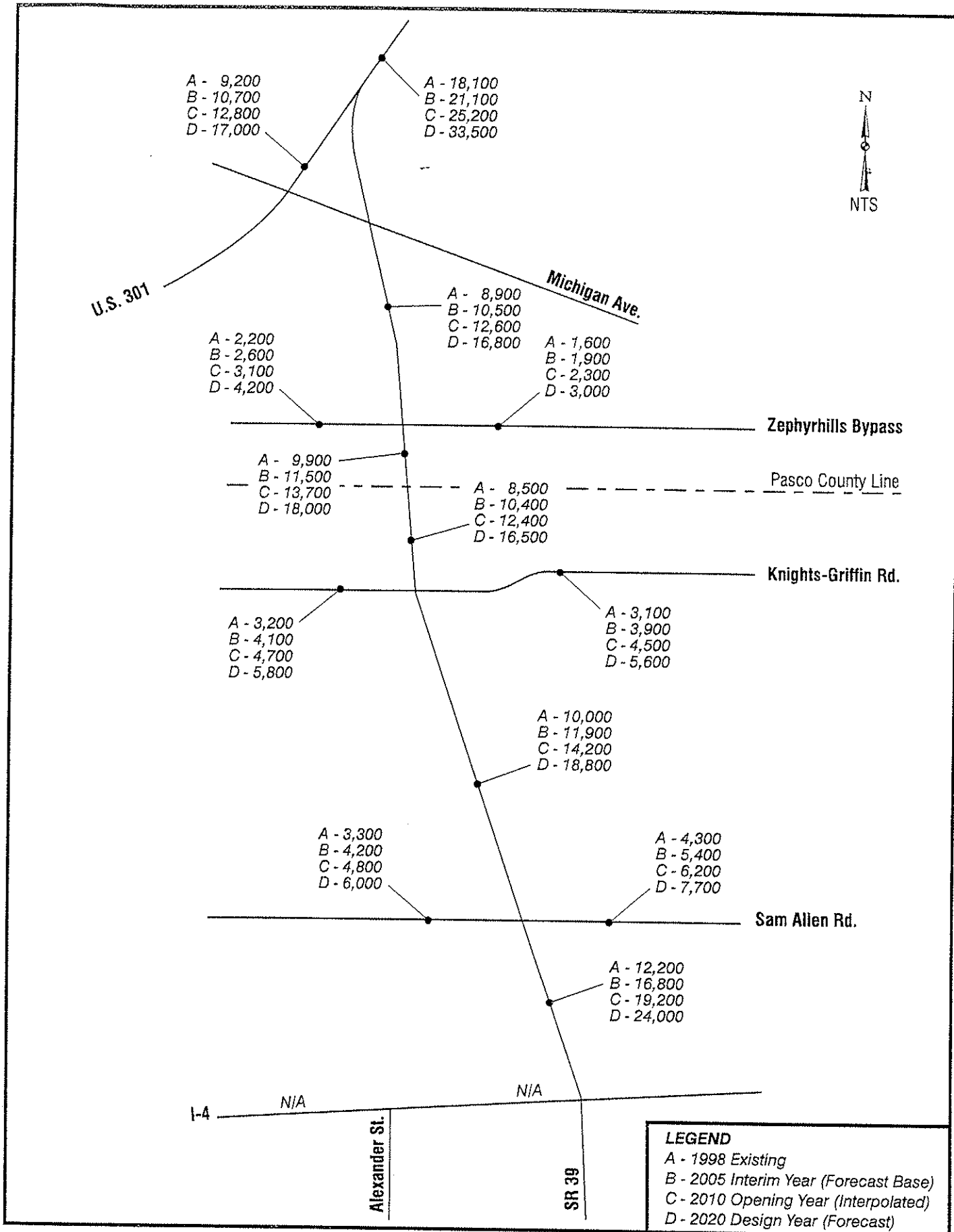
The factors identified for the Alexander Street Extension were assumed for SR 39.

AADT Volumes

The AADT volumes for the year 2010 (project opening year), were interpolated from the year 2005 and year 2020 AADT volumes. Figures 9 and 10 illustrate the year 2010 and 2020 No-Build and Build AADT volumes, respectively, on the study roadways.

Design Hour Volumes

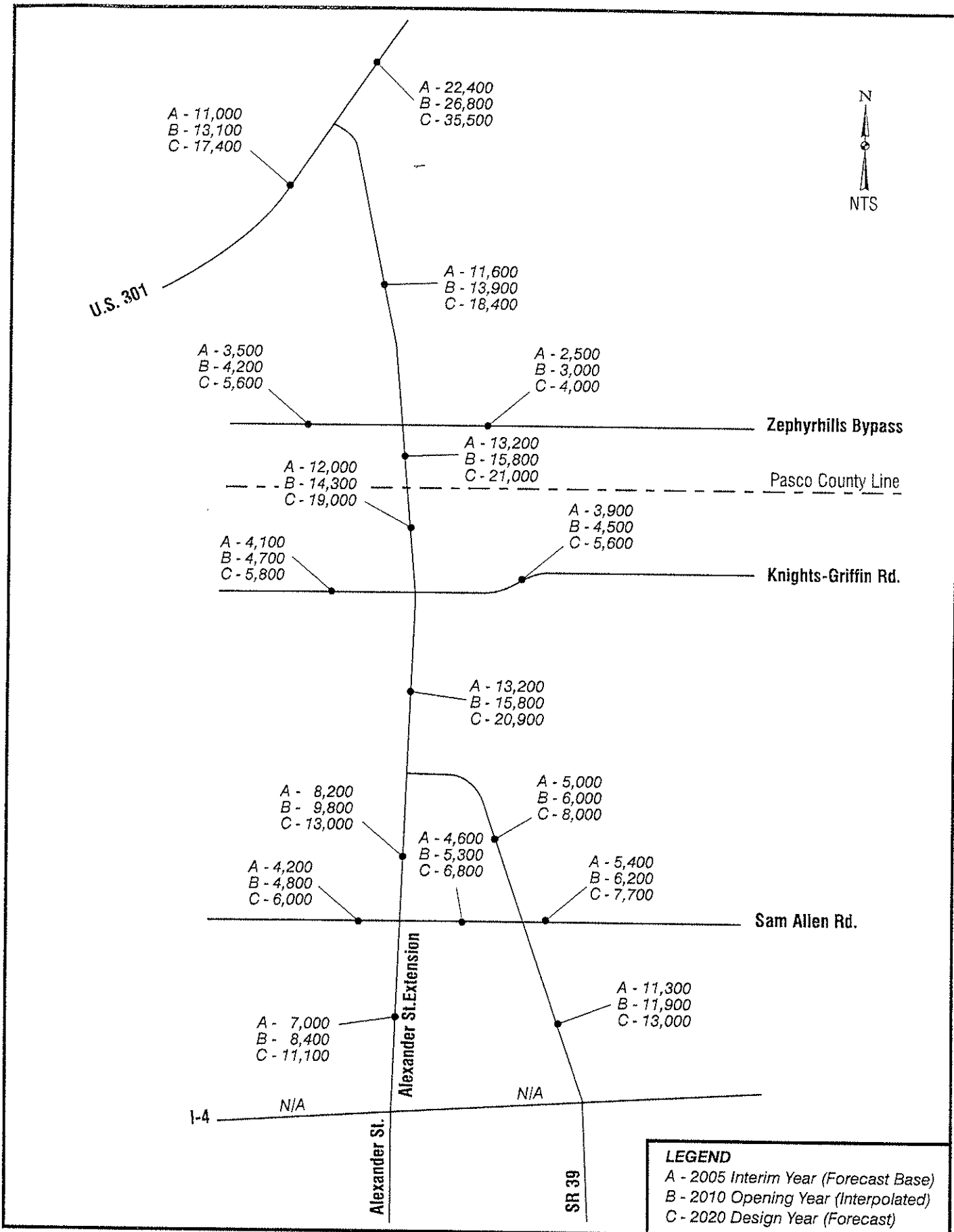
Design hour segment volumes and AM and PM design hour turning movement volumes for the years 2010 and 2020 were estimated using the TURNS 4 software and the 1998, 2005, and 2020 AADT volume data previously described. The output from the TURNS 4 analysis is contained in



NO BUILD ALTERNATIVE
AADT

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 9



BUILD ALTERNATIVE AADT

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 10

Appendix E. The results of the TURNS 4 analysis was used as a preliminary estimate which was then manually adjusted to achieve a reasonable correlation with the distributions from the 2005 and 2020 AADT volumes provided by FDOT.

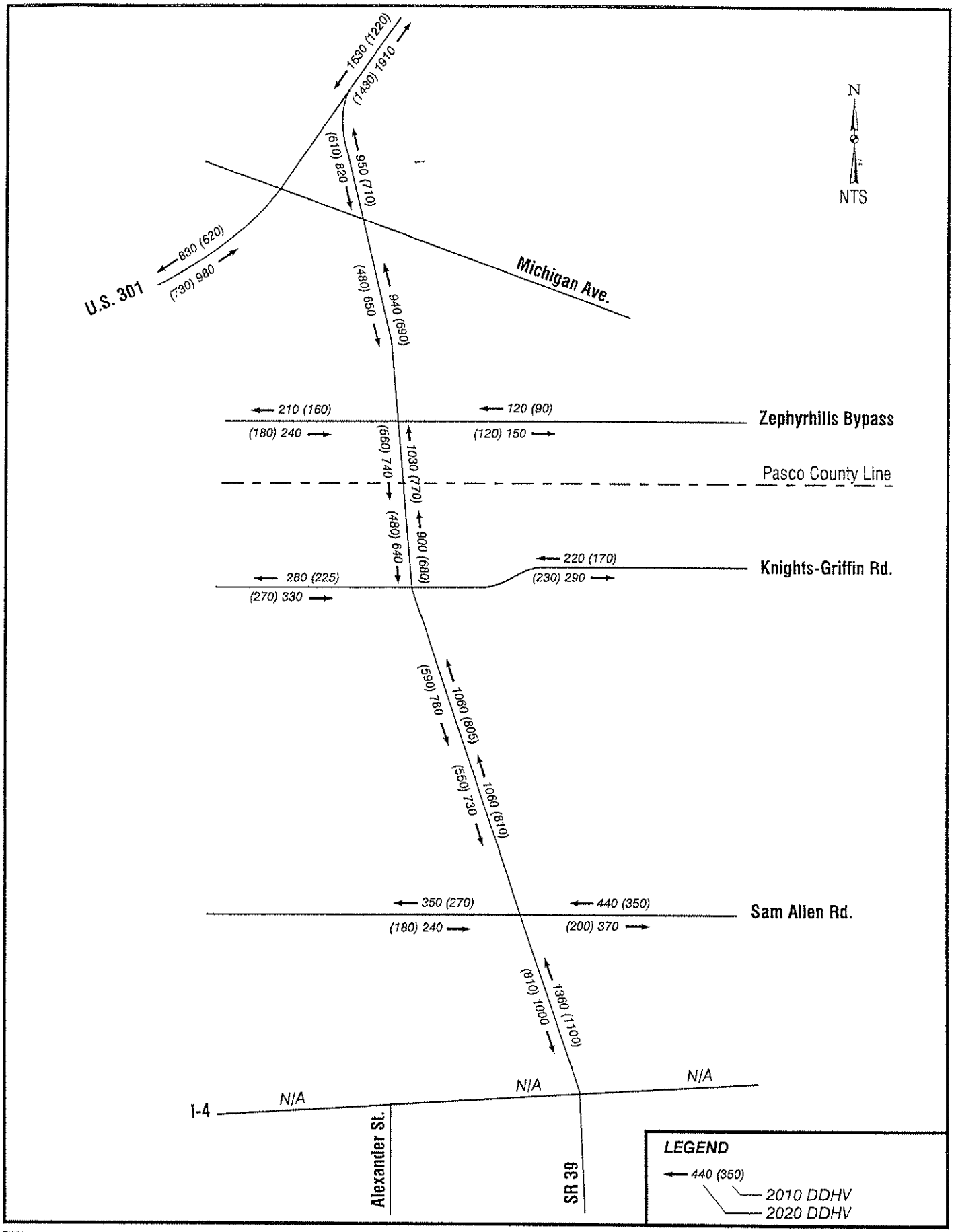
Figures 11 and 12 illustrate the years 2010 and 2020 Directional Design Hour Volumes (DDHV) for the No-Build and Build alternatives, respectively. Figures 13 and 14 illustrate the years 2010 and 2020, respectively, AM and PM design hour intersection turning movement volumes for the No-Build alternative. Figures 15 and 16 illustrate the years 2010 and 2020, respectively, AM and PM design hour intersection turning movement volumes for the Build alternative.

Year 2010 and 2020 Level of Service Analysis

Intersection and roadway segment LOS analyses were conducted to determine the operational characteristics on SR 39 within the project limits, and on the Alexander Street Extension in the years 2010 and 2020. The intersection LOS analyses were conducted using the years 2010 and 2020 design hour traffic volumes for the No-Build and the Build alternatives, and the procedures from the Transportation Research Board Special Report 209 - Highway Capacity Manual (HCM), 1997, Chapter 9 (Signalized Intersections) and Chapter 10 (Unsignalized Intersections).

The roadway segment LOS analyses were conducted using the years 2010 and 2020 AADT volumes for the No-Build and the Build alternatives, and Florida's Level of Service Standards and Guidelines Manual for Planning, 1995.

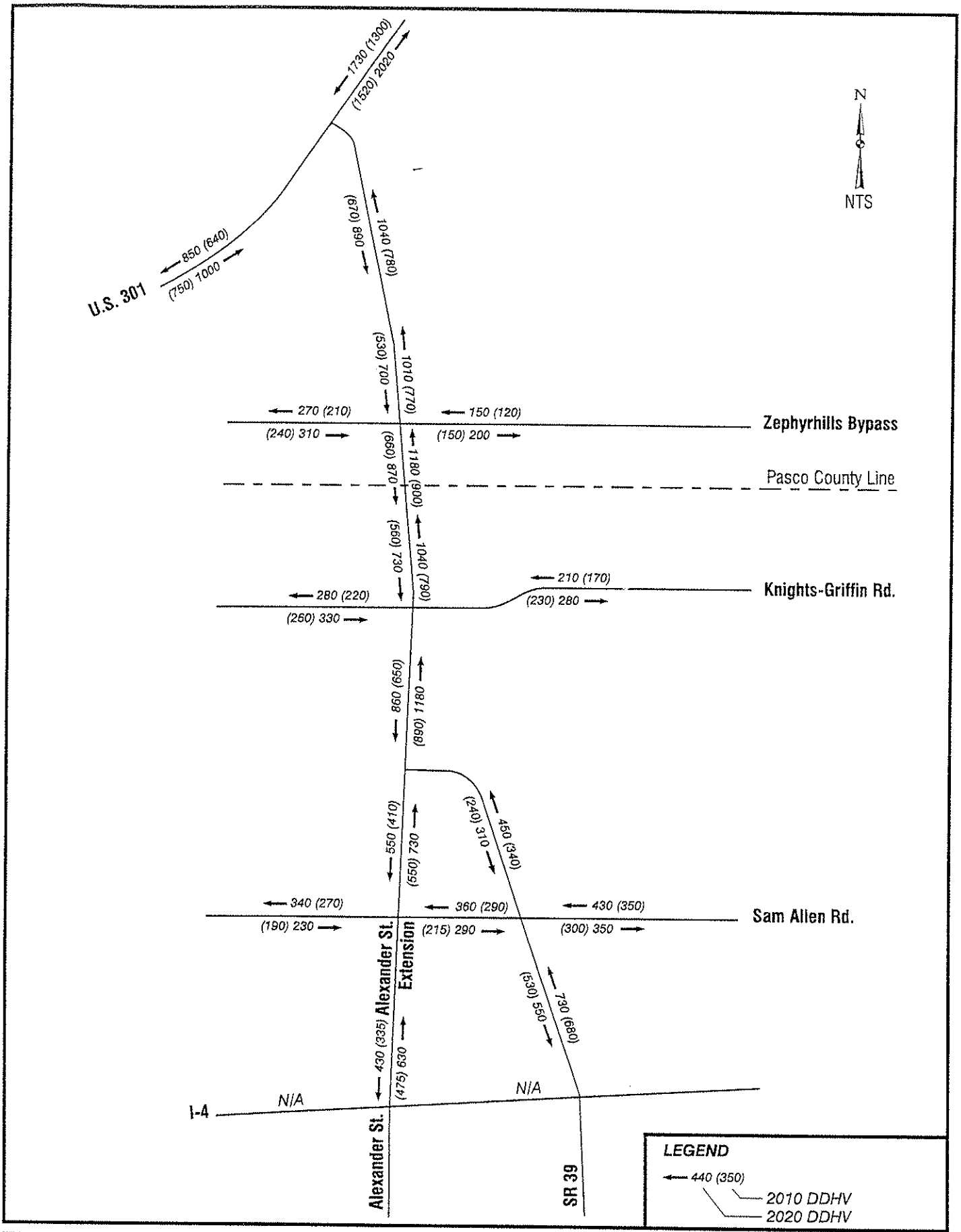
The HCS worksheets for the No-Build and Build analyses are contained in Appendix F and G, respectively. A copy of the capacity table used in the roadway segment capacity analyses is contained in Appendix G.



NO BUILD ALTERNATIVE
DIRECTIONAL DESIGN HOUR VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection
Analysis Technical Memorandum

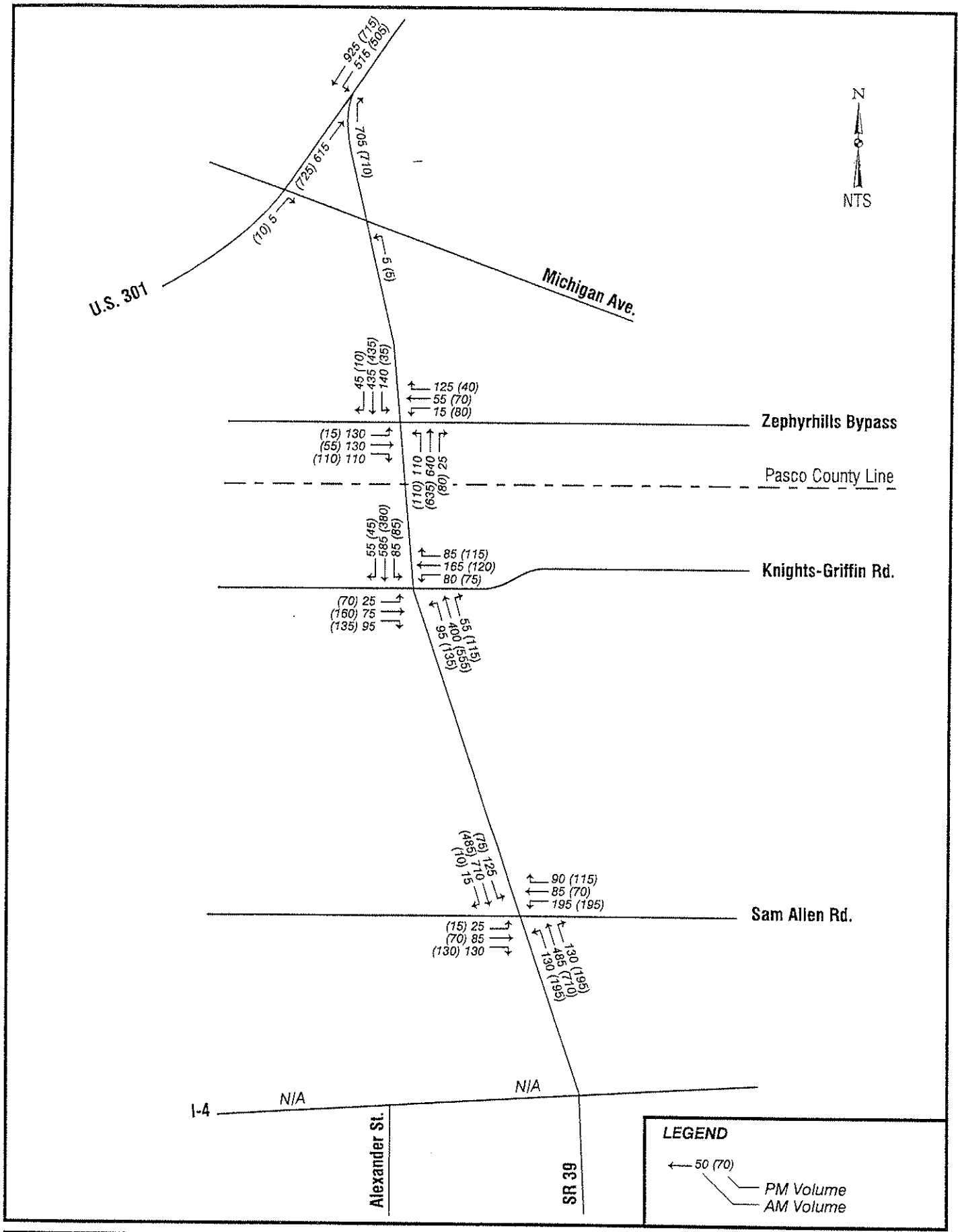
FIGURE
11



BUILD ALTERNATIVE
DIRECTIONAL DESIGN HOUR VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection
Analysis Technical Memorandum

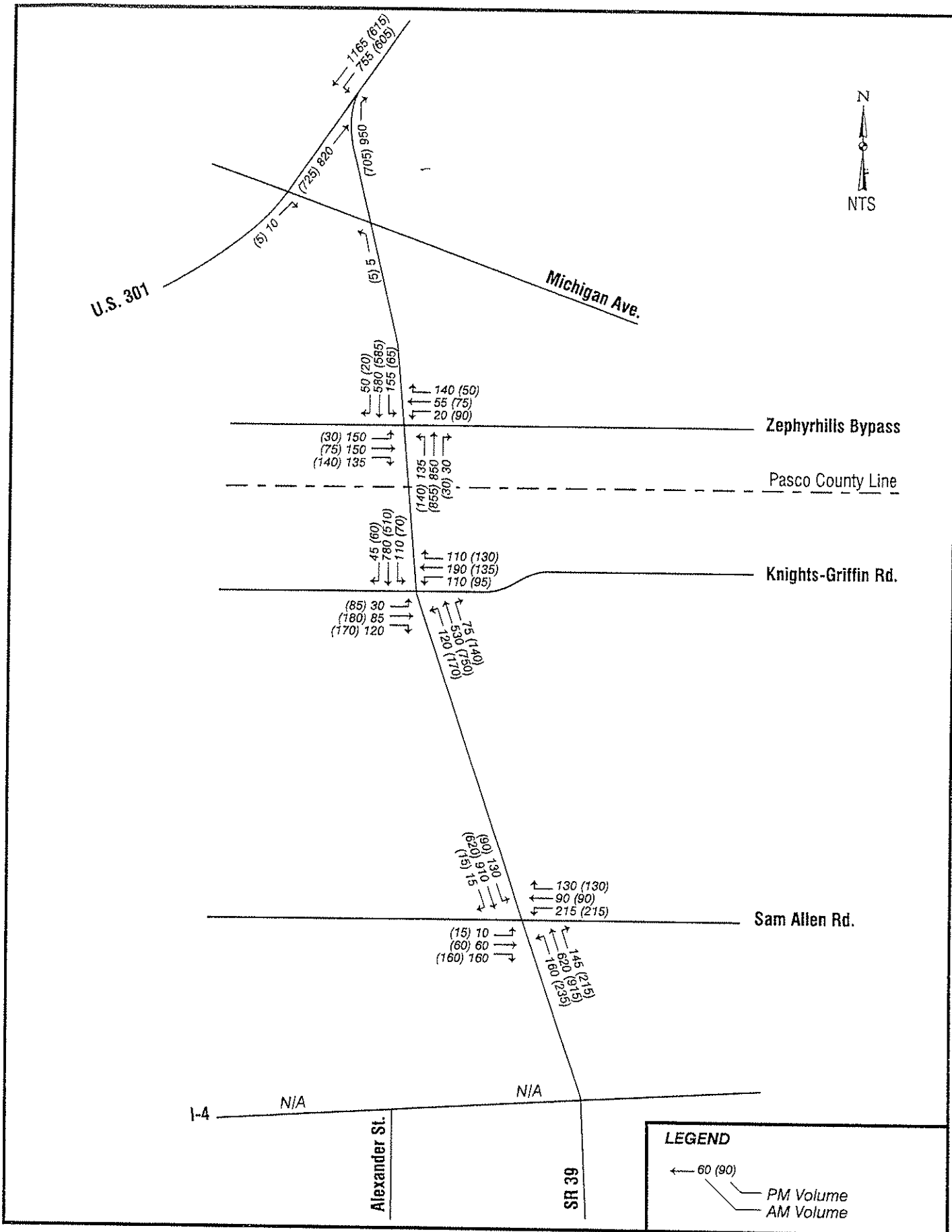
FIGURE
12



NO BUILD ALTERNATIVE
YEAR 2010 TURNING MOVEMENT VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

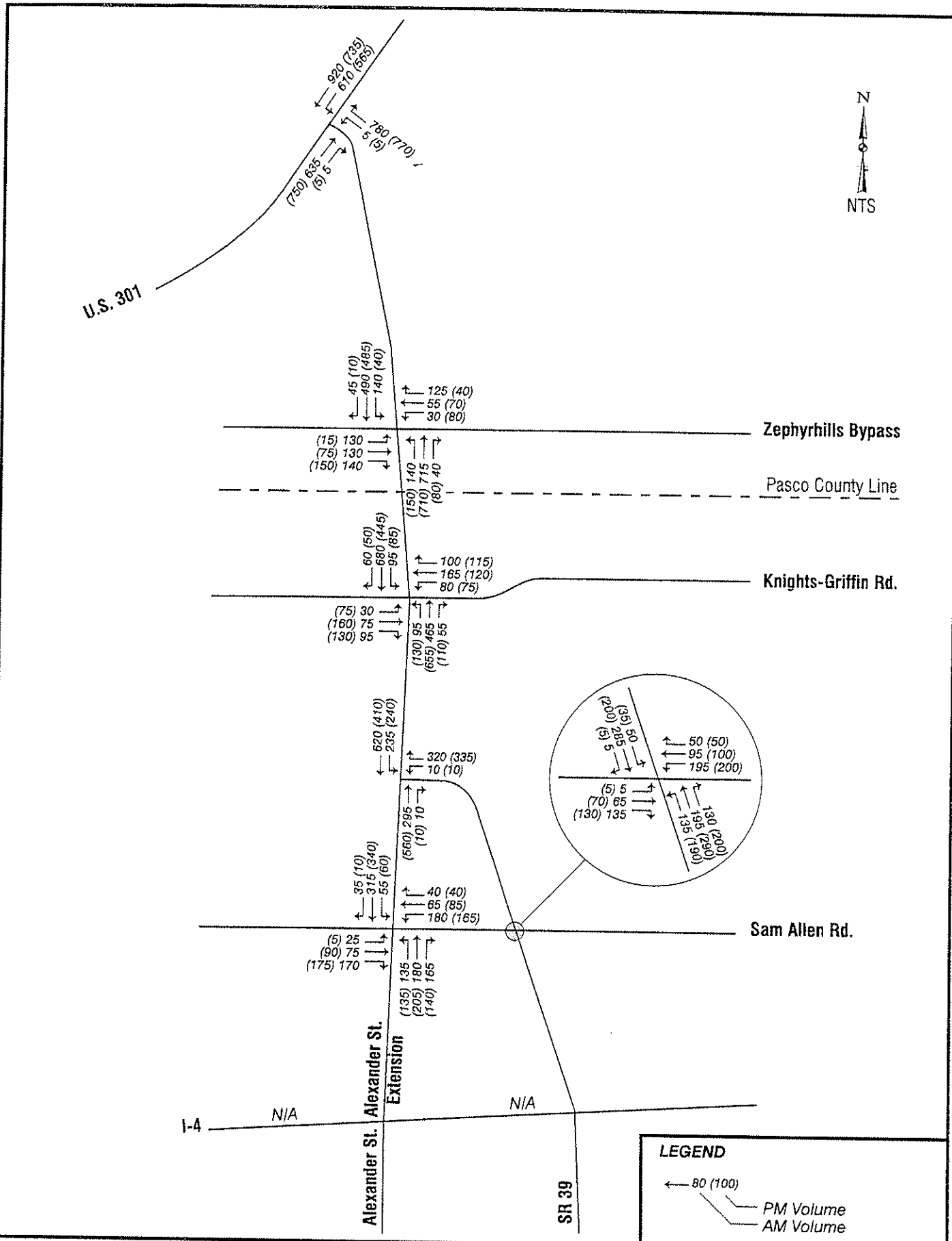
FIGURE 13



NO BUILD ALTERNATIVE
YEAR 2020 TURNING MOVEMENT VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

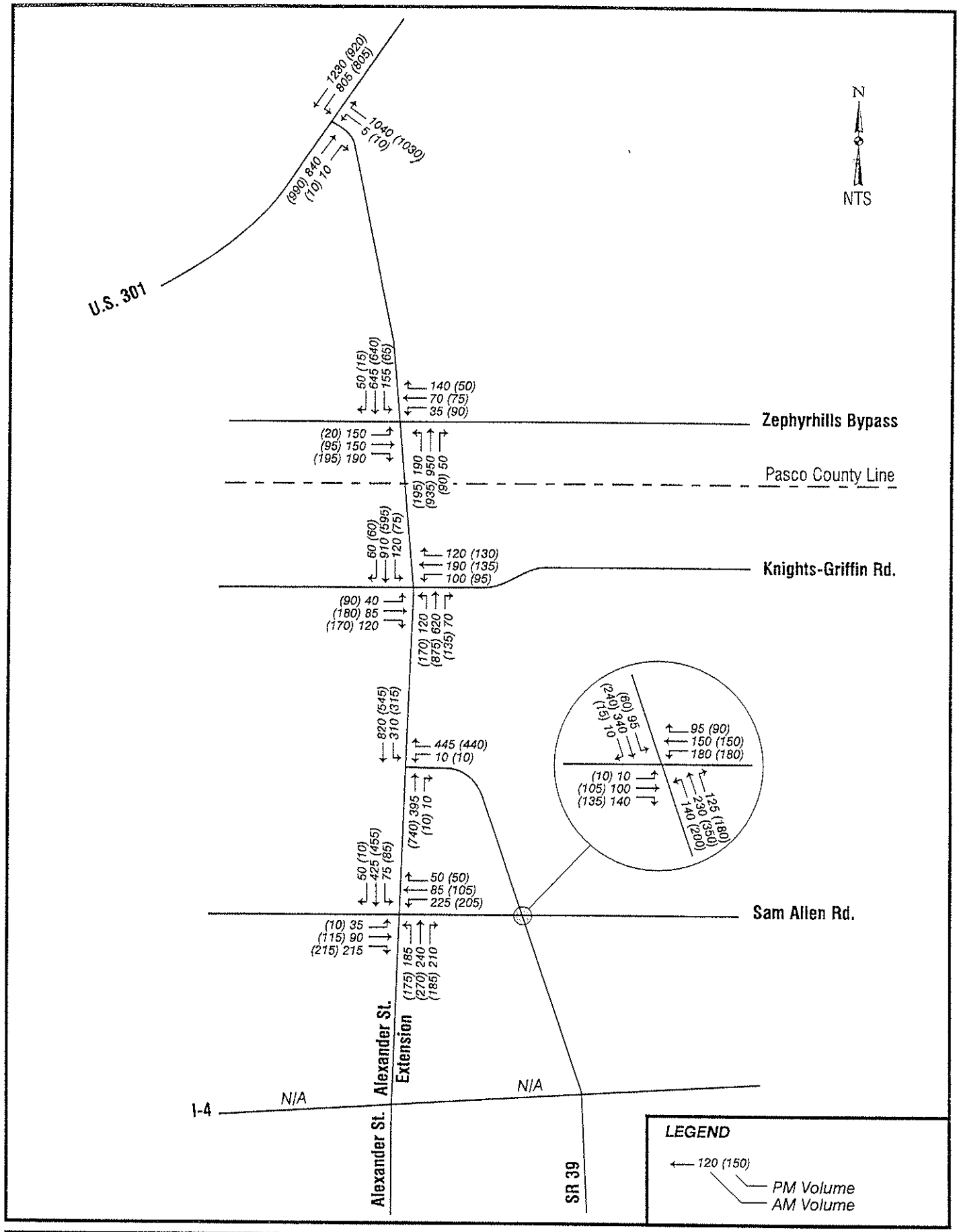
FIGURE 14



BUILD ALTERNATIVE
YEAR 2010 TURNING MOVEMENT VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 15



BUILD ALTERNATIVE
YEAR 2020 TURNING MOVEMENT VOLUMES

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 16

The results of the roadway segment LOS analysis for the years 2010 and 2020 for the No-Build alternative are summarized in Table 7 and are illustrated on Figure 17. The results of the roadway segment LOS analysis for the years 2010 and 2020 for the Build alternative are summarized in Table 8 and are illustrated on Figure 18.

The results of the intersection LOS analysis for the years 2010 and 2020 for the No-Build alternative are summarized in Table 9 and are illustrated on Figure 19. The results of the intersection LOS analysis for the years 2010 and 2020 for the Build alternative are summarized in Table 10 and are illustrated on Figure 20.

Intersection Queue Length Analysis

A queue length analysis was conducted for the Build alternative for the AM and PM peak hours in the years 2010 and 2020. The results of this analysis are summarized in Appendix H.

The analysis used the FDOT Plans Preparation Manual (PPM) formula for computing queue lengths and the intersection traffic volumes illustrated on Figures 15 and 16. A 90-second traffic signal cycle, or 40 cycles per hour, was assumed for this analysis.

CONCLUSIONS

The level of service analysis indicates that by the design year 2020 SR 39 will require a four-lane cross-section to maintain an acceptable level of service.

The analyses indicate that the intersection lane-use illustrated on Figure 8 should provide a good level of service through the year 2020, except at the intersection of SR 39 with US 301. The analyses indicate that by 2020, the south approach of SR 39 at US 301 will require exclusive dual right turn lanes in addition to a separate left turn lane. The intersection lane requirements to accommodate year 2020 AM and PM design hour traffic volumes is illustrated on Figure 21.

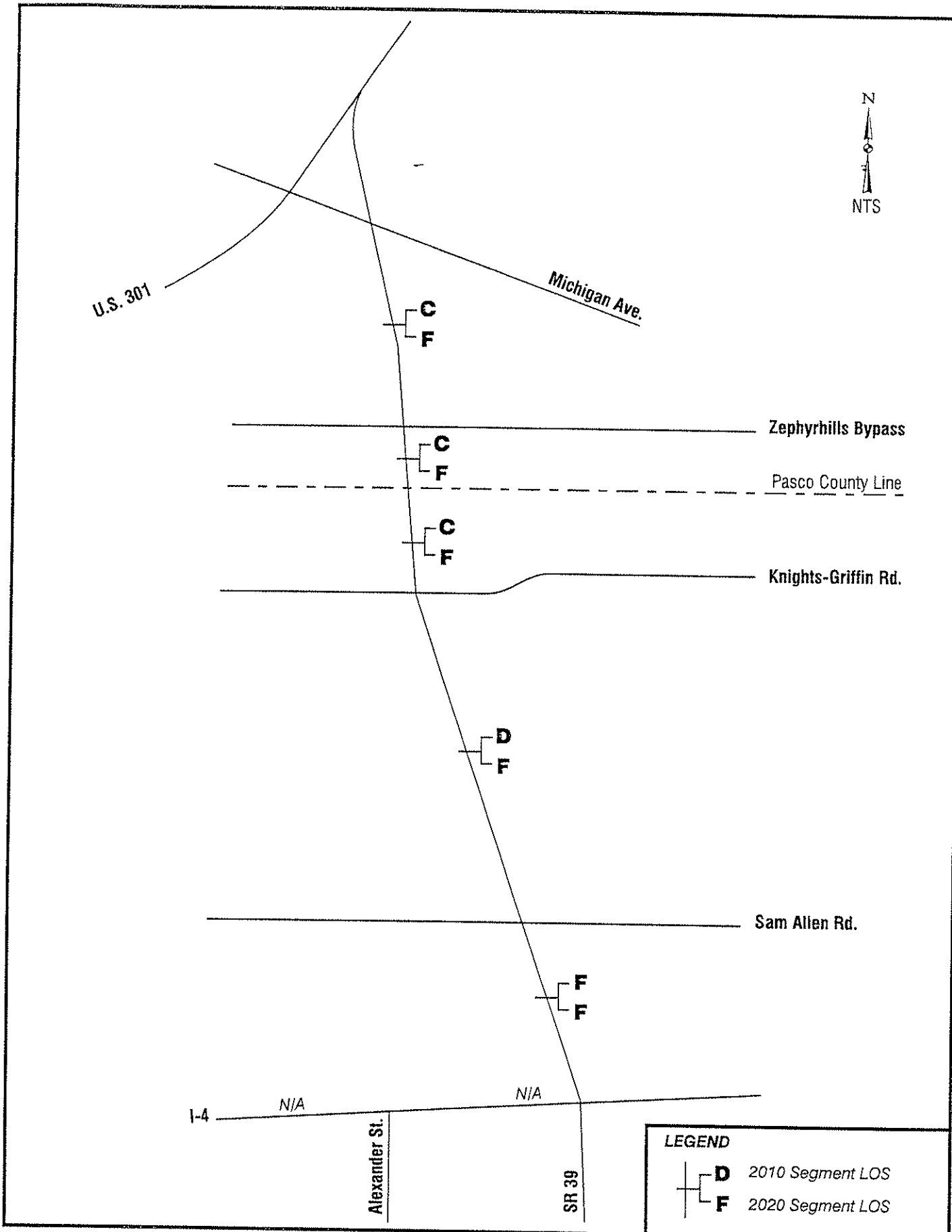
The crash analysis indicates that although SR 39, within the study limits, is operating within generally expected parameters with respect to the number and types of crashes, the number of injuries experienced is high, averaging approximately 1.5 injuries per crash. This high injury rate is probably due to the high speeds on SR 39 and the lack of access control common on two-lane highways. A four-lane median divided roadway on SR 39 should have a positive impact on the safety of traffic operations because it will provide increased control of access to the roadway and improved definition at the intersections on SR 39 within the study limits.

TABLE 7

RESULTS OF YEAR 2010 AND 2020 ROADWAY SEGMENT LOS ANALYSIS

NO-BUILD ALTERNATIVE

Road Segment	Number of Lanes	AADT Volume		Level of Service	
		2010	2020	2010	2020
SR 39					
I-4 to Sam Allen Road	2	19,200	24,000	F	F
Sam Allen Road to Knights-Griffin Road	2	14,200	18,800	D	F
Knights-Griffin Road to Pasco County Line	2	12,400	16,500	C	F
Pasco County Line to Zephyrhills Bypass	2	13,700	18,000	C	F
Zephyrhills Bypass to US 301	2	12,600	16,800	C	F



RESULTS OF YEAR 2010 AND 2020 ROADWAY SEGMENT LOS ANALYSIS - NO BUILD ALTERNATIVE

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

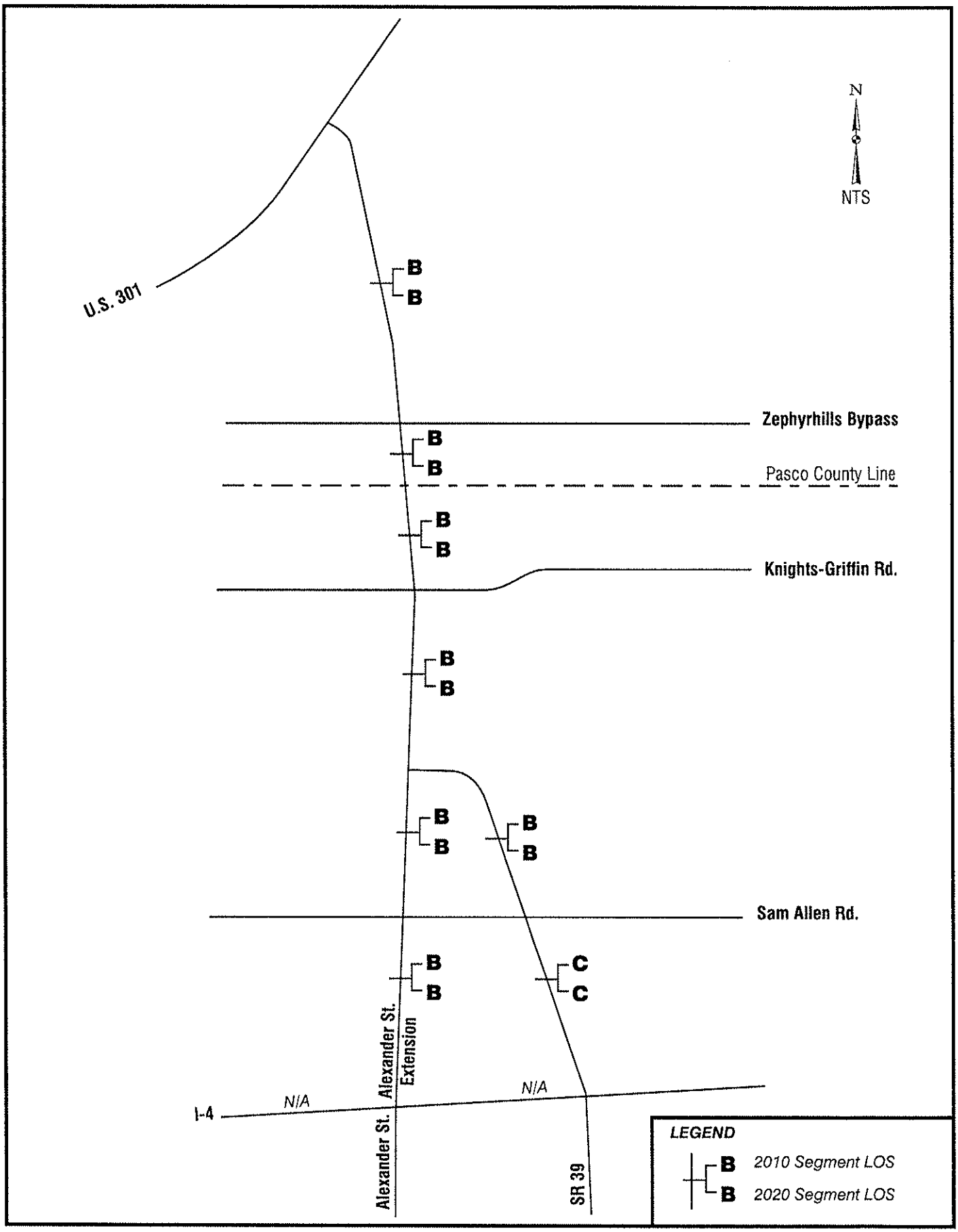
FIGURE 17

TABLE 8

RESULTS OF YEAR 2010 AND 2020 ROADWAY SEGMENT LOS ANALYSIS

BUILD ALTERNATIVE

Road Segment	Number of Lanes	AADT Volume		Level of Service	
		2010	2020	2010	2020
SR 39					
I-4 to Sam Allen Road	2	11,900	13,000	C	C
Sam Allen Road to Alexander St. Extension	2	6,000	8,000	B	B
Alexander St. Extension to Knights-Griffin Road	4	15,800	20,900	B	B
Knights-Griffin Road to Pasco County Line	4	14,300	19,000	B	B
Pasco County Line to Zephyrhills Bypass	4	15,800	21,000	B	B
Zephyrhills Bypass to US 301	4	13,900	18,400	B	B
Alexander Street Extension					
I-4 to Sam Allen Road	4	8,400	11,100	B	B
Sam Allen Road to SR 39	4	9,800	13,000	B	B



RESULTS OF YEAR 2010 AND 2020 ROADWAY SEGMENT LOS ANALYSIS - BUILD ALTERNATIVE

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 18

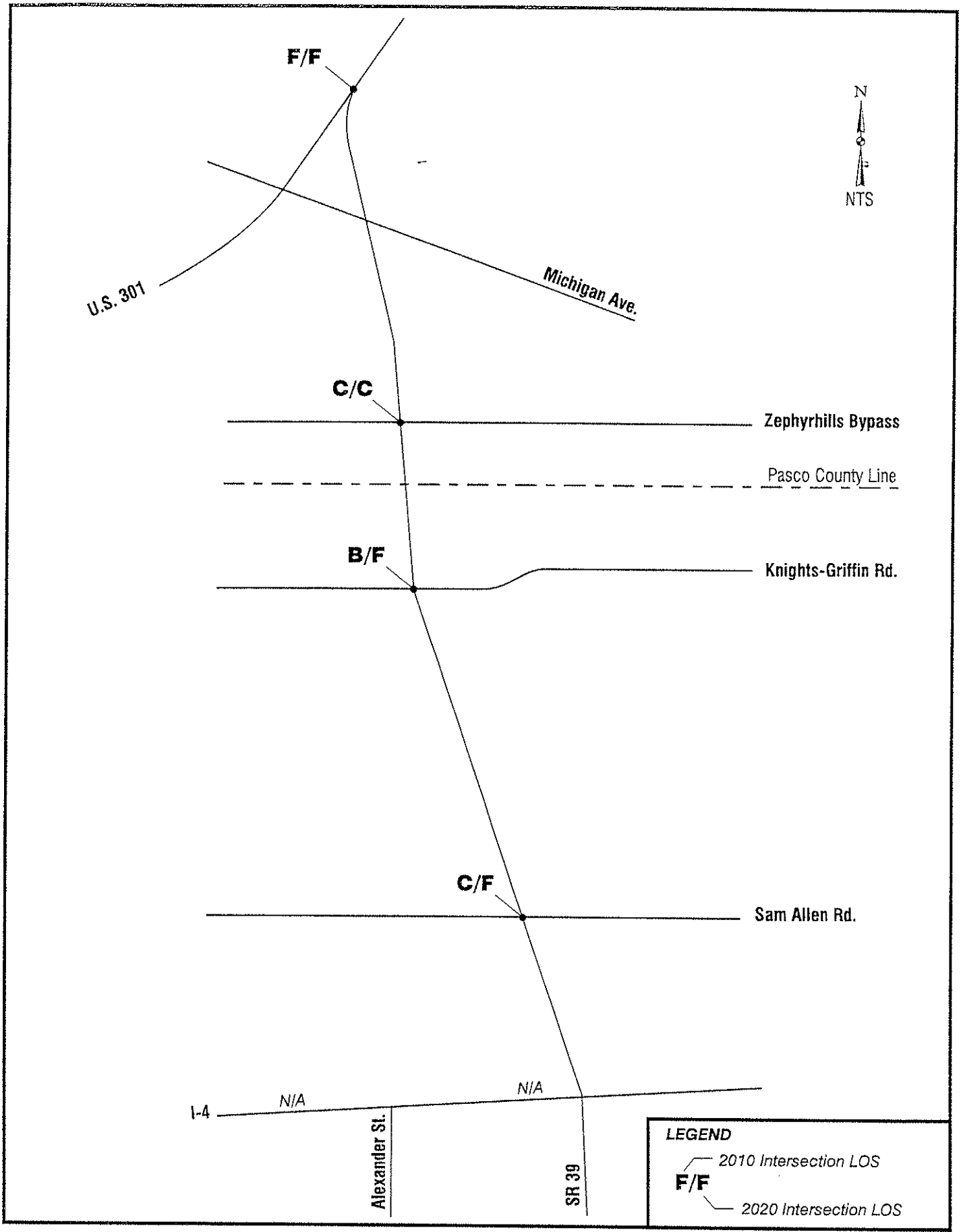
TABLE 9

RESULTS OF YEAR 2010 AND 2020 INTERSECTION LOS ANALYSIS
NO-BUILD ALTERNATIVE

Intersection		2010 Average Delay(Seconds)	2010 LOS	2020 Average Delay(Seconds)	2020 LOS
SR 39/Sam Allen Road	AM	22.0	C	*	F
	PM	19.2	C	*	F
SR 39/Knights-Griffth Road	AM	12.3	B	*	F
	PM	14.5	B	*	F
SR 39/Zephyrhills Bypass	AM	15.7	C	24.8	C
	PM	13.3	B	12.5	B
SR 39/US 301	AM	116.2	F	999.9	F
	PM	200.7	F	207.7	F

TABLE 10
RESULTS OF YEAR 2010 AND 2020 INTERSECTION LOS ANALYSIS
BUILD ALTERNATIVE

Intersection		2010 Average Delay(Seconds)	2010 LOS	2020 Average Delay(Seconds)	2020 LOS
SR 39/Sam Allen Road	AM	12.7	B	13.6	B
	PM	12.7	B	13.5	B
SR 39/Alexander Street Extension	AM	13.7	B	18.5	C
	PM	16.7	C	21.0	C
SR 39/Knights-Griffth Road	AM	13.9	B	16.3	C
	PM	15.2	C	20.0	C
SR 39/Zephyrhills Bypass	AM	8.4	B	16.3	C
	PM	7.4	B	16.2	C
SR 39/US 301	AM	17.7	C	14.3	B
	PM	18.6	C	15.8	C
Alexander St. Extension/ Sam Allen Road	AM	19.8	C	21.9	C
	PM	19.7	C	21.4	C



RESULTS OF YEAR 2010 AND 2020 INTERSECTION LOS ANALYSIS - NO BUILD ALTERNATIVE

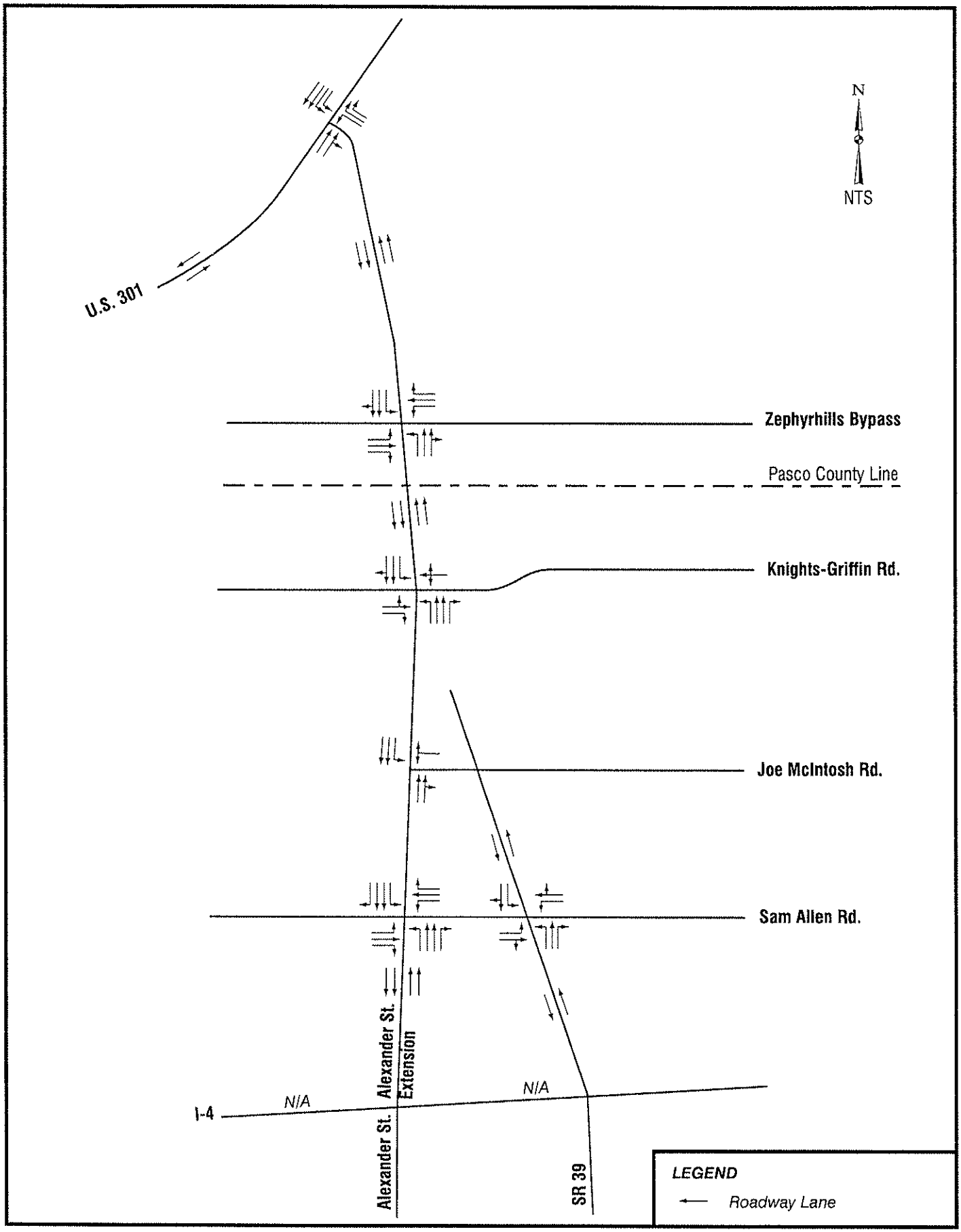
State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 19

RECOMMENDED IMPROVEMENTS

The level of service analysis indicates the need for a four-lane facility on the Alexander Street Extension - SR 39 alignment, from north of I-4 to US 301, to achieve level of Service C for projected year 2020 design hour traffic volumes.

Figure 21 identifies the number and type of lanes required at each of the six major intersections within the project to achieve level of Service C for projected year 2020 design hour traffic volumes.



YEAR 2020
LANE REQUIREMENTS

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 21

APPENDIX A

- 1996 AADT VOLUMES
- FORECASTED 2005 AND 2020 AADT VOLUMES
- DESIGN TRAFFIC DATA (K, D, T)

No Build SR 39

SR 39 2Lanes From	To	T %	1996 AADT	2005 AADT	2020 AADT
I-4	Sam Allen	16	12,400	16,800	24,000
Sam Allen	Knights-Griffin	16	9,400	11,900	18,800
Knights-Griffin	Pasco County L	14	8,000	10,400	16,500
Pasco County L	Zepherhill Bypas	10		11,500	18,000
Zepherhill Bypas	US 301	8		10,500	16,800
US 301	N of US 301	8	17,300	21,100	33,500

Build SR 39

SR 39 4 Lane N.of Ext From	To	T %	1996 AADT	2005 AADT	2020 AADT
I-4	Sam Allen	4	12,400	11,300	13,000
Sam Allen	Alexander Ext	4	9,400	5,000	8,000
Alexander Ext	Knights-Griffin	16	9,400	13,200	20,900
Knights-Griffin	Pasco County L	14	8,000	12,000	19,000
Pasco County L	Zepherhill Bypas	10		13,200	21,000
Zepherhill Bypas	US 301	8		11,600	18,400
US 301	N of US 301	8	17,300	22,400	35,500

No Build Side Streets

05/28/98

SR 39 2 Lane Side Streets	At	T %	1996 AADT	2005 AADT	2020 AADT
Sam allen	E of SR 39	6	4,000	5,400	7,700
	W of SR 39	6	3,100	4,200	6,000
Knights Griffin Rd	W of SR 39	6	3,000	4,100	5,800
	E of SR 39	6	2,900	3,900	5,600
Zepherhill Bypass	W of SR 39	4		2,600	4,200
	E of SR 39	4		1,900	3,000
US 301	W of SR 39	8	8,800	10,700	17,000

Build Side Streets

SR 39 4 Lane Side Streets	At	T %	1996 AADT	2005 AADT	2020 AADT
Sam allen	E of SR 39	6	4,000	5,400	7,700
	W of SR 39	6		4,600	6,800
	W of Alexan	6	3,100	4,200	6,000
Alexander Ext	S of SR 39	14		8,200	13,000
	S of Sam All	14		7,000	11,100
Knights Griffin Rd	W of SR 39	6	3,000	4,100	5,800
	E of SR 39	6	2,900	3,900	5,600
Zepherhill Bypass	W of SR 39	6		3,500	5,600
	E of SR 39	6		2,500	4,000
US 301	W of SR 39	8	8,800	11,000	17,400

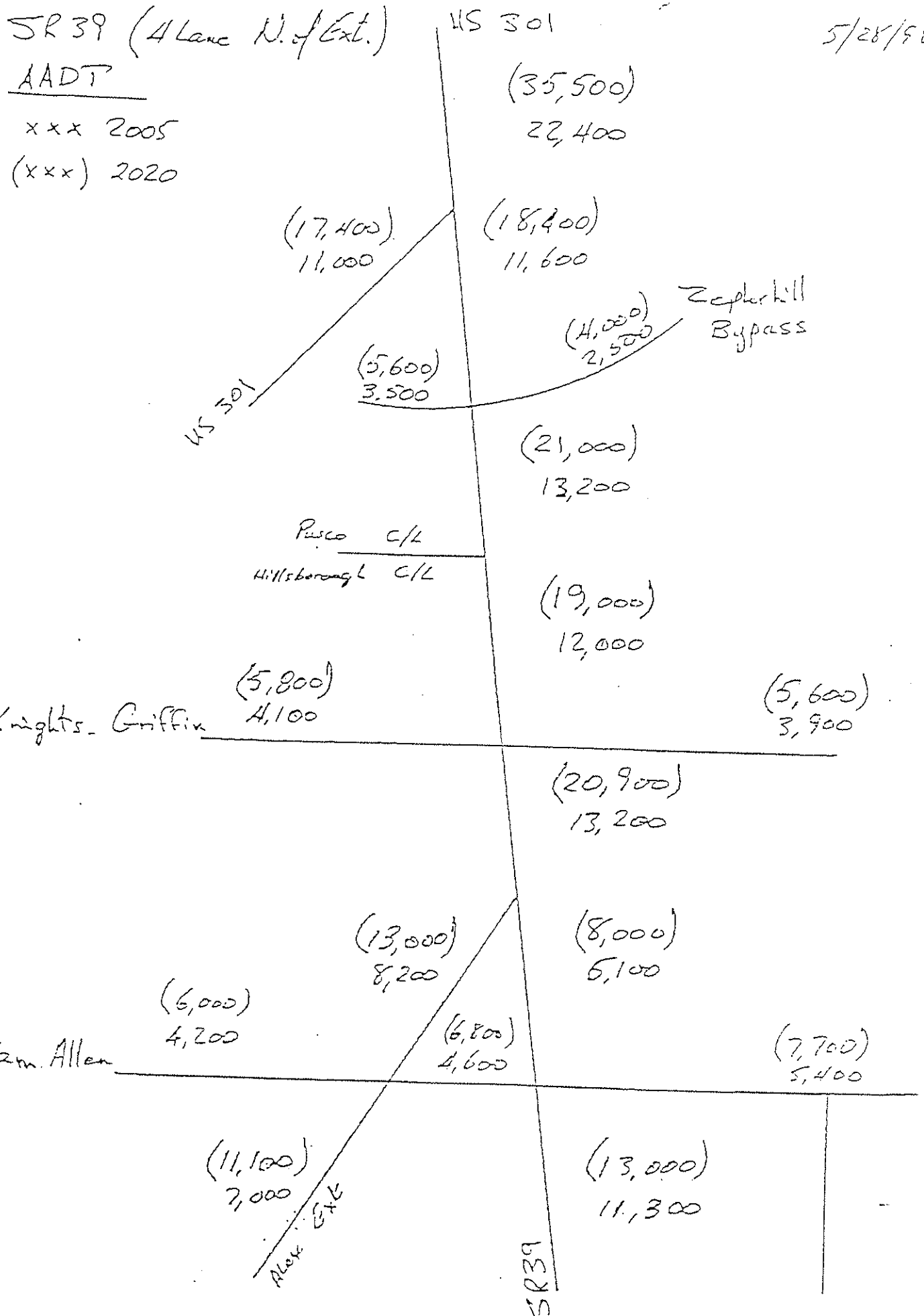
SR 39 (4 Lane N. of Ext.)

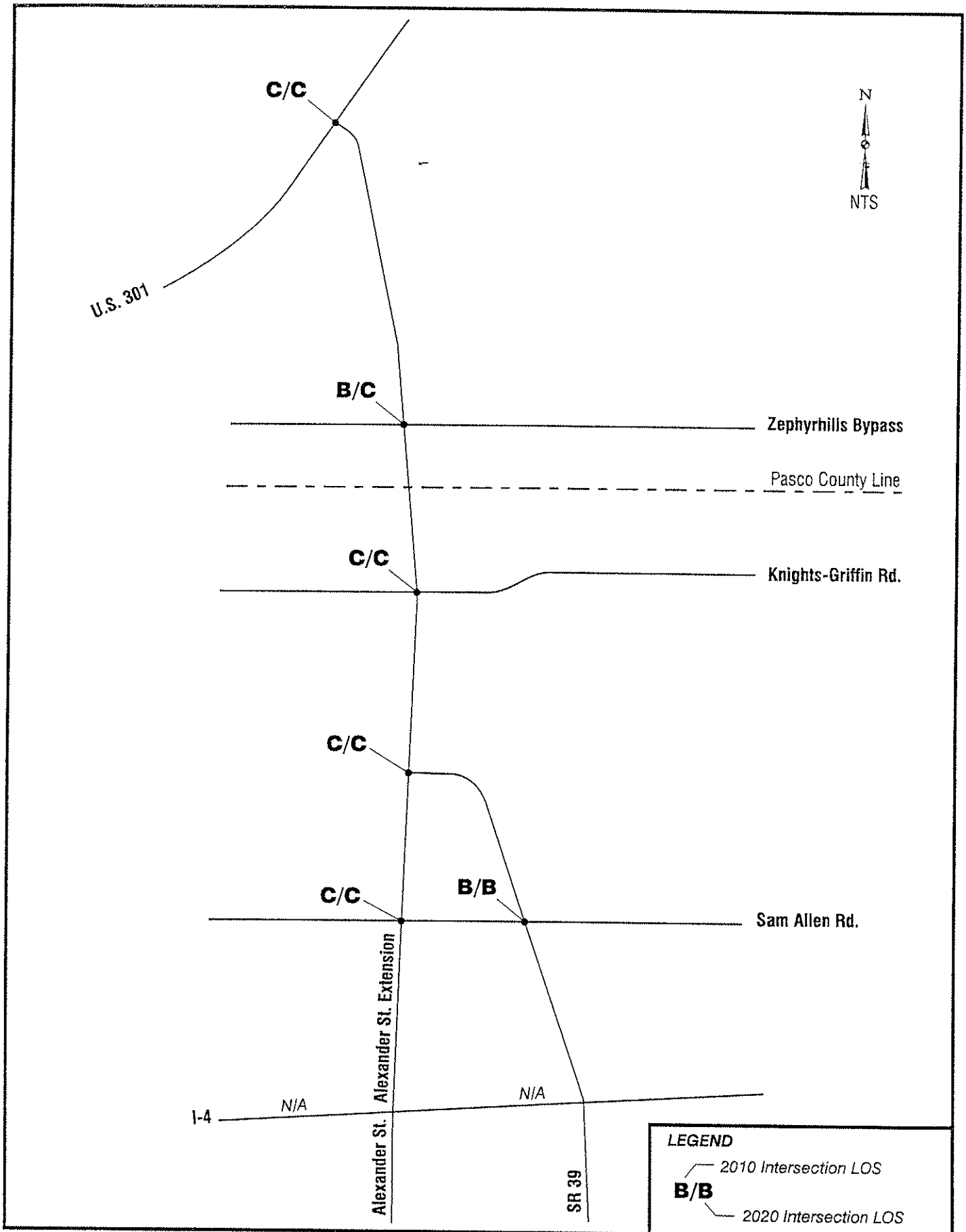
AADT

xxx 2005

(xxx) 2020

5/28/98

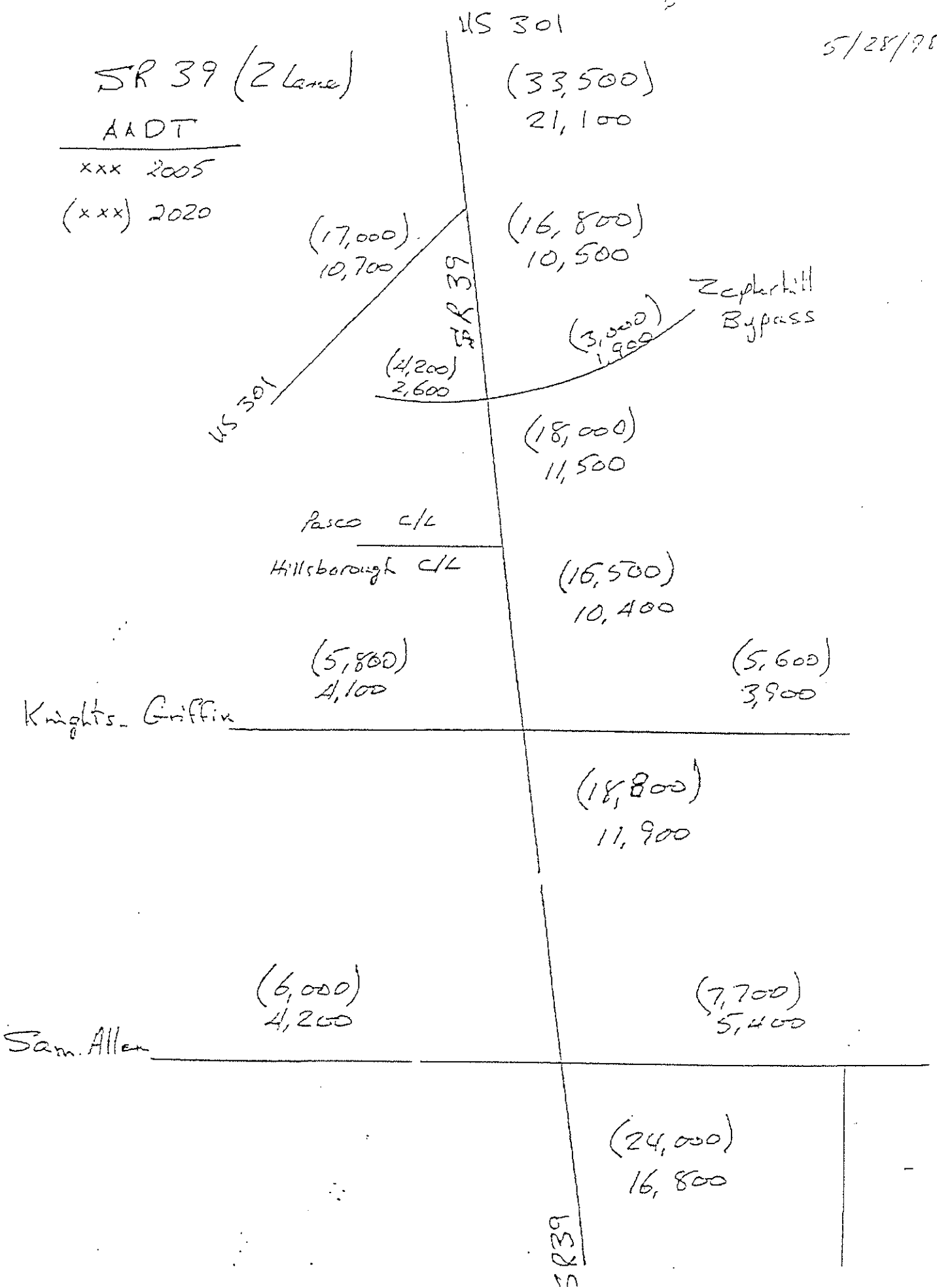




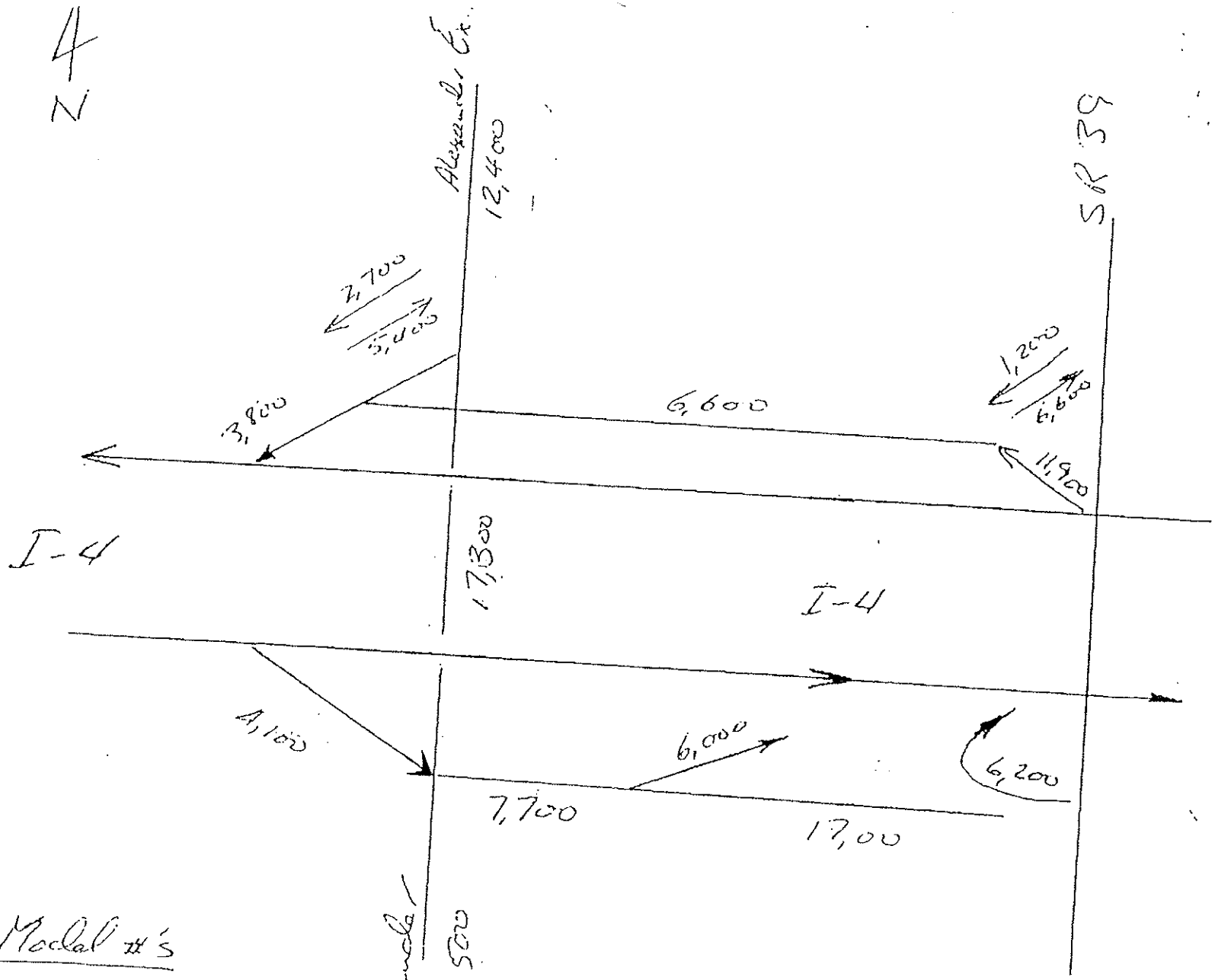
RESULTS OF YEAR 2010 AND 2020 INTERSECTION LOS ANALYSIS - BUILD ALTERNATIVE

State Road 39 PD&E Study
Project Traffic and Intersection Analysis Technical Memorandum

FIGURE 20


US 301
5/28/98
SR 39 (2 Lane)
AADT
xxx 2005
(xxx) 2020
(33,500)
21,100
(17,000)
10,700
(16,800)
10,500
SR 39
Zephyrhill
Bypass
(3,000)
1,900
(4,200)
2,600
US 301
(18,000)
11,500
Pasco C/L
Hillsborough C/L
(16,500)
10,400
(5,800)
4,100
(5,600)
3,900
Knights Griffin
(18,800)
11,900
(6,000)
4,200
(7,700)
5,400
Sam Allen
(24,000)
16,800
SR 39

813 975 6443



RAW Modal #'s

XXX 2020

6/12/98

Post-it® Fax Note 7671

To John Wright	Date 6/12 # of pages 1
Co./Dept. P.S	From FAMZI BITAR
Phone #	Co. FDOT
Fax # 289-4405	Phone #
	Fax #

APPENDIX B

INTERSECTION TURNING MOVEMENT COUNT SUMMARY SHEETS

Weather : PC.CLOUDY
Counter :
GEORGE R HILL
SEE SEPERATE TRUCK/BUS MOVEMENT SHTS.

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Site Code : 000141
Start Date: 09/21/
File I.D. : 301eSR
Page : 1

Vehicle group 1

	US 301 Southbound				SR 39 Westbound				US 301 Northbound				SR 39 Eastbound				
Date 09/21/98	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
06:00	47	84	0	0	0	29	0	0	0	10	0	0	0	0	0	0	17
06:15	62	100	0	0	0	21	0	0	0	32	0	0	0	0	0	0	215
06:30	60	75	0	0	0	36	0	0	0	17	0	0	0	0	0	0	18
06:45	68	100	0	0	0	32	0	0	0	36	0	0	0	0	0	0	23
Hr Total	237	359	0	0	0	118	0	0	0	95	0	0	0	0	0	0	809
07:00	41	94	0	0	0	34	0	0	0	52	0	0	0	0	0	0	22
07:15	40	149	0	0	0	51	0	0	0	46	0	0	0	0	0	0	28
07:30	61	96	0	0	0	39	0	0	0	57	0	0	0	0	0	0	253
07:45	32	61	0	0	0	48	0	0	0	58	0	0	0	0	0	0	19
Hr Total	174	400	0	0	0	172	0	0	0	213	0	0	0	0	0	0	95
08:00	41	59	0	0	0	32	0	0	0	50	0	0	0	0	0	0	18
08:15	45	58	0	0	0	47	0	0	0	52	0	0	0	0	0	0	20
08:30	40	53	0	0	0	47	0	0	0	44	0	0	0	0	0	0	184
08:45	30	66	0	0	0	47	0	0	0	54	0	0	0	0	0	0	197
Hr Total	156	236	0	0	0	173	0	0	0	200	0	0	0	0	0	0	765
--------- * BREAK * ---------																	
11:00	39	51	0	0	0	32	0	0	0	53	0	0	0	0	0	0	175
11:15	50	68	0	0	0	50	0	0	0	51	0	0	0	0	0	0	219
11:30	28	58	0	0	0	52	0	0	0	64	0	0	0	0	0	0	202
11:45	52	50	0	0	0	55	1	0	0	62	0	0	0	0	0	0	220
Hr Total	169	227	0	0	0	189	1	0	0	230	0	0	0	0	0	0	816
12:00	46	74	0	0	0	56	0	0	0	55	0	0	0	0	0	0	231
12:15	54	63	0	0	0	47	0	0	0	46	0	0	0	0	0	0	210
12:30	56	66	0	0	0	38	0	0	0	57	0	0	0	0	0	0	217
12:45	45	62	0	0	0	50	0	0	0	53	0	0	0	0	0	0	210
Hr Total	201	265	0	0	0	191	0	0	0	211	0	0	0	0	0	0	868
--------- * BREAK * ---------																	
5:00	47	67	0	0	0	49	0	0	0	75	0	0	0	0	0	0	238
5:15	55	80	0	0	0	53	0	0	0	69	0	0	0	0	0	0	257
5:30	65	62	0	0	0	78	0	0	0	86	0	0	0	0	0	0	291
5:45	55	58	0	0	0	61	2	0	0	79	0	0	0	0	0	0	255
Total	222	267	0	0	0	241	2	0	0	309	0	0	0	0	0	0	1041
:00	43	66	0	0	0	57	0	0	0	102	0	0	0	0	0	0	268
:15	60	85	0	0	0	65	0	0	0	98	0	0	0	0	0	0	308
:30	39	64	0	0	0	56	0	0	0	95	0	0	0	0	0	0	254
:45	56	76	0	0	0	50	0	0	0	103	0	0	0	0	0	0	285
Total	198	291	0	0	0	228	0	0	0	398	0	0	0	0	0	0	1115

Weather :pt.CLOUDY
Counter :
GEORGE R HILL
SEE SEPERATE TRUCK/BUS MOVEMENT SHTS.

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Site Code : 00014110
Start Date: 09/21/98
File I.D. : 301@SR39
Page : 2

Vehicle group 1

	US 301 Southbound				SR 39 Westbound				US 301 Northbound				SR 39 Eastbound				
Date 09/21/98	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
17:00	54	73	0	0	0	60	0	0	0	114	0	0	0	0	0	0	301
17:15	61	69	0	0	0	84	0	0	0	105	0	0	0	0	0	0	319
17:30	63	62	0	0	0	64	0	0	0	111	0	0	0	0	0	0	300
17:45	62	68	0	0	0	60	0	0	0	133	0	0	0	0	0	0	323
Hr Total	240	272	0	0	0	268	0	0	0	463	0	0	0	0	0	0	1243
TOTAL	1597	2317	0	0	0	1580	3	0	0	2119	0	0	0	0	0	0	7616

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

SHT 1 OF 8

LOCATION I.D. NS US 301 EW SR39

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-21-98 TIME: FROM 6:00 TO 7:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

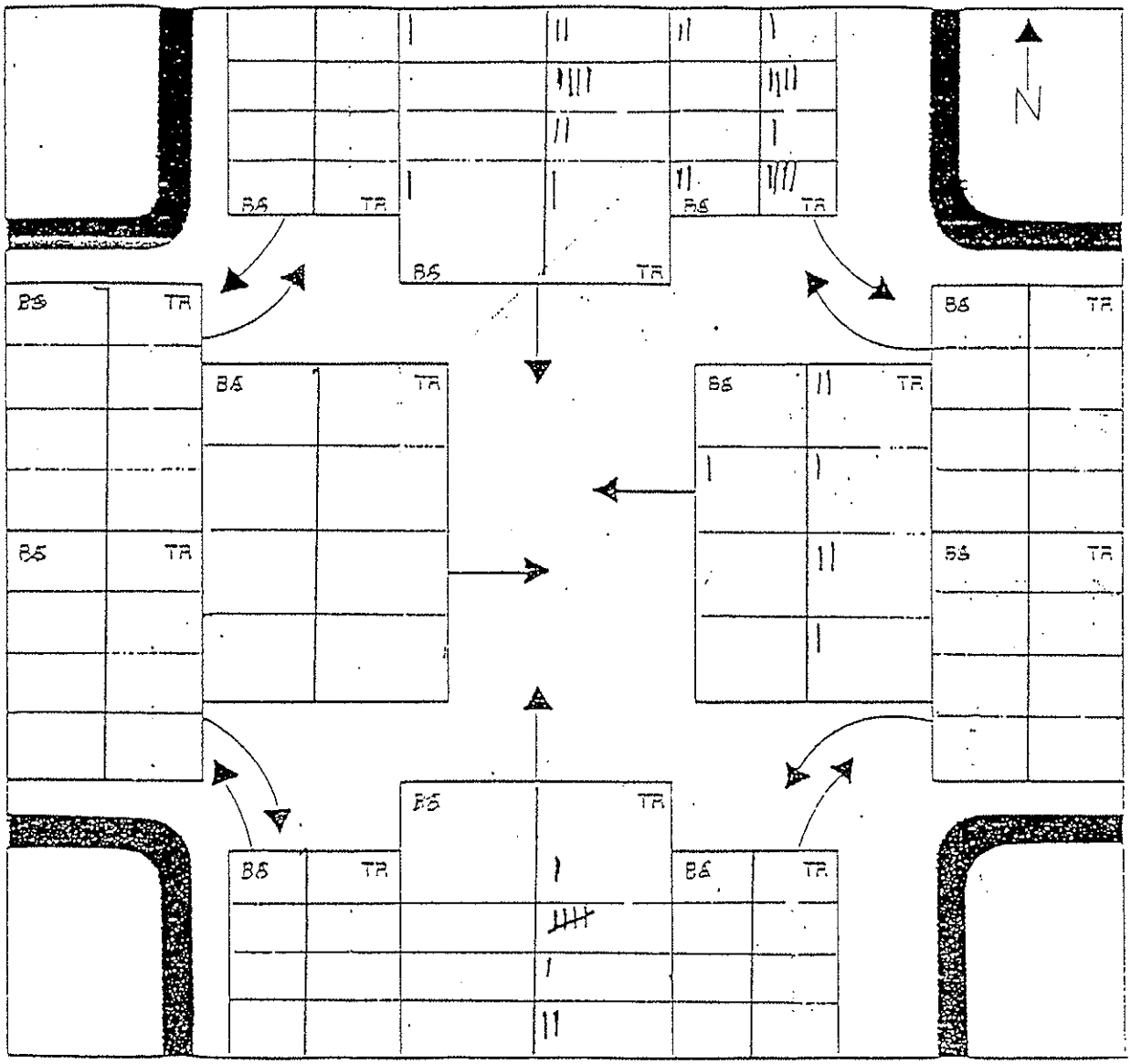


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 2 of 2

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US301 EW SR 39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME: FROM 7:00 TO 8:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

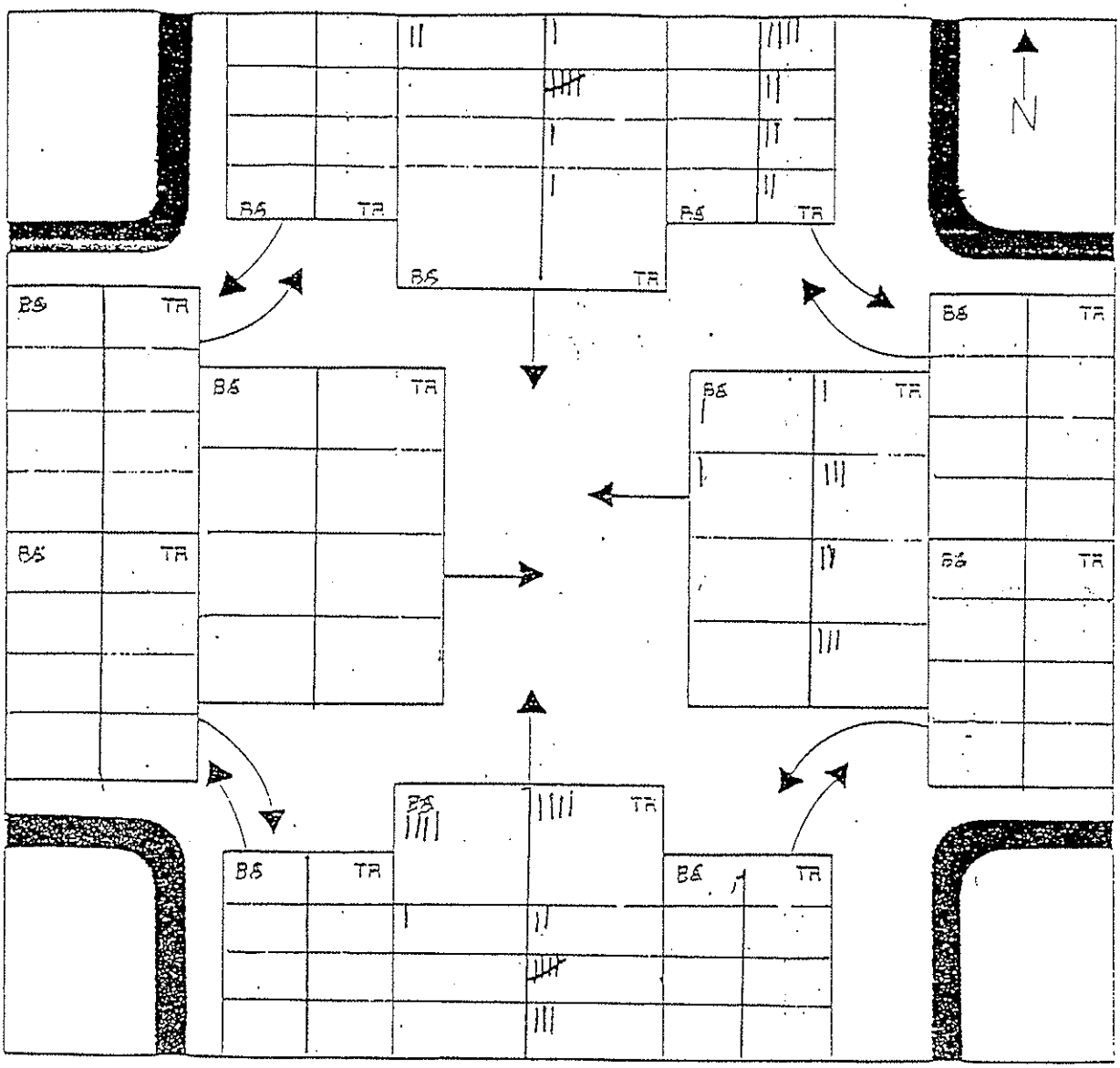


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 3 OF 3

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US301 EW SR39

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-21-98 TIME: FROM 8:00 TO 9:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

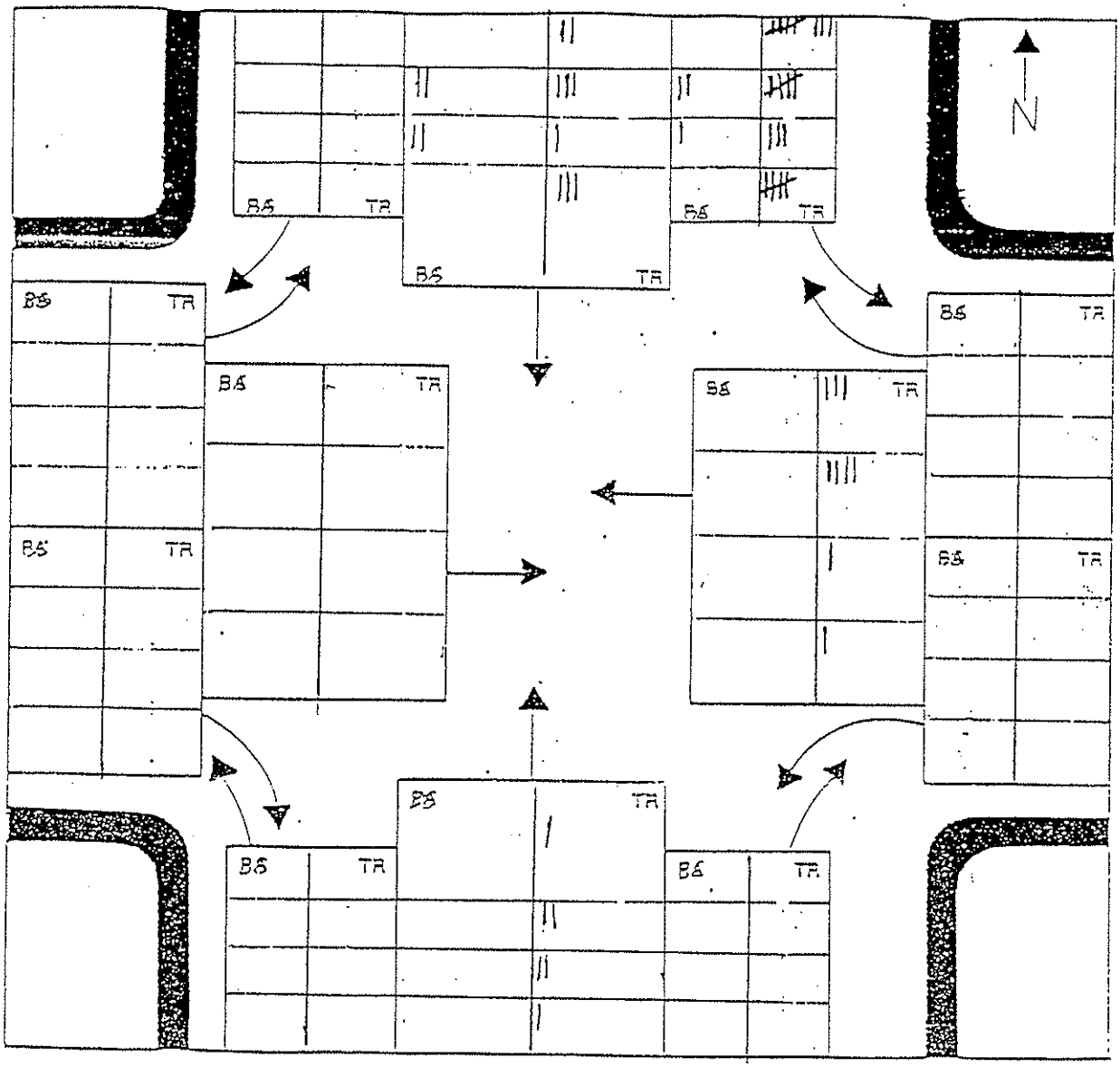


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT. 4 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US301 EW SR39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME: FROM 11:00 TO 12:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

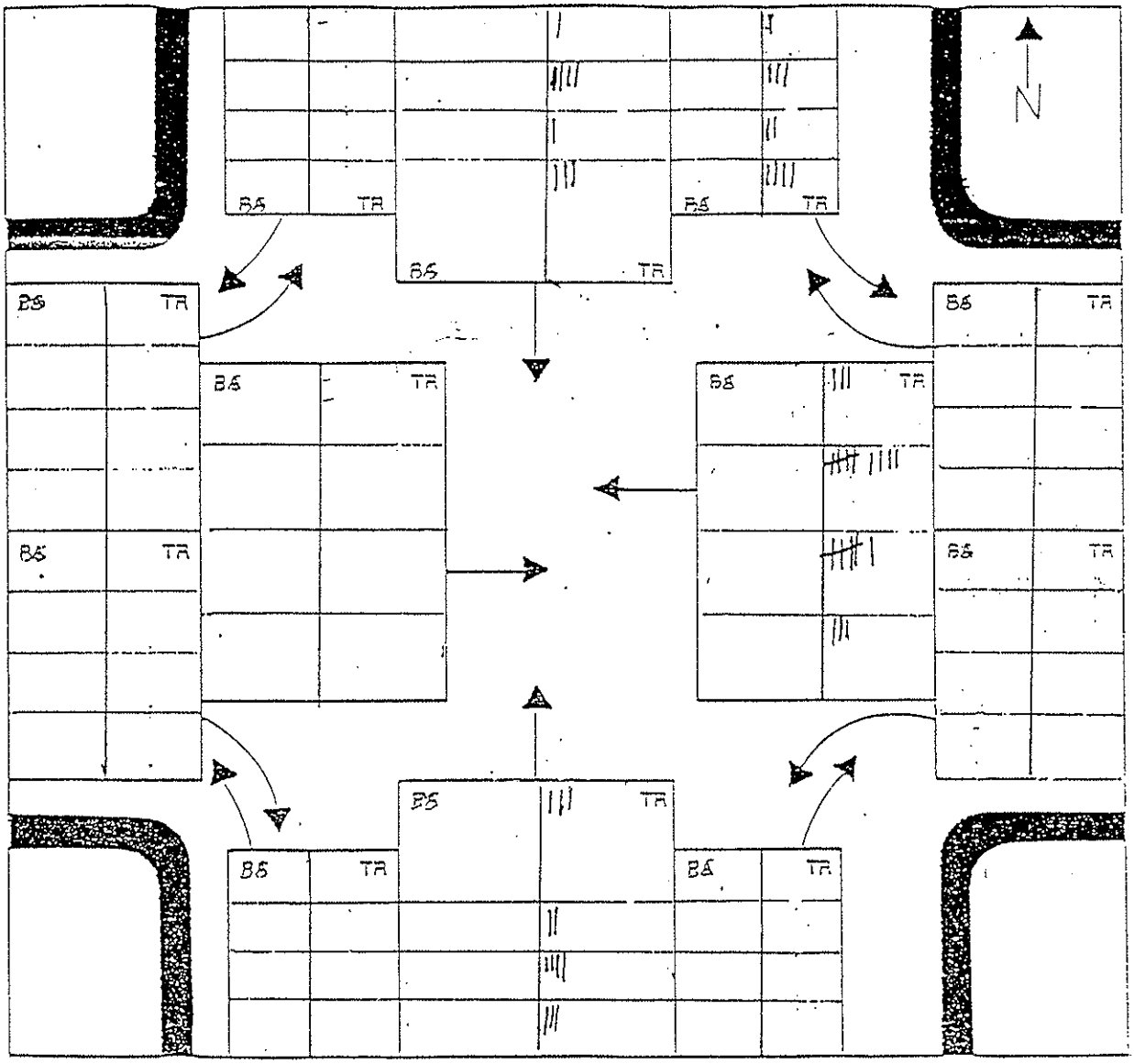


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

SHT. 5 OF 9

LOCATION I.D. NS US301 EW SR39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME: FROM 12:00 TO 13:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

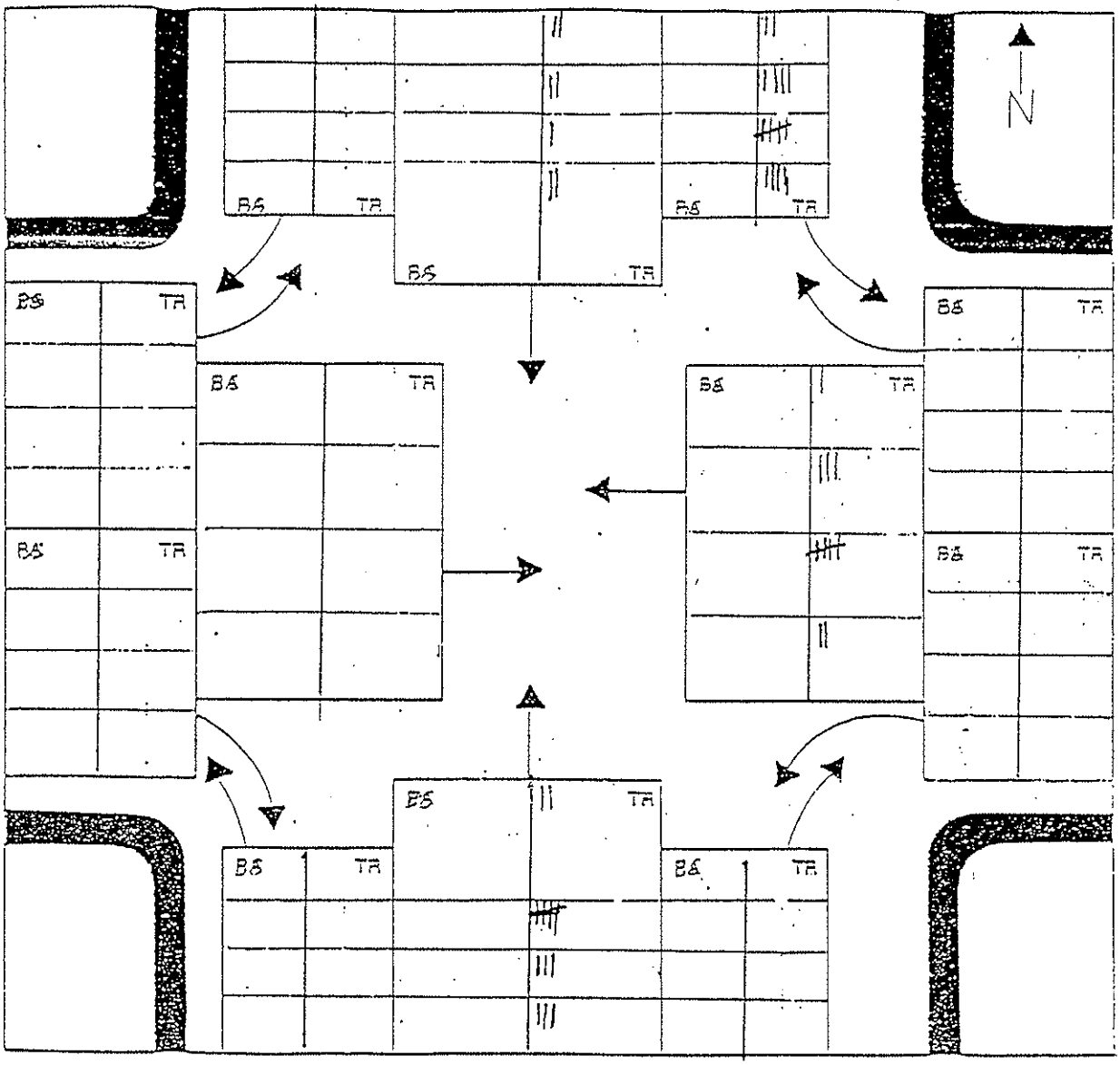


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US301 EW SR39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME: FROM 1500 TO 1600

OBSERVER GEORGE R HILL WEATHER

REMARKS

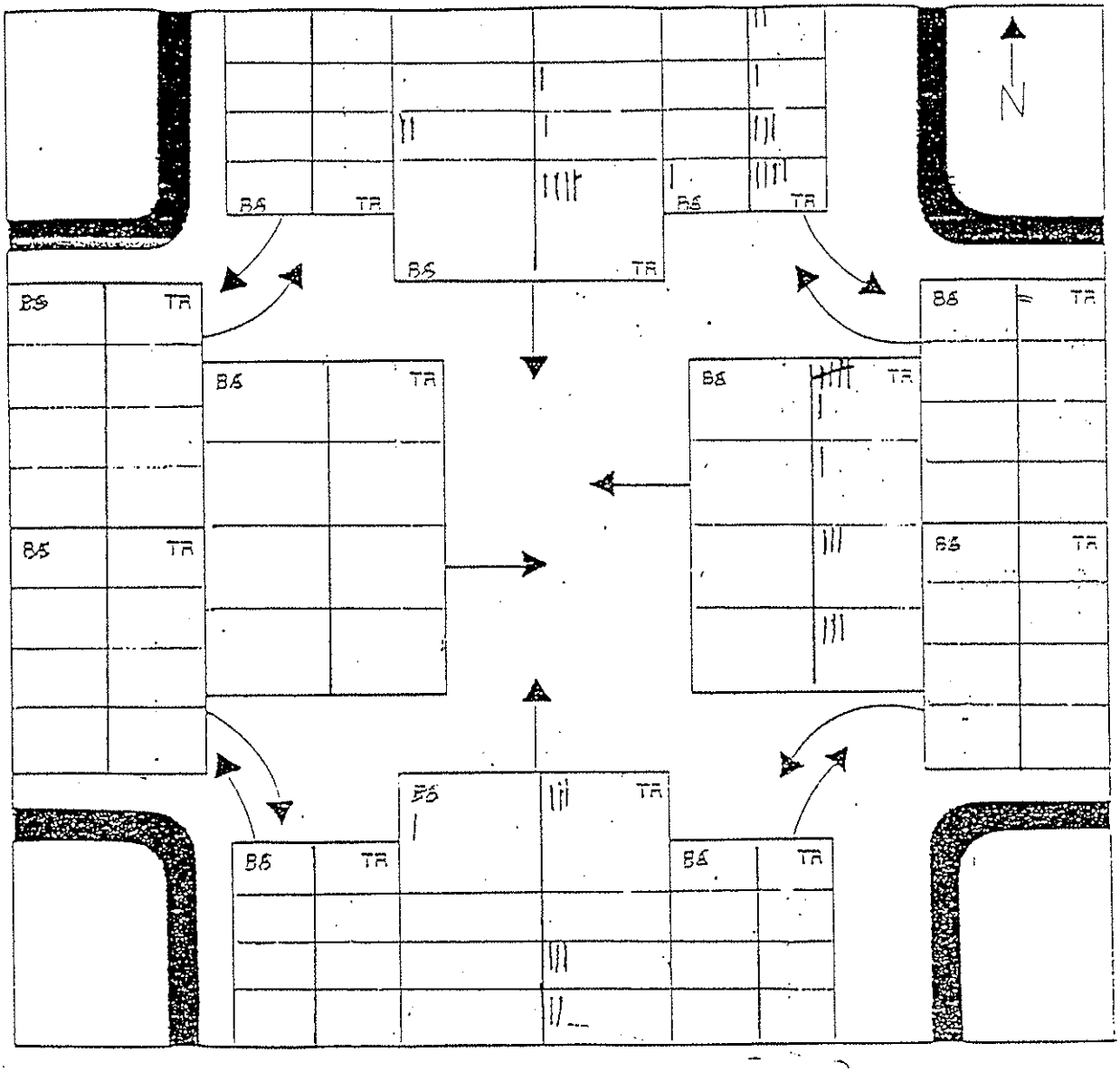


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT. 7 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS 45301 EW SR39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME: FROM 16:00 TO 1700

OBSERVER GEORGE R HILL WEATHER

REMARKS

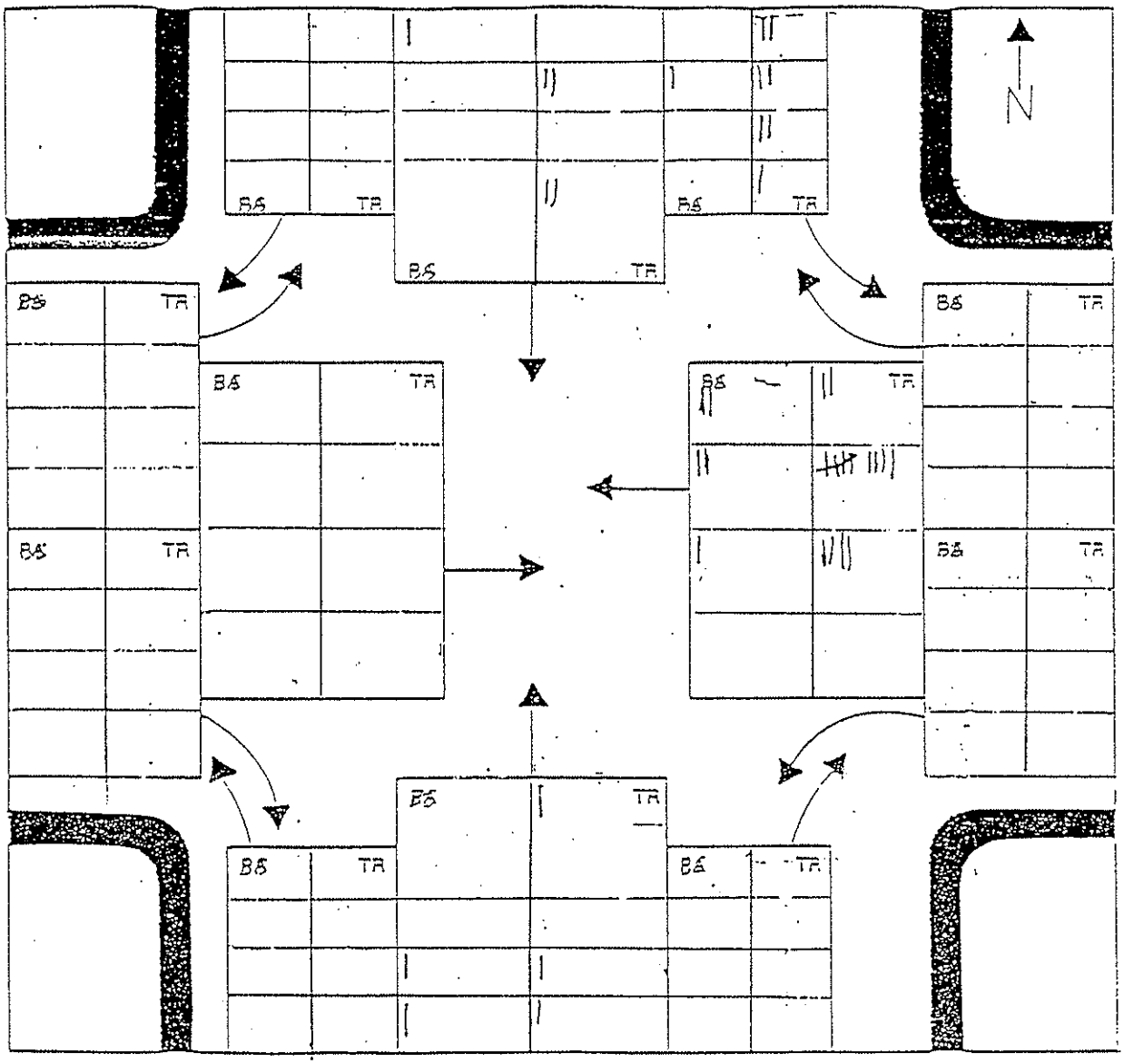


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 8 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US301 EW SR39

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-21-98 TIME FROM 1700 TO 1800

OBSERVER GEORGE R HILL WEATHER

REMARKS

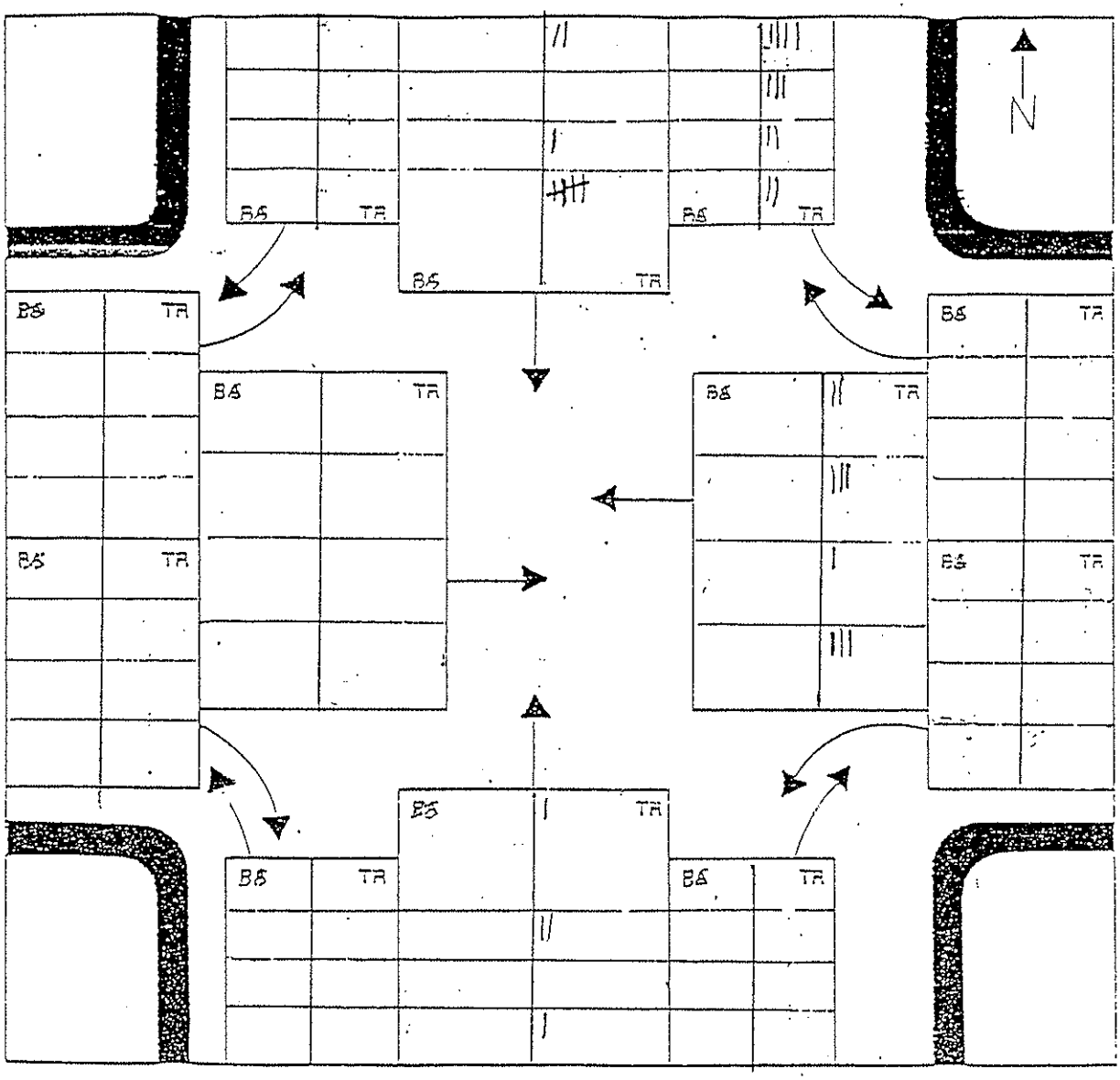


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR39 @ US 301

COUNTY PASCO CITY Z-Hills TYPE OF CONTROL

STUDY DATE 9-21-98 TIME: FROM 6:00 (AM) PM TO 12:00 AM (PM) OBSERVER GRH

REMARKS PEDESTRIAN & BIKE COUNTS

TIME PERIODS

	6–7	7–8	8–9	11–12
P	0	0	0	0
	0			0
B	0	0	0	0
	0	0	0	0

DISTANCE ___ FT. RAISED MEDIAN ☐ YES ☐ NO

TOTALS

	6–7	7–8	8–9	11–12
P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

P	0	0	0	0
	0	0	0	0
B	0	1	1	0
	0	1	1	0

DISTANCE ___ FT. RAISED MEDIAN ☐ YES ☐ NO

TOTALS

	0	1	1	0
	0	1	1	0
	0	0	0	0
	0	0	0	0

DISTANCE ___ FT. RAISED MEDIAN ☐ YES ☐ NO

N

SR 39 STREET

US 301 STREET

P	0	0	0	1
	0	0	0	1
B	0	0	1	0
	0	0	1	0

TOTALS

	0	0	0	0
			0	0
	0	0	0	0
	0	0	0	0

P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

DISTANCE ___ FT. RAISED MEDIAN ☐ YES ☐ NO

TOTALS

	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR 39 @ US 301

COUNTY PASCO CITY Z-HILLS TYPE OF CONTROL

STUDY DATE 9-21-98 TIME: FROM 12:00 AM (PM) TO 6:00 AM (PM) OBSERVER GRH

REMARKS PEDESTRIAN & BIKE COUNTS

TIME PERIODS

	12–1	3–4	4–5	5–6
P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

DISTANCE ____ FT.
RAISED MEDIAN ☐ NO ☐ YES
TOTALS

	12–1	3–4	4–5	5–6
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

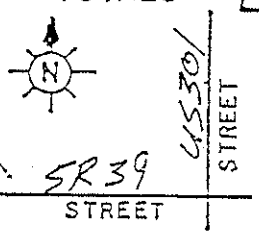
P	11	0	6	0
	2	0	6	0
B	0	0	11	1
	0	0	2	1

DISTANCE ____ FT.
RAISED MEDIAN ☐ YES ☐ NO

TOTALS

0	1	0	0
0	1	0	0
0	0	0	1
0	0	6	1

DISTANCE ____ FT.
RAISED MEDIAN ☐ YES ☐ NO



P	0	0	11	0
	0	0	2	0
B	0	0	1	11
	0	0	1	2

TOTALS

0	0	11	0
0	0	2	0
0	1	0	1
0	1	0	1

P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

DISTANCE ____ FT.
RAISED MEDIAN ☐ NO ☐ YES
TOTALS

0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

DISTRICT 7 TRAFFIC OPERATIONS REQUEST FORM

WORK COPY

IN OR N. (S) E. W. OF	MILE POST #	LOCAL STREET NAMES	U S	S R	SECTION	LEG
Z-Hills	3.670	SR 39 AT Michigan AVE	—	39	14110	—

TYPE OF STUDY: 8 HR TMC 6-9, 11-1, 3-6 Ped & Bikes
NOTE: Separate Busses & Trucks.

COUNTY: PASCO

SPEED ZONE	TRAFFIC SIGNAL	FLASHING BEACON	SCHOOL SPEED ZONE	UNAUTHORIZED TRAFFIC SIGNAL	DESIGN STUDY	
X	X	X	X	X		FIELD SKETCH
	8	4		8	8	TURNING MOVEMENTS (TO 501 OR 508) 9/28/98
X	X	X	X			SPEED CHECK (TO 503 OR 506)
	X	X			X	TRAFFIC COUNTS (TO 510 OR 570)
	X	X				STOP SIGN OBSERVANCE (TO 518)
	X					STOP & DELAY (TO 507)
				X		DRIVER OBSERVANCE OF TRAFFIC SIGNAL (TO 504)
	X	X	X	X	X	PEDESTRIAN VOLUME (TO 502 OR 509) 9/28/98
						DELAY STUDY OF SIGNALIZED INTERSECTION
X						LEFT TURN STUDY (TO 513)
	X	X		X		OBSERVATION STUDY (TO 519)

REQUESTED BY: GABOR DATE: 9-16-98

PERFORMED BY: GEORGE R HILL

JOB #:

STUDY

DATE:

SPECIAL INSTRUCTIONS: See Seperate Shts. for Truck & Bus Movement and Ped./Bike Traffic

B. Cloud

c:/dgn/request.dgn Nov. 17, 1993 13:57:08

Weather : cloudy
Counter :
GEORGE R HILL
SEE SEPERATE SHTS.FOR TRUCK/BUS,PEDS.

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Site Code : 00014110
Start Date: 09/28/98
File I.D. : SR39@MIC
Page : 1

Vehicle group 1

	SR 39 Southbound				MICHIGAN RD Westbound				SR 39 Northbound				MICHIGAN RD Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/28/98																	
06:00	0	39	0	0	0	0	0	0	1	20	0	0	0	0	0	0	60
06:15	0	60	0	0	2	0	0	0	1	24	0	0	0	1	4	0	92
06:30	1	72	0	0	2	1	0	0	0	32	3	0	1	0	1	0	113
06:45	1	55	0	0	1	0	0	0	0	45	1	0	0	1	2	0	106
Hr Total	2	226	0	0	5	1	0	0	2	121	4	0	1	2	7	0	371
07:00	0	48	0	0	0	2	0	0	0	45	1	0	1	0	0	0	97
07:15	0	43	0	0	0	0	0	0	2	44	1	0	0	0	0	0	90
07:30	1	57	0	0	1	0	0	0	1	43	1	0	0	0	2	0	106
07:45	0	35	1	0	0	1	1	0	1	46	1	0	0	0	1	0	87
Hr Total	1	183	1	0	1	3	1	0	4	178	4	0	1	0	3	0	380
08:00	0	28	0	0	0	0	1	0	1	28	0	0	0	0	0	0	58
08:15	1	44	0	0	0	2	0	0	1	37	0	0	0	0	1	0	86
08:30	0	29	0	0	1	0	0	0	1	36	1	0	0	1	2	0	71
08:45	1	23	0	0	2	0	2	0	1	66	0	0	0	0	1	0	96
Hr Total	2	124	0	0	3	2	3	0	4	167	1	0	0	1	4	0	311
--------- * BREAK * ---------																	
11:00	3	40	3	0	0	1	3	0	1	48	0	0	0	0	0	0	99
11:15	3	46	0	0	1	3	1	0	1	42	2	0	2	2	1	0	104
11:30	1	33	1	0	0	2	4	0	2	45	1	0	2	1	2	0	94
11:45	1	41	0	0	2	1	0	0	2	51	0	0	0	2	1	0	101
Hr Total	8	160	4	0	3	7	8	0	6	186	3	0	4	5	4	0	398
12:00	0	52	0	0	0	1	2	0	0	64	2	0	0	0	1	0	122
12:15	3	52	0	0	0	1	3	0	1	50	0	0	1	0	0	0	111
12:30	1	39	0	0	0	0	1	0	2	34	0	0	0	0	2	0	79
12:45	2	40	1	0	0	0	0	0	0	39	0	0	1	0	1	0	84
Hr Total	6	183	1	0	0	2	6	0	3	187	2	0	2	0	4	0	396
--------- * BREAK * ---------																	
05:00	1	49	1	0	2	0	5	0	2	50	0	0	1	1	1	0	113
05:15	3	36	0	0	1	1	2	0	4	51	1	0	0	2	0	0	101
05:30	1	47	0	0	1	0	5	0	1	70	2	0	2	1	0	0	130
05:45	0	54	0	0	2	2	1	0	1	58	0	0	0	2	2	0	122
Total	5	186	1	0	6	3	13	0	8	229	3	0	3	6	3	0	466
06:00	6	46	1	0	1	2	3	0	1	47	1	0	0	1	1	0	110
06:15	1	43	0	0	2	3	2	0	1	56	1	0	0	3	1	0	113
06:30	1	48	0	0	0	2	2	0	0	59	1	0	0	0	0	0	113
06:45	1	50	0	0	1	2	0	0	2	69	0	0	0	0	0	0	125
Total	9	187	1	0	4	9	7	0	4	231	3	0	0	4	2	0	461

Vehicle group 1

	SR 39 Southbound				MICHIGAN RD Westbound				SR 39 Northbound				MICHIGAN RD Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/28/98																	
17:00	1	51	1	0	2	0	3	0	2	62	4	0	0	1	1	0	12
17:15	1	62	0	0	1	2	1	0	1	63	2	0	1	1	0	0	135
17:30	9	66	0	0	2	4	3	0	1	71	5	0	1	2	3	0	16
17:45	5	58	0	0	3	2	2	0	2	76	0	0	0	0	3	0	15
Hr Total	16	237	1	0	8	8	9	0	6	272	11	0	2	4	7	0	581
TOTAL	49	1486	9	0	30	35	47	0	37	1571	31	0	13	22	34	0	3364

SHT / OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 0600 TO 0700

OBSERVER GEORGE HILL WEATHER CLOUDY

REMARKS

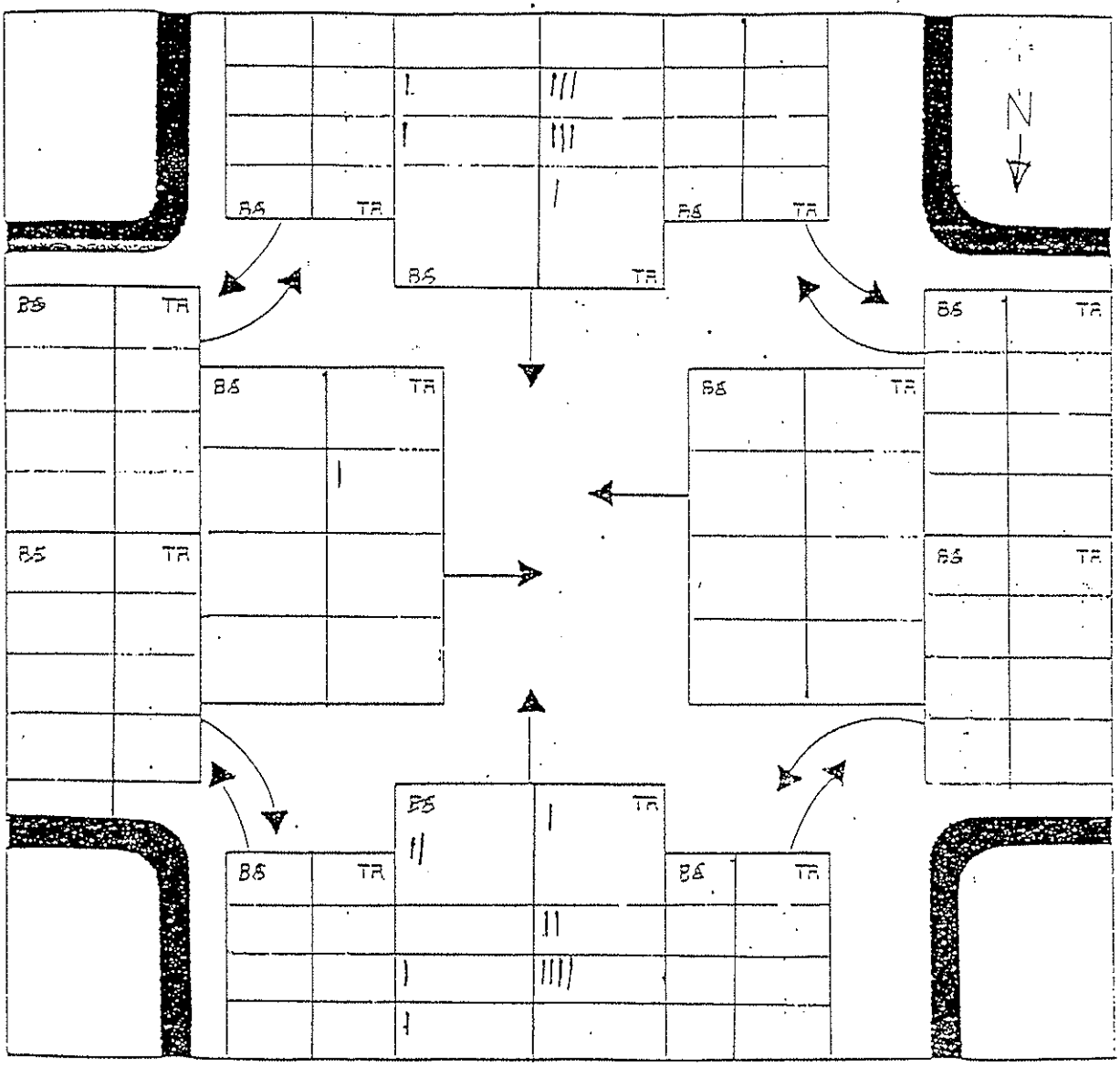


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 3 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW MICHIGAN TUCKER

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-29-98 TIME: FROM 0800 TO 0900

OBSERVER GEORGE HILL WEATHER

REMARKS

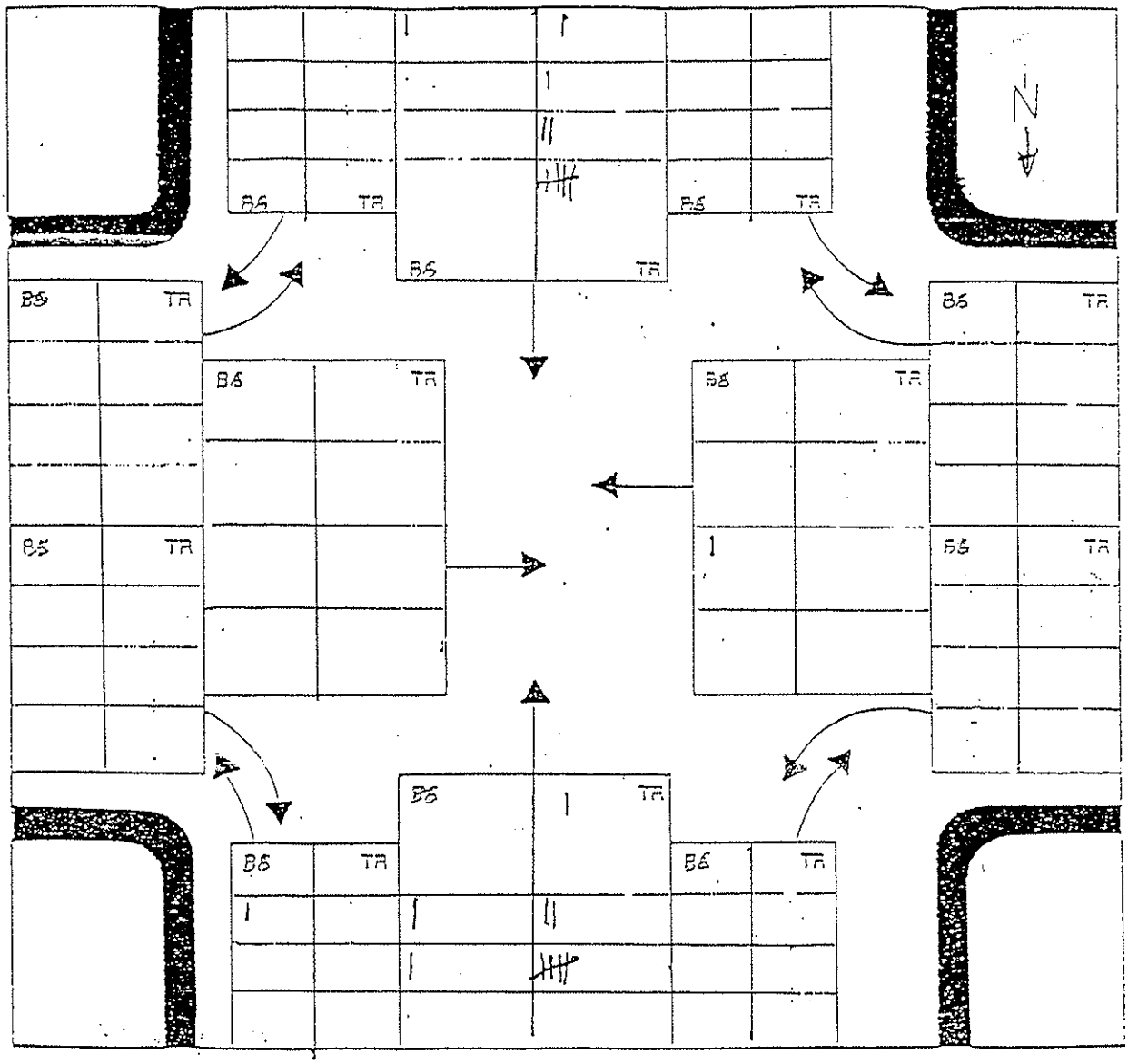


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1100 TO 1200

OBSERVER GEORGE HILL WEATHER

REMARKS

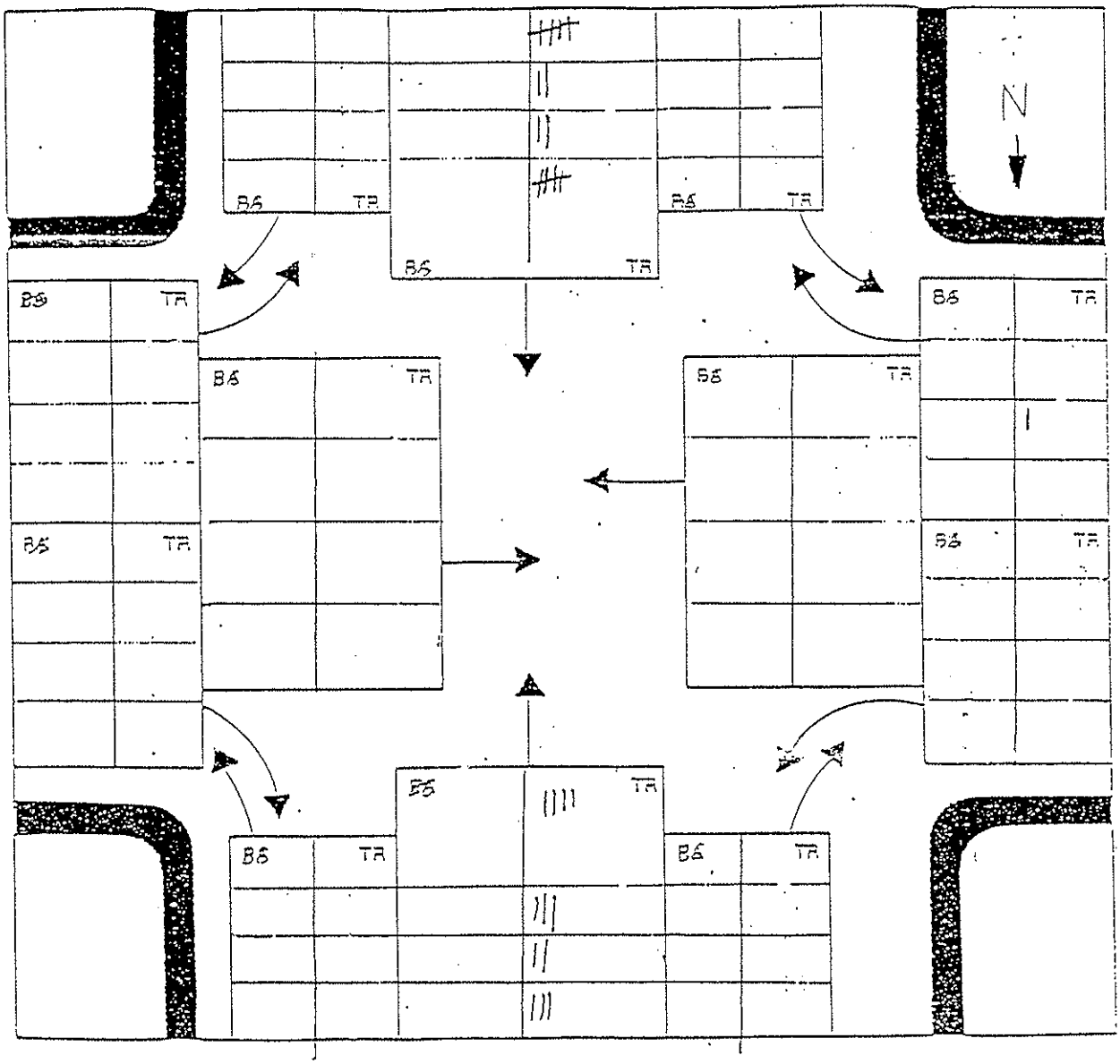


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 5 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY

DATE 9-28-98 TIME: FROM 1200 TO 1300

OBSERVER GEORGE HILL WEATHER PT CLOUDY

REMARKS

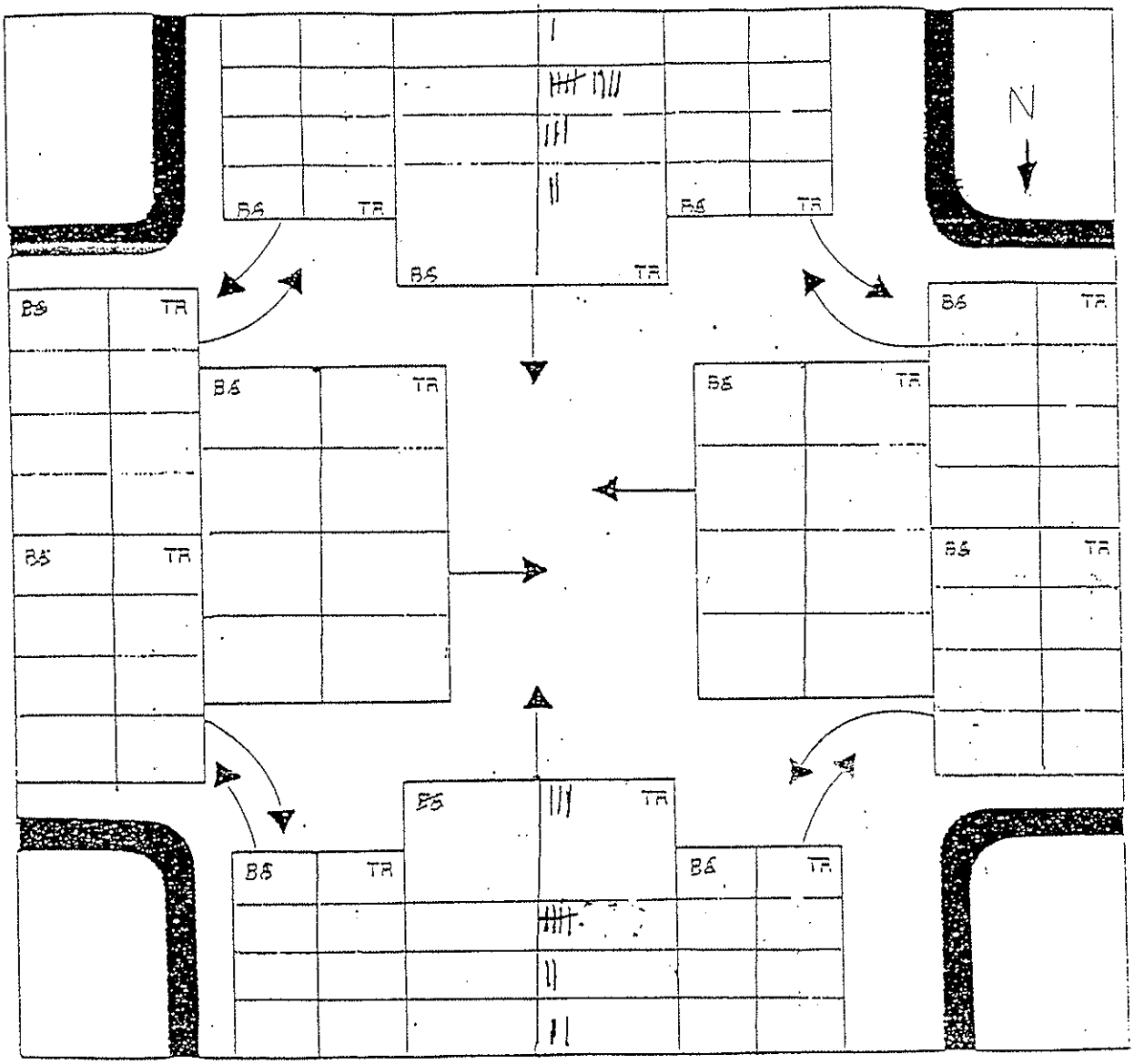


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS 5R39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY ZEPHER HILLS

DATE 9-28-98 TIME: FROM 1500 TO 1600

OBSERVER GEORGE HILL WEATHER

REMARKS

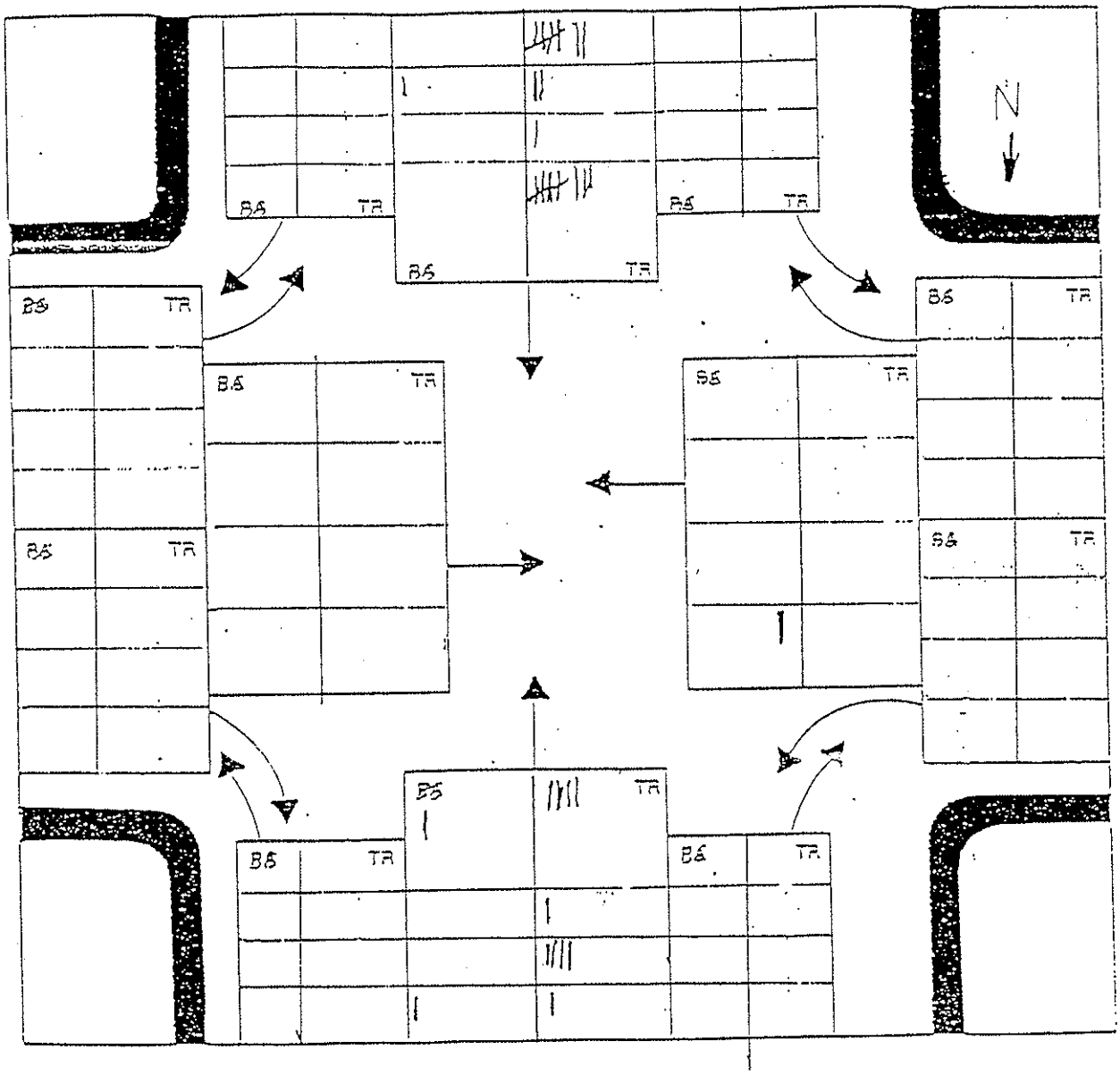


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS 5R39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 1600 TO 1700

OBSERVER GEORGE HILL WEATHER CLOUDY

REMARKS

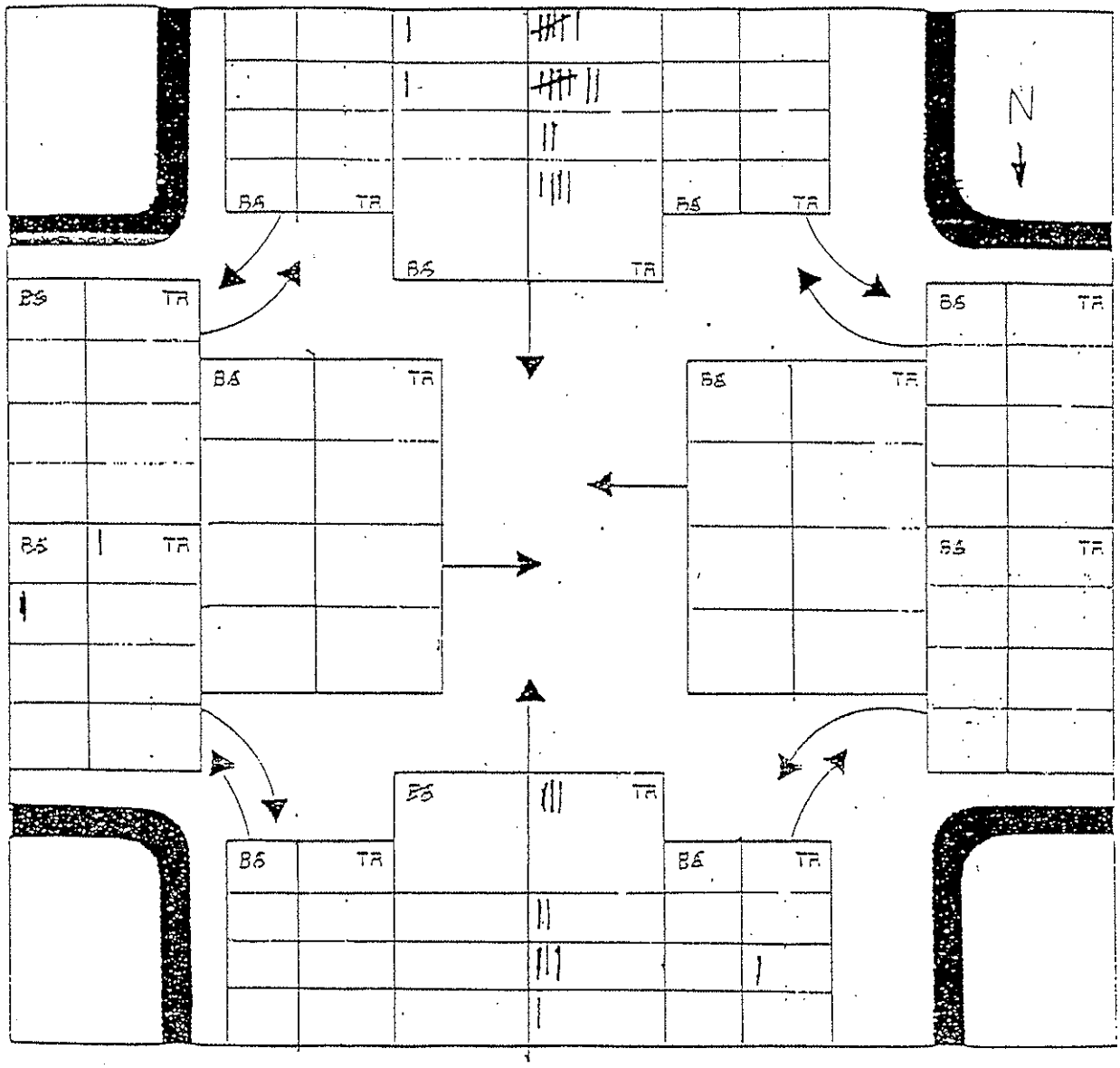


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 8 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW MICHIGAN / TUCKER

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 1700 TO 1800

OBSERVER GEORGE HALL WEATHER CLOUDY

REMARKS

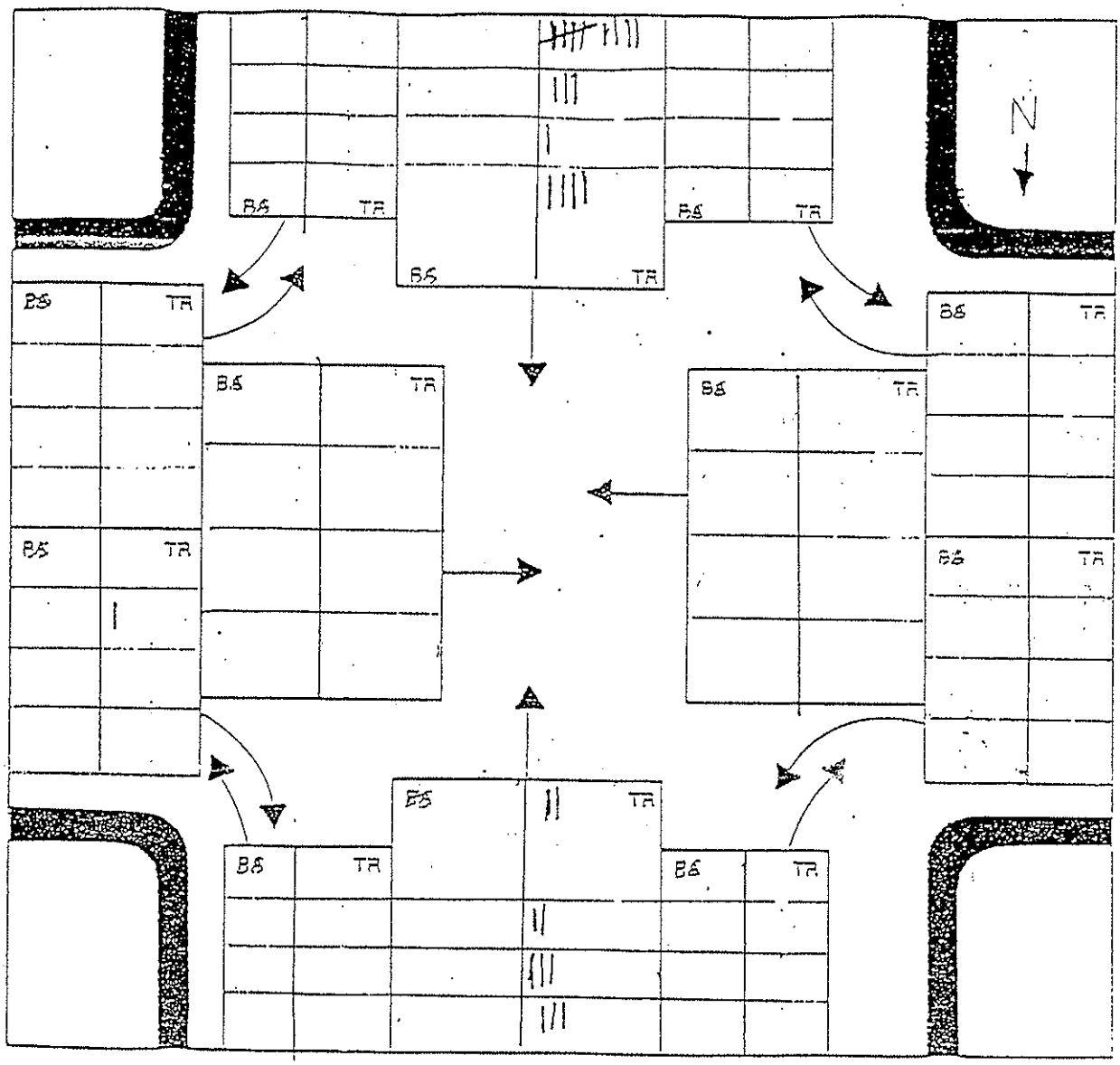


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

DHT 10F2

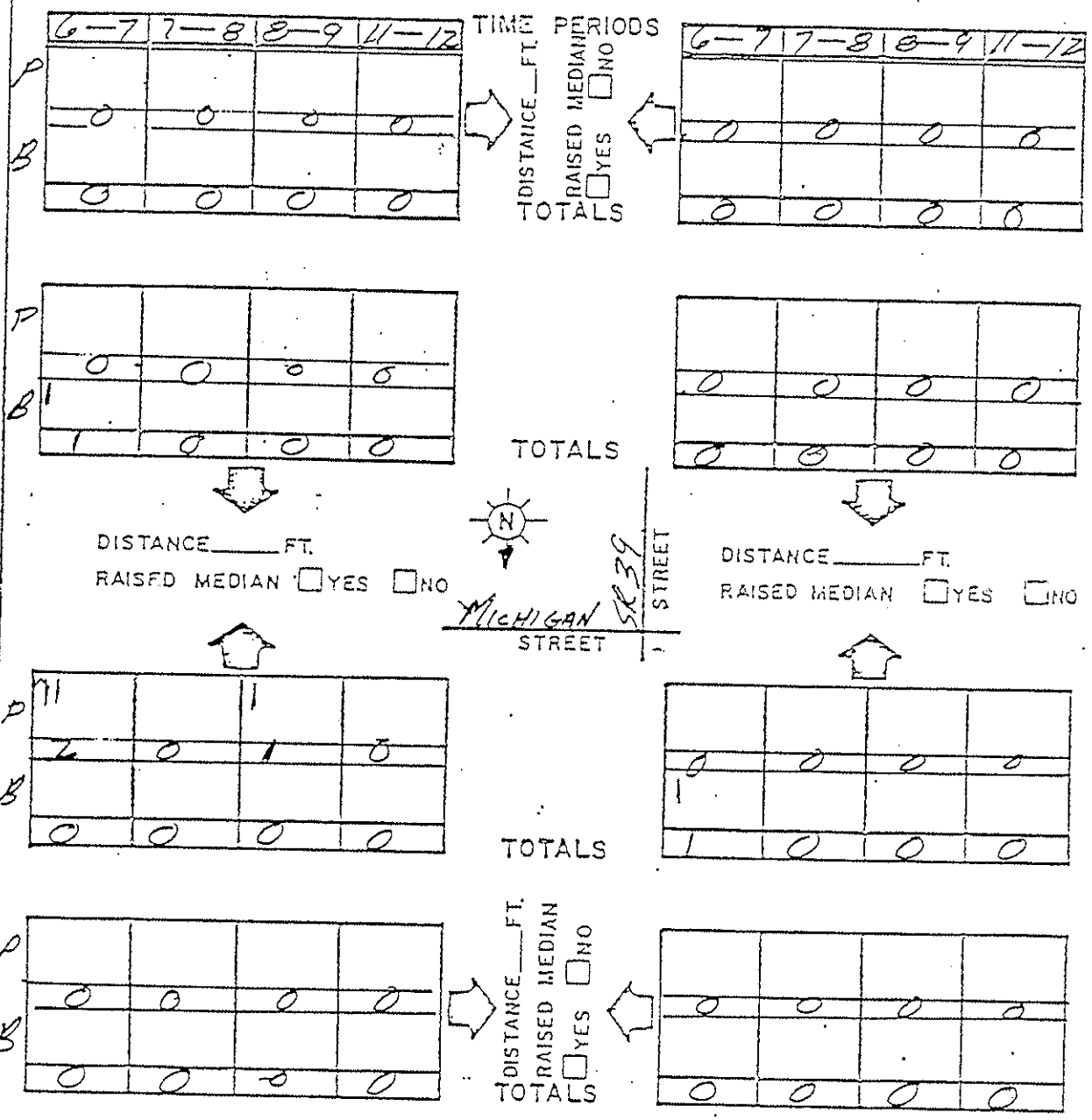
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR 39 @ MICHIGAN / TUCKER

COUNTY PASCO CITY Z-HILLS TYPE OF CONTROL ____

STUDY DATE 9-28-88 TIME: FROM 6:00 (AM) PM TO 12:00 (AM) PM OBSERVER GRH

REMARKS ____



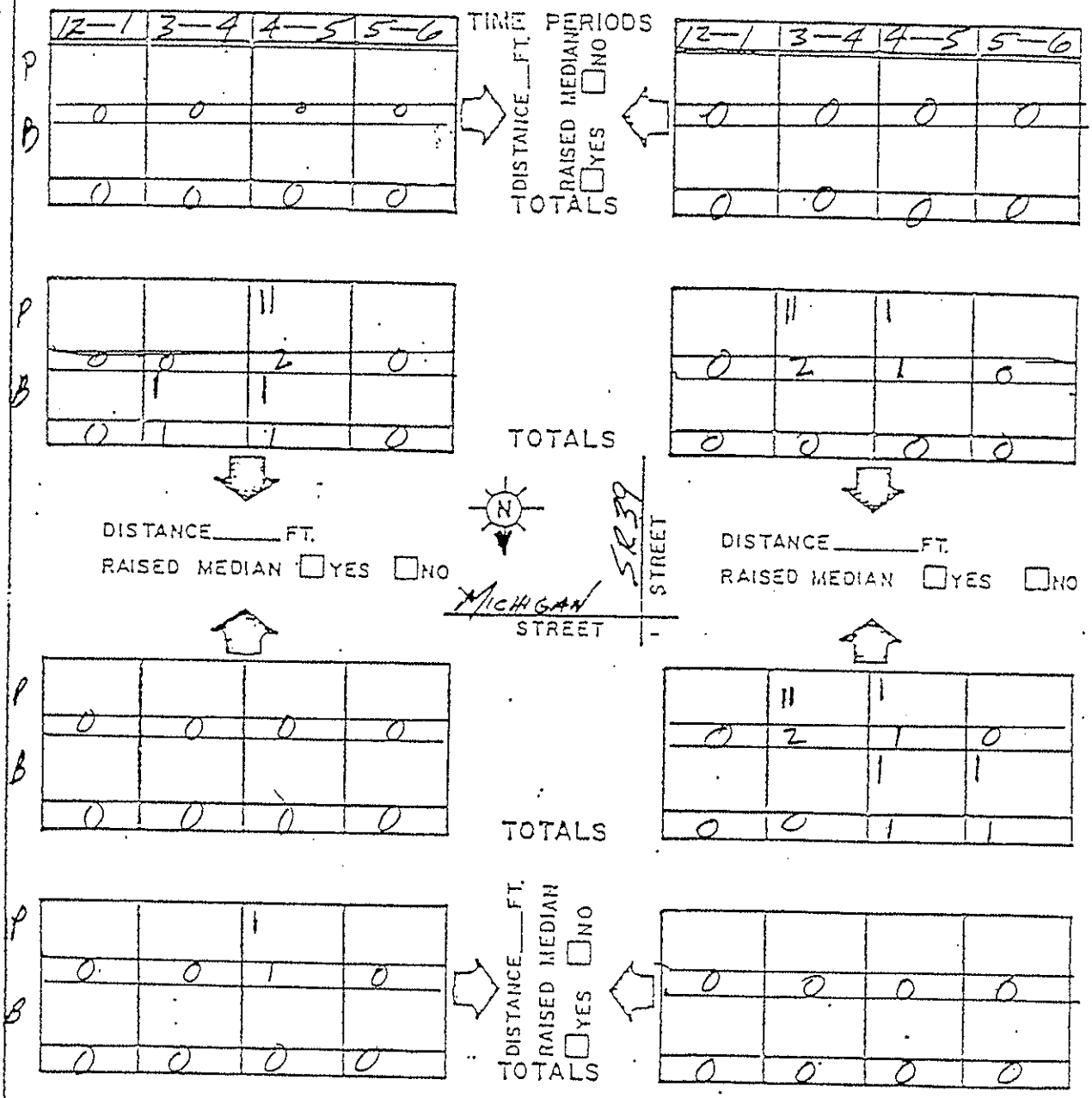
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR 39 @ MICHIGAN / TUCKER

COUNTY PASCO CITY Z-HILLS TYPE OF CONTROL

STUDY DATE 9-28-98 TIME: FROM 12:00 AM (PM) TO 6:00 AM (PM) OBSERVER GRH

REMARKS



U> 301

SHT 1 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 0600 – TO 0700

OBSERVER GEORGE HILL WEATHER CLOUDY

REMARKS MILE MARK 3.670

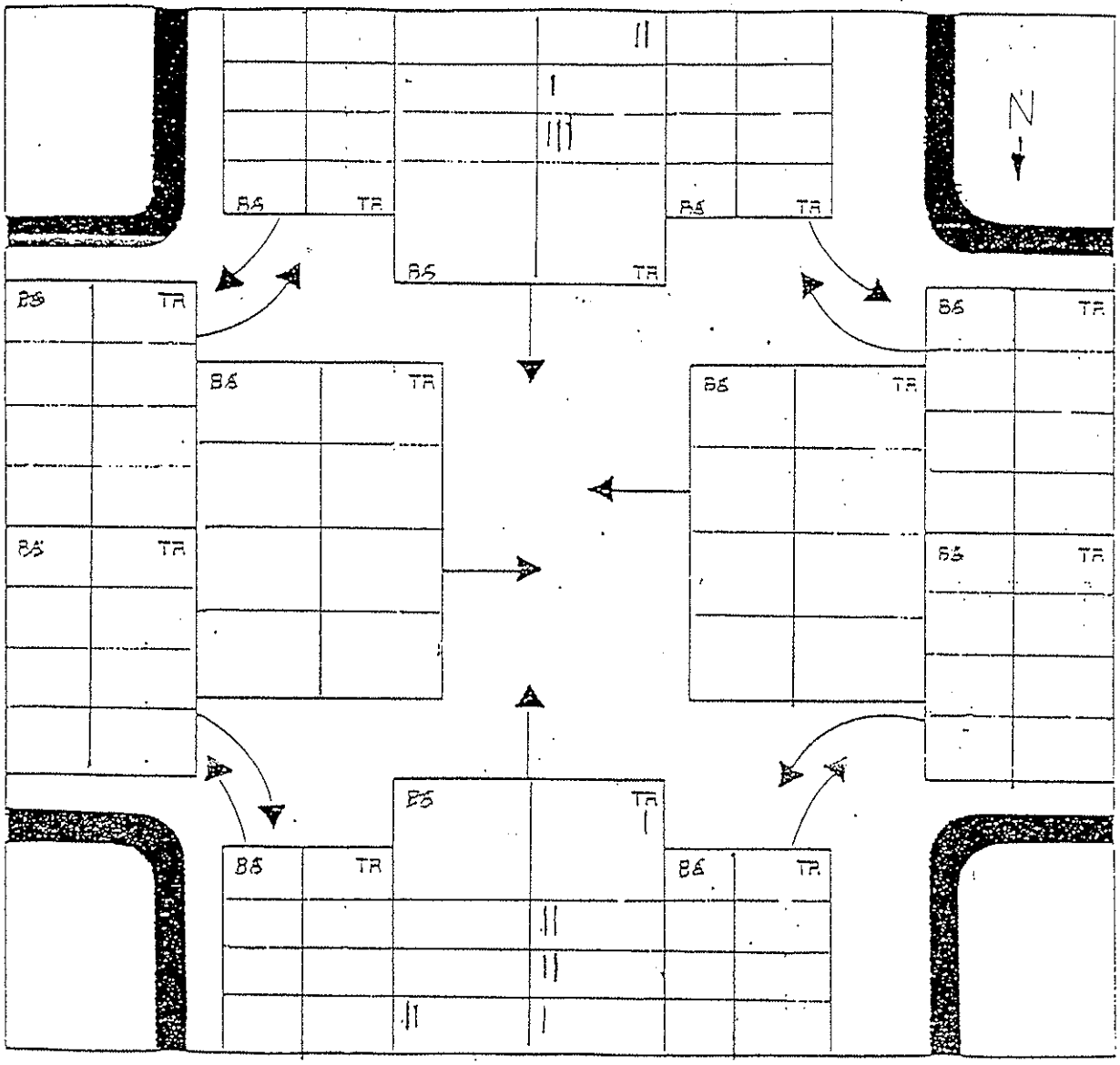


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 0700 TO 0800

OBSERVER GEORGE HILL WEATHER

REMARKS

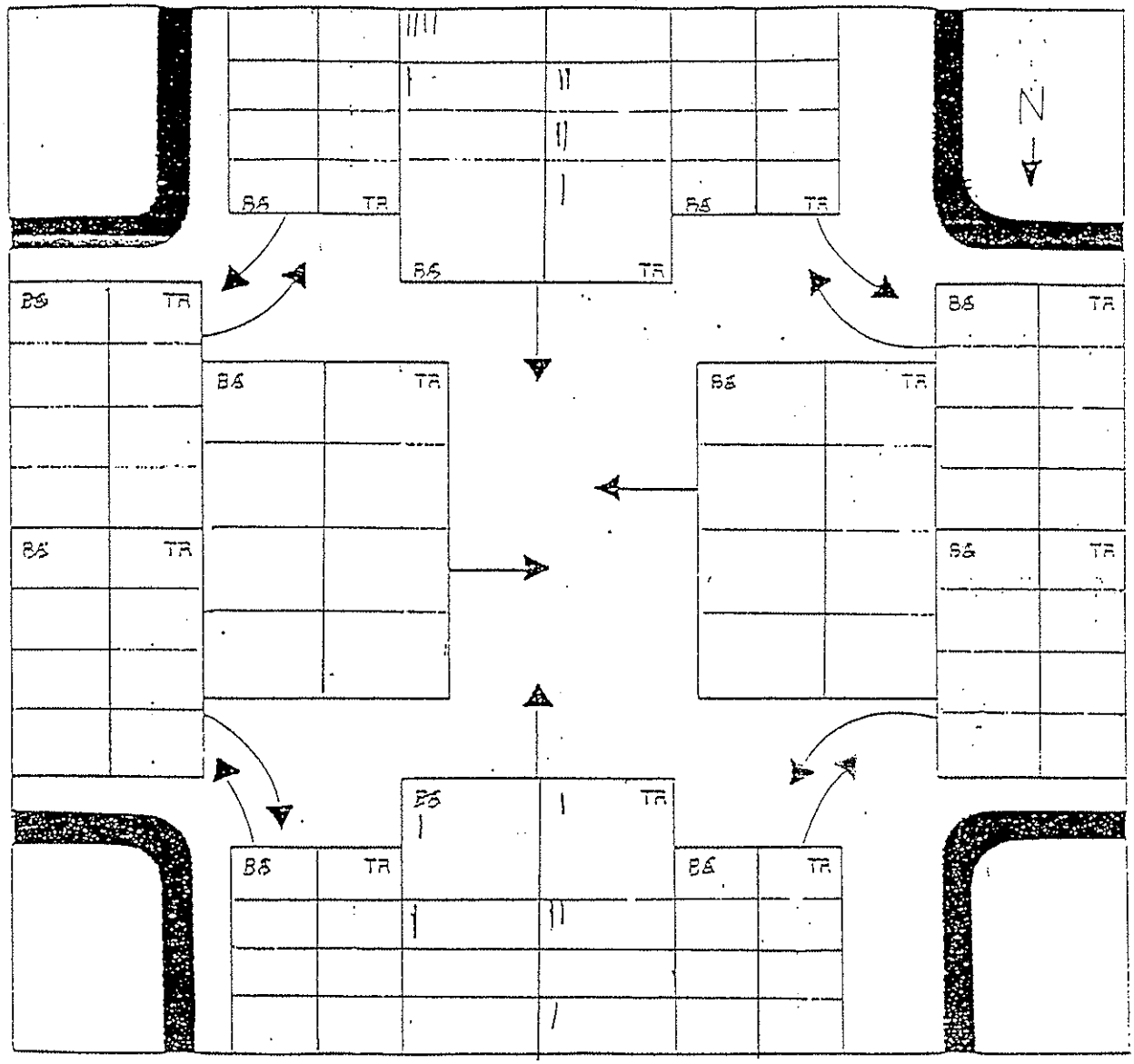


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD.

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-28-98 TIME: FROM 0800 TO 0900

OBSERVER GEORGE HILL WEATHER

REMARKS

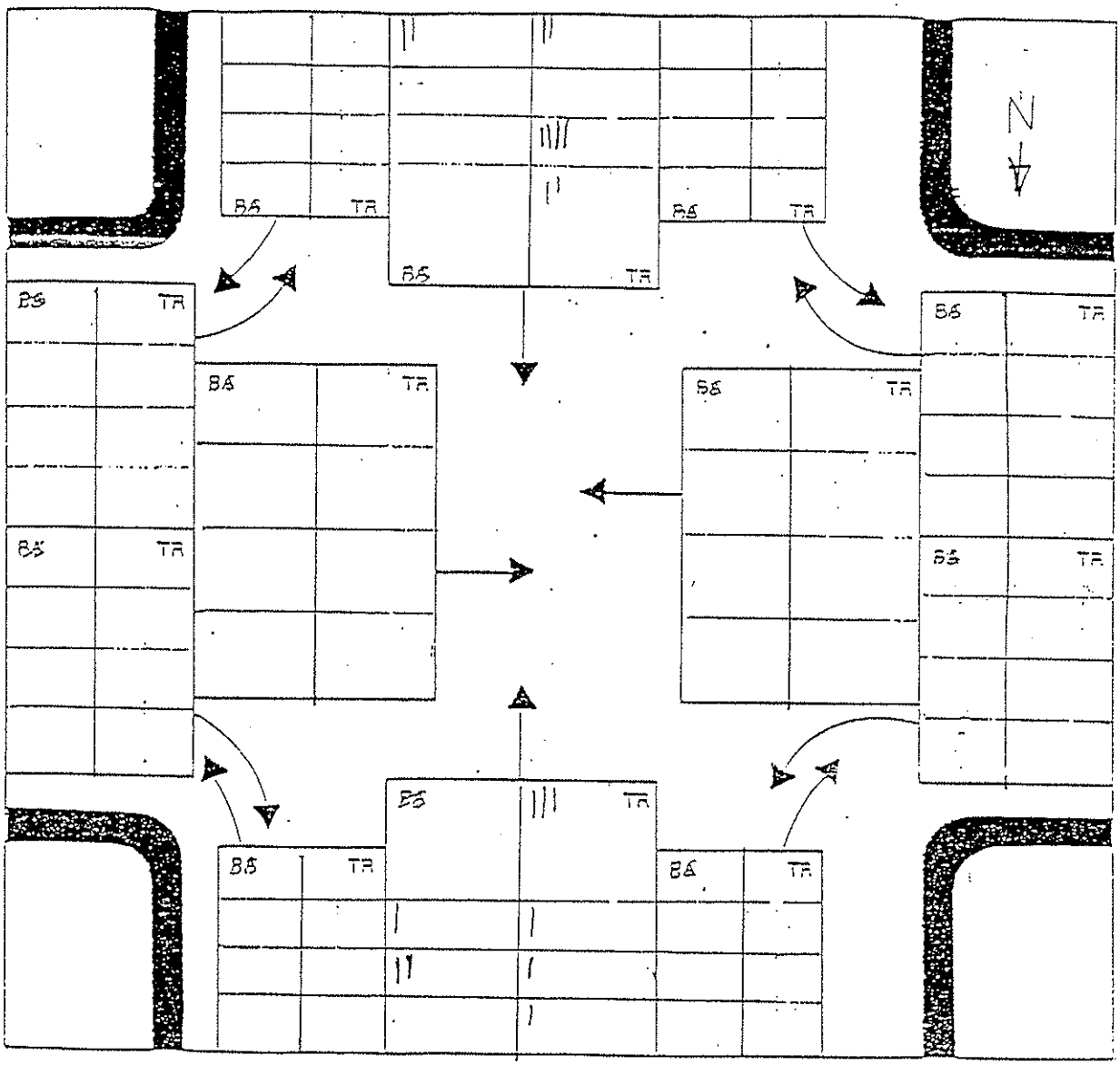


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 4 OF 6

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD.

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1100 TO 1200

OBSERVER GEORGE HILL WEATHER

REMARKS

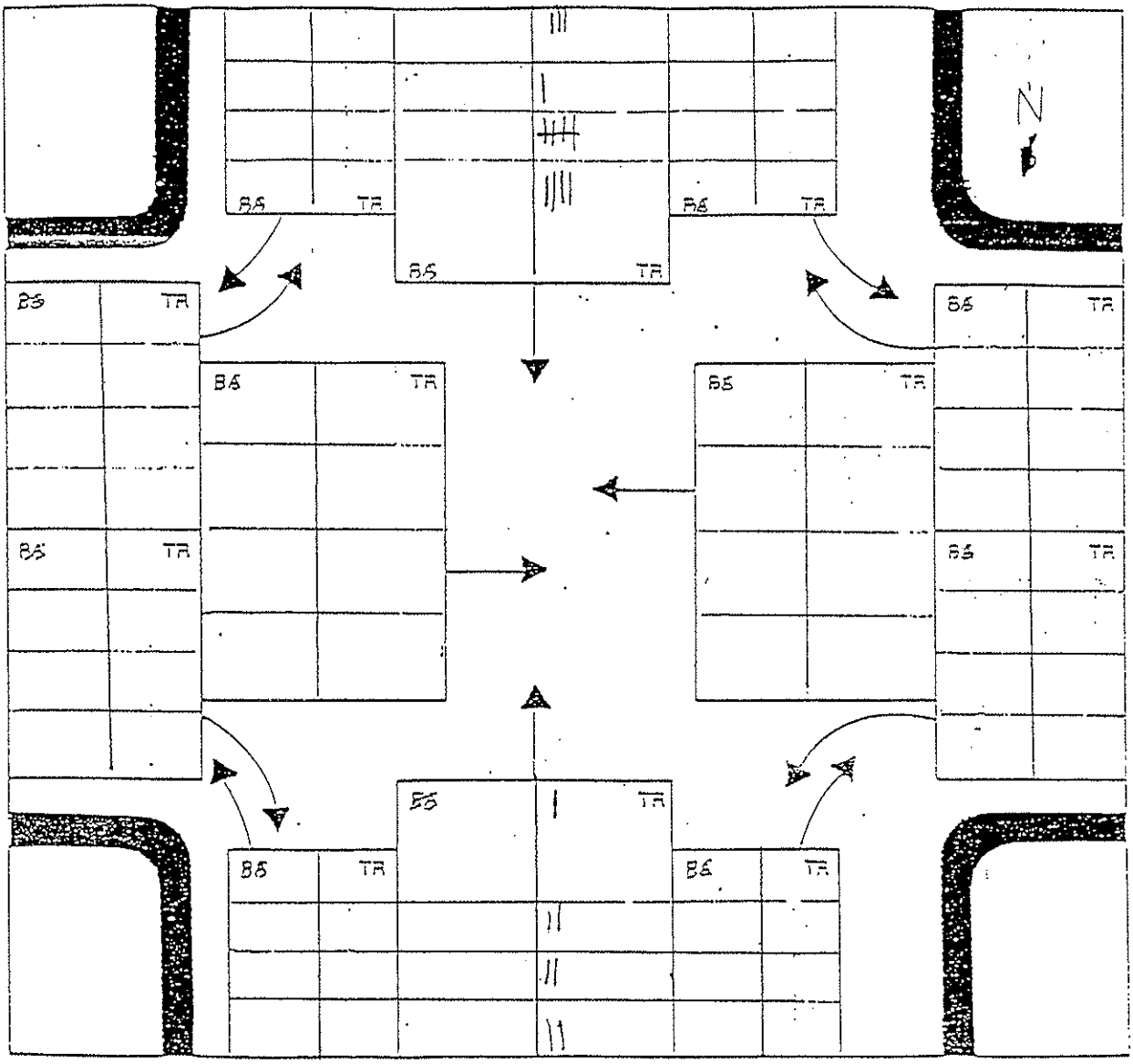


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 5 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD.

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1200 TO 1300

OBSERVER GEORGE HILL WEATHER

REMARKS

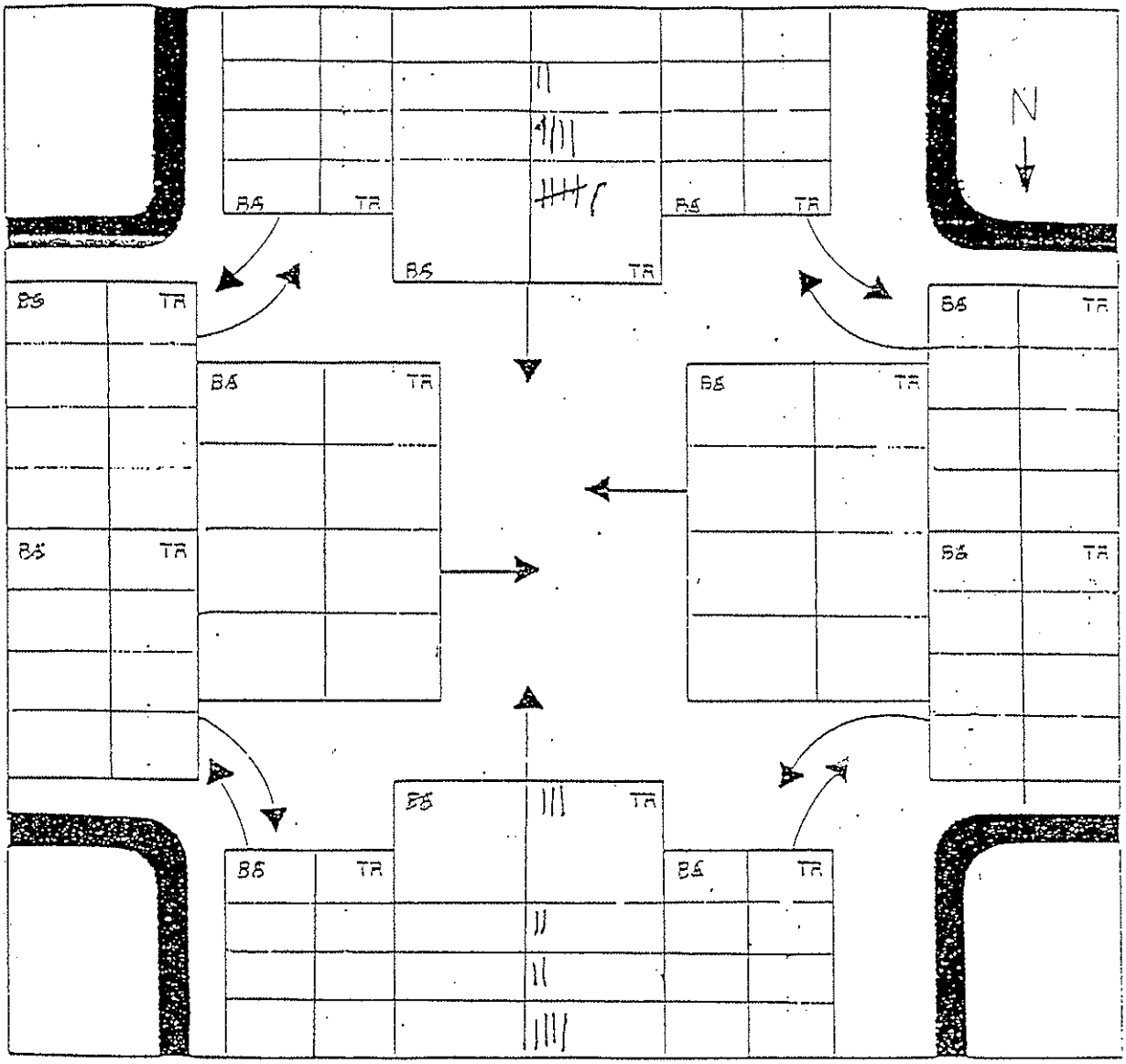


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT 6 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1500 TO 1600

OBSERVER GEORGE HILL WEATHER CLOUDY

REMARKS

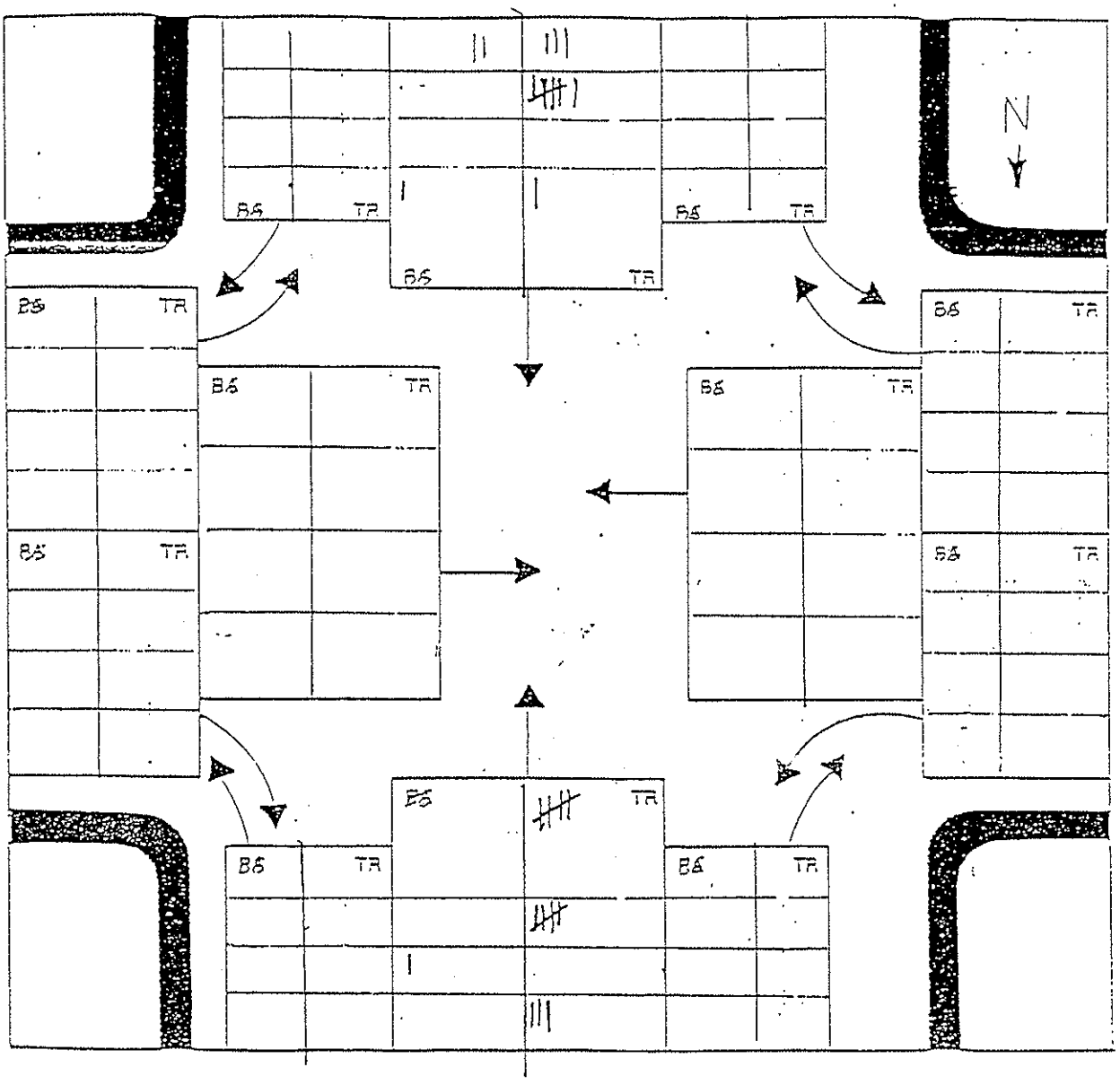


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN RD

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1600 TO 1700

OBSERVER GEORGE HILL WEATHER

REMARKS

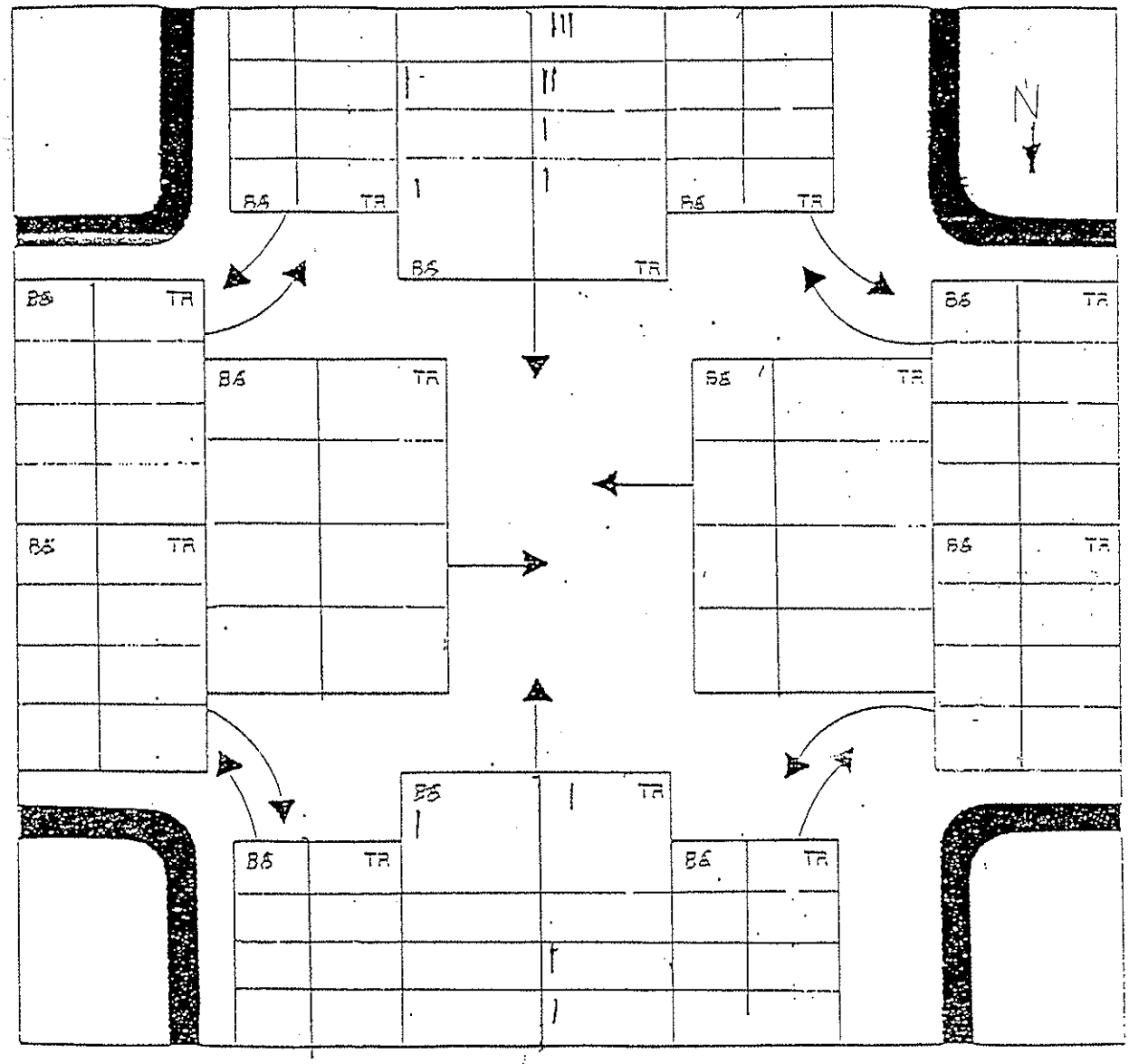


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS US 301 EW MICHIGAN B.

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-28-98 TIME: FROM 1700 TO 1800

OBSERVER GEORGE HILL WEATHER

REMARKS

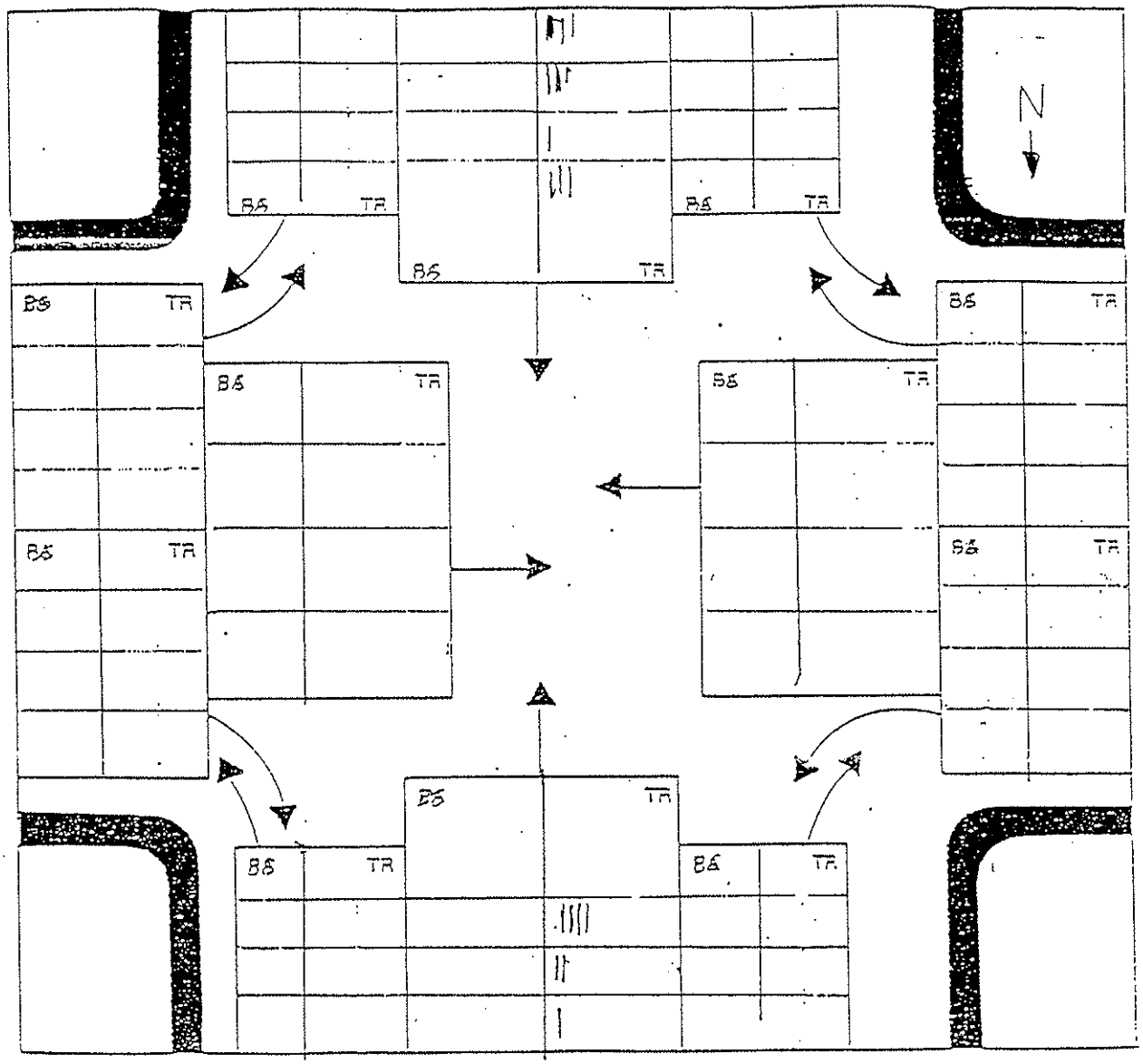


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

DISTRICT 7 WORK COPY
TRAFFIC OPERATIONS
REQUEST FORM

IN OR N (S) E. W. OF	MILE POST #	LOCAL STREET NAMES	U S	S R	SECTION	LEG
Z-Hills	2.744	39 AT Z-Hills Bypass (CHANCEY RD)	—	39	14110	—

TYPE OF STUDY: 8HR TMC 6-9, 11-1, 3-6 PEDS & BIKES COUNTY: PASCO
NOTE SEPARATE TRUCKS & BUSES

SPEED ZONE	TRAFFIC SIGNAL	FLASHING BEACON	SCHOOL SPEED ZONE	UNAUTHORIZED TRAFFIC SIGNAL	DESIGN STUDY		
X	X	X	X	X		FIELD SKETCH	
	8	4		8	8	TURNING MOVEMENTS (TO 501 OR 508)	9/22/98
X	X	X	X			SPEED CHECK (TO 503 OR 506)	
	X	X			X	TRAFFIC COUNTS (TO 510 OR 570)	
	X	X				STOP SIGN OBSERVANCE (TO 518)	
	X					STOP & DELAY (TO 507)	
				X		DRIVER OBSERVANCE OF TRAFFIC SIGNAL (TO 504)	
	X	X	X	X	X	PEDESTRIAN VOLUME (TO 502 OR 509)	9/22/98
						DELAY STUDY OF SIGNALIZED INTERSECTION	
X						LEFT TURN STUDY (TO 513)	
	X	X		X		OBSERVATION STUDY (TO 519)	

REQUESTED BY: GABOR DATE: 9-16-98
PERFORMED BY: GEORGE R HILL
JOB #:

STUDY

SPECIAL INSTRUCTIONS: SEE SEPARATE TRUCK/BUS MOVEMENT SHEETS AND PEDESTRIAN & BIKE COUNT.

CLOUDY

Weather : CLOUDY
Counter :
GEORGE R HILL
SEE SEPERATE TRUCK/BUS MOVEMENT SHTS.

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Site Code : 000141
Start Date: 09/22/
File I.D. : 39@ZHILS
Page : 1

Vehicle group 1

	SR 39 Southbound				Z HILLS BY PASS Westbound				SR 39 Northbound				Z HILLS BY PASS Eastbound				
Date 09/22/98	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
06:00	26	26	6	0	0	9	19	0	0	57	0	0	33	16	4	0	1
06:15	35	26	14	0	0	9	23	1	5	61	1	0	32	25	1	0	23
06:30	23	35	10	0	0	10	37	0	4	58	2	0	19	22	5	0	2
06:45	27	37	10	0	0	17	23	0	3	26	0	0	24	44	6	0	2
Hr Total	111	124	40	0	0	45	102	1	12	202	3	0	108	107	16	0	871
07:00	22	39	17	0	0	7	35	0	3	51	0	0	19	27	2	0	2
07:15	24	44	19	0	0	19	26	0	3	52	0	0	14	26	1	0	22
07:30	19	56	12	0	0	15	24	0	7	47	1	0	17	23	1	0	22
07:45	12	37	2	0	8	17	5	0	16	25	9	0	10	9	15	0	1
Hr Total	77	176	50	0	8	58	90	0	29	175	10	0	60	85	19	0	8
08:00	3	21	0	0	10	10	3	0	14	37	11	0	0	7	21	0	1
08:15	2	24	1	0	12	14	4	0	20	24	17	0	0	7	18	0	1
08:30	3	24	2	0	15	15	2	0	19	52	10	0	0	9	10	0	161
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	8	69	3	0	37	39	9	0	53	113	38	0	0	23	49	0	44
---------- * BREAK * ----------																	
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	4	39	0	0	10	4	6	0	10	31	11	2	0	6	9	0	13
Hr Total	4	39	0	0	10	4	6	0	10	31	11	2	0	6	9	0	13
11:00	2	32	1	0	15	9	10	0	14	44	14	0	0	16	19	0	17
11:15	1	27	0	0	11	10	4	0	12	34	11	0	2	12	11	0	13
11:30	11	38	3	0	18	10	10	0	12	60	9	0	2	9	18	0	200
11:45	7	27	1	0	16	11	9	0	19	38	9	0	0	4	17	0	158
Hr Total	21	124	5	0	60	40	33	0	57	176	43	0	4	41	65	0	66
12:00	9	37	2	0	11	7	6	0	20	47	10	0	1	10	14	0	174
12:15	5	36	0	0	13	5	5	0	18	30	12	0	2	6	12	0	144
12:30	9	39	0	0	14	14	6	0	14	31	7	0	0	14	24	0	172
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	23	112	2	0	38	26	17	0	52	108	29	0	3	30	50	0	490
---------- * BREAK * ----------																	
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45	5	33	1	0	12	15	4	0	21	42	12	0	3	12	25	0	185
r Total	5	33	1	0	12	15	4	0	21	42	12	0	3	12	25	0	185

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Vehicle group 1

	SR 39 Southbound				Z HILLS BY PASS Westbound				SR 39 Northbound				Z HILLS BY PASS Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/22/98																	
15:00	3	50	1	0	10	7	3	0	24	47	17	0	1	8	22	0	193
15:15	5	37	1	0	20	11	4	0	30	67	26	0	2	9	31	0	243
15:30	4	43	0	0	8	5	3	0	20	52	15	0	0	19	18	0	187
15:45	8	30	1	0	13	14	6	0	24	51	16	0	2	19	37	0	221
Hr Total	20	160	3	0	51	37	16	0	98	217	74	0	5	55	108	0	844
16:00	3	45	0	0	8	8	4	0	18	42	18	0	1	26	22	0	195
16:15	4	42	1	0	17	12	6	0	27	53	17	0	0	22	15	0	216
16:30	5	36	2	0	21	5	6	0	31	55	14	0	1	15	18	0	209
16:45	7	60	1	0	22	32	15	0	21	43	16	0	0	25	27	0	269
Hr Total	19	183	4	0	68	57	31	0	97	193	65	0	2	88	82	0	889
17:00	4	44	2	0	22	19	9	0	25	63	18	0	3	28	33	0	270
17:15	6	47	0	0	14	7	6	0	26	62	17	0	0	20	33	0	238
17:30	4	62	0	0	16	8	6	0	25	73	21	0	1	27	29	0	272
Hr Total	14	153	2	0	52	34	21	0	76	198	56	0	4	75	95	0	780
TOTAL*	302	1173	110	0	336	355	329	1	505	1455	341	2	189	522	518	0	6138

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW 2-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 6100 TO 7100

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

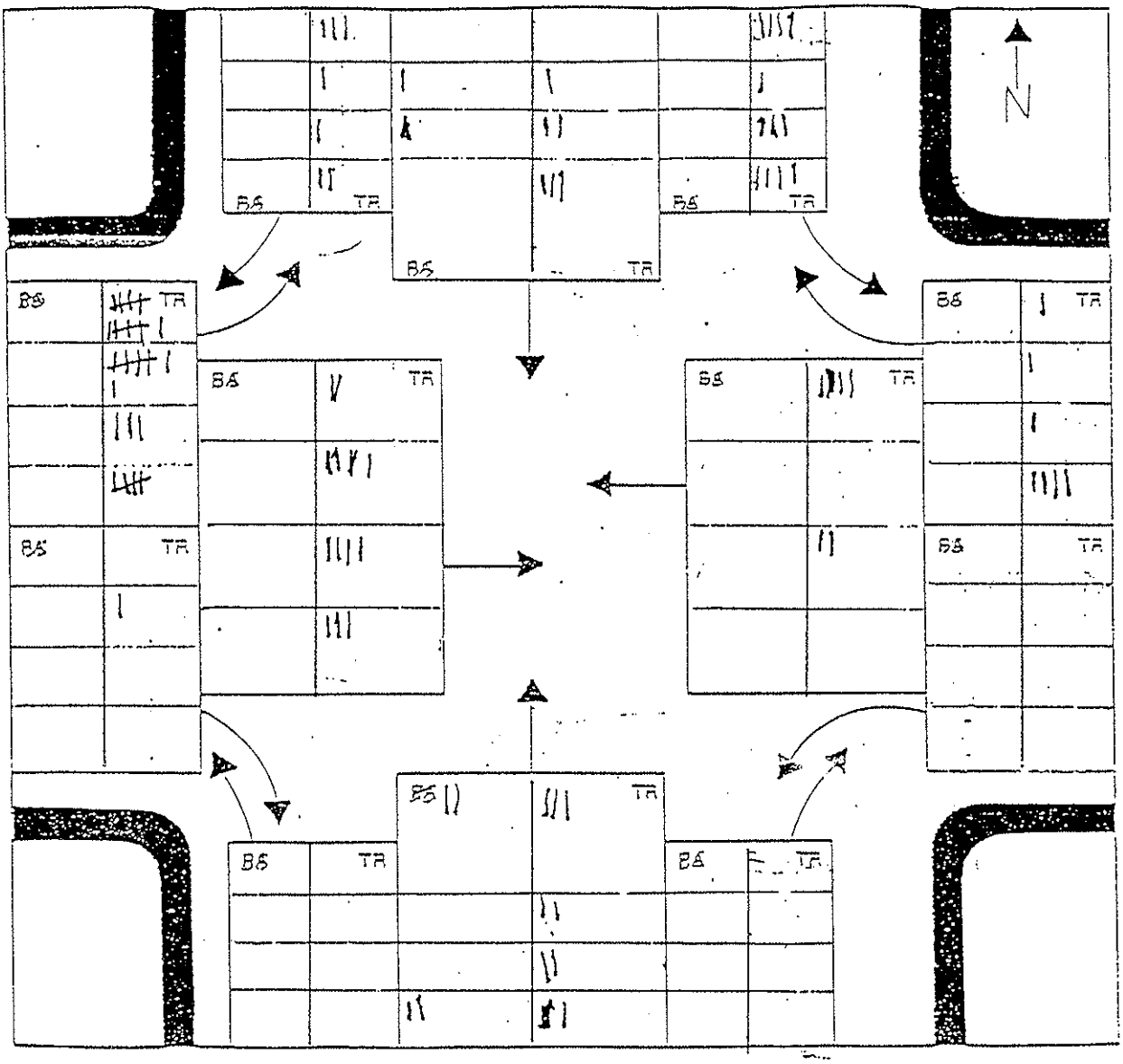


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS 5R39 EW Z-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 7:00 TO 8:00

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

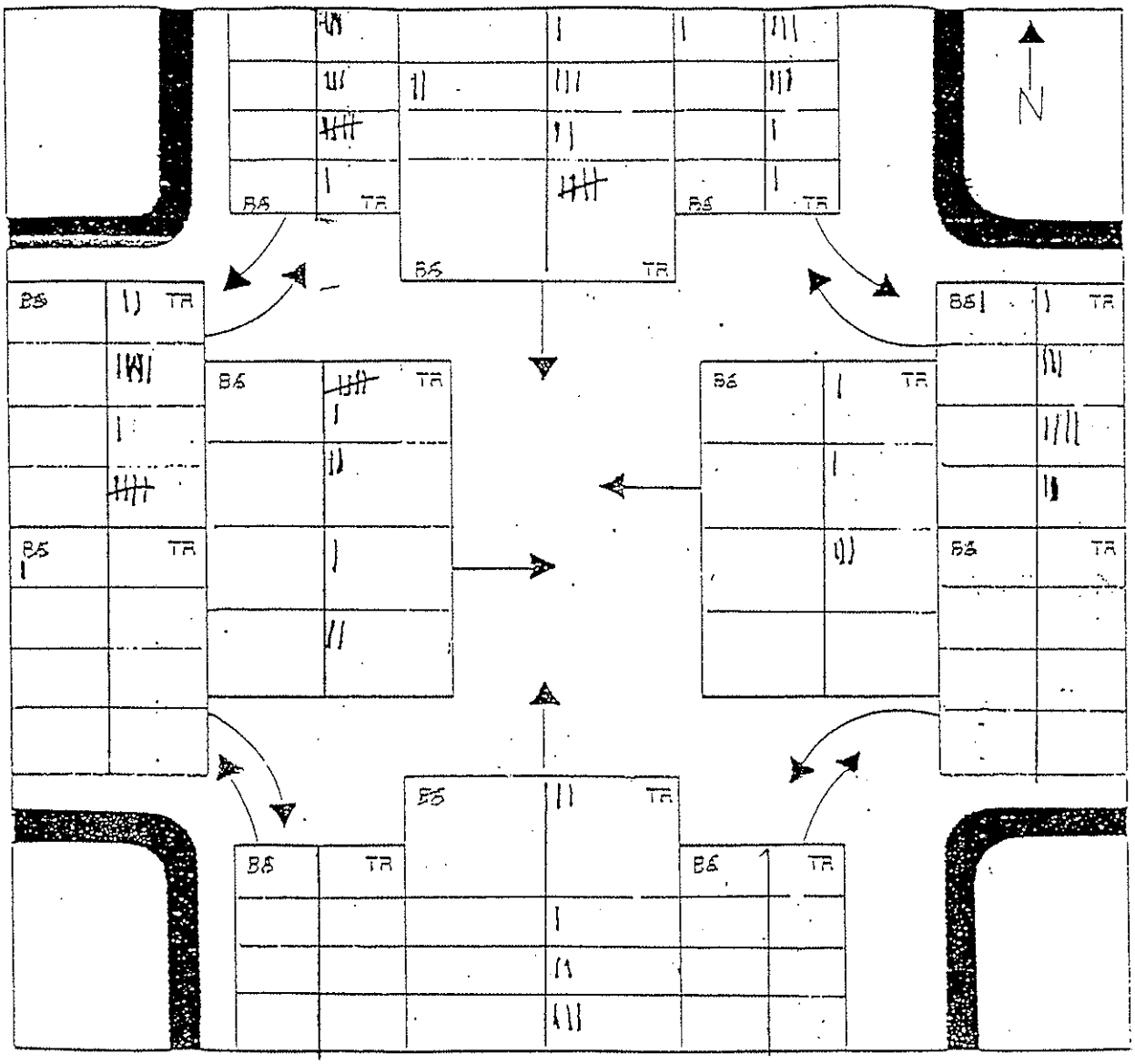


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT. 2 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW Z-HILLS BY PASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 7:00 TO 8:00

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

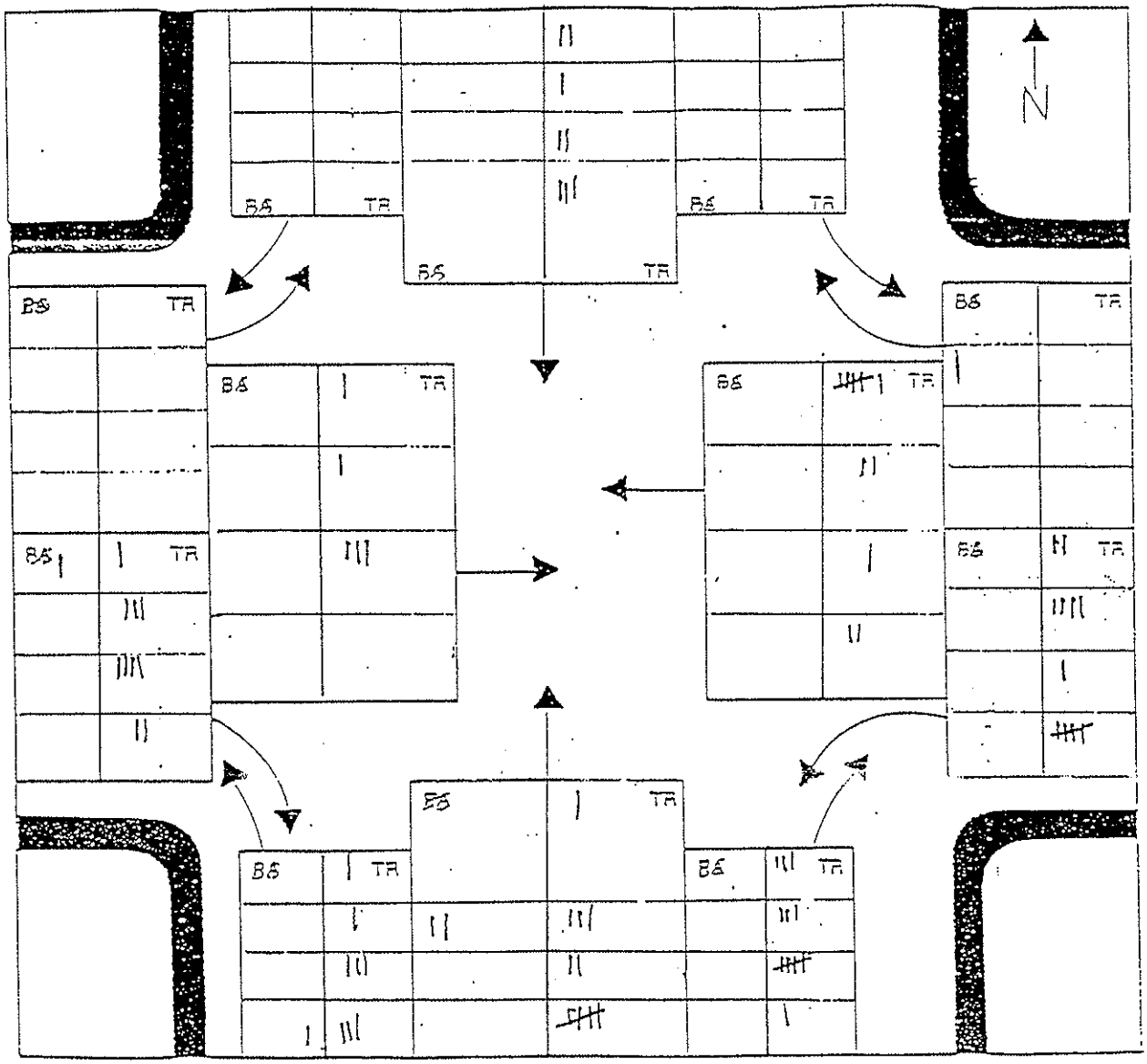


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW Z-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 8:00 TO 9:00

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

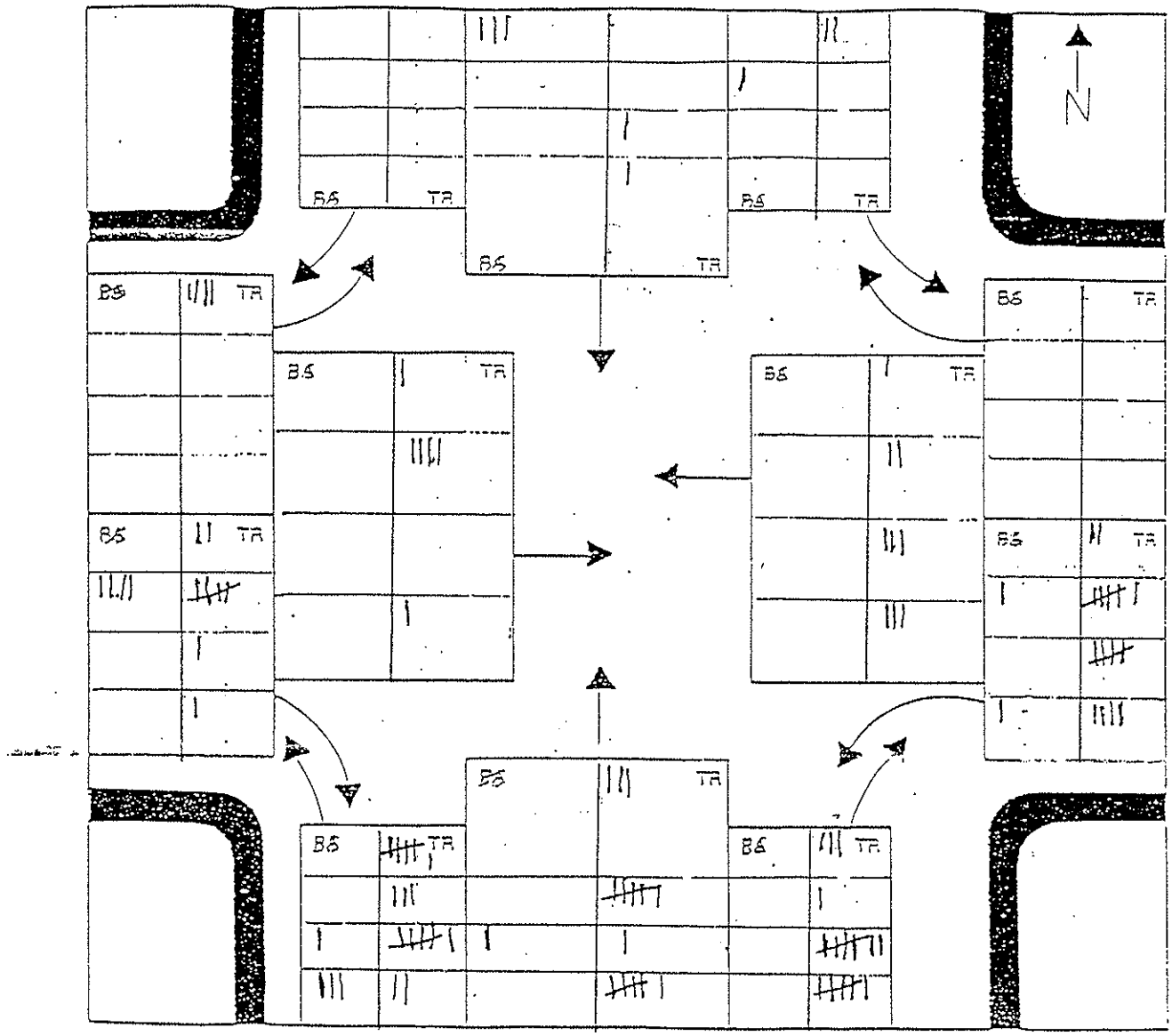


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 EW Z-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 11:00 TO 12:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

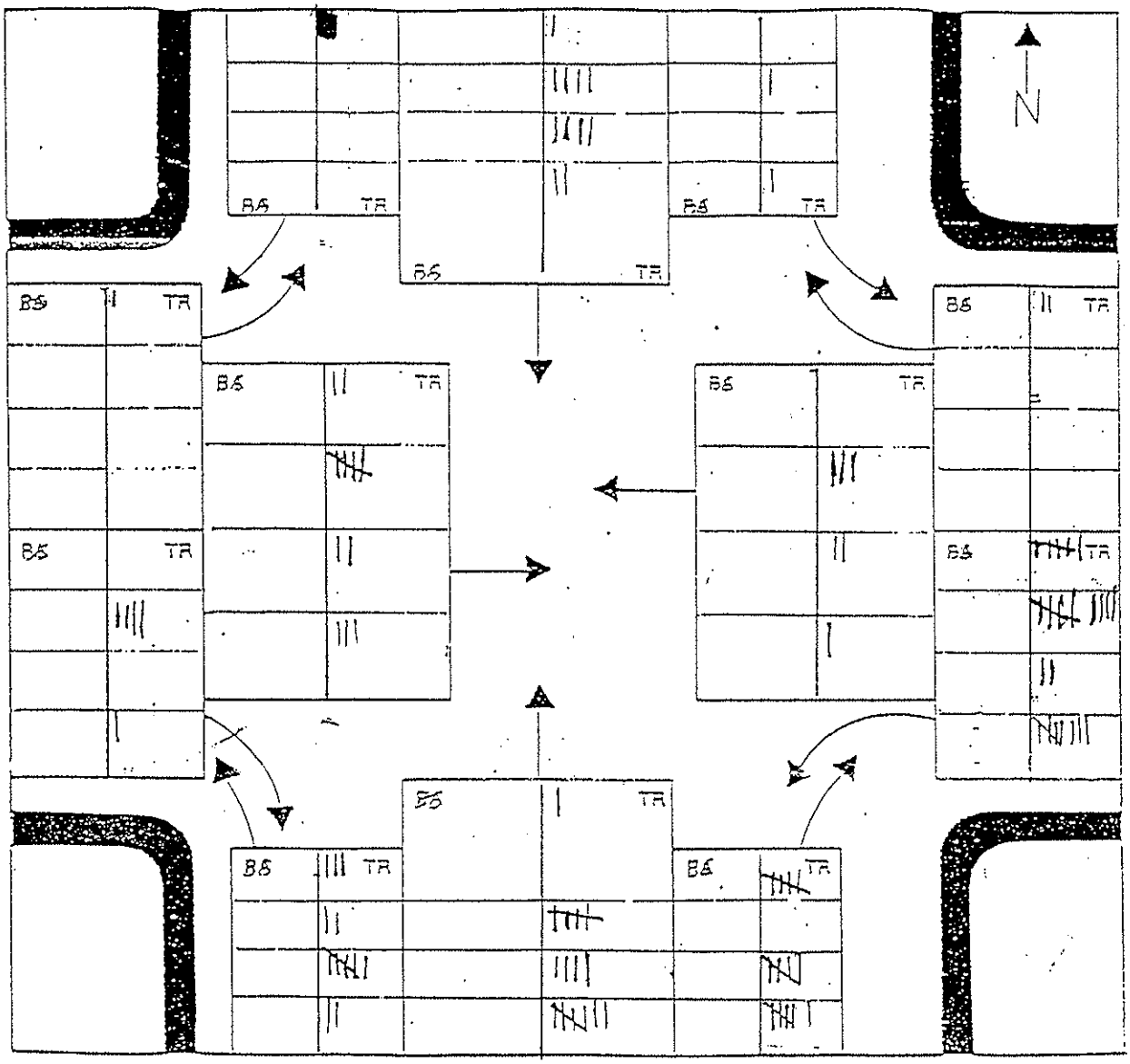


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW ZEPHYRHILLS BY PASS

COUNTY PASCO CITY ZEPHYRHILLS

DATE 9-22-98 TIME: FROM 1500 TO 1600

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

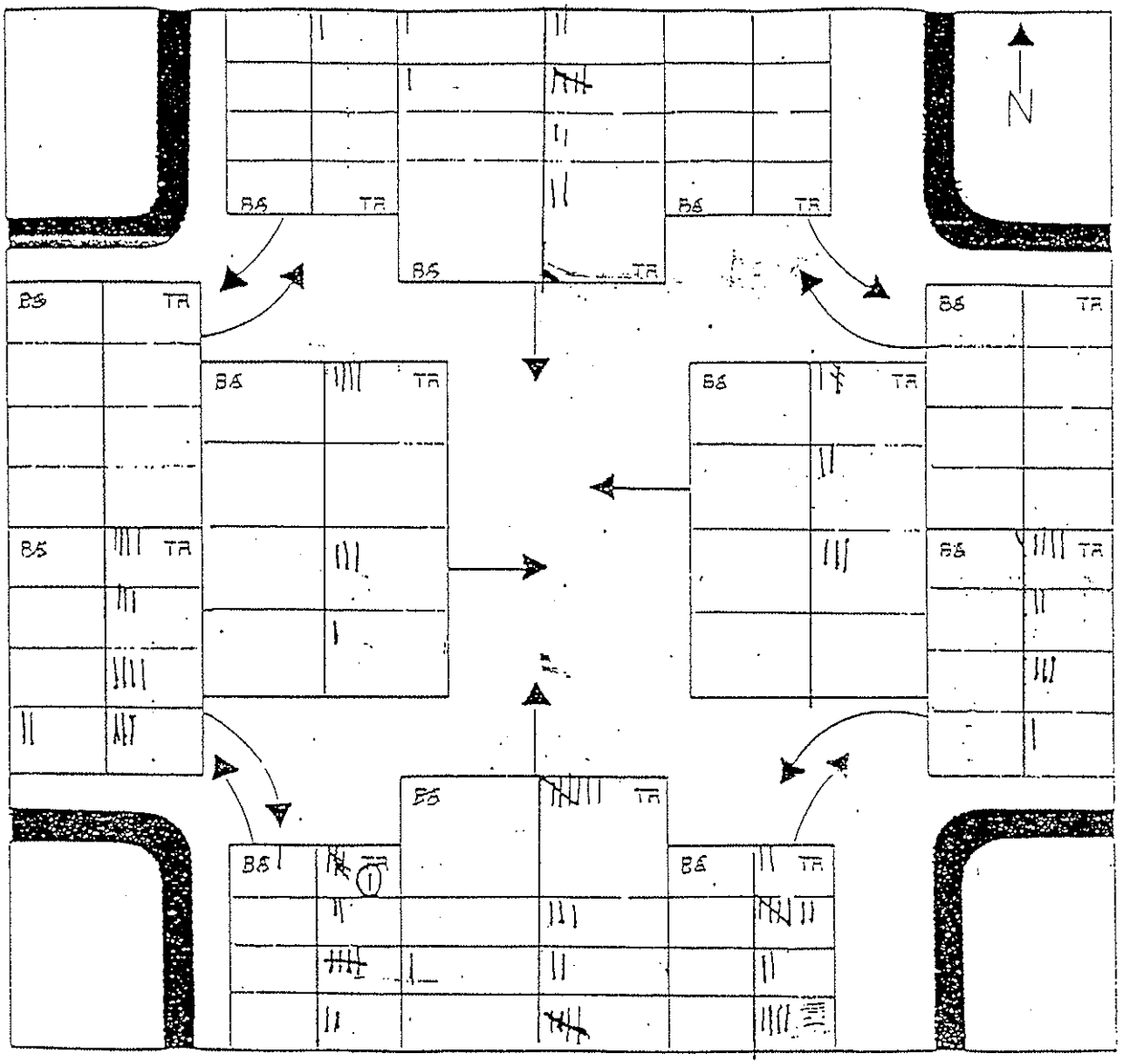


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

SHT. 5 OF 8

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW Z-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 12100 TO 13:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

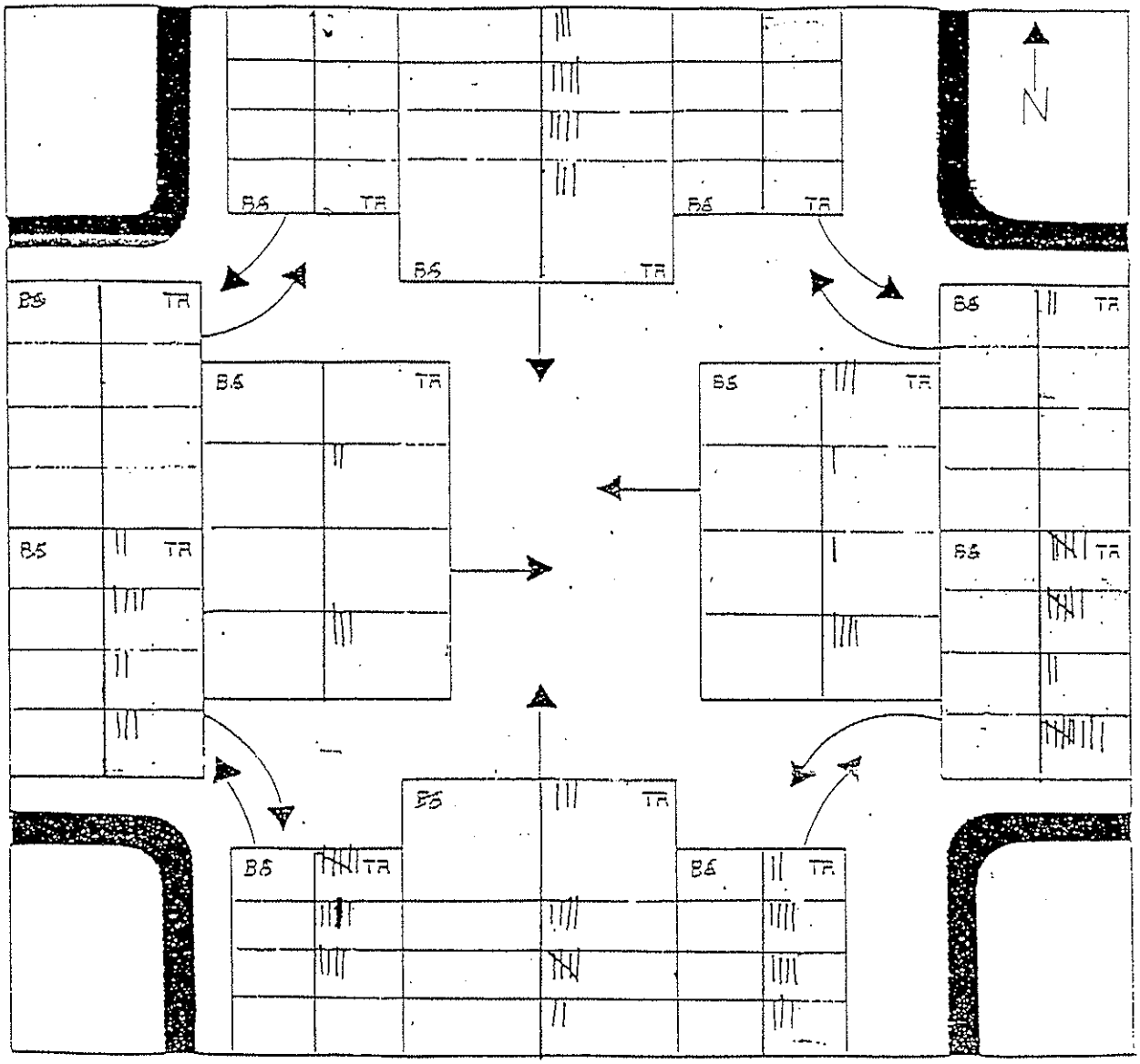


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW Z-HILLS BY PASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 16:00 TO 17:00

OBSERVER GEORGE R HILL WEATHER

REMARKS

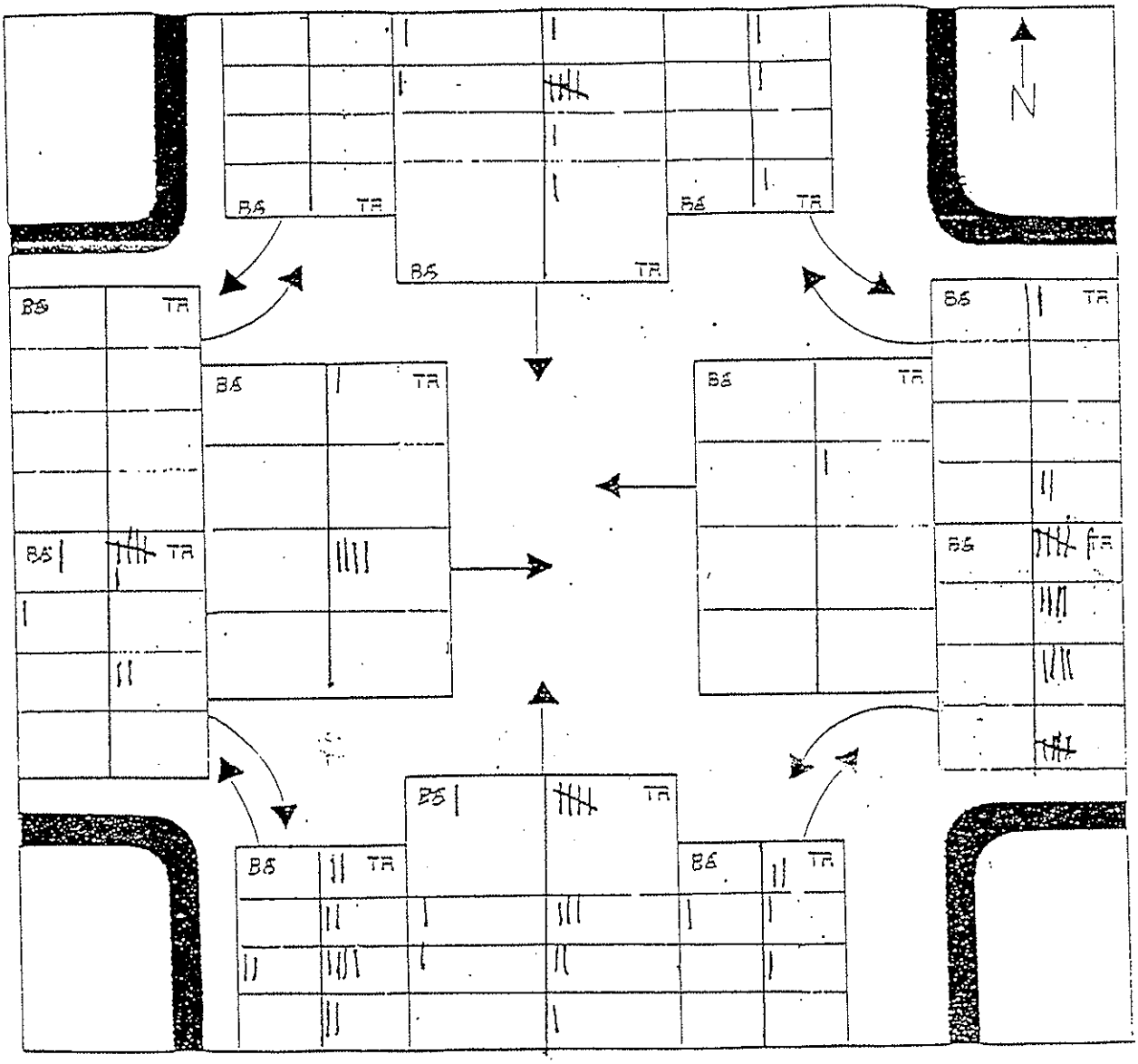


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR39 EW Z-HILLS BYPASS

COUNTY PASCO CITY ZEPHERHILLS

DATE 9-22-98 TIME: FROM 1700 TO 1800

OBSERVER GEORGE R HILL WEATHER CLOUDY

REMARKS

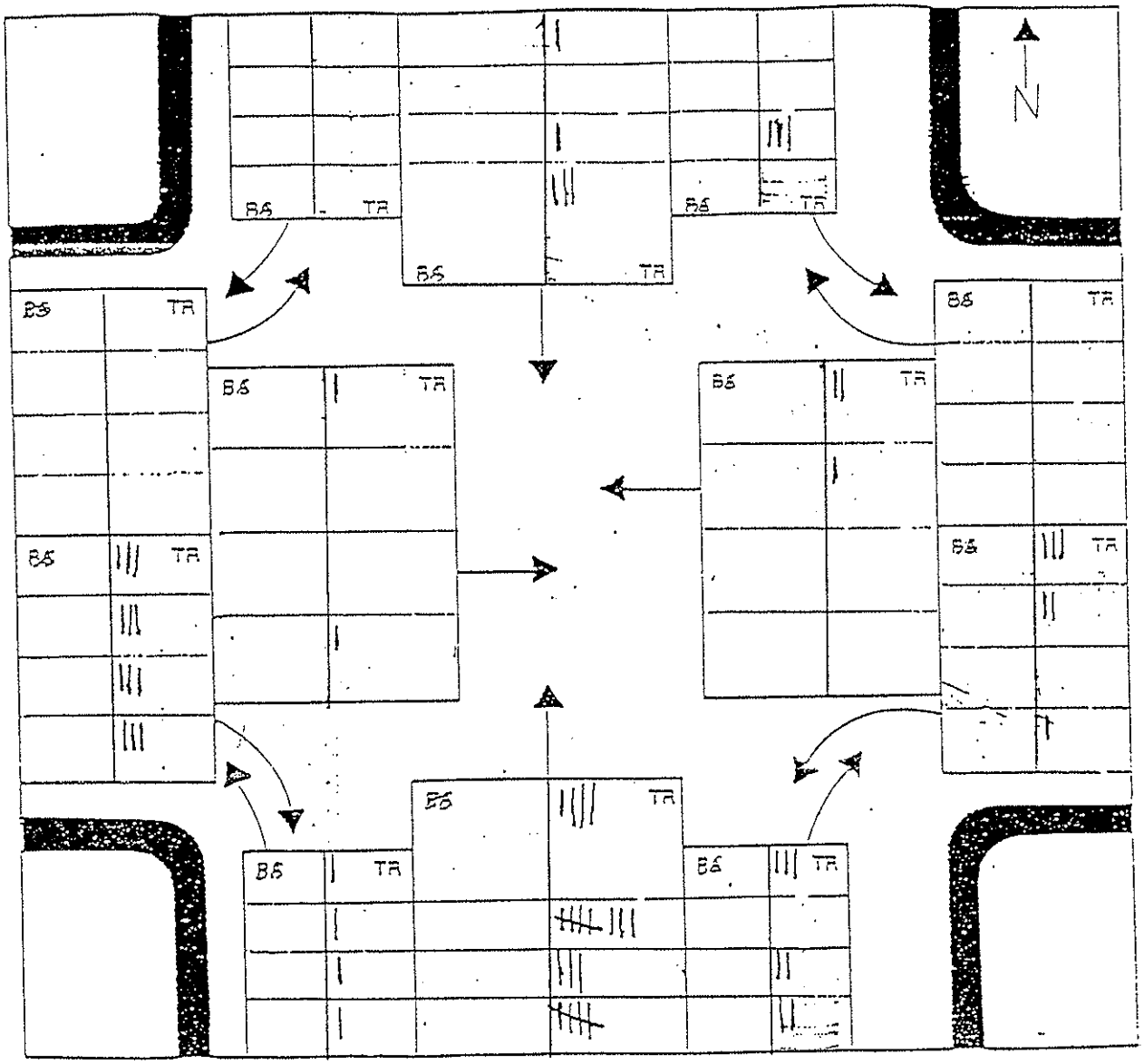


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR39 @ Z-Hills By PASS

COUNTY PASCO CITY Z-Hills TYPE OF CONTROL SIG

STUDY DATE 9-22-98 TIME: FROM 11 AM/PM TO 12 AM/PM OBSERVER GRH

REMARKS

TIME PERIODS

	6—7	7—8	8—9	11—12
P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

DISTANCE ___ FT.
RAISED MEDIAN ☐ NO ☐ YES
TOTALS

	6—7	7—8	8—9	11—12
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

P	0	0	0	0
	0	0	0	0
B	0	1	0	0
	0	1	0	0

TOTALS

DISTANCE ___ FT.
RAISED MEDIAN ☐ YES ☐ NO

	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

DISTANCE ___ FT.
RAISED MEDIAN ☐ YES ☐ NO

N

SR 39 STREET

CHANCEY STREET

P	0	0	0	0
	0	0	0	0
B	0	1	0	0
	0	1	0	0

TOTALS

	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

P	0	0	0	0
	0	0	0	0
B	0	0	0	0
	0	0	0	0

DISTANCE ___ FT.
RAISED MEDIAN ☐ NO ☐ YES
TOTALS

	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0

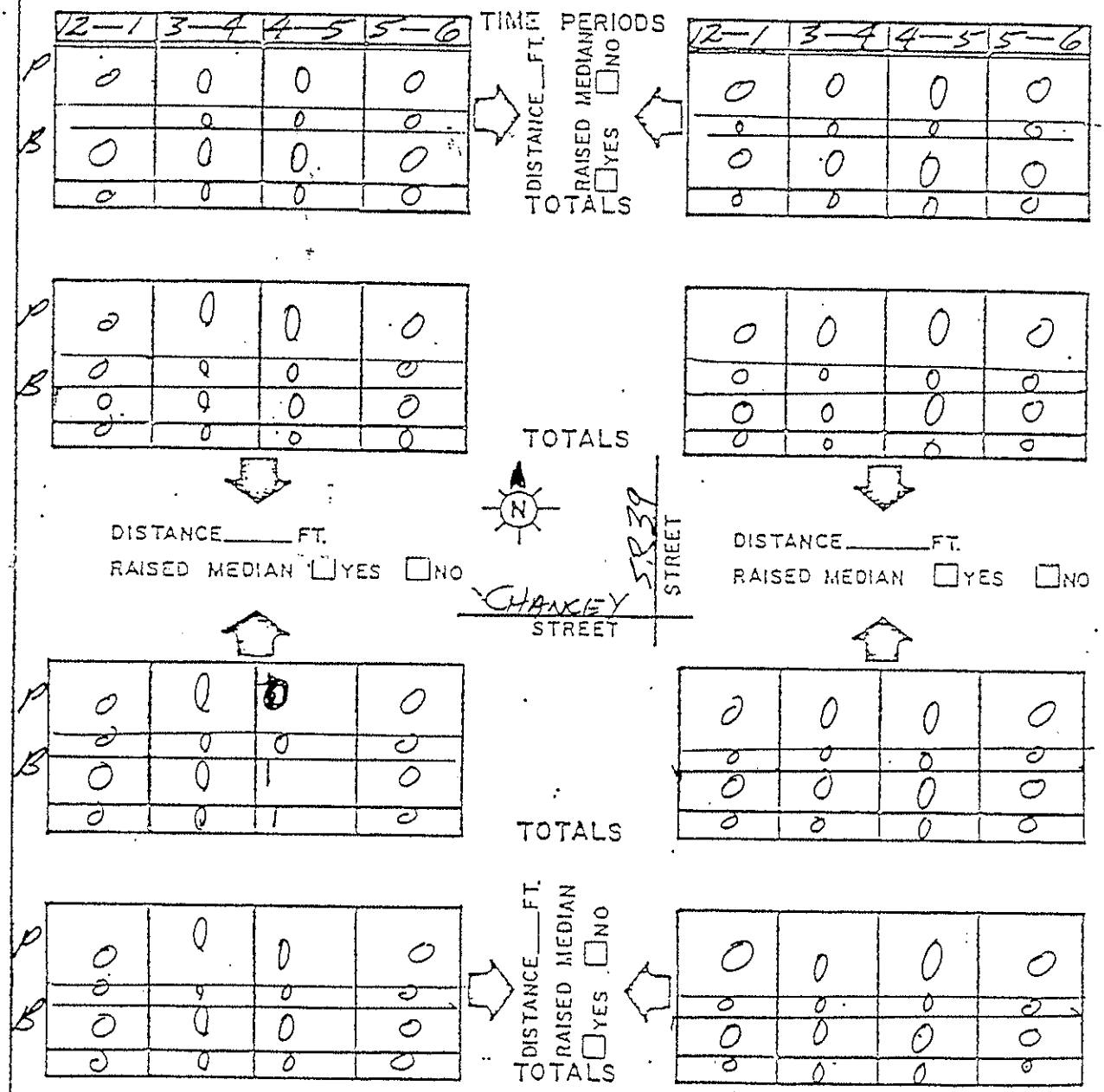
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR39 @ Z-HILLS BY PASS

COUNTY PASCO CITY Z-HILLS TYPE OF CONTROL STL

STUDY DATE 9-22-98 TIME: FROM 12:00 AM TO 1:30 PM OBSERVER GRH

REMARKS



FLORIDA DEPARTMENT OF TRANSPORTATION

DISTRICT 7 WORK COPY

TRAFFIC OPERATIONS

REQUEST FORM

IN OR (N) S. E. W. OF	MILE POST #	LOCAL STREET NAMES	U S	S R	SECTION	LEG
PLANT CITY	4.760	SR 39 AT KNIGHTS/ GRIFFIN Rd	—	39	10200	—

TYPE OF STUDY: 8HRTMC 6-9, 11-1, 3-6 & Ped Count & Bikes
NOTE Separate at Busses & Trucks

COUNTY: Hillsborough

SPEED ZONE	TRAFFIC SIGNAL	FLASHING BEACON	SCHOOL SPEED ZONE	UNAUTHORIZED TRAFFIC SIGNAL	DESIGN STUDY
X	X	X	X	X	
	8	4		8	8
X	X	X	X		
	X	X			X
	X	X			
	X				
				X	
	X	X	X	X	X
X					
	X	X		X	

REQUESTED BY: GABOR DATE: 9-16-98

PERFORMED BY: JOHN PEREZ

JOB #: _____

STUDY

	DATE:
FIELD SKETCH	9-22-98
TURNING MOVEMENTS (TO 501 OR 508)	—
SPEED CHECK (TO 503 OR 506)	—
TRAFFIC COUNTS (TO 510 OR 570)	—
STOP SIGN OBSERVANCE (TO 518)	—
STOP & DELAY (TO 507)	—
DRIVER OBSERVANCE OF TRAFFIC SIGNAL (TO 504)	—
PEDESTRIAN VOLUME (TO 502 OR 509) & BIKES	—
DELAY STUDY OF SIGNALIZED INTERSECTION	—
LEFT TURN STUDY (TO 513)	—
OBSERVATION STUDY (TO 519)	—

SPECIAL INSTRUCTIONS: _____

c:/dgn/request.dgn Nov. 17, 1993 13:57:08

WEATHER CLOUDY
Counter :
COUNTED BY JP

JAMAR Technologies, Inc.
Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Site Code : 1020000
Start Date: 09/22/9
File I.D. : TURN1014
Page : 1

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/22/98																	
06:00	3	29	11	1	2	19	0	0	7	16	8	0	12	31	11	0	150
06:15	22	80	8	0	11	23	19	0	1	30	1	0	8	6	12	0	221
06:30	12	73	6	0	17	16	29	0	5	46	2	0	6	14	8	0	234
06:45	24	91	5	0	14	33	28	0	5	35	0	0	13	11	14	0	273
Hr Total	61	273	30	1	44	91	76	0	18	127	11	0	39	62	45	0	878
07:00	15	67	8	0	12	26	17	0	9	24	9	0	4	14	16	0	221
07:15	15	56	7	0	10	35	20	0	16	41	9	0	5	15	15	0	244
07:30	17	73	16	0	11	39	25	0	15	34	3	0	3	16	14	0	266
07:45	14	84	15	0	16	37	16	0	20	34	4	0	9	18	13	0	280
Hr Total	61	280	46	0	49	137	78	0	60	133	25	0	21	63	58	0	1011
08:00	16	66	12	0	13	27	16	0	5	28	4	0	9	21	21	0	238
08:15	15	35	7	0	10	22	3	0	9	28	2	0	4	8	13	0	156
08:30	11	42	2	0	8	20	8	0	10	21	8	0	0	13	12	0	155
08:45	13	32	3	0	7	19	6	0	3	30	7	0	4	10	19	0	153
Hr Total	55	175	24	0	38	88	33	0	27	107	21	0	17	52	65	0	702
--------- * BREAK * ---------																	
11:00	7	32	1	0	13	10	4	0	5	23	4	0	3	7	12	0	121
11:15	3	39	4	0	6	10	7	0	7	29	9	0	1	11	7	0	133
11:30	9	39	3	0	5	13	7	0	7	35	6	0	4	15	10	0	153
11:45	5	29	2	0	7	10	10	0	9	28	2	0	3	8	5	0	118
Hr Total	24	139	10	0	31	43	28	0	28	115	21	0	11	41	34	0	525
12:00	6	23	2	0	5	5	8	0	8	42	7	0	3	7	3	0	119
12:15	9	34	1	0	4	4	4	0	7	24	8	0	3	6	4	0	108
12:30	6	26	4	1	10	11	10	0	5	22	4	0	3	6	7	0	115
12:45	10	25	2	0	6	11	7	0	9	27	5	0	3	7	8	0	120
Hr Total	31	108	9	1	25	31	29	0	29	115	24	0	12	26	22	0	462
--------- * BREAK * ---------																	
15:00	10	46	4	0	10	9	8	0	10	39	12	0	3	8	14	0	173
15:15	10	29	5	0	5	21	5	0	9	40	6	0	4	15	11	0	160
15:30	22	50	9	0	9	6	11	0	19	58	10	0	5	18	9	0	226
15:45	24	58	5	0	14	14	22	0	11	39	9	0	7	21	14	0	238
Total	66	183	23	0	38	50	46	0	49	176	37	0	19	62	48	0	797
16:00	11	34	6	0	7	18	17	1	12	52	14	0	6	19	17	0	214
16:15	6	48	2	0	10	16	13	0	15	65	10	0	4	21	9	0	219
16:30	8	35	6	0	9	19	14	0	13	57	10	0	9	23	6	0	209
16:45	16	30	4	0	12	19	10	0	14	64	24	0	5	23	9	0	230
Total	41	147	18	0	38	72	54	1	54	238	58	0	24	86	41	0	872

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/22/98																	
17:00	17	41	6	0	8	25	15	0	19	68	13	0	4	23	14	0	253
17:15	13	40	6	0	10	26	26	0	17	78	21	0	8	33	12	0	290
17:30	22	43	3	0	9	28	32	0	11	66	14	0	7	42	14	0	291
17:45	18	44	5	0	11	19	21	0	10	75	15	0	12	37	14	0	281
Hr Total	70	168	20	0	38	98	94	0	57	287	63	0	31	135	54	0	1115
TOTAL	409	1473	180	2	301	610	438	1	322	1298	260	0	174	527	367	0	6362

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 6 AM TO 6:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

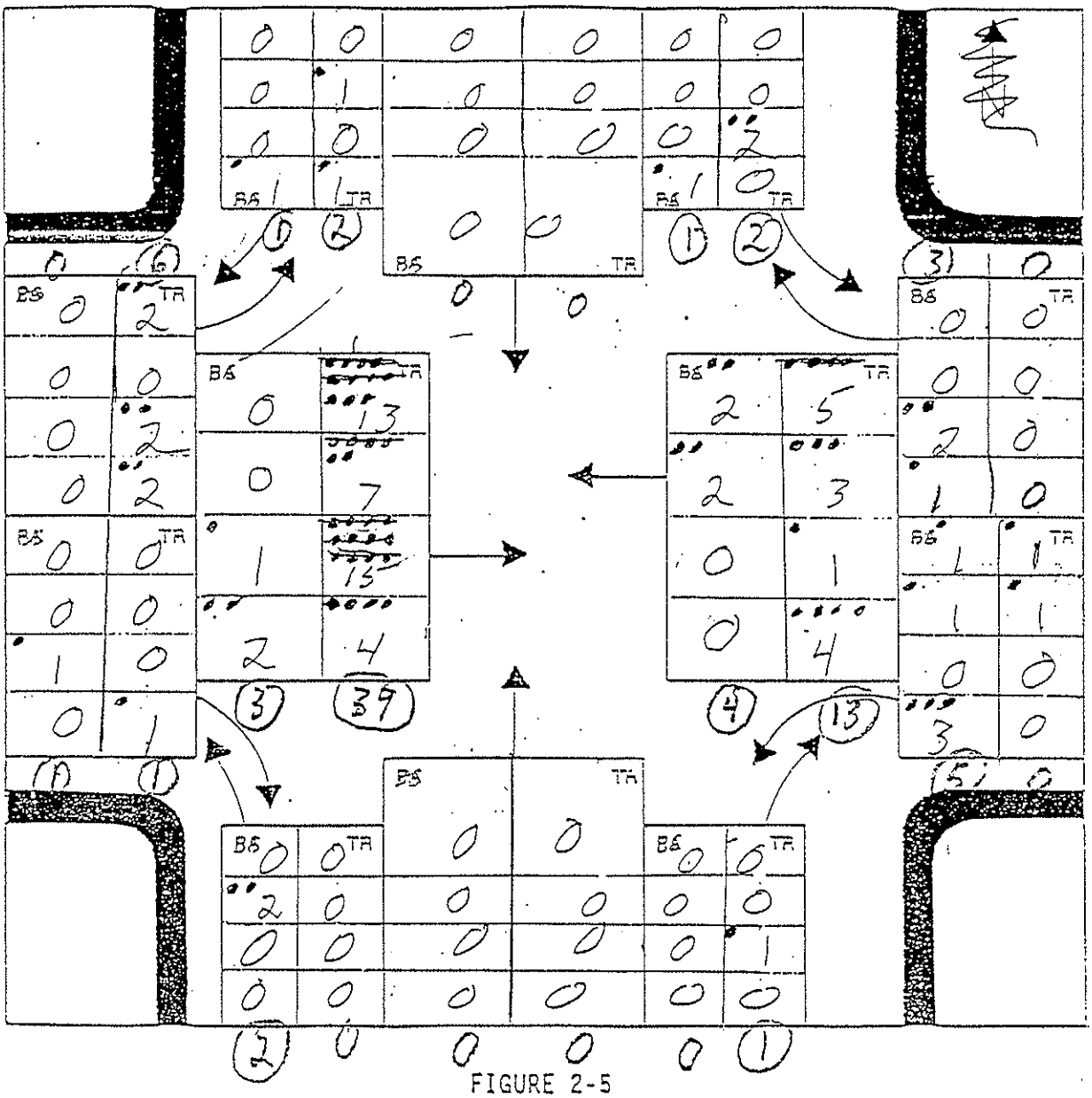


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

VOTE: EACH SQUARE REPRESENT 15 MIN. (Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 7 AM TO 7:45

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

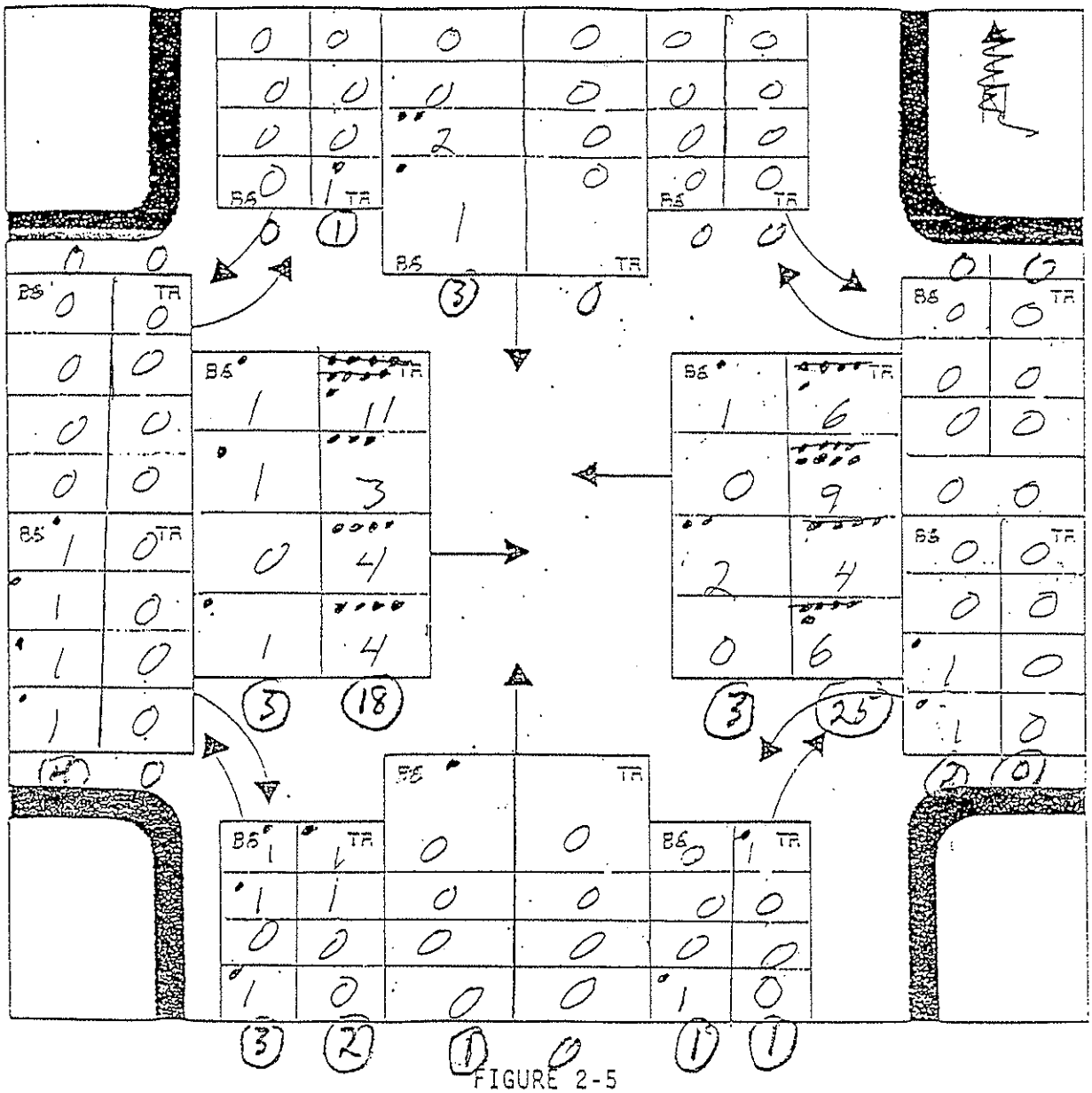


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN.

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 8:AM TO 8:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

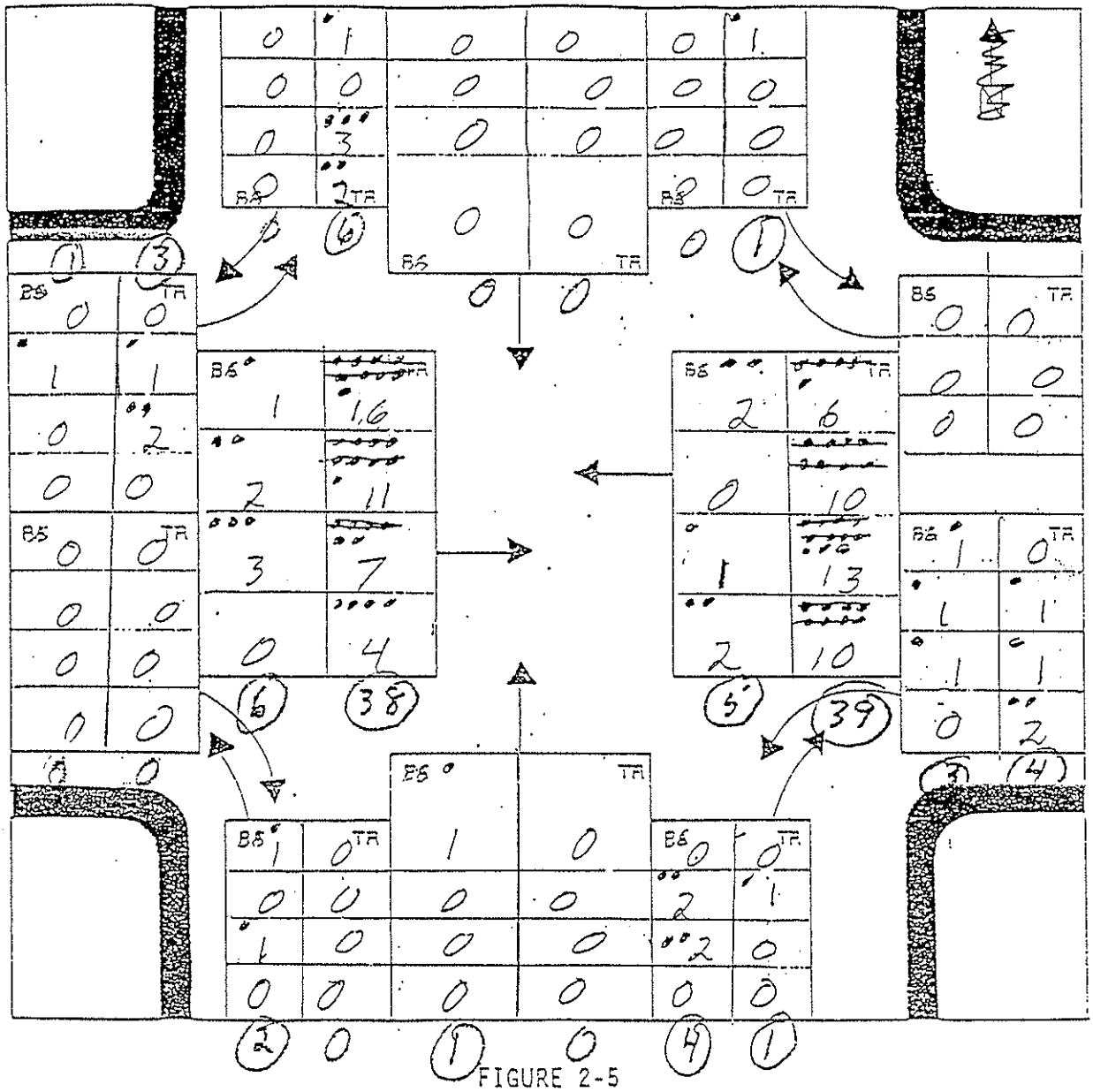


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

NOTE: EACH SQUARE REPRESENT 15 MIN.

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS / GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 11 AM TO 11:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

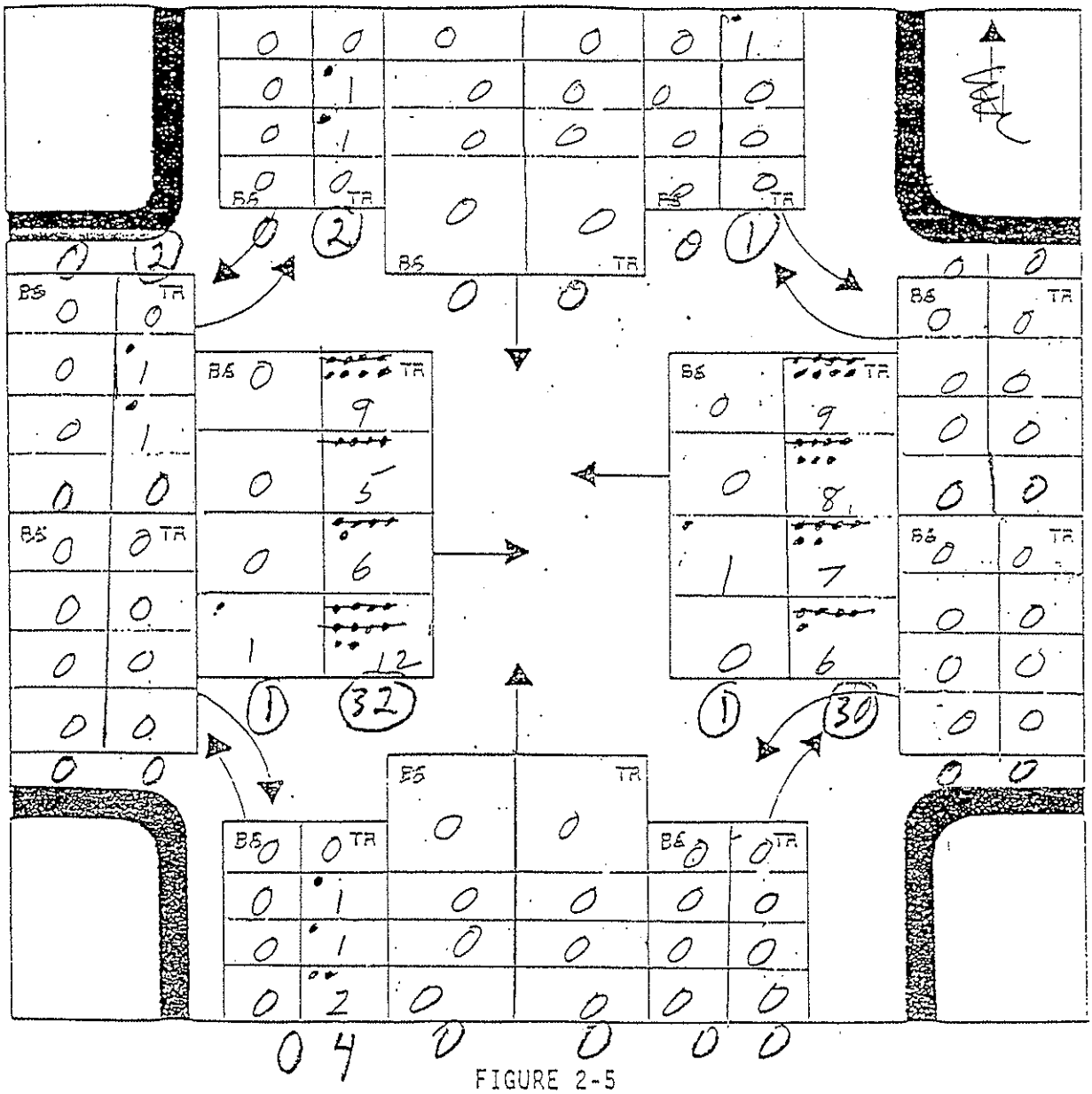


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN. (Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS / GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 12:00 TO 1: P.M

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

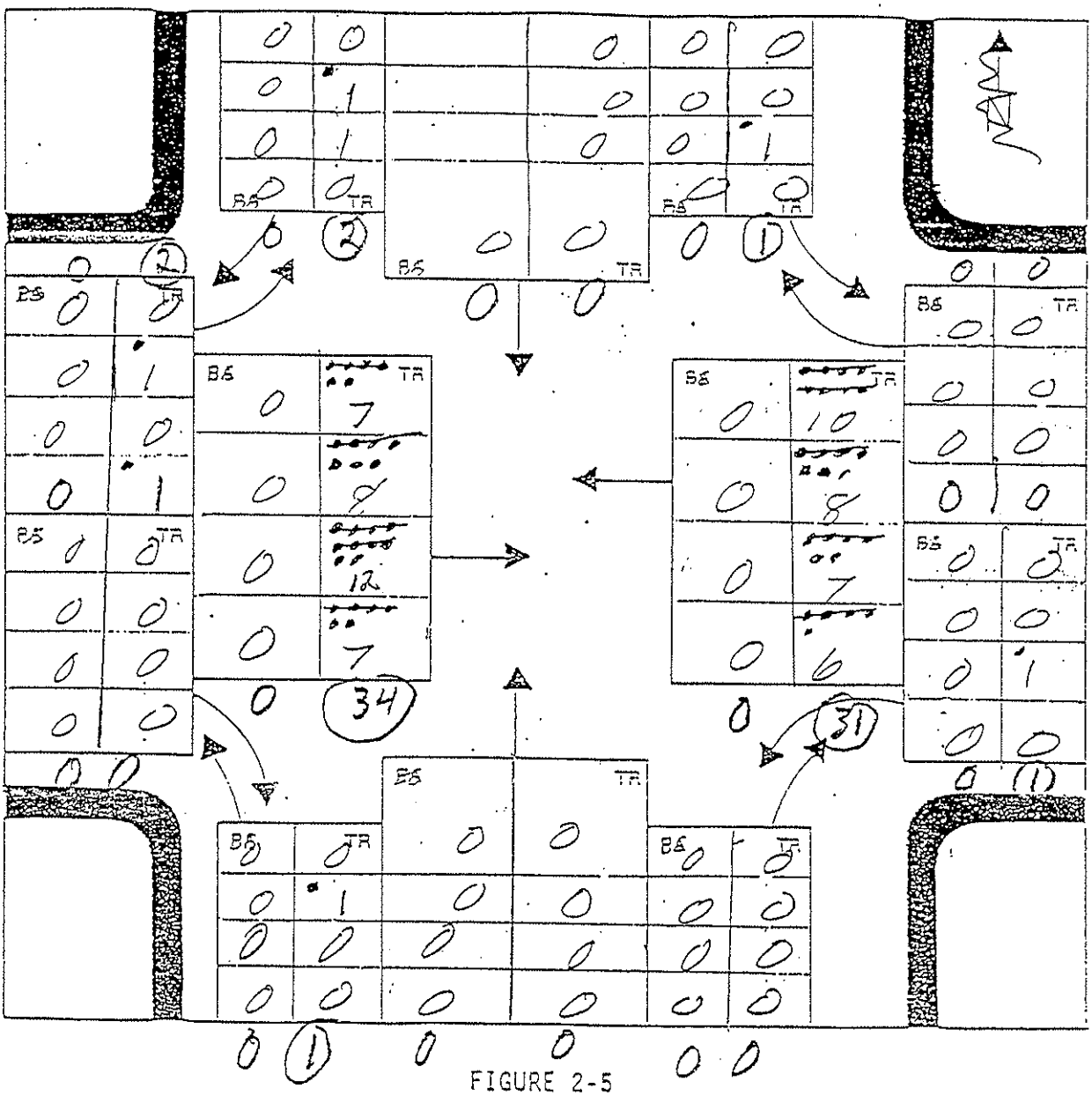


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN. (Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 3 P.M. TO 3:45

OBSERVER JOHN PEREZ WEATHER RAINING

REMARKS

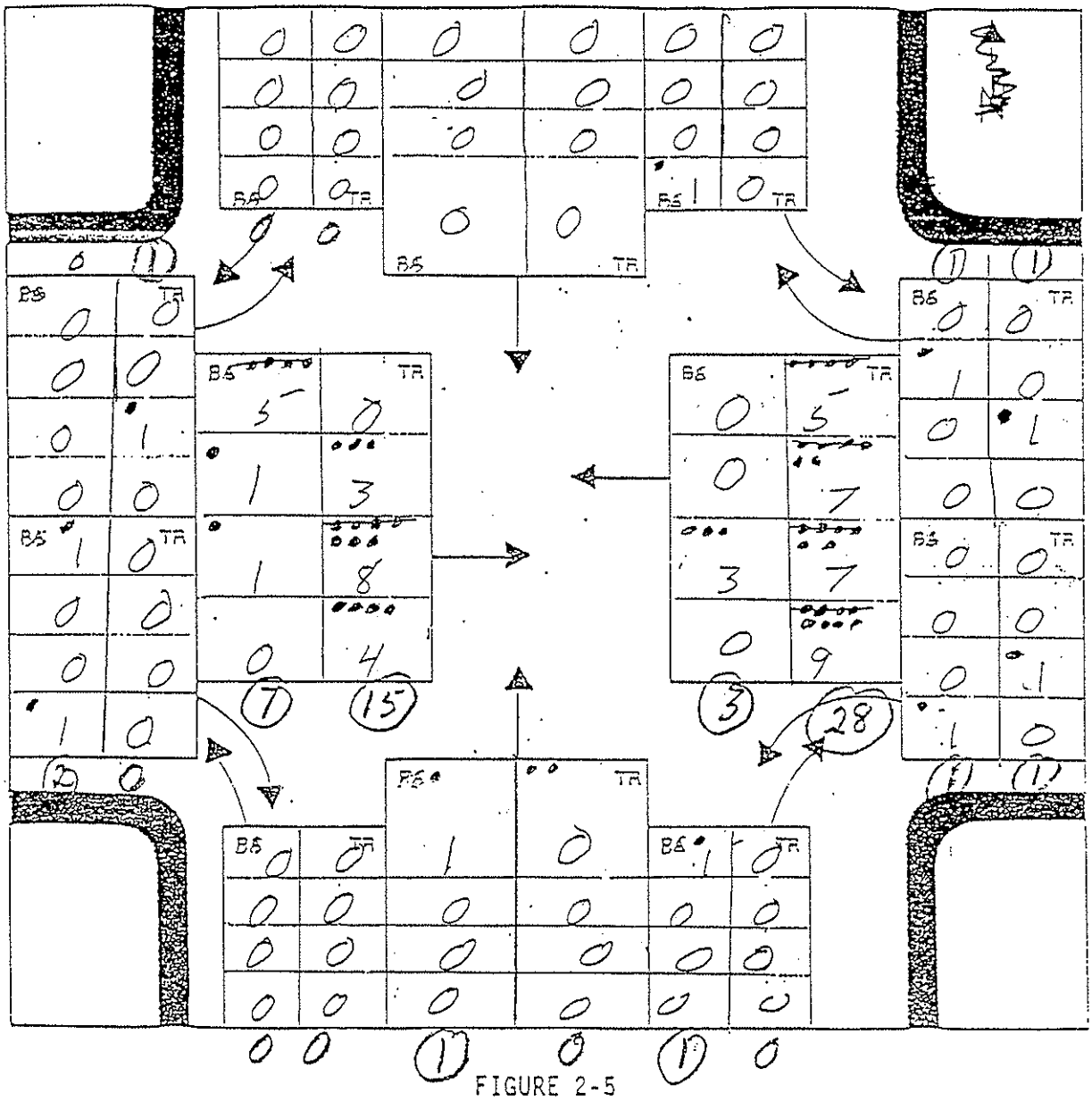


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN.

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 4:P.M. TO 4:45

OBSERVER JOHN PEREZ WEATHER RAINING

REMARKS

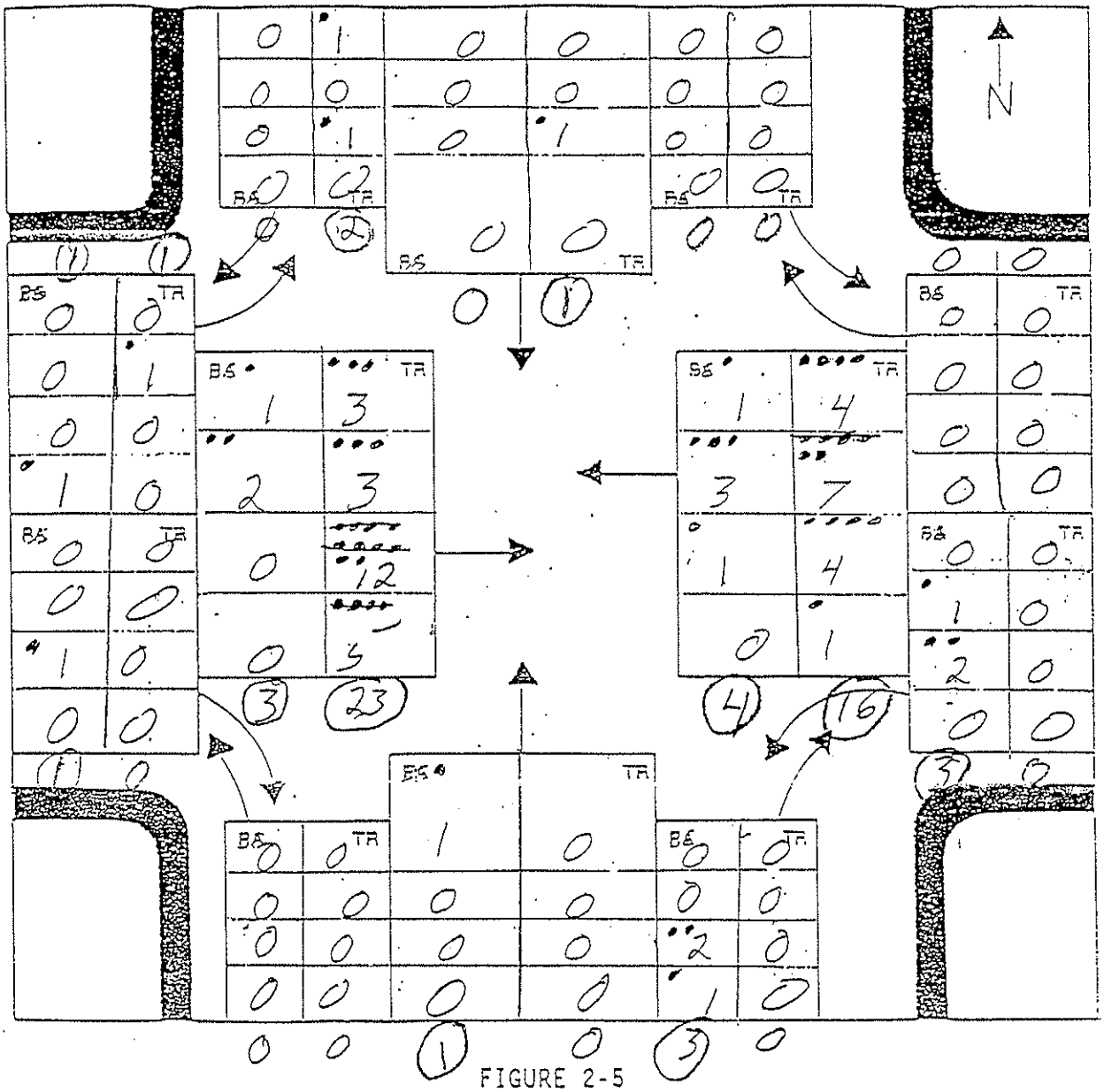


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN.

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR. 39 @ KNIGHTS/GRIFFIN RD EW

COUNTY Hills CITY PLANT CITY

DATE 9-22-98 TIME: FROM 5:P.M. TO 5:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

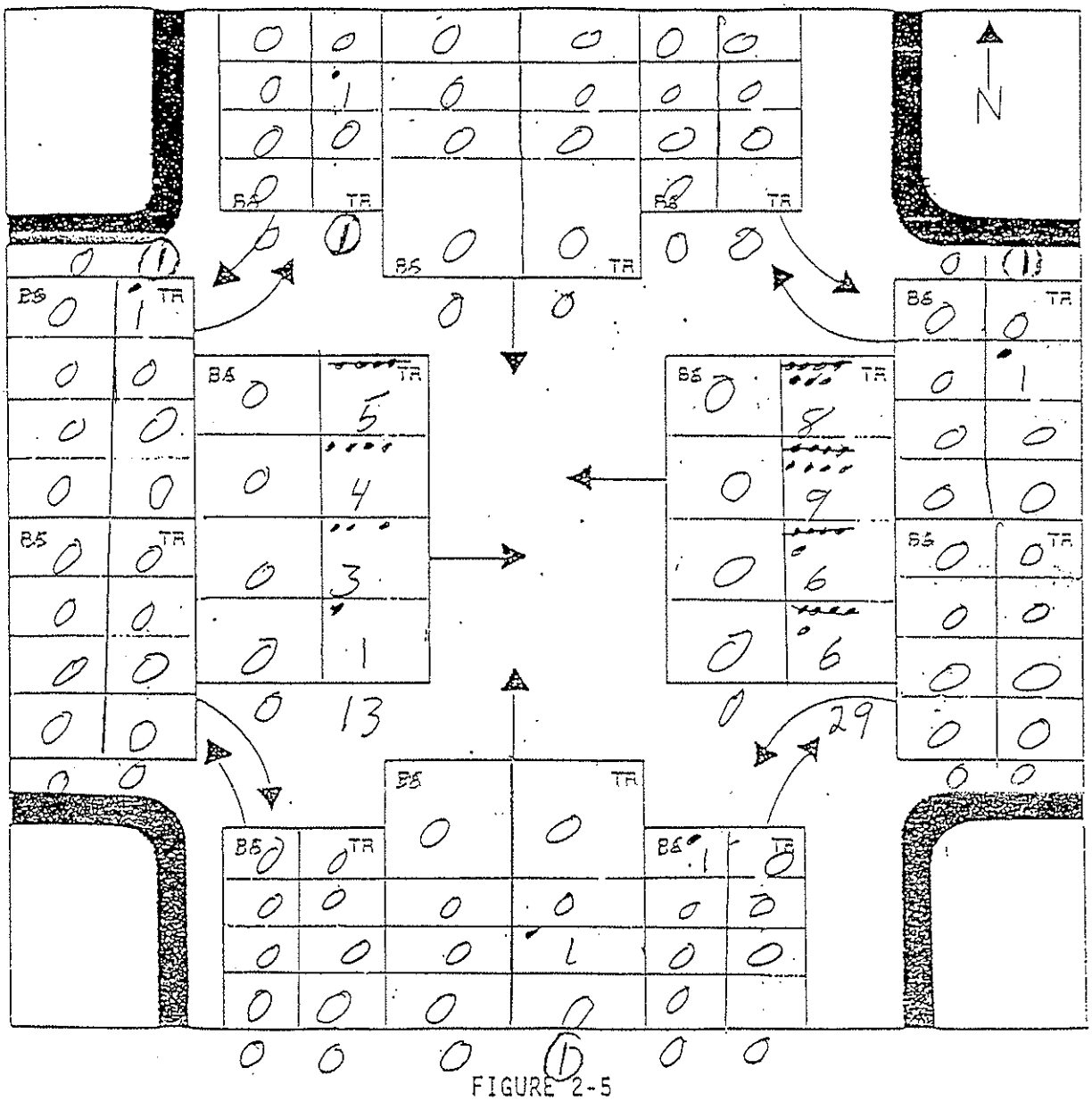


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE REPRESENT 15 MIN.

(Source: Florida Department of Transportation)

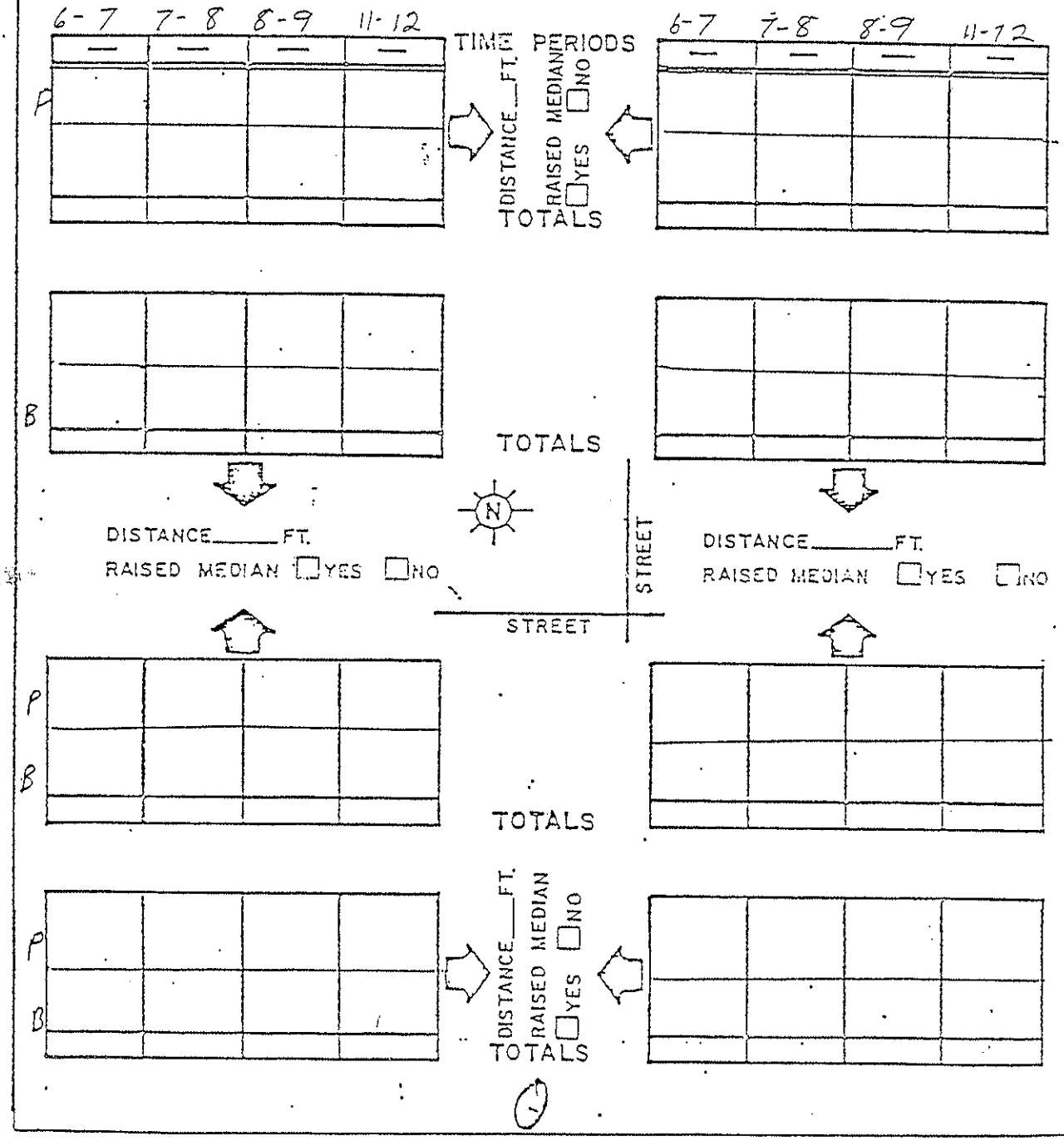
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. S.R. 39 @ KNIGHT AND GRIFFIN RD

COUNTY HILLS CITY PLANT CITY TYPE OF CONTROL ____

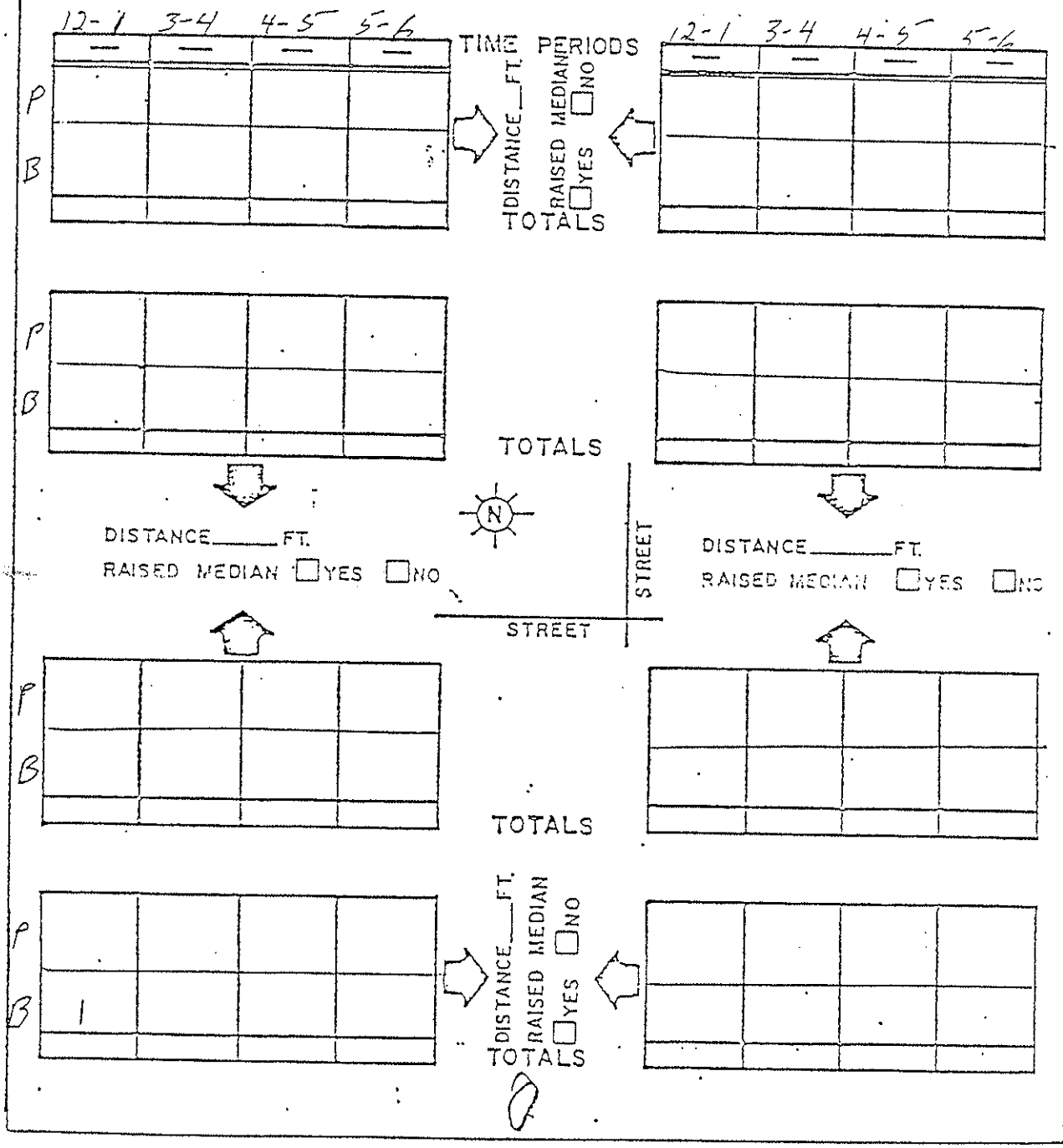
STUDY DATE 9-22-98 TIME: FROM ____ AM/PM TO ____ AM/PM OBSERVER J.P.

REMARKS ____



FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. S.R. 39 @ KNIGHT AND GRIFFIN RD.
COUNTY Hills CITY Plant City TYPE OF CONTROL ____
STUDY DATE 9-22-98 TIME: FROM ____ AM/PM TO ____ AM/PM OBSERVER J.P.
REMARKS ____



DISTRICT 7 WORK COPY
TRAFFIC OPERATIONS
REQUEST FORM

IN OR (N) S. E. W. OF	MILE POST #	LOCAL STREET NAMES	U S	S R	SECTION	L
PLANT CITY	2.196	SR 39 AT SAM ALLEN RD	—	39	10200	-

TYPE OF STUDY: 8HR TMC 6-9, 11-1, 3-6 & ~~Ped & Bicycle count~~
NOTE: Separate out Busses & ~~Heavy~~ Trucks

COUNTY: Hillsborough,

REQUESTED BY: GABOR DATE: 9-16-

PERFORMED BY: JOHN PEREZ

JOB #: _____

SPEED ZONE	TRAFFIC SIGNAL	FLASHING BEACON	SCHOOL SPEED ZONE	UNAUTHORIZED TRAFFIC SIGNAL	DESIGN STUDY	**STUDY**	DATE
X	X	X	X	X		FIELD SKETCH	9-21-78
	8	4		8	8	TURNING MOVEMENTS (TO 501 OR 508)	
X	X	X	X			SPEED CHECK (TO 503 OR 506)	
	X	X			X	TRAFFIC COUNTS (TO 510 OR 570)	
	X	X				STOP SIGN OBSERVANCE (TO 518)	
	X					STOP & DELAY (TO 507)	
				X		DRIVER OBSERVANCE OF TRAFFIC SIGNAL (TO 504)	
	X	X	X	X	X	PEDESTRIAN VOLUME (TO 502 OR 509) & Bikes	
X						DELAY STUDY OF SIGNALIZED INTERSECTION	
	X	X		X		LEFT TURN STUDY (TO 513)	
						OBSERVATION STUDY (TO 519)	

SPECIAL INSTRUCTIONS: _____

c:/dgn/request.dgn Nov. 17, 1993 13:57:06

Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/21/98																	
6:15	22	68	2	0	9	5	11	0	9	21	4	0	2	7	6	0	166
6:30	28	81	4	0	21	4	16	0	9	37	3	0	4	13	4	0	224
6:45	33	108	4	0	16	7	17	1	10	31	2	0	3	9	15	1	257
7:00	22	85	5	0	20	15	15	0	10	33	8	0	3	12	19	0	247
Total	105	342	15	0	66	31	59	1	38	122	17	0	12	41	44	1	894
7:15	27	96	2	0	12	22	24	0	20	51	6	0	5	9	14	0	288
7:30	19	71	6	0	20	16	21	0	12	45	6	0	3	18	19	0	256
7:45	29	102	4	0	29	16	19	0	14	41	11	0	7	26	33	0	331
8:00	30	85	3	0	15	18	14	0	15	32	14	0	4	20	24	0	274
Total	105	354	15	0	76	72	78	0	61	169	37	0	19	73	90	0	1149
:15	23	67	5	0	16	6	10	0	15	33	6	0	7	16	13	0	217
:30	18	52	5	0	15	9	9	0	13	30	7	0	3	17	8	0	186
:45	16	54	4	0	25	6	11	0	18	30	11	0	4	9	18	0	206
:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	57	173	14	0	56	21	30	0	46	93	24	0	14	42	39	0	609
-------	BREAK	-------															
:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
:00	5	43	9	0	17	8	18	0	16	40	14	0	5	10	11	0	196
Total	5	43	9	0	17	8	18	0	16	40	14	0	5	10	11	0	196
:15	12	51	5	0	22	16	19	0	15	39	14	0	4	6	18	0	221
30	11	53	1	0	11	13	15	0	18	49	18	0	3	12	21	0	225
45	8	60	6	0	10	8	11	0	17	41	16	0	5	3	14	0	199
00	14	48	7	0	17	12	17	0	18	42	13	0	4	8	9	0	209
Total	45	212	19	0	60	49	62	0	68	171	61	0	16	29	62	0	854
15	9	55	5	0	15	9	11	0	10	54	18	0	5	9	18	0	218
30	16	49	2	0	16	13	18	0	30	44	14	0	6	9	15	0	232
45	11	42	2	0	20	6	11	0	14	46	18	0	7	11	15	0	203
00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	36	146	9	0	51	28	40	0	54	144	50	0	18	29	48	0	653
-------	BREAK	-------															
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00	3	55	9	0	15	13	13	0	16	58	13	0	2	11	13	0	221
Total	3	55	9	0	15	13	13	0	16	58	13	0	2	11	13	0	221

JAMAR Technologies, Inc.
Traffic Counting Equipment & Supplies
2031 Stout Drive, Suite 4
Ivyland, PA 18974

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
ate 09/21/98	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
5:15	18	45	0	0	14	10	13	0	13	54	27	0	3	11	19	0	227
5:30	17	61	1	0	14	11	26	0	12	64	24	0	3	7	15	0	255
5:45	10	90	2	0	11	10	19	0	21	77	22	0	3	8	10	0	283
6:00	16	58	4	0	15	13	25	0	14	72	24	0	5	11	14	0	271
r Total	61	254	7	0	54	44	83	0	60	267	97	0	14	37	58	0	1036
6:15	12	61	1	0	16	12	29	0	24	84	25	0	4	18	14	0	300
6:30	16	67	2	0	11	14	18	0	18	80	18	0	3	12	15	0	274
6:45	14	54	2	0	15	15	19	0	21	76	23	0	2	11	23	0	275
7:00	20	55	5	0	14	18	27	0	16	72	18	0	7	17	15	0	284
r Total	62	237	10	0	56	59	93	0	79	312	84	0	16	58	67	0	1133
	76	230	12		43	63	167		35	314	79		25	60	53		
7:15	26	74	2	0	9	14	29	0	21	125	24	0	6	11	9	0	350
7:30	19	55	5	0	14	16	20	0	17	97	17	0	5	14	13	0	292
7:45	31	52	0	0	6	15	25	0	11	100	20	0	7	26	13	0	306
: Total	76	181	7	0	29	45	74	0	49	322	61	0	18	51	35	0	948
TOTAL*	555	1997	114	0	480	370	550	1	487	1698	458	0	134	381	467	1	7693

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS S.R. 39 @ SAM ALLEN RD. EW _____

COUNTY Hills CITY Plant City

DATE 9-21-78 TIME: FROM 6:00 A.M. TO 6:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS _____

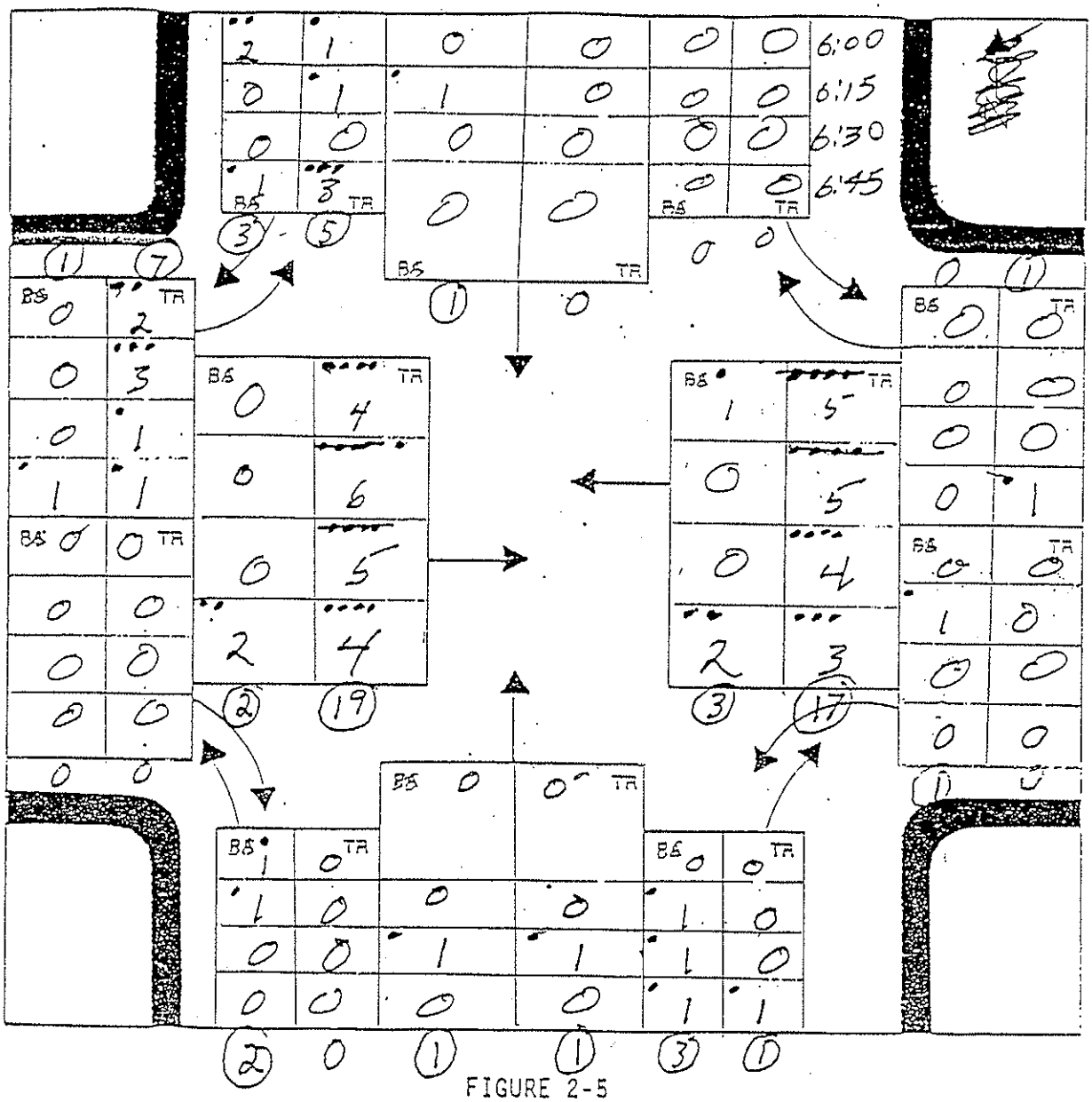


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE EACH SQUARE WILL REPRESENTS 15 MIN!

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS S.R. 39 @ SAM ALLEN EW

COUNTY Hills CITY Plant City

DATE 9-21-98 TIME: FROM 7:1 AM TO 7:45

OBSERVER John PEREZ WEATHER cloudy

REMARKS

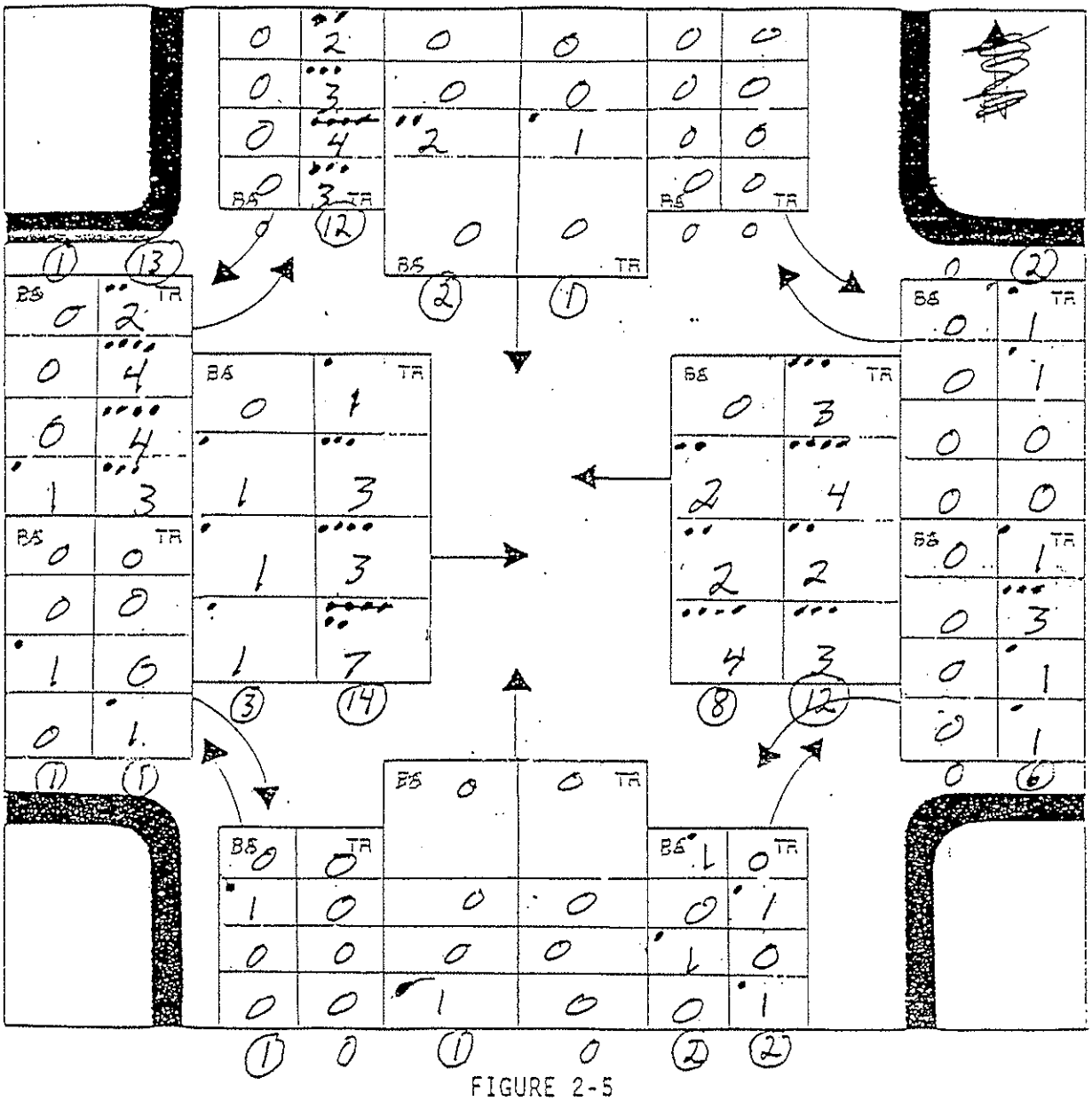


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

NOTE: EACH SQUARE WILL REPRESENT 15 MIN.

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM ALLEN RD EW

COUNTY HILLS CITY PLANT CITY

DATE 9-21-98 TIME: FROM 8:AM TO 8:45

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

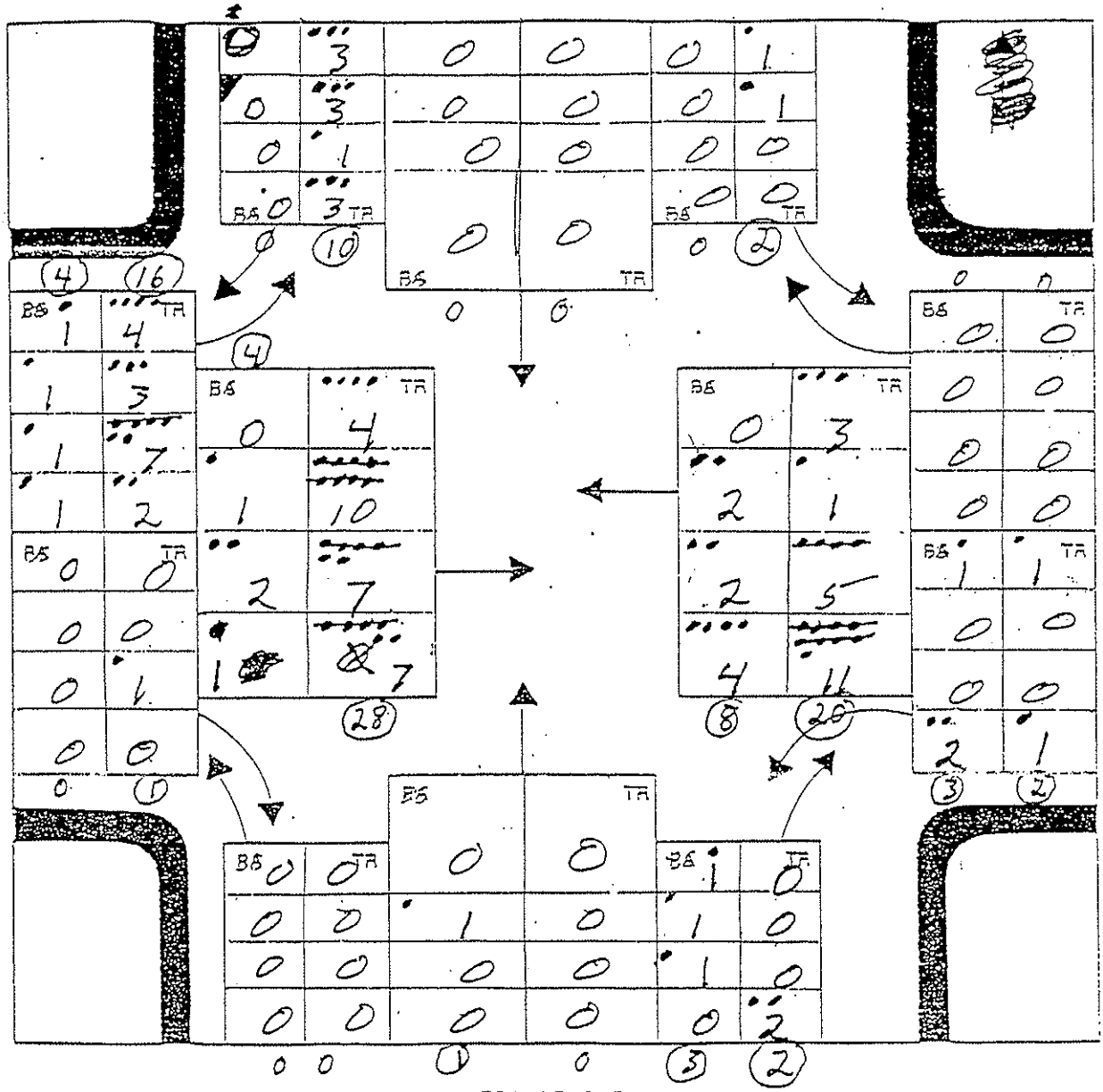


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

NOTE:
EACH SQUARE WILL REPRESENT 15 MIN.

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM ALLEN RD EW

COUNTY HILLS CITY PLANT CITY

DATE 9-21-98 TIME: FROM 11 A.M TO 11.45

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

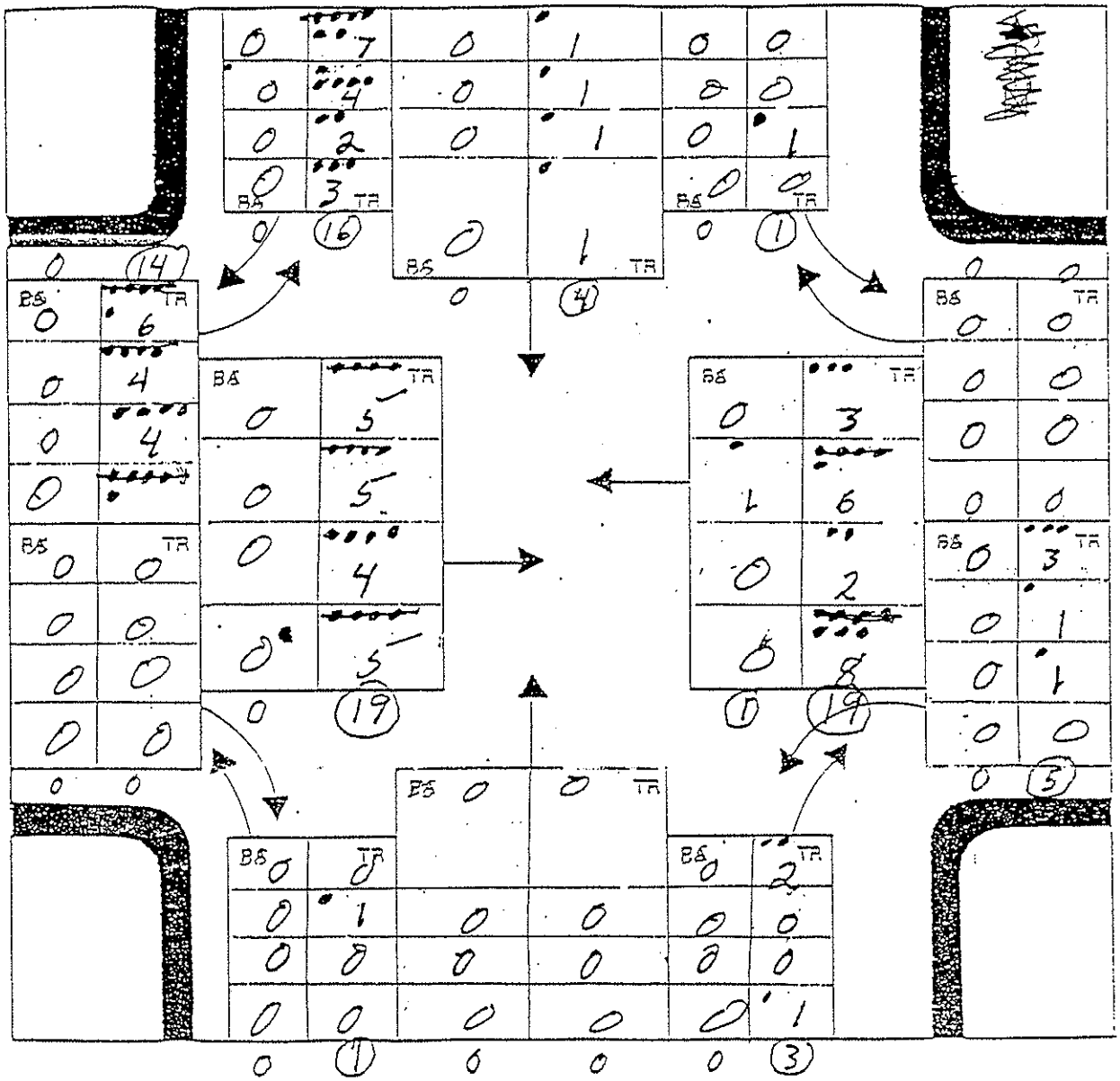


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

NOTE: EACH SQUARE WILL PRESENT 15 MIN.

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM ALLEN RD EW

COUNTY Hills CITY Plant City

DATE 9-21-98 TIME: FROM 12 AM TO 12 45

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

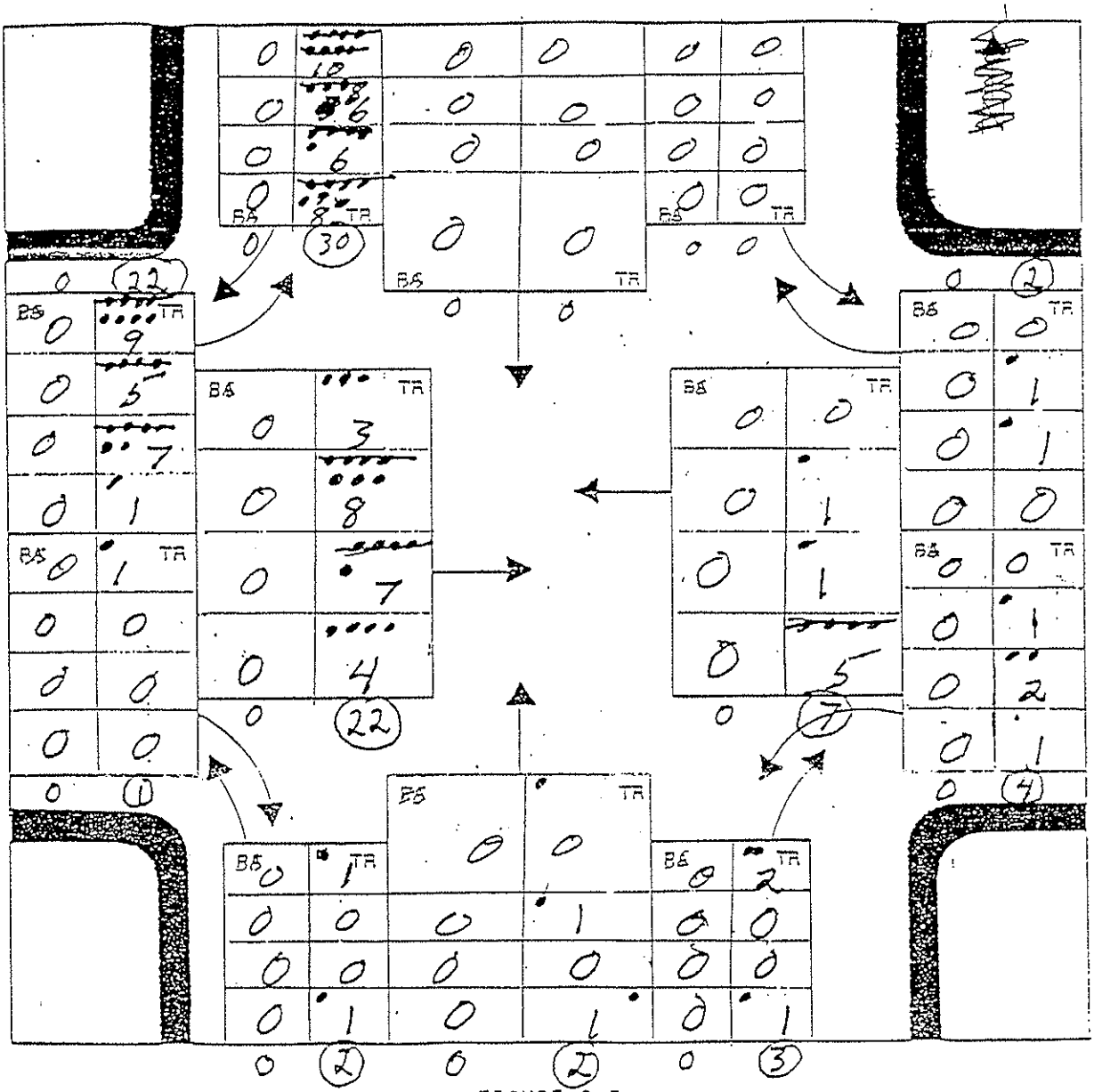


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM AI EW

COUNTY HILLS CITY Plant City

DATE 9-21-98 TIME: FROM 3:PM, TO 3:45 PM

OBSERVER JOHN PEREZ WEATHER cloudy

REMARKS

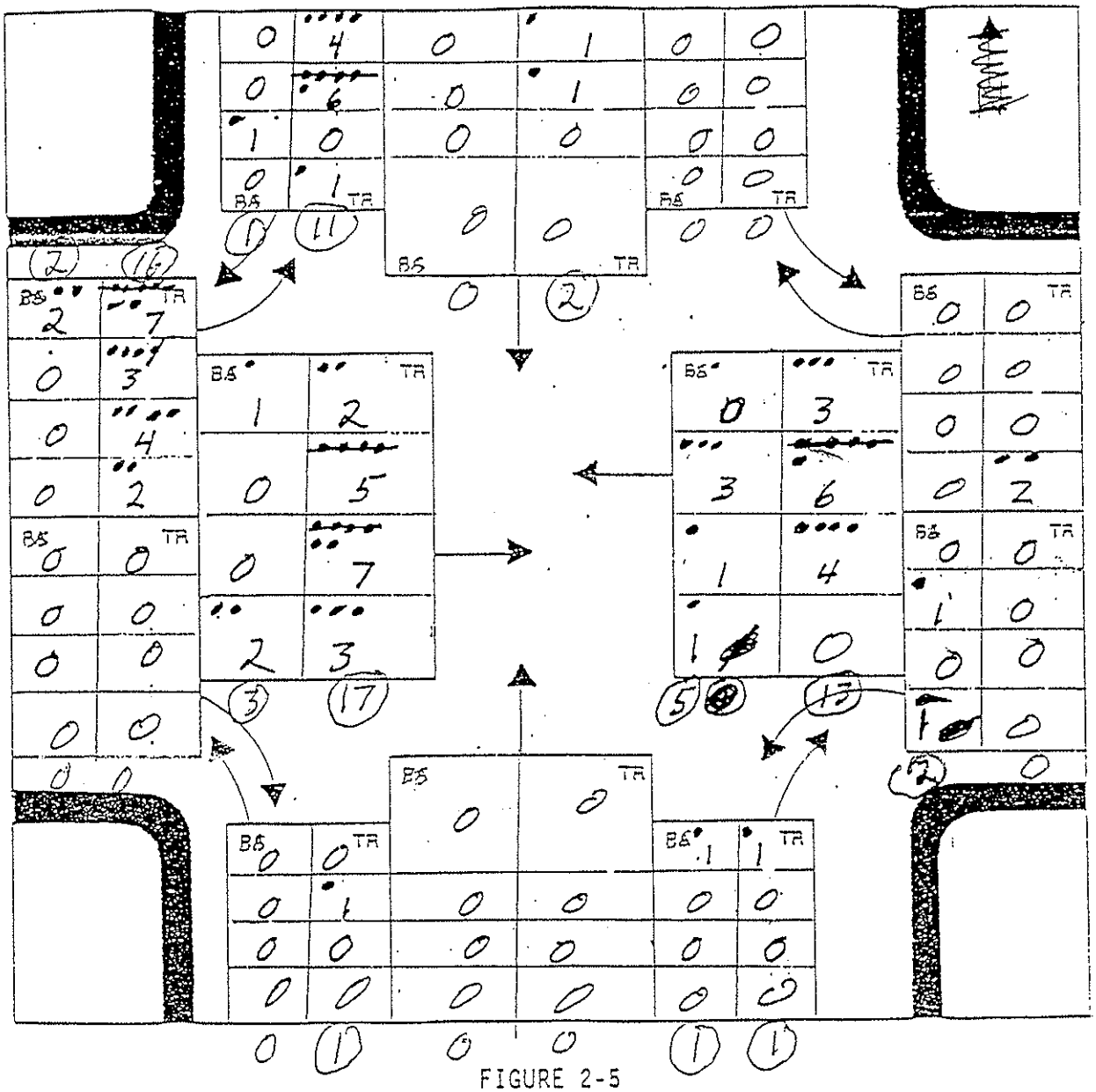


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM ALLEN RD EW

COUNTY HILLS CITY PLANT CITY

DATE 9-21-98 TIME: FROM 4:P.M. TO 4'45

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

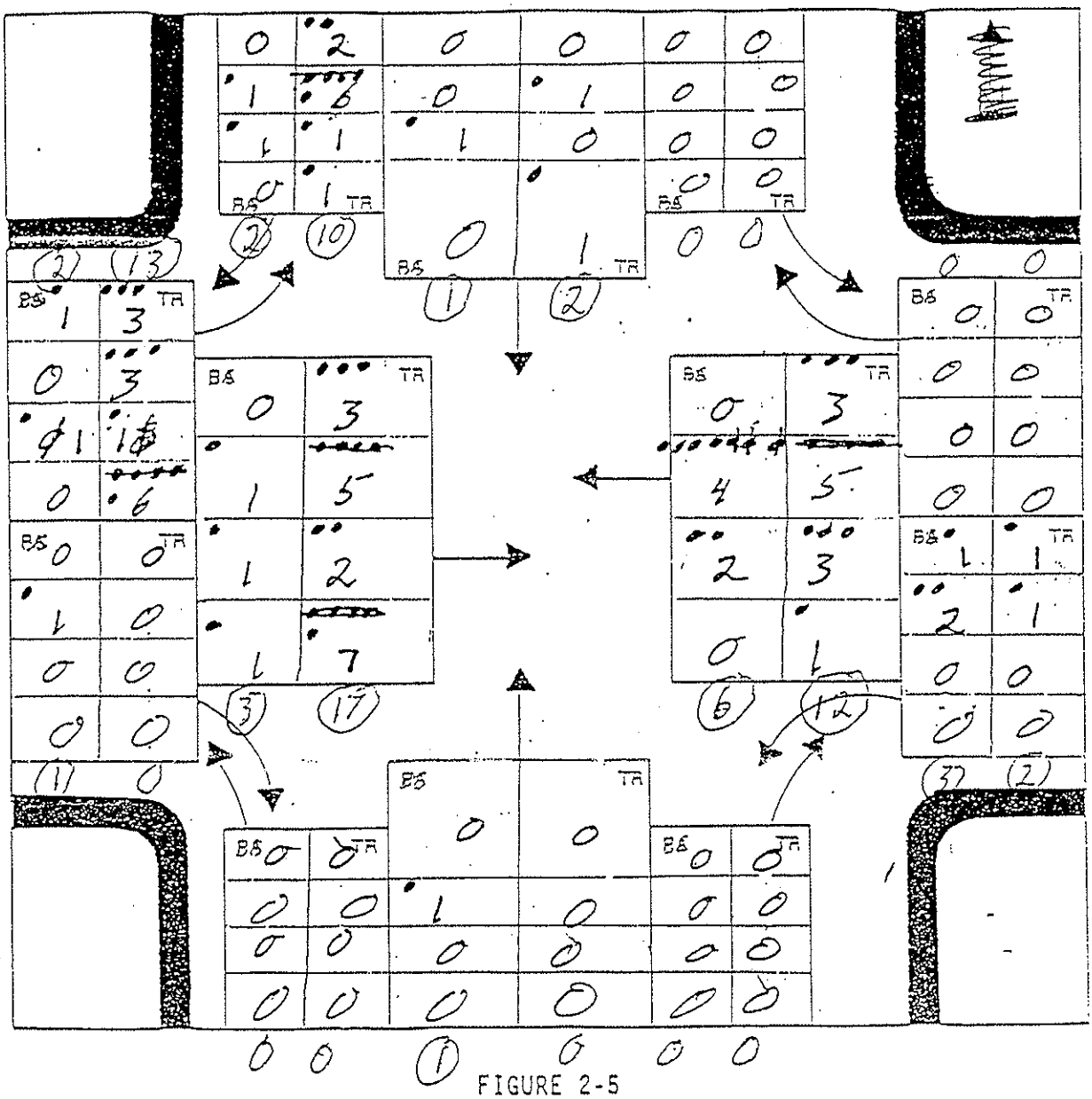


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR 39 @ SAM ALLEN RD EW

COUNTY Hills CITY Plant City

DATE 9-21-98 TIME: FROM 5 P.M. TO 6:45

OBSERVER JOHN PEREZ WEATHER Cloudy

REMARKS

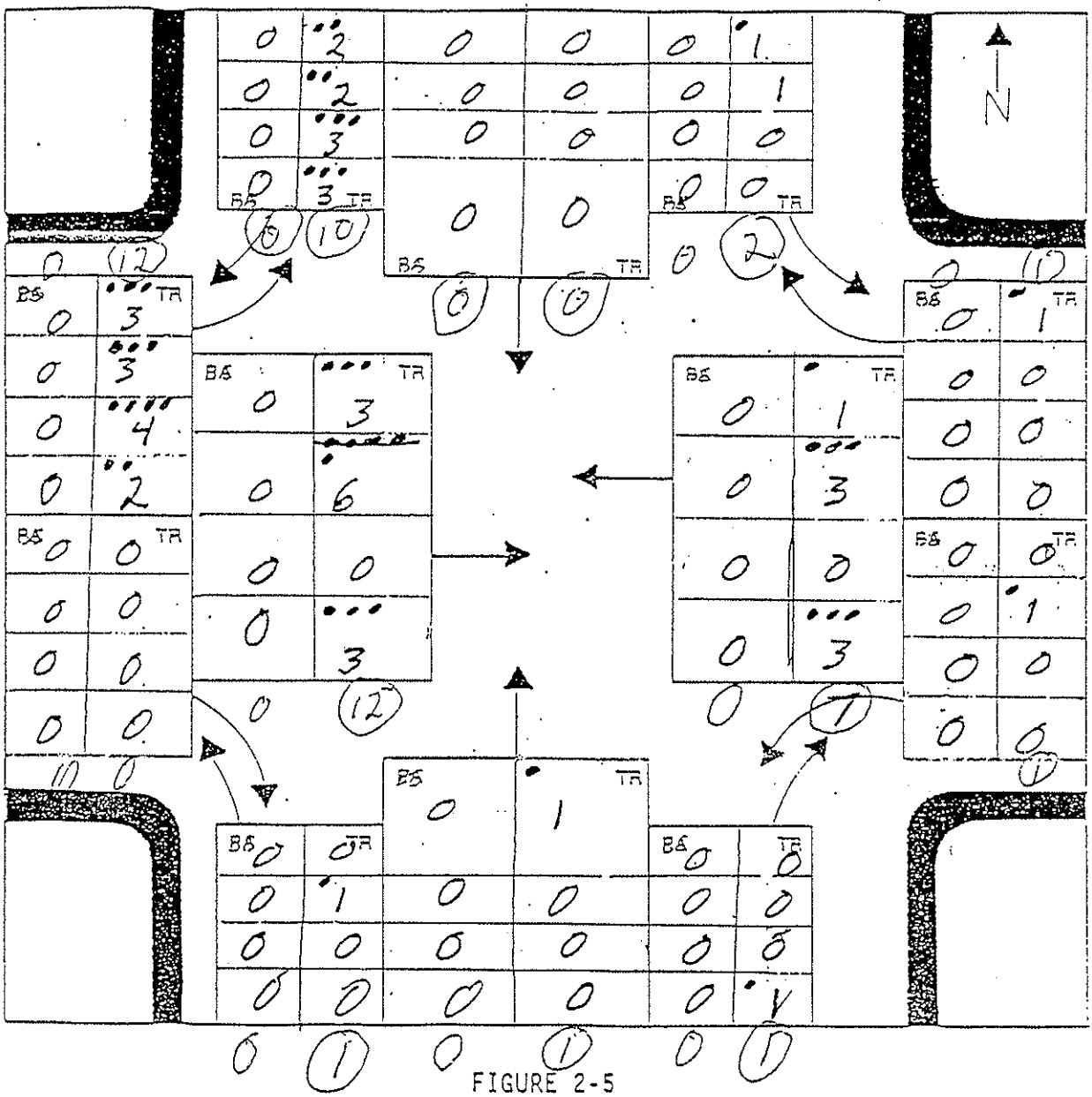


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

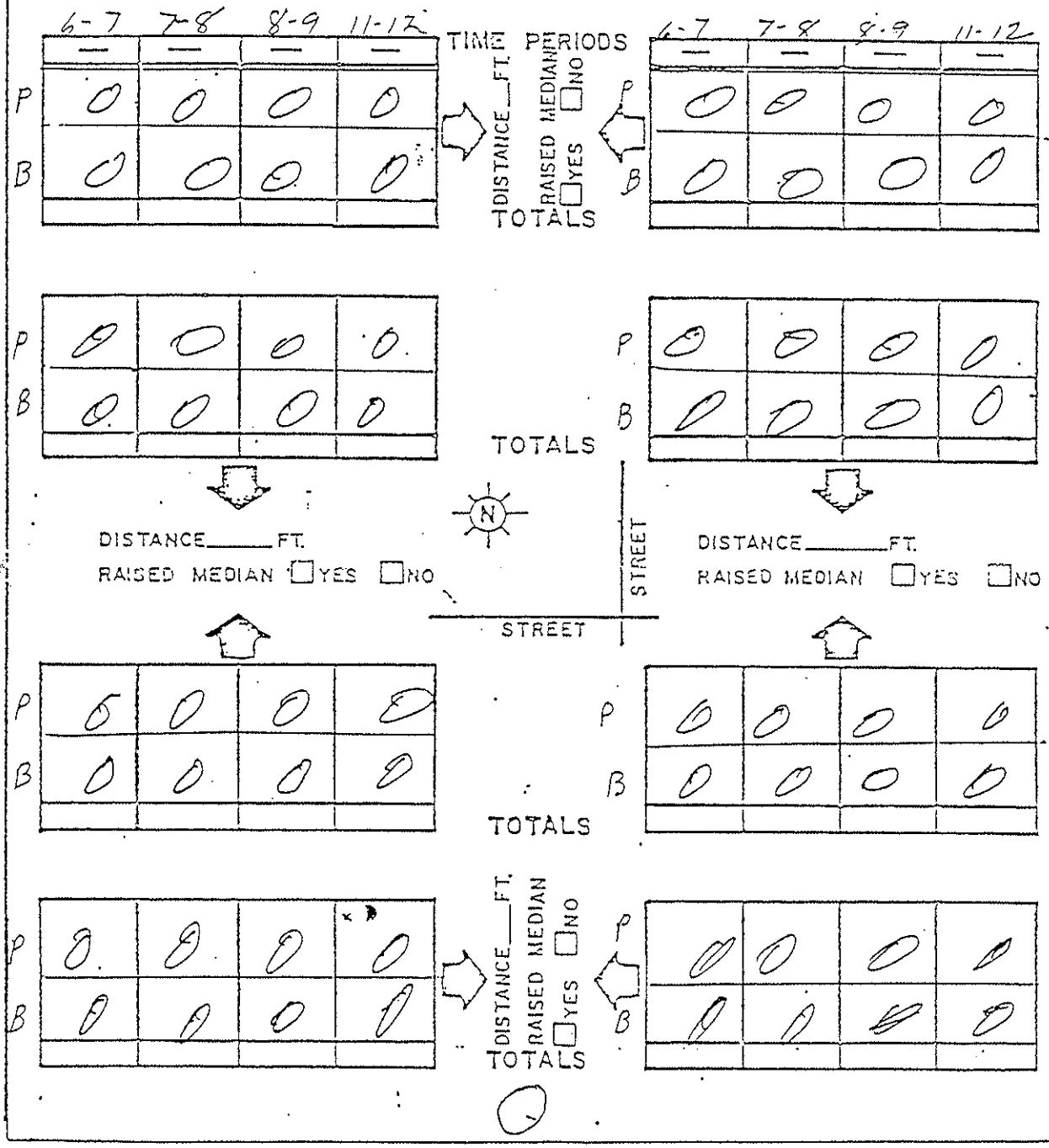
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. S.R. 39 @ SAM ALLEN RD.

COUNTY Hills CITY Plant city TYPE OF CONTROL ____

STUDY DATE 9-21-98 TIME: FROM 6 (AM) PM TO 12 AM PM OBSERVER J. P.

REMARKS ____



PAGE 2 OF 2

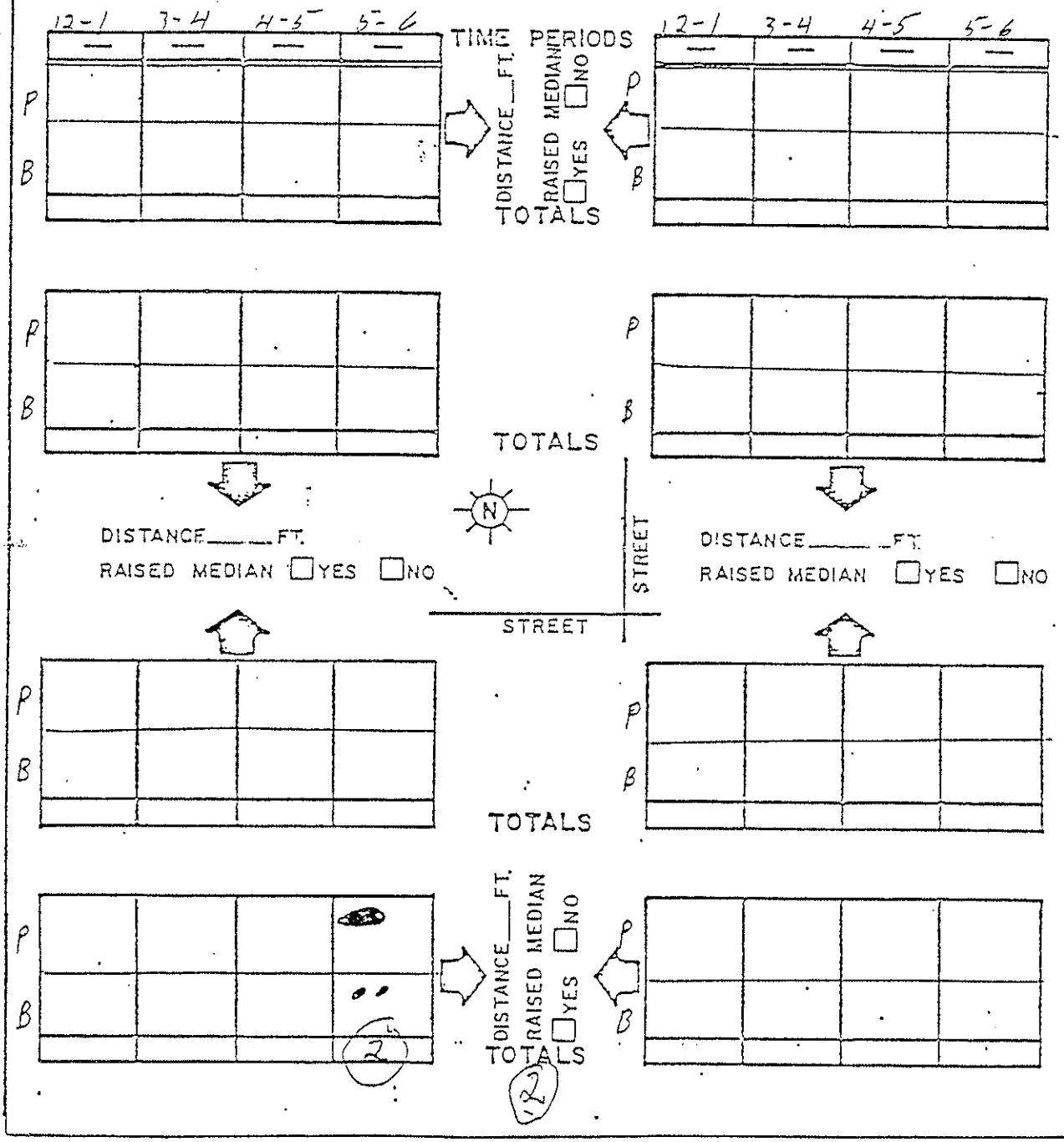
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. S.R 39 @ SAM. ALLEN R.D.

COUNTY Hills CITY Plant City TYPE OF CONTROL ____

STUDY DATE 9-21-91 TIME: FROM ✓ AM/PM TO ____ AM/PM OBSERVER J.P.

REMARKS ____



DISTRICT 7 WORK COPY
TRAFFIC OPERATIONS
REQUEST FORM

IN OR (N.) S. E. W. OF	MILE POST #	LOCAL STREET NAMES	U S	S R	SECTION	LEG
PLANT CITY	1.259	39 AT I-4 RAMPS SOUTHSIDE	—	39	10200	—

TYPE OF STUDY: 8HR TMC 6-9, 11-1, 3-6 Ped & Bikes COUNTY: Hillsborough
NOTE: SEPARATE TRUCKS & BUSES

SPEED ZONE	TRAFFIC SIGNAL	FLASHING BEACON	SCHOOL SPEED ZONE	UNAUTHORIZED TRAFFIC SIGNAL	DESIGN STUDY	
X	X	X	X	X		FIELD SKETCH — DATE: 10-13-98
	8	4		8	8	TURNING MOVEMENTS (TO 501 OR 508)
X	X	X	X			SPEED CHECK (TO 503 OR 506)
	X	X			X	TRAFFIC COUNTS (TO 510 OR 570)
	X	X				STOP SIGN OBSERVANCE (TO 518)
	X					STOP & DELAY (TO 507)
				X		DRIVER OBSERVANCE OF TRAFFIC SIGNAL (TO 504)
	X	X	X	X	X	PEDESTRIAN VOLUME (TO 502 OR 509)
						DELAY STUDY OF SIGNALIZED INTERSECTION
X						LEFT TURN STUDY (TO 513)
	X	X		X		OBSERVATION STUDY (TO 519)

REQUESTED BY: GABOR DATE: 9-16-98
PERFORMED BY: JOHN PEREZ
JOB #: _____

STUDY

SPECIAL INSTRUCTIONS: _____

:/dgn/request.dgn Nov. 17, 1993 13:57:06

Weather :
Counter :
Counted by:

Site Code : 102000^^
Start Date: 10/13/
File I.D. : 39@I-4
Page : 1

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 10/13/98																	
06:00	7	32	9	1	3	2	1	0	6	23	10	0	6	2	4	0	1
06:15	8	34	7	0	5	2	6	0	7	46	6	0	14	9	4	0	148
06:30	17	45	13	0	4	0	10	0	6	63	10	0	14	10	1	0	1
06:45	29	48	16	0	2	1	7	0	8	63	15	0	16	13	0	0	2
Hr Total	61	159	45	1	14	5	24	0	27	195	41	0	50	34	9	0	665
07:00	11	43	10	0	7	1	14	0	17	53	9	0	12	13	8	0	1
07:15	4	89	22	0	5	0	6	0	16	68	3	0	20	1	22	0	256
07:30	8	67	21	0	8	0	7	0	17	73	8	0	12	3	13	0	237
07:45	7	105	20	0	6	1	9	0	20	76	15	0	11	4	23	0	2
Hr Total	30	304	73	0	26	2	36	0	70	270	35	0	55	21	66	0	9
08:00	11	97	14	0	9	5	10	0	14	66	16	0	11	6	35	0	2
08:15	1	64	10	0	5	0	8	0	13	47	8	0	6	3	19	0	1
08:30	8	68	14	0	2	1	7	0	12	65	3	0	15	3	20	0	218
08:45	8	66	15	0	6	1	6	0	5	67	10	0	9	6	21	0	22^
Hr Total	28	295	53	0	22	7	31	0	44	245	37	0	41	18	95	0	91
---------- + BREAK + ----------																	
11:00	11	71	10	0	6	0	8	0	8	57	8	0	7	4	19	0	20
11:15	10	66	11	0	8	1	3	0	9	62	8	0	7	4	12	0	201
11:30	9	69	14	0	9	3	5	0	11	83	11	0	5	1	18	0	23
11:45	3	60	12	0	13	0	12	0	7	94	6	0	4	2	26	0	23
Hr Total	33	266	47	0	36	4	28	0	35	296	33	0	23	11	75	0	887
12:00	10	53	7	0	14	1	7	0	7	88	9	0	10	5	13	0	22
12:15	10	67	12	0	6	1	9	0	6	86	7	0	13	4	15	0	23
12:30	12	56	15	0	22	1	19	0	4	63	14	0	8	9	13	0	236
12:45	15	66	10	0	9	0	5	0	8	76	18	0	9	7	15	0	23
Hr Total	47	242	44	0	51	3	40	0	25	313	48	0	40	25	56	0	93
---------- + BREAK + ----------																	
15:00	1	67	11	0	5	1	7	0	7	87	4	0	4	6	14	0	214
15:15	6	39	6	0	7	1	11	0	6	114	4	0	4	2	4	0	204
15:30	9	72	14	0	12	0	10	0	6	109	7	0	13	4	15	0	271
15:45	12	75	7	0	10	2	10	0	5	90	2	0	15	6	18	0	252
Hr Total	28	253	38	0	34	4	38	0	24	400	17	0	36	18	51	0	941
16:00	6	59	9	0	5	1	8	0	6	117	12	0	14	2	21	0	260
16:15	5	63	9	0	10	1	4	0	12	96	13	0	20	4	25	0	262
16:30	6	69	9	0	10	0	10	0	13	110	8	0	14	3	33	0	285
16:45	5	75	17	0	6	2	10	0	16	96	20	0	12	9	21	0	289
Hr Total	22	266	44	0	31	4	32	0	47	419	53	0	60	18	100	0	1096

Vehicle group 1

	Southbound				Westbound				Northbound				Eastbound				
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 10/13/98																	
17:00	6	73	14	0	17	5	17	0	10	116	9	0	12	4	22	0	305
17:15	11	89	13	0	15	0	23	0	10	147	13	0	14	5	17	0	357
17:30	10	75	19	0	13	4	16	0	11	116	8	0	4	2	11	0	289
17:45	8	66	5	0	20	0	22	0	3	128	13	0	0	0	2	0	267
Hr Total	35	303	51	0	65	9	78	0	34	507	43	0	30	11	52	0	1218
TOTAL	284	2088	395	1	279	38	307	0	306	2645	307	0	335	156	504	0	7645

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (S.) EW

COUNTY Hillsborough CITY Plant City

DATE 10-13-99 TIME: FROM 6 AM TO 7 AM

OBSERVER John Perez WEATHER

REMARKS

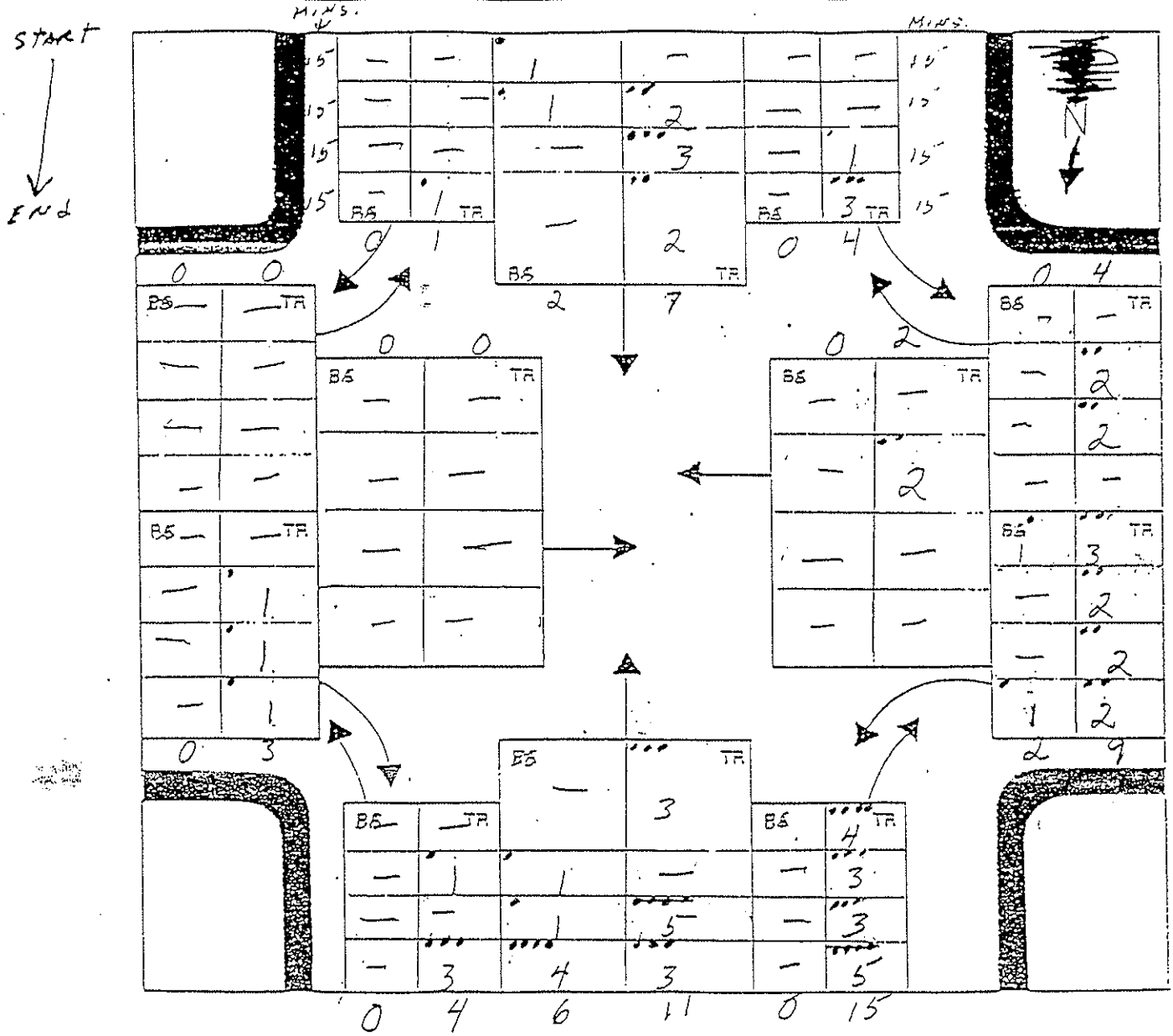


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (S. 5) EW _____

COUNTY HILLSBOROUGH CITY PLANT CITY

DATE 10-13-90 TIME: FROM 7 AM TO 9 AM

OBSERVER JOHN PEREZ WEATHER _____

REMARKS _____

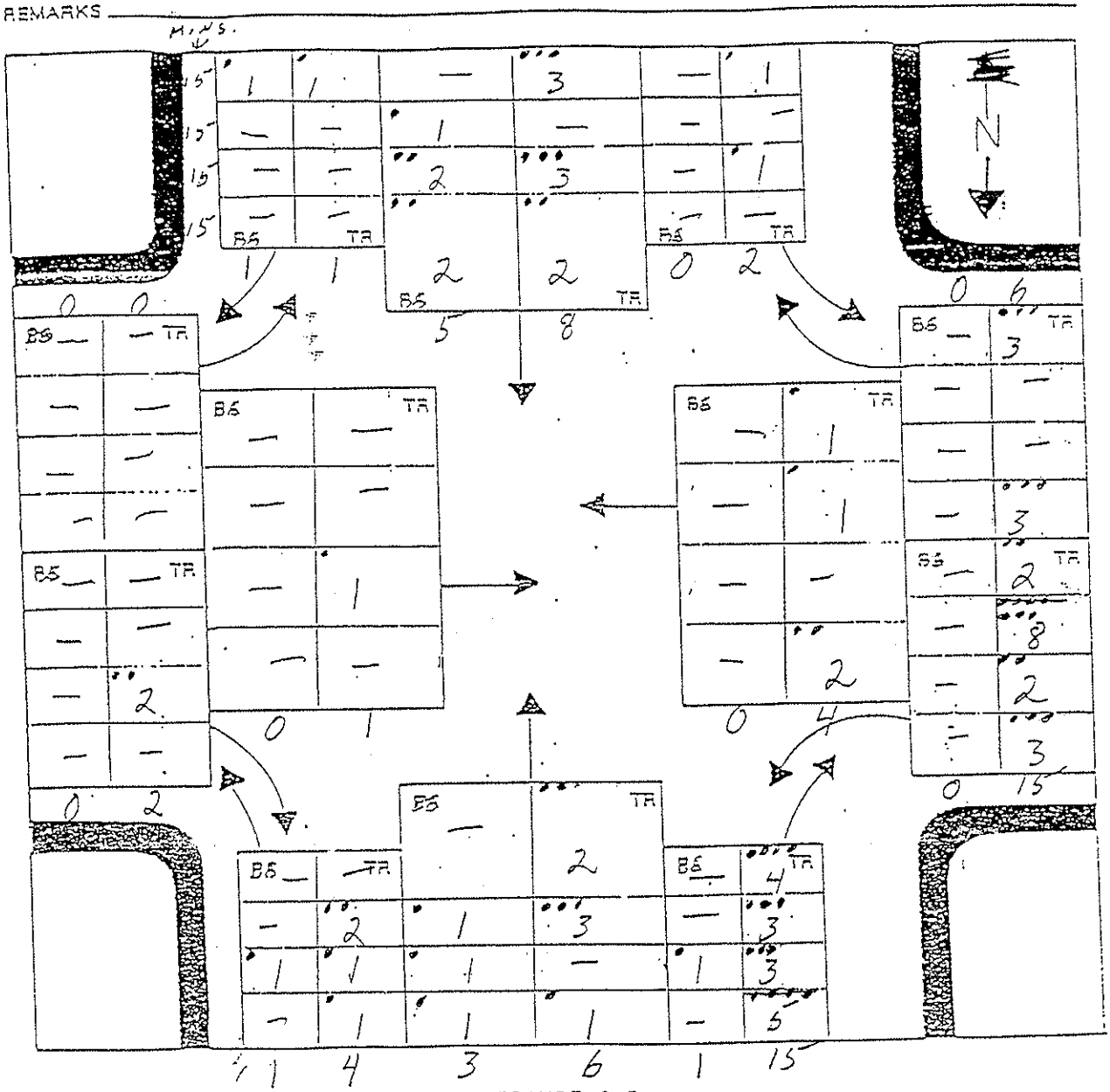


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (S. R.) EW

COUNTY Hillsborough CITY Plant City

DATE 10-13-99 TIME: FROM 8:00 AM TO 9:00 AM

OBSERVER John Perez WEATHER

REMARKS

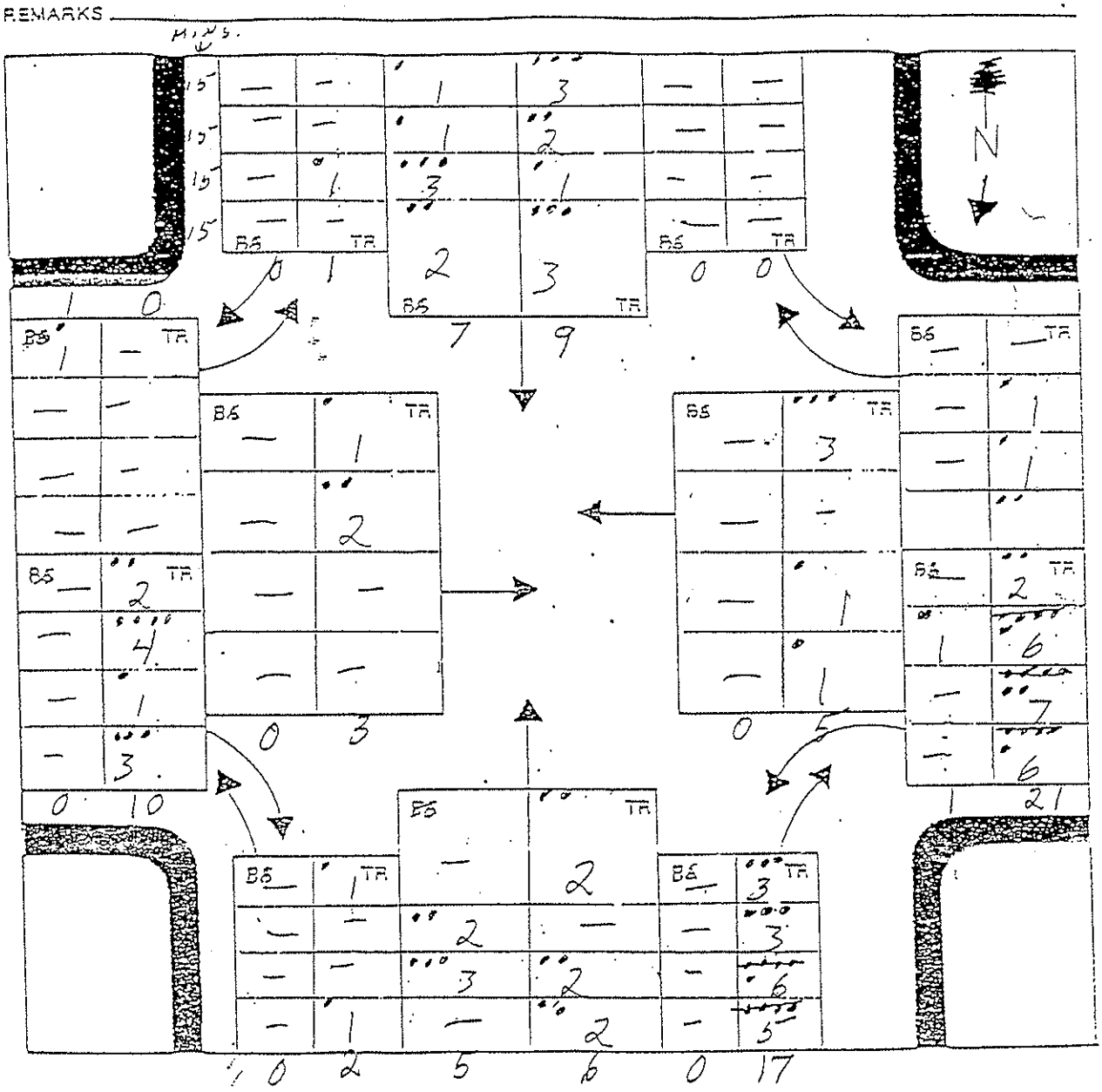


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 + I-4 RAMPS (S. & N) EW _____

COUNTY Hillsborough CITY Plant City

DATE 10-13-99 TIME: FROM 11 AM TO 12 NOON

OBSERVER John Perez WEATHER _____

REMARKS _____

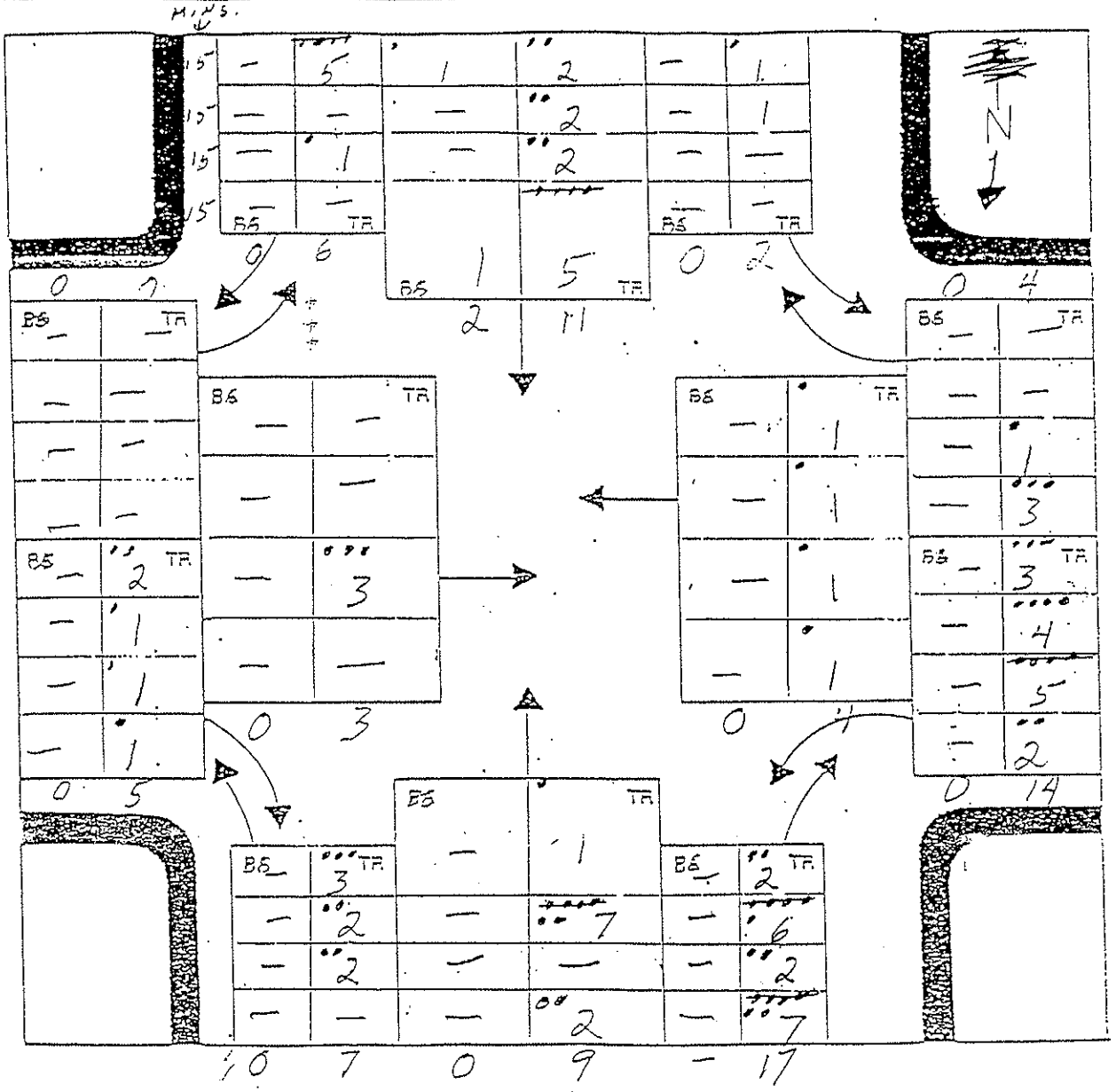


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

FLORIDA DEPARTMENT OF TRANSPORTATION

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (S. & E.) EW

COUNTY HILLSBOROUGH CITY PLANT CITY

DATE 10-13-90 TIME: FROM 12:00 TO 1:00 PM

OBSERVER JOHN PERET WEATHER

REMARKS

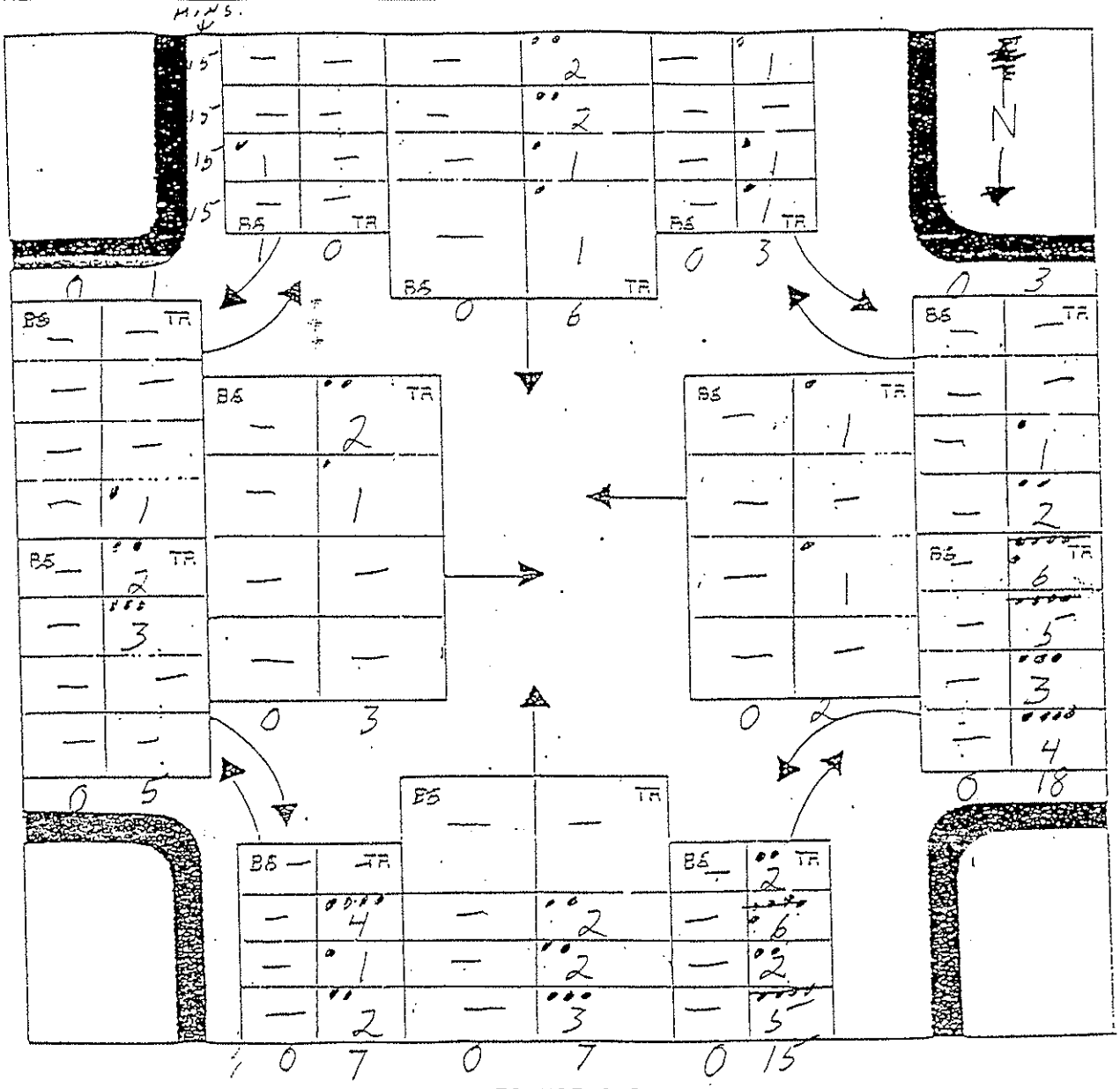


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 + I-4 RAMPS (S. & S) EW

COUNTY HILLSBOROUGH CITY PLANT CITY

DATE 10-13-99 TIME: FROM 3 P.M. TO 4 P.M.

OBSERVER JOHN PEREZ WEATHER

REMARKS

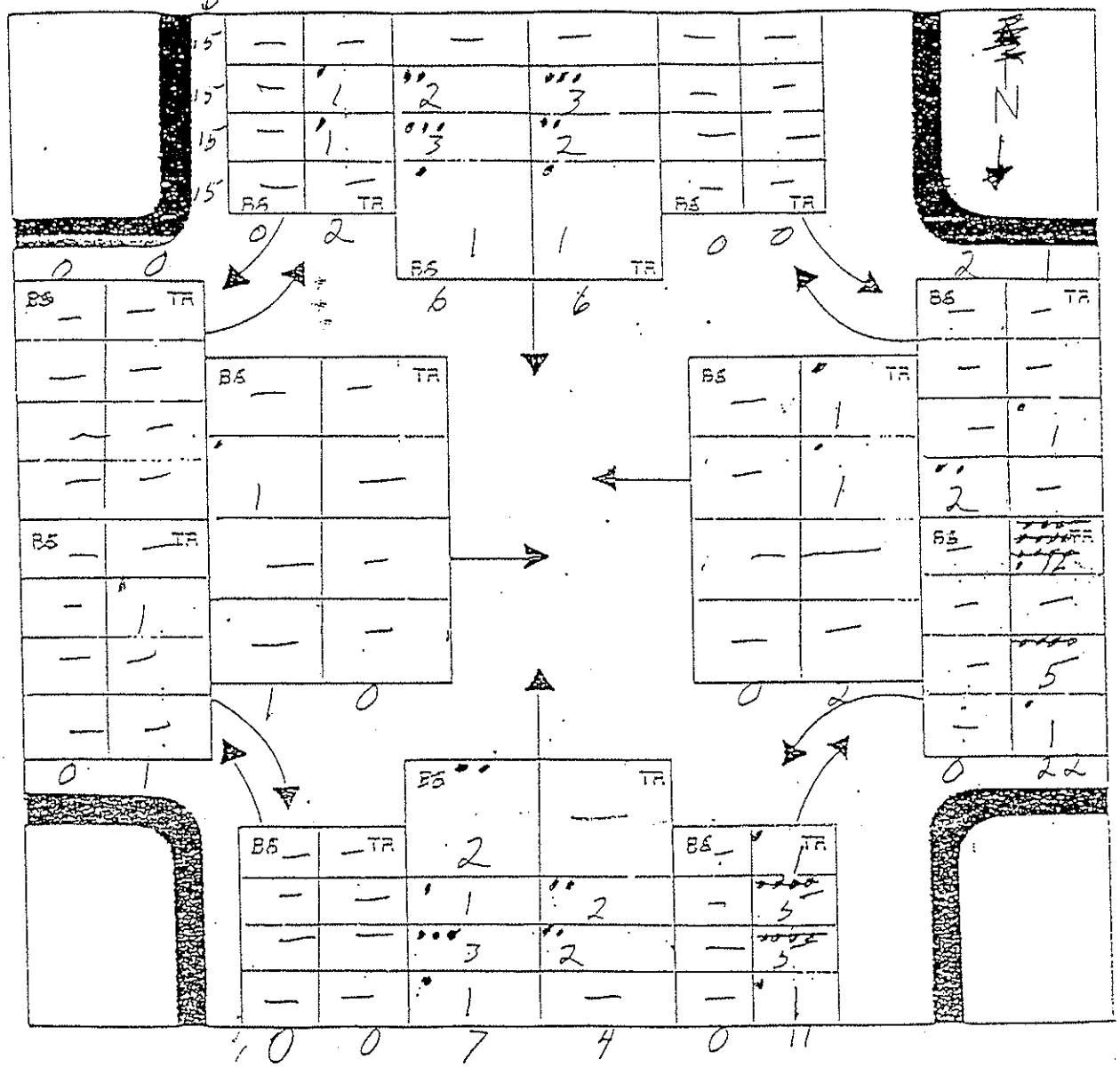


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (S. 5) EW

COUNTY Hillsborough CITY Plant City

DATE 10-13-99 TIME: FROM 4 P.M TO 5 P.M

OBSERVER John Perez WEATHER

REMARKS

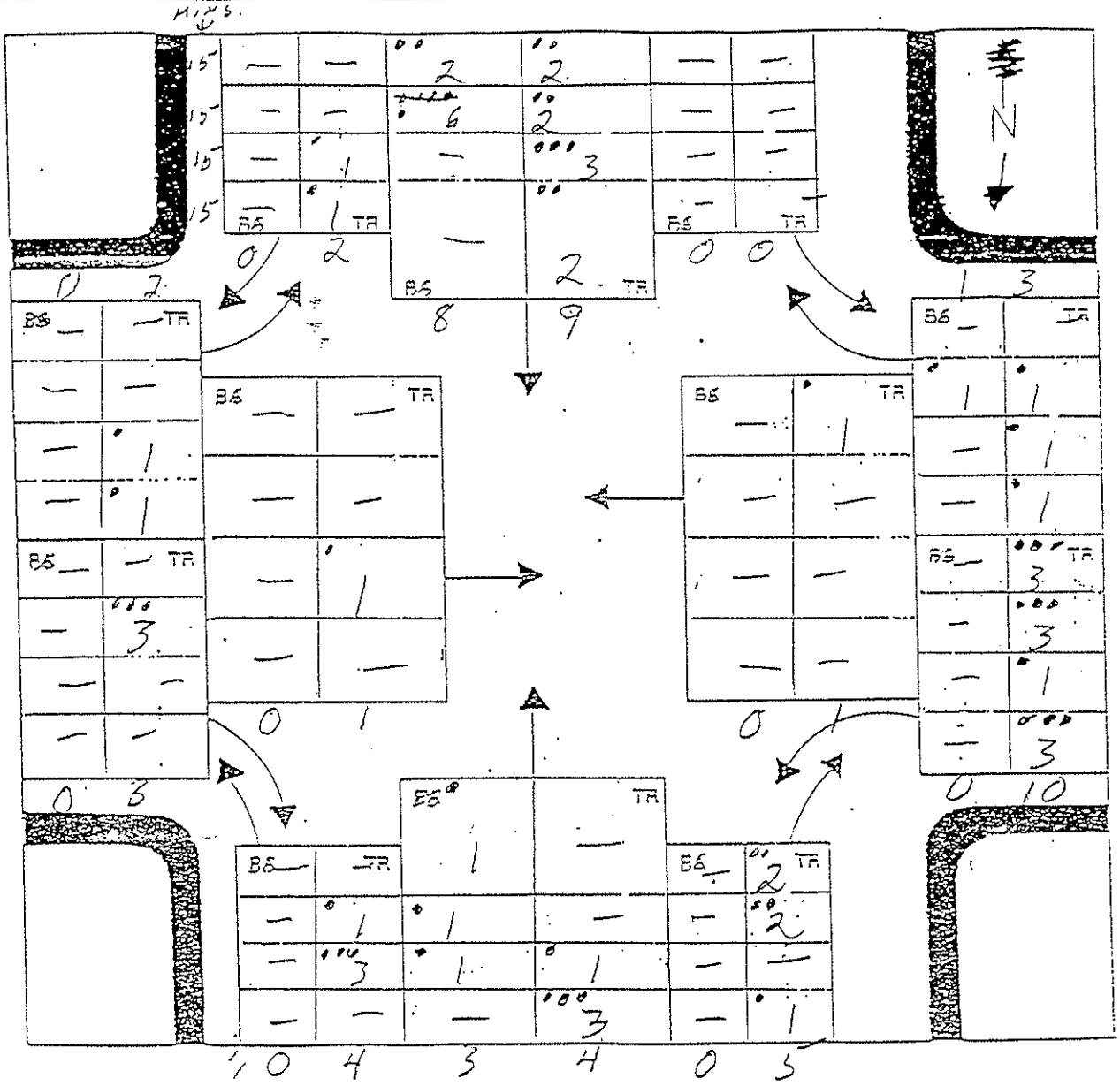


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 & I-4 RAMPS (5.91) EW _____

COUNTY Hillsborough CITY Plant City

DATE 10-13-92 TIME: FROM 4:P.M. TO 6:P.M.

OBSERVER John Perez WEATHER _____

REMARKS _____

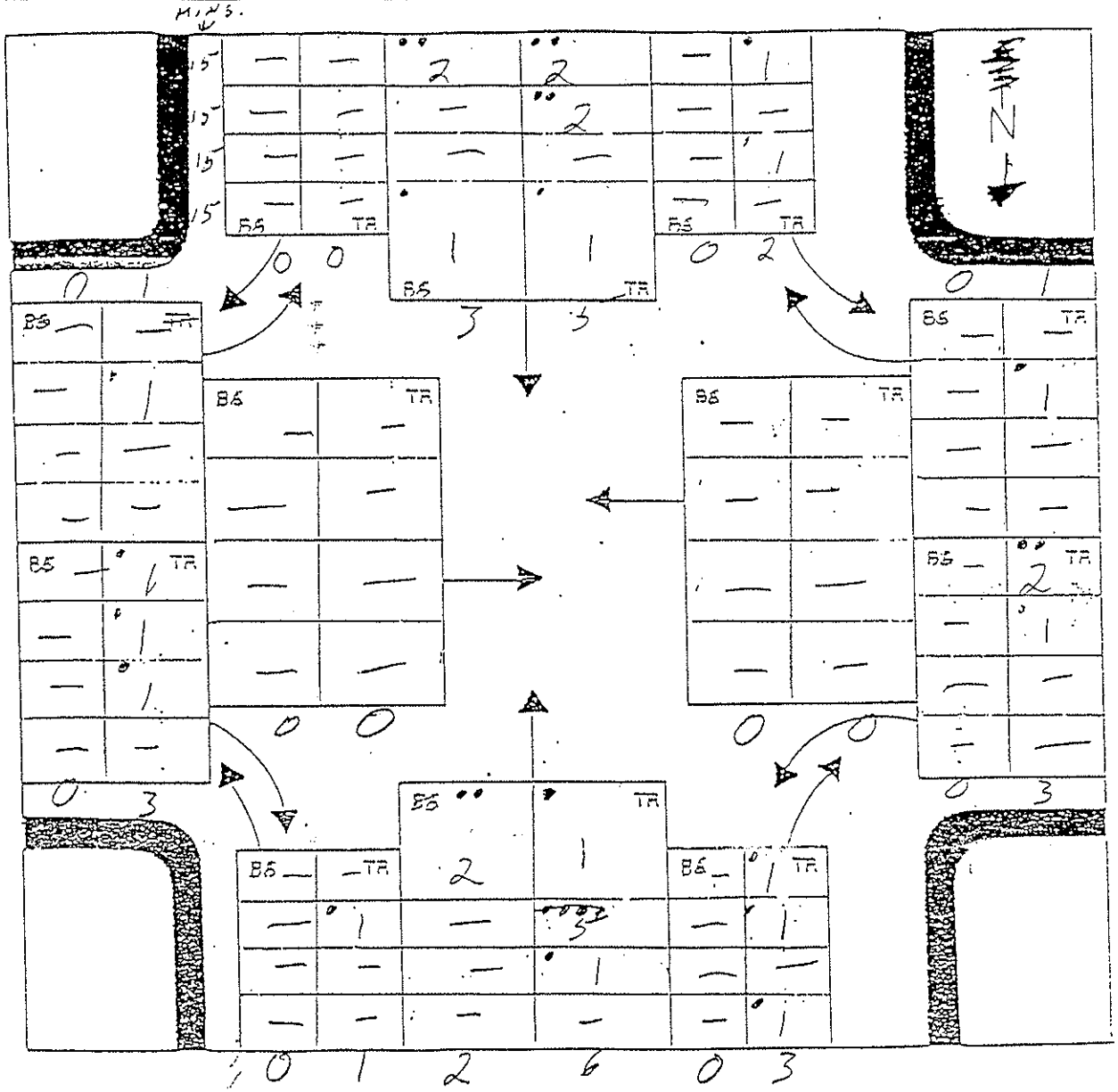


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

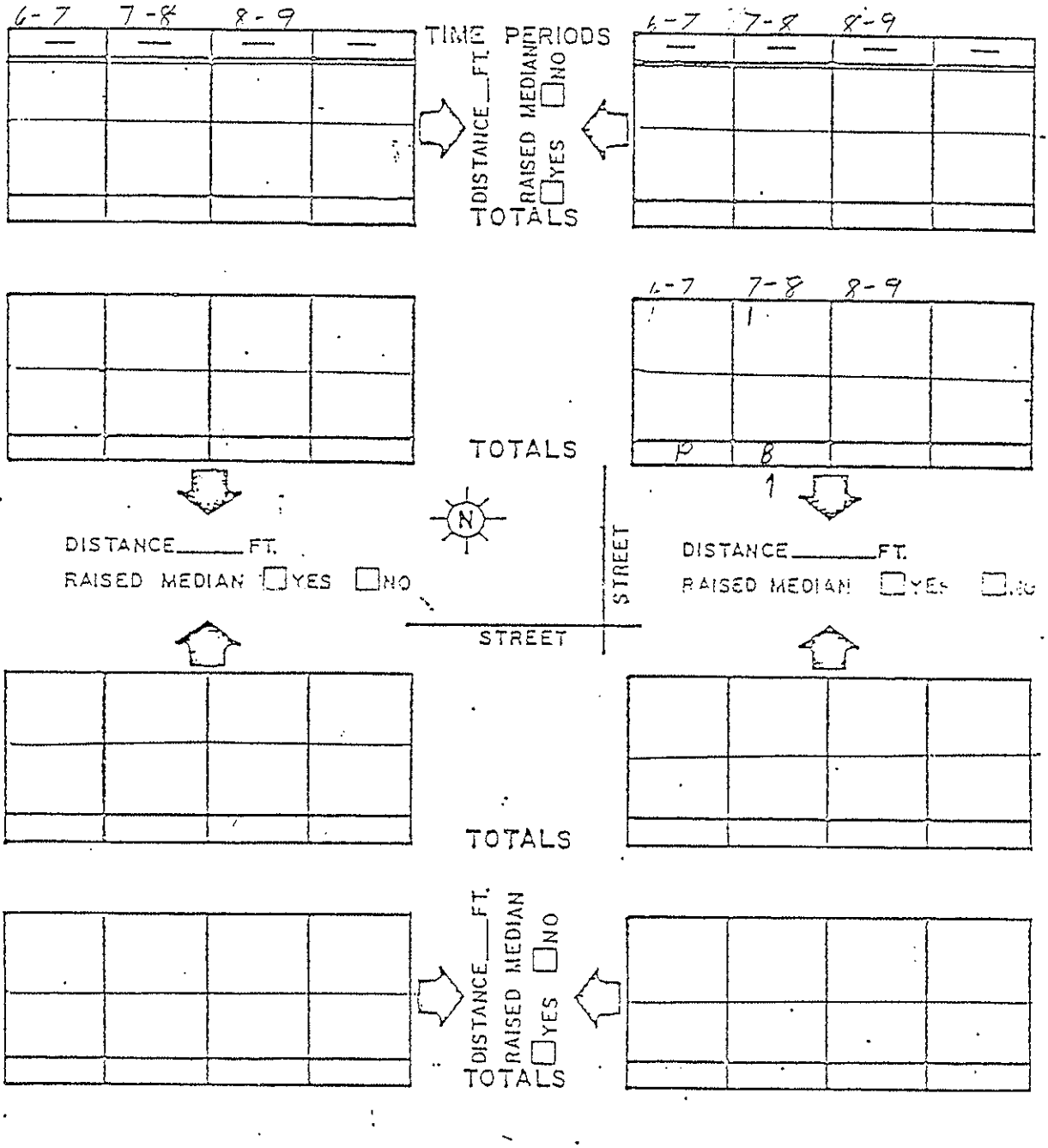
FLORIDA DEPARTMENT OF TRANSPORTATION
PEDESTRIAN VOLUME FORM

LOCATION I.D. SR 39 & T-H RAMPS S.B SIDE

COUNTY Hillsborough CITY PLANT CITY TYPE OF CONTROL ____

STUDY DATE 10-13-98 TIME: FROM 6:00 (AM) PM TO 6:00 AM (PM) OBSERVER J.F.

REMARKS ____



VEHICLE MOVEMENTS DATA FORM

LOCATION I.D. NS SR-39 + I-4 RAMPS (S. R) EW _____

COUNTY Hillsborough CITY Plant City

DATE 10-13-90 TIME: FROM _____ TO _____

OBSERVER John Pabst WEATHER _____

REMARKS _____

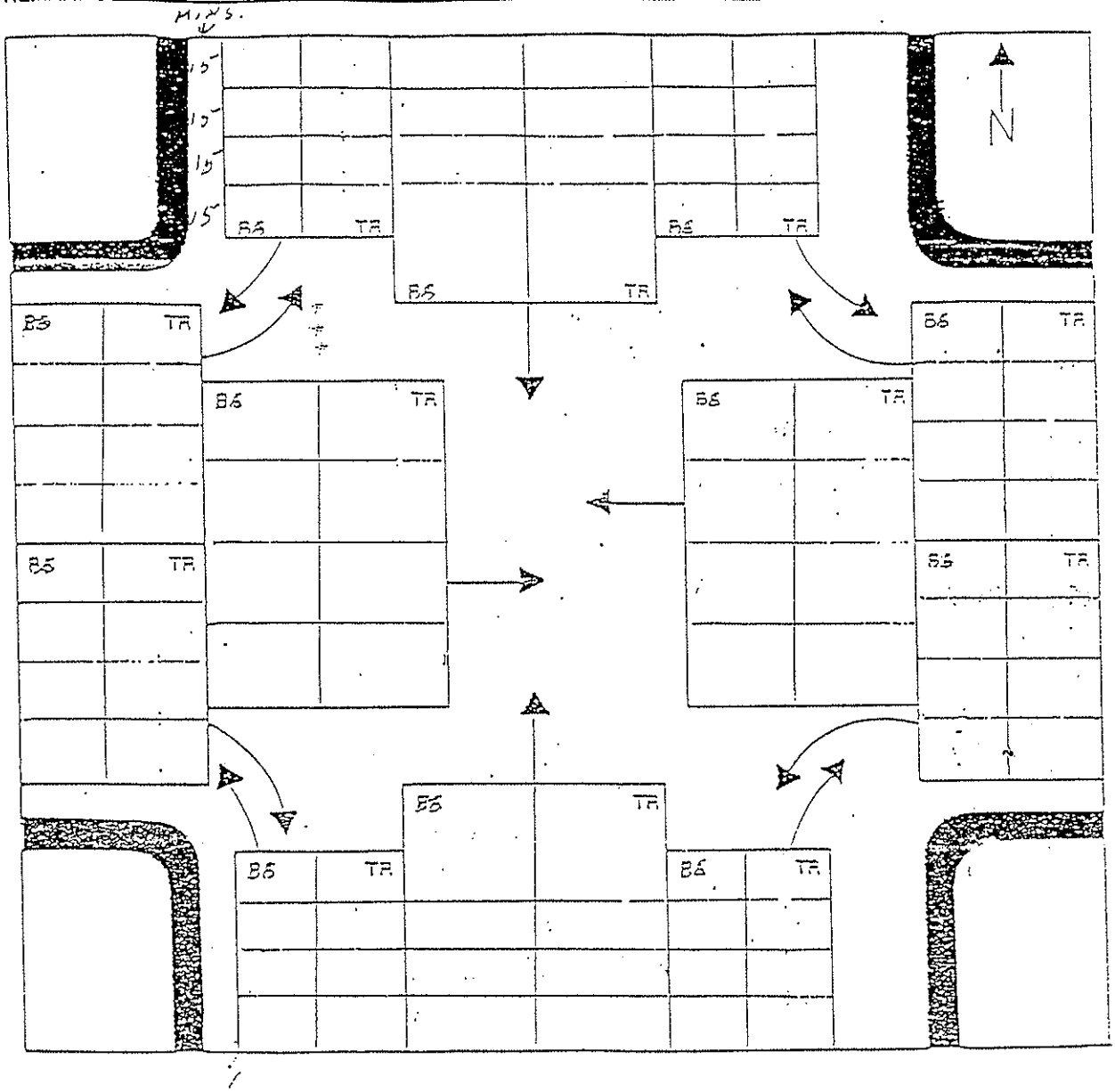


FIGURE 2-5

VEHICLE MOVEMENT DATA FORM

(Source: Florida Department of Transportation)

APPENDIX C

CRASH EXPERIENCE SUMMARY

SUMMARY OF CRASH EXPERIENCE

SR 39/SAM ALLEN ROAD

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	2	2	2	0	1	0	7	8	2
1994	3	0	2	1	0	0	6	9	0
1995	2	2	1	0	0	2	7	6	0
1996	0	0	3	2	0	0	5	6	0
1997	2	4	7	1	0	0	14	22	0
TOTAL	9	8	15	4	1	2	39	51	2

SUMMARY OF CRASH EXPERIENCE

SR 39/KNIGHTS-GRIFFIN ROAD

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	0	1	1	0	0	0	2	8	0
1994	3	1	0	0	0	0	4	5	0
1995	1	1	1	0	0	0	3	2	0
1996	3	2	0	0	0	0	5	20	0
1997	0	0	3	1	0	0	4	5	0
TOTAL	7	5	5	1	0	0	18	40	0

SUMMARY OF CRASH EXPERIENCE

SR 39/ZEPHYRHILLS BYPASS

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	10	1	1	0	0	0	12	34	0
1994	5	1	0	0	0	0	6	10	1
1995	1	0	1	0	0	0	2	5	0
1996	3	4	1	0	0	0	8	11	0
1997	1	2	0	0	1	0	4	5	0
TOTAL	20	8	3	0	1	0	32	65	1

SUMMARY OF CRASH EXPERIENCE

SR 39/US 301

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	0	1	0	0	0	1	2	0
1996	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	0	0	0	1	2	0

SUMMARY OF CRASH EXPERIENCE

SR 39 (I-4 TO SAM ALLEN ROAD)

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	3	4	1	0	1	1	10	9	0
1994	2	3	2	0	0	0	7	19	0
1995	0	0	0	0	0	2	2	0	0
1996	0	2	5	0	0	0	7	3	0
1997	0	0	0	0	0	0	0	0	0
TOTAL	5	9	8	0	1	3	26	31	0

SUMMARY OF CRASH EXPERIENCE

SR 39 (SAM ALLEN ROAD TO KNIGHTS-GRIFFIN ROAD)

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	2	0	1	0	0	2	5	15	0
1994	3	0	1	0	0	2	6	8	0
1995	1	0	2	0	1	2	6	6	0
1996	0	0	3	0	0	3	6	3	0
1997	0	0	0	0	0	0	0	0	0
TOTAL	6	0	7	0	1	9	23	32	0

SUMMARY OF CRASH EXPERIENCE

SR 39 (KNIGHTS-GRIFFIN ROAD TO ZEPHYRHILLS BYPASS)

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	0	0	0	0	0	0	0	0	0
1994	1	1	3	0	0	4	9	11	2
1995	2	1	4	1	0	10	18	22	1
1996	2	1	4	3	0	5	15	17	0
1997	0	0	0	0	0	0	0	0	0
TOTAL	5	3	11	4	0	19	42	50	3

SUMMARY OF CRASH EXPERIENCE

SR 39 (ZEPHYRHILLS BYPASS TO US 301)

Number of Crashes by Crash Type								Number of Crashes Involving	
YEAR	RIGHT ANGLE	LEFT TURN	REAR END	SIDE SWIPE	AUTO/ PEDES-TRIAN	OTHER	TOTAL	INJURY	FATALITY
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0
1997	0	1	0	0	0	0	1	0	0
TOTAL	0	1	0	0	0	0	1	0	0

APPENDIX D

- HCS WORKSHEETS - EXISTING CONDITIONS (1998) ANALYSIS
- CAPACITY TABLE FOR ROADWAY SEGMENT ANALYSIS

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-50.HC9
Area Type: Other 1-7-99 AM
Comment: 1998 AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	20	75	95	80	75	85	65	180	40	110	375	15
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3		3	3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	10.0A	38.0A	
Yellow/AR	6.0				Yellow/AR	5.0	6.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	300	965	0.070	0.311	14.1	B	15.4	C
	TR	526	1690	0.340	0.311	15.6	C		
WB	L	288	924	0.292	0.311	15.3	C	15.4	C
	TR	528	1698	0.318	0.311	15.4	C		
NB	L	403	1752	0.169	0.622	5.2	B	8.5	B
	T	809	1776	0.234	0.456	9.7	B		
	R	714	1568	0.059	0.456	8.9	B		
SB	L	679	1752	0.171	0.622	4.6	A	10.1	B
	TR	804	1765	0.511	0.456	11.7	B		

Intersection Delay = 11.6 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.450

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR39-51.HC9
Area Type: Other 1-11-99 AM
Comment: 1998 AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	20	65	60	50	145	80	65	140	25	65	295	50
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type		3	3		3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	26.0A				Green 52.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group:	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	499	1549	0.178	0.322	14.2	B	14.1	B
	R	505	1568	0.125	0.322	13.9	B		
WB	LTR	480	1489	0.604	0.322	18.1	C	18.1	C
NB	L	413	676	0.165	0.611	4.9	A	4.8	A
	T	1085	1776	0.135	0.611	4.8	A		
	R	958	1568	0.027	0.611	4.5	A		
SB	L	736	1205	0.092	0.611	4.7	A	5.5	B
	TR	1071	1753	0.340	0.611	5.6	B		

Intersection Delay = 9.8 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.431

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-52.HC9
Area Type: Other 1-11-99 AM
Comment: 1998 AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1 < 0		1	1	1
Volumes	115	115	15	5	50	110	15	215	5	120	130	40
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3	3	3	3	3	3	3		3	3	3
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	35.0A				Green 43.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	637	1509	0.190	0.422	10.6	B	10.4	B
	T	779	1845	0.155	0.422	10.4	B		
	R	662	1568	0.024	0.422	9.8	B		
WB	L	529	1253	0.009	0.422	9.7	B	10.3	B
	T	779	1845	0.068	0.422	10.0	B		
	R	662	1568	0.175	0.422	10.5	B		
NB	L	622	1217	0.026	0.511	7.0	B	8.0	B
	TR	905	1770	0.255	0.511	8.0	B		
SB	L	474	927	0.266	0.511	8.1	B	7.7	B
	T	908	1776	0.151	0.511	7.5	B		
	R	801	1568	0.052	0.511	7.1	B		

Intersection Delay = 9.0 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.232

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst.....
Date of Analysis..... 1/11/99
Other Information.....1998 AM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		225	5	185	425				180			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	240	
Potential Capacity: (pcph)	1046	
Movement Capacity: (pcph)	1046	
Prob. of Queue-Free State:	0.81	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	242	
Potential Capacity: (pcph)	1315	
Movement Capacity: (pcph)	1315	
Prob. of Queue-Free State:	0.84	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
								4.3
NB	R	202	1046		4.3	0.8	A	
WB	L	209	1315		3.3	0.6	A	1.0

Intersection Delay = 1.3 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-54.HC9
Area Type: Other 1-7-99 PM
Comment: 1998 PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	15	60	70	60	60	100	85	330	90	65	250	10
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3		3	3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	10.0A 38.0A		
Yellow/AR	6.0				Yellow/AR	5.0 6.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	300	965	0.053	0.311	14.0	B	15.0	B
	TR	527	1695	0.260	0.311	15.1	C		
WB	L	339	1091	0.186	0.311	14.7	B	15.3	C
	TR	520	1672	0.323	0.311	15.5	C		
NB	L	540	1752	0.165	0.622	4.7	A	9.6	B
	T	809	1776	0.429	0.456	10.9	B		
	R	714	1568	0.133	0.456	9.2	B		
SB	L	462	1752	0.147	0.622	4.9	A	9.2	B
	TR	804	1765	0.341	0.456	10.3	B		

Intersection Delay = 11.2 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.385

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR39-55.HC9
Area Type: Other 1-11-99 PM
Comment: 1998 PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	35	140	55	40	105	100	60	300	65	75	175	20
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type		3	3		3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	26.0A				Green 52.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	466	1447	0.395	0.322	15.6	C	15.2	C
	R	505	1568	0.115	0.322	13.9	B		
WB	LTR	454	1409	0.568	0.322	17.6	C	17.6	C
NB	L	637	1042	0.099	0.611	4.7	A	5.2	B
	T	1085	1776	0.291	0.611	5.4	B		
	R	958	1568	0.071	0.611	4.6	A		
SB	L	466	763	0.169	0.611	4.9	A	5.0	A
	TR	1068	1748	0.192	0.611	5.0	A		

Intersection Delay = 9.7 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.387

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-25-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-56.HC9
Area Type: Other 1-11-99 PM
Comment: 1998 PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1 < 0		1	1	1
Volumes	5	95	85	70	60	35	105	205	70	20	195	5
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3	3	3	3	3	3	3		3	3	3
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	35.0A				Green 43.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	621	1470	0.008	0.422	9.7	B	10.3	B
	T	779	1845	0.128	0.422	10.3	B		
	R	662	1568	0.134	0.422	10.3	B		
WB	L	566	1339	0.131	0.422	10.3	B	10.1	B
	T	779	1845	0.081	0.422	10.0	B		
	R	662	1568	0.056	0.422	9.9	B		
NB	L	516	1009	0.215	0.511	7.8	B	8.3	B
	TR	881	1724	0.329	0.511	8.4	B		
SB	L	395	772	0.053	0.511	7.1	B	7.8	B
	T	908	1776	0.226	0.511	7.9	B		
	R	801	1568	0.006	0.511	7.0	B		

Intersection Delay = 8.9 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.241

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst..... JW
Date of Analysis..... 1/25/99
Other Information.....1998 PM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		485	10	250	285				280			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	516	
Potential Capacity: (pcph)	758	
Movement Capacity: (pcph)	758	
Prob. of Queue-Free State:	0.58	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	522	
Potential Capacity: (pcph)	967	
Movement Capacity: (pcph)	967	
Prob. of Queue-Free State:	0.71	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
								8.1
NB	R	316	758		8.1	2.4	B	
WB	L	281	967		5.2	1.4	B	2.5

Intersection Delay = 2.7 sec/veh

TABLE E - 2

GENERALIZED ANNUAL AVERAGE DAILY VOLUMES FOR FLORIDA'S AREAS TRANSITIONING INTO URBANIZED AREAS OR AREAS OVER 5000 NOT IN URBANIZED AREAS*

STATE TWO-WAY ARTERIALS UNINTERRUPTED FLOW

UNSIGNALIZED

	Level of Service				
Lanes	A	B	C	D	E
2 Undiv.	8,400	13,000	17,700	23,300	31,000
4 Div.	20,600	34,500	47,800	57,000	66,300
6 Div.	30,800	51,700	71,600	85,600	99,500

INTERRUPTED FLOW

Class Ia (>0.00 to 2.49 signalized intersections per mile)

	Level of Service				
Lanes	A**	B	C	D***	E***
2 Undiv.	-	11,500	14,000	15,300	15,900
4 Div.	-	25,500	30,600	32,800	33,500
6 Div.	-	39,600	46,400	49,700	50,300

Class Ib (2.50 to 4.50 signalized intersections per mile)

	Level of Service				
Lanes	A**	B**	C	D	E
2 Undiv.	-	-	8,000	13,200	14,600
4 Div.	-	-	17,600	28,600	31,300
6 Div.	-	-	26,900	43,600	47,300

Class II (more than 4.50 signalized intersections per mile and not within primary city central business district of urbanized area over 500,000)

	Level of Service				
Lnes	A**	B**	C**	D	E
2 Undiv.	-	-	-	10,900	14,100
4 Div.	-	-	-	24,600	30,900
6 Div.	-	-	-	37,800	47,000

FREEWAYS

	Level of Service				
Lanes	A	B	C	D	E
4	20,100	32,200	47,900	60,400	68,100
6	30,400	48,500	72,200	91,100	107,300
8	40,500	64,700	96,300	121,500	143,100
10	50,600	80,900	120,400	151,900	178,900

NON-STATE ROADWAYS MAJOR CITY/COUNTY ROADWAYS

	Level of Service				
Lanes	A**	B**	C	D	E
2 Undiv.	-	-	9,900	12,900	14,100
4 Div.	-	-	22,100	28,200	30,200
6 Div.	-	-	34,300	43,200	45,700

OTHER SIGNALIZED ROADWAYS

(signalized intersection analysis)

	Level of Service				
Lanes	A**	B**	C	D	E
2 Undiv.	-	-	4,700	9,200	10,600
4 Div.	-	-	10,300	20,500	22,800

ADJUSTMENTS

DIVIDED/UNDIVIDED

(alter corresponding two-way volume indicated percent)

Lanes	Median	Bays	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

ONE-WAY

(alter corresponding two-way volume indicated percent)

One-Way	Lanes	Adjustment Factors
2	4	-40%
3	6	-40%
4	6	-25%

* The table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are annual average daily traffic (AADT) maximum volumes (based on K_{100} factors, not peak to daily ratios) for levels of service, and are based on the 1994 Highway Capacity Manual Update and Florida traffic, roadway and signalization data. The table's input value assumptions and level of service criteria appear on the back.

** Cannot be achieved.

*** Volumes are comparable because intersection capacities are reached.

Source: Florida Department of Transportation, 1995.

No Build Alternative

TURNS4 Analysis Documentation

DATA INPUT

Date: 30-Mar-99

Analyst: PAP

Highway: SR 39 - NO BUILD - AM
Intersection: Sam Allen Rd.
From: Opening Day
To: 2010 (From 2005 Base)
County: Hillsborough

North/South Orientation of Mainline? (Y/N): Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

40.5%	Northbound(NB)
59.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N): Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,100	2,700	5,950	8,400	19,150
2010	2,400	3,083	7,100	9,600	22,183
2015	2,700	3,467	8,250	10,800	25,217
2020	3,000	3,850	9,400	12,000	28,250

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,100	2,700	5,950	8,400	19,150
2010	2,400	3,083	7,100	9,600	22,183
2015	2,700	3,467	8,250	10,800	25,217
2020	3,000	3,850	9,400	12,000	28,250

DATA INPUT

Date:

Analyst: PAP

30-Mar-99

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,200	5,400	11,900	16,800	38,300
Model					
2020	6,000	7,700	18,800	24,000	56,500

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1800	2300	6900	7200	
year	EB	WB	SB	NB	
2005	4,200	5,400	11,900	16,800	38,300
2010	4,800	6,167	14,200	19,200	44,367
2015	5,400	6,933	16,500	21,600	50,433
2020	6,000	7,700	18,800	24,000	56,500

Enter "1st Guess" Turning Percentages for AADT Balancing:

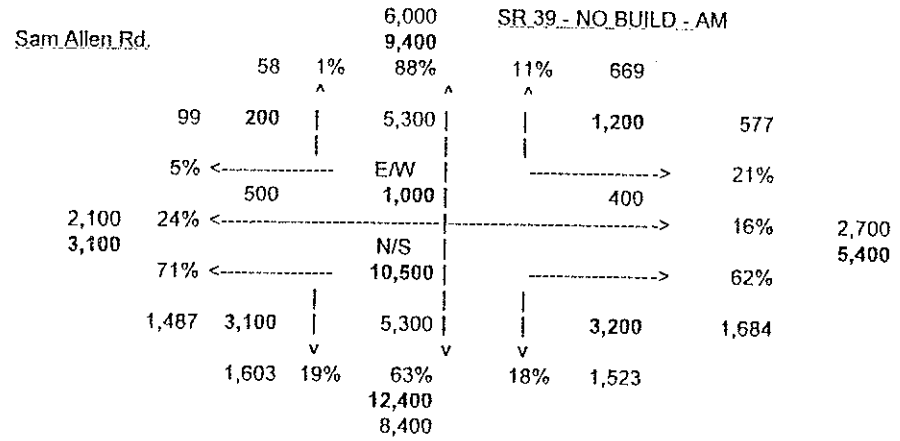
(EB THRU)	W-to-E	0.40
(EB LT)	W-to-N	0.10
(EB RT)	W-to-S	0.49
(WB THRU)	E-to-W	0.32
(WB RT)	E-to-N	0.35
(WB LT)	E-to-S	0.34
(SB RT)	N-to-W	0.03
(SB LT)	N-to-E	0.22
(SB THRU)	N-to-S	0.75
(NB LT)	S-to-W	0.23
(NB RT)	S-to-E	0.14
(NB THRU)	S-to-N	0.63
Desired Closure:		0.010

Actual/Counted Traffic:

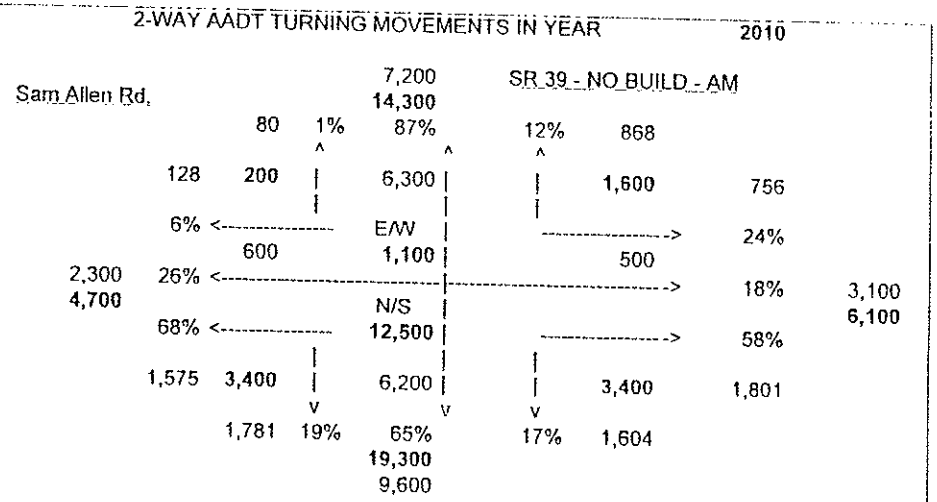
		2005
	W-to-E	73
	W-to-N	19
	W-to-S	90
	E-to-W	72
	E-to-N	78
	E-to-S	76
	N-to-W	15
	N-to-E	105
	N-to-S	354
	S-to-W	61
	S-to-E	37
	S-to-N	169

PROJECT TRAFFIC FOR SR 39 - NO BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

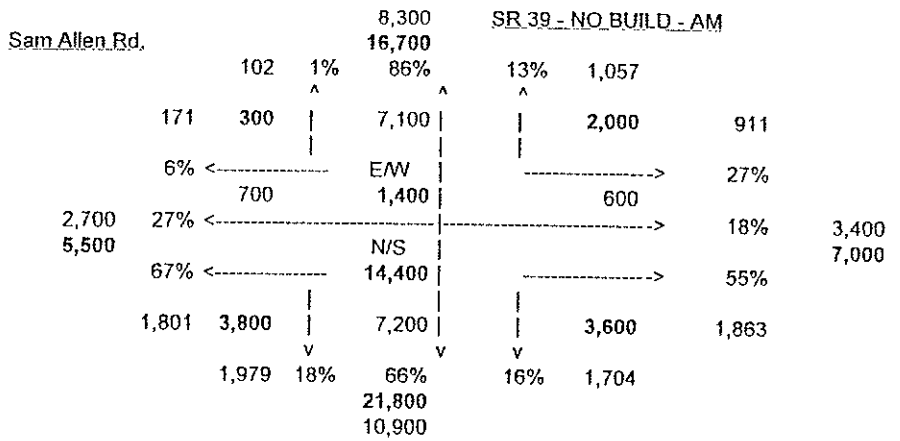
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



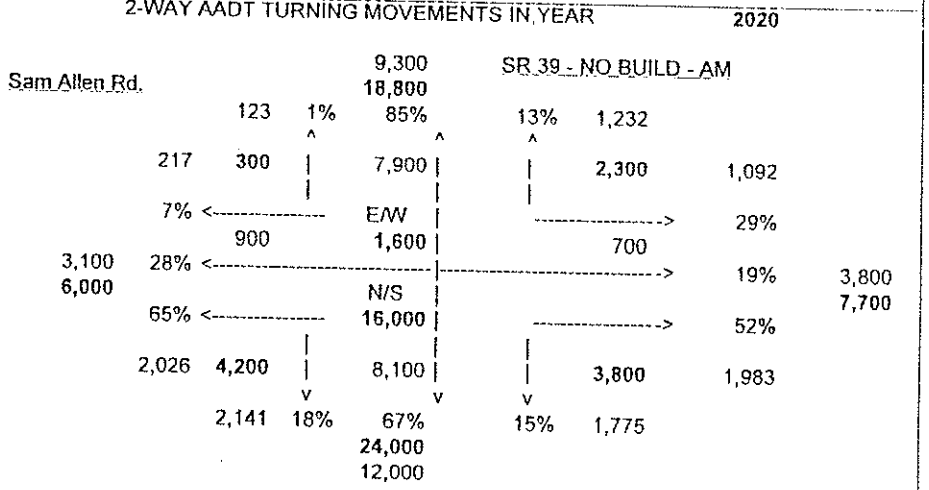
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015



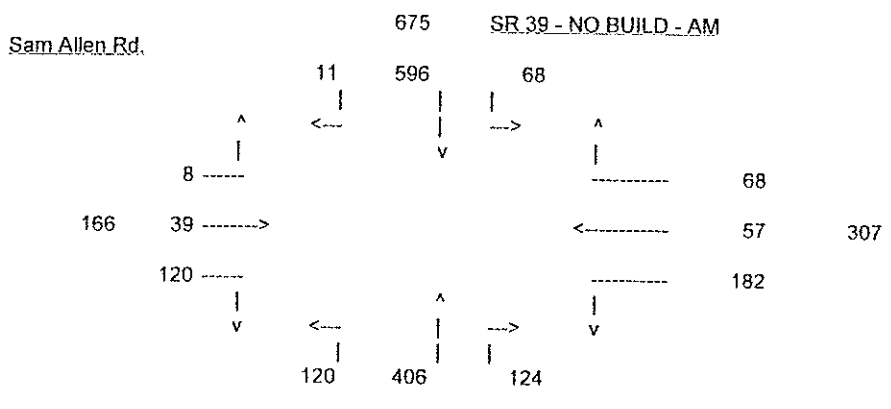
2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



SA39AM.WK4

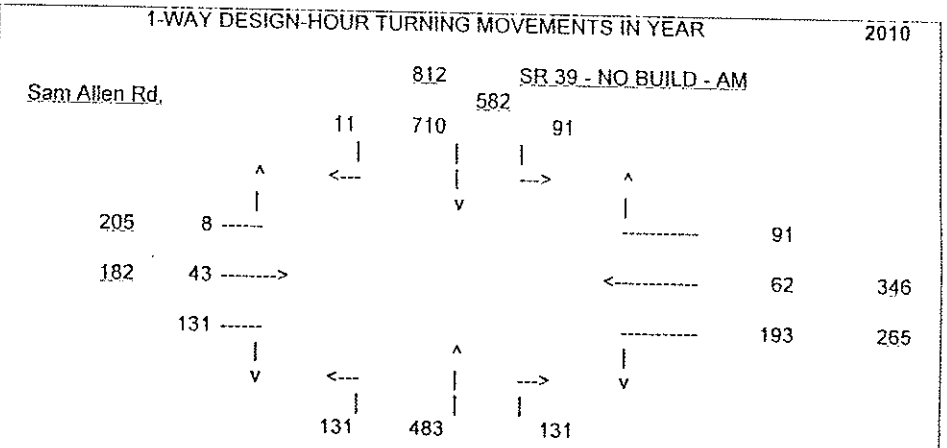
PROJECT TRAFFIC FOR SR 39 - NO BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



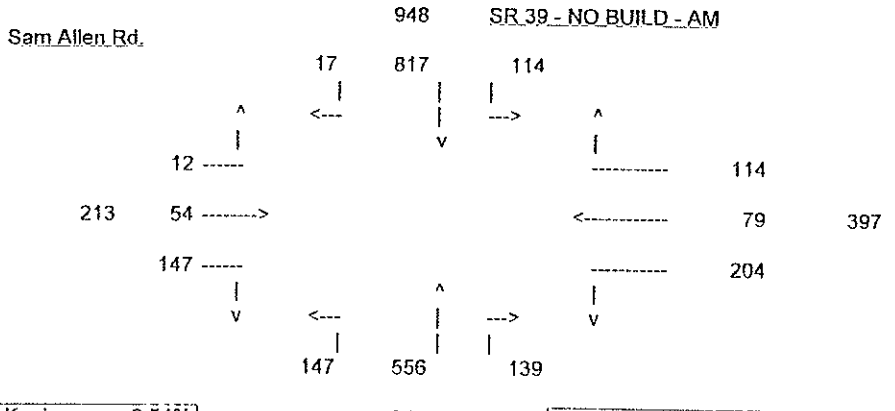
K nl =	9.54%	649	D nb&sb =	40.5% 59.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



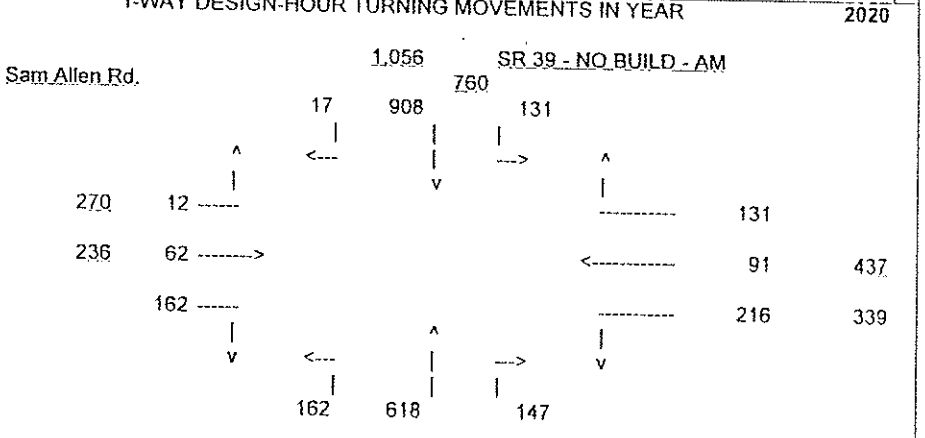
K nl =	9.54%	1034	746	D nb&sb = 40.5% 59.5%
K ss =	9.54%			D eb&wb = 40.5% 59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K nl =	9.54%	842	D nb&sb =	40.5% 59.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

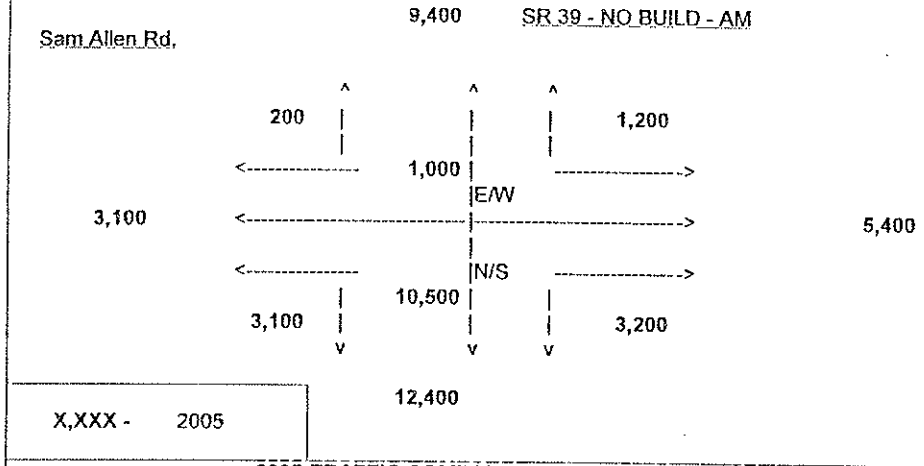
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



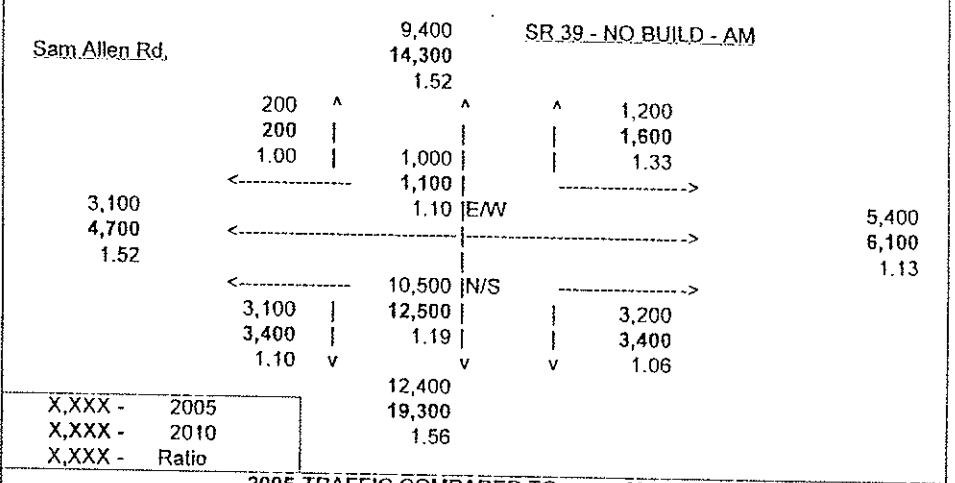
K nl =	9.54%	1286	927	D nb&sb = 40.5% 59.5%
K ss =	9.54%			D eb&wb = 40.5% 59.5%

PROJECT TRAFFIC FOR SR 39 - NO BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

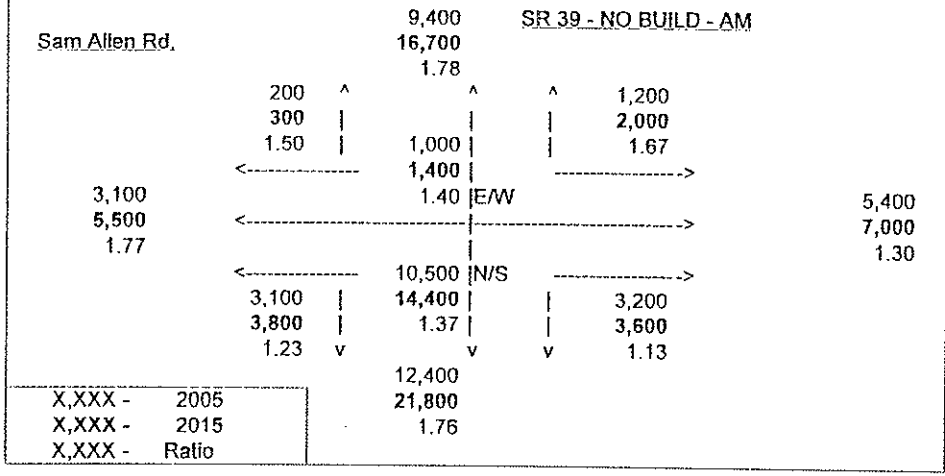
2005 TRAFFIC



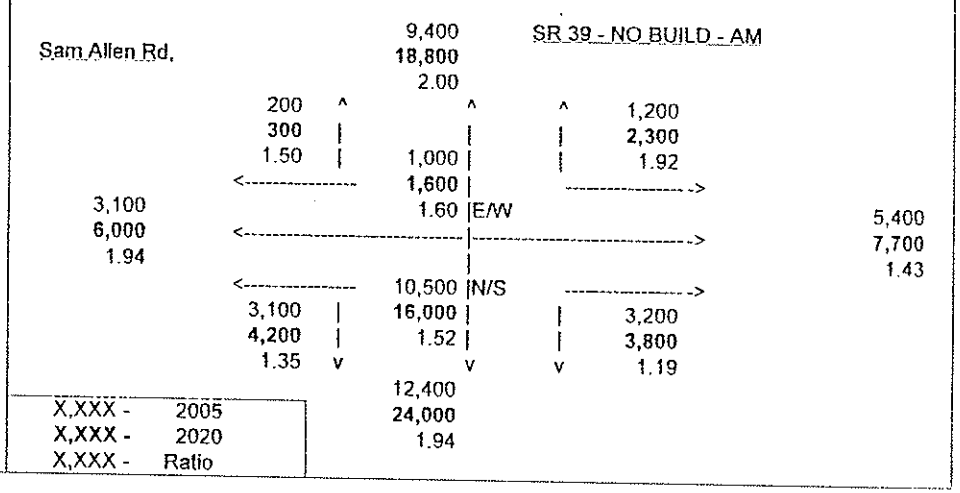
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

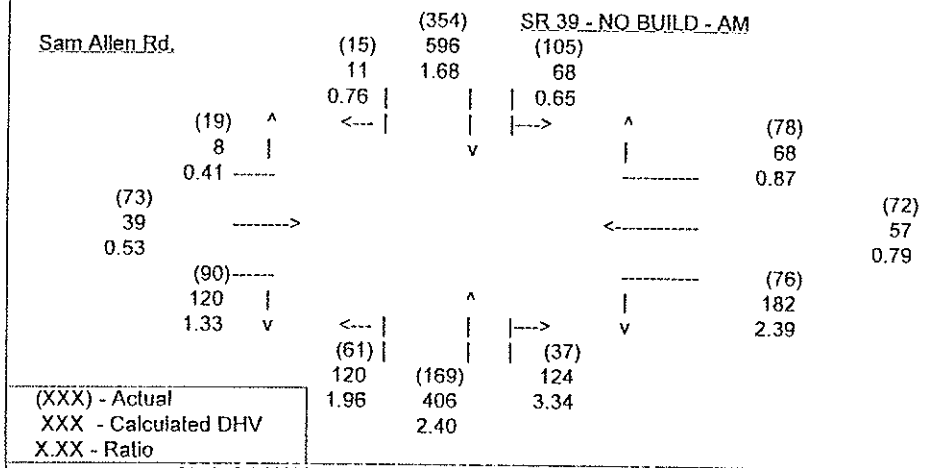


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

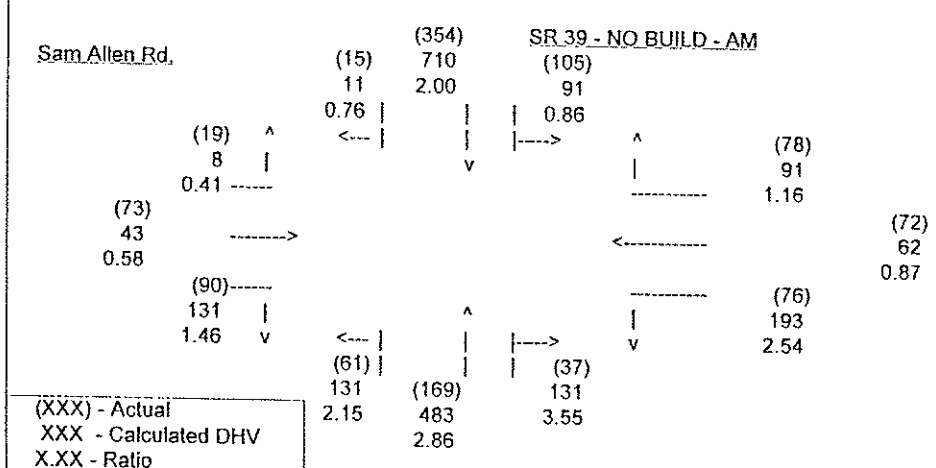


PROJECT TRAFFIC FOR SR 39 - NO BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

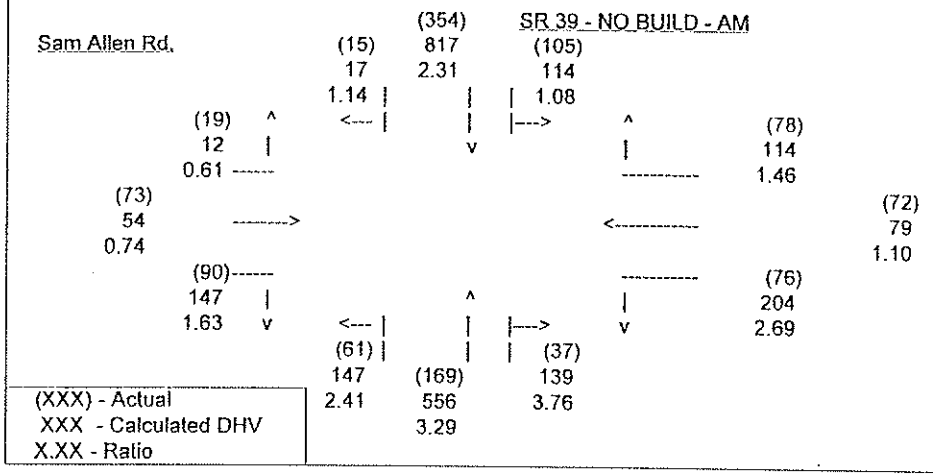
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



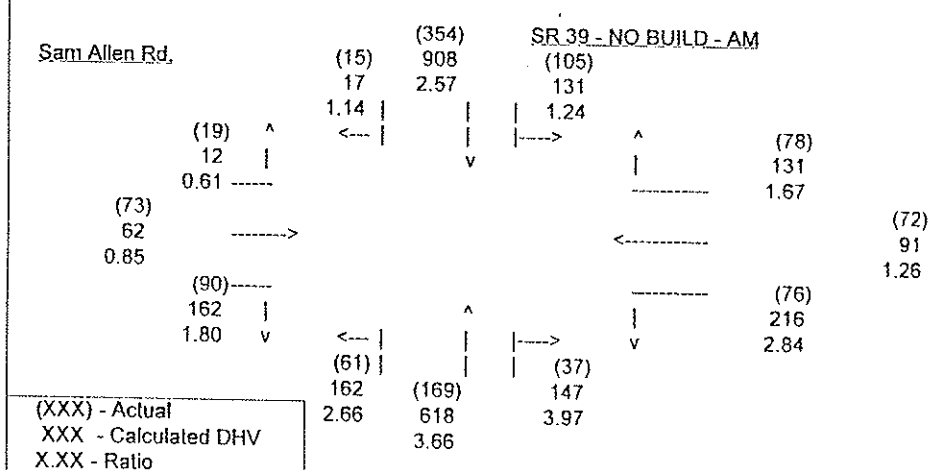
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst:	PAP
Highway:	SR 39 - NO BUILD - PM
Intersection:	Sam Allen Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

28-Nov-98

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,100	2,700	5,950	8,400	19,150
2010	2,400	3,083	7,100	9,600	22,183
2015	2,700	3,467	8,250	10,800	25,217
2020	3,000	3,850	9,400	12,000	28,250

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,100	2,700	5,950	8,400	19,150
2010	2,400	3,083	7,100	9,600	22,183
2015	2,700	3,467	8,250	10,800	25,217
2020	3,000	3,850	9,400	12,000	28,250

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,200	5,400	11,900	16,800	38,300
Model					
2020	6,000	7,700	18,800	24,000	56,500

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1800	2300	6900	7200	
year	EB	WB	SB	NB	
2005	4,200	5,400	11,900	16,800	38,300
2010	4,800	6,167	14,200	19,200	44,367
2015	5,400	6,933	16,500	21,600	50,433
2020	6,000	7,700	18,800	24,000	56,500

Enter "1st Guess" Turning Percentages for AADT Balancing:

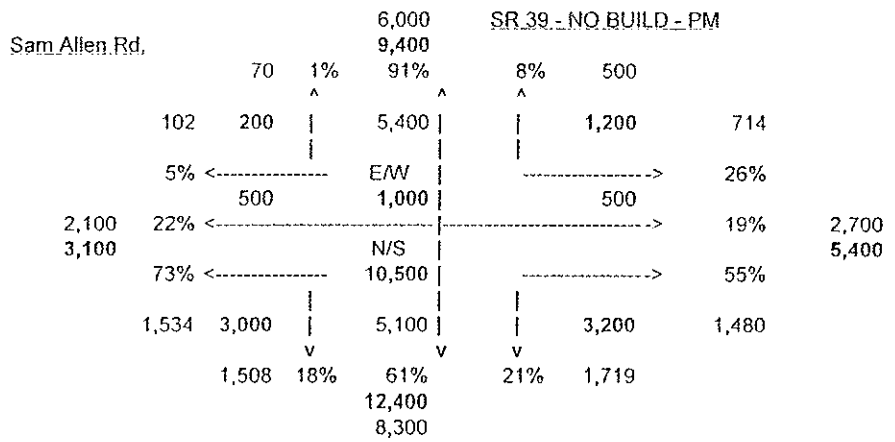
(EB THRU)	W-to-E	0.41
(EB LT)	W-to-N	0.11
(EB RT)	W-to-S	0.48
(WB THRU)	E-to-W	0.28
(WB RT)	E-to-N	0.45
(WB LT)	E-to-S	0.27
(SB RT)	N-to-W	0.03
(SB LT)	N-to-E	0.20
(SB THRU)	N-to-S	0.77
(NB LT)	S-to-W	0.17
(NB RT)	S-to-E	0.18
(NB THRU)	S-to-N	0.65
Desired Closure:		0.010

Actual/Counted Traffic:

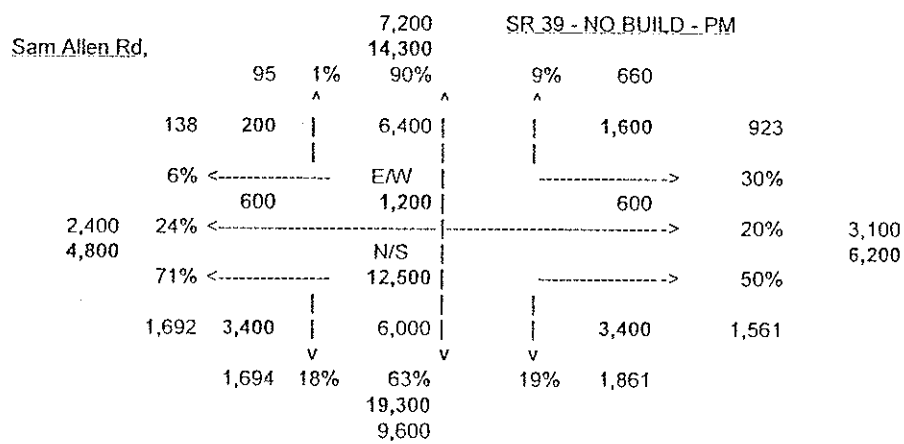
	2005
W-to-E	58
W-to-N	16
W-to-S	67
E-to-W	59
E-to-N	93
E-to-S	56
N-to-W	10
N-to-E	62
N-to-S	237
S-to-W	79
S-to-E	84
S-to-N	312

PROJECT TRAFFIC FOR SR 39 - NO BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

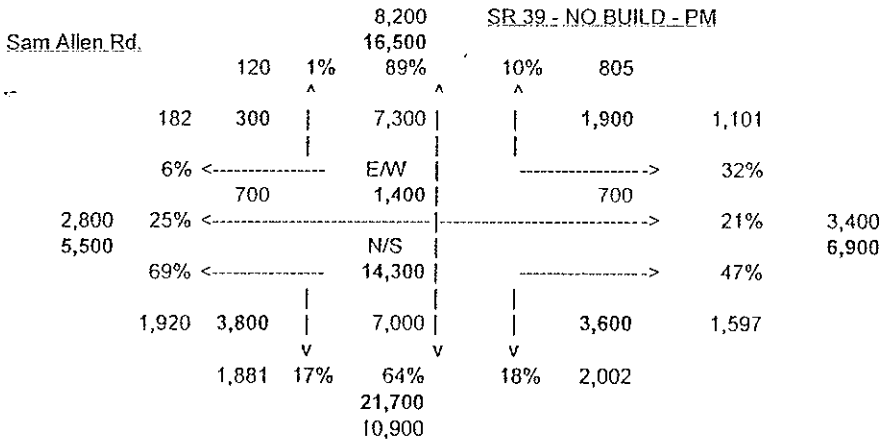
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



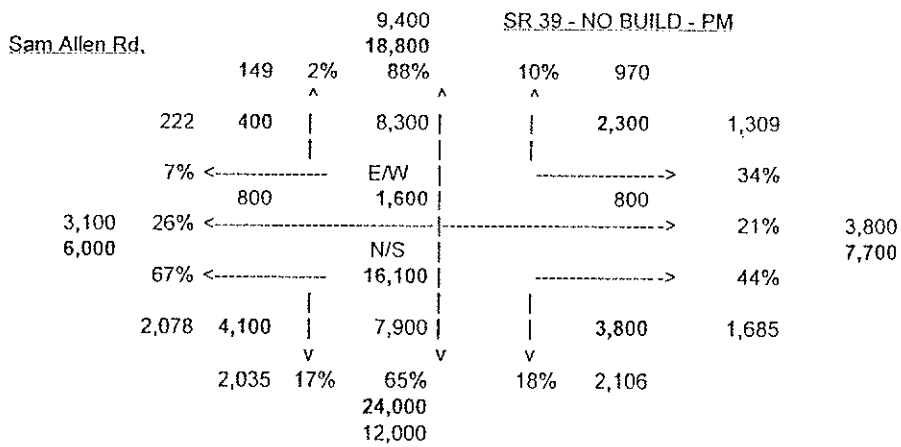
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

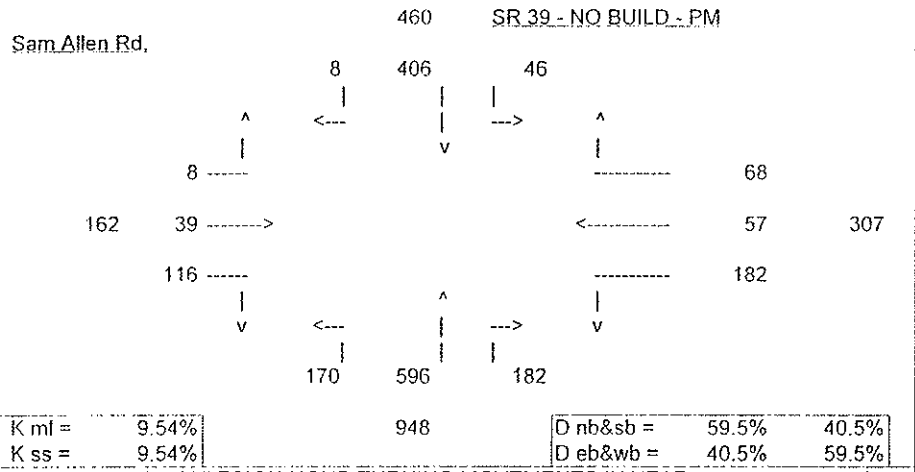


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



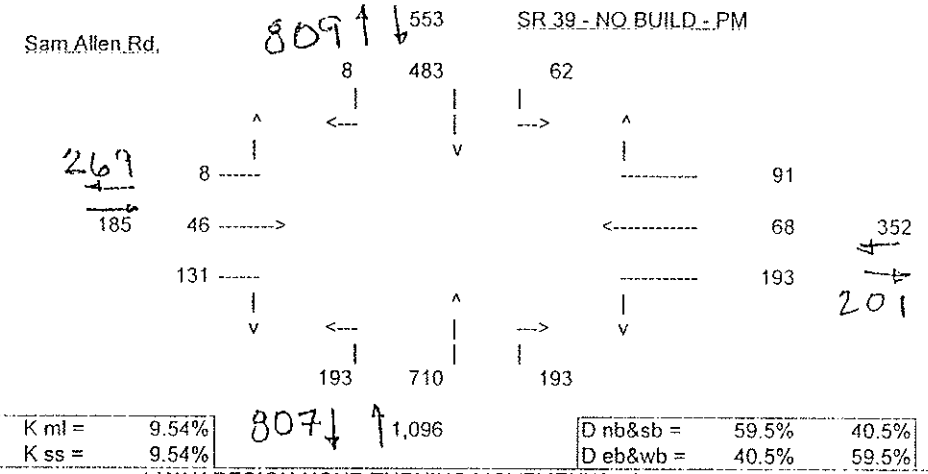
PROJECT TRAFFIC FOR SR 39 - NO BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



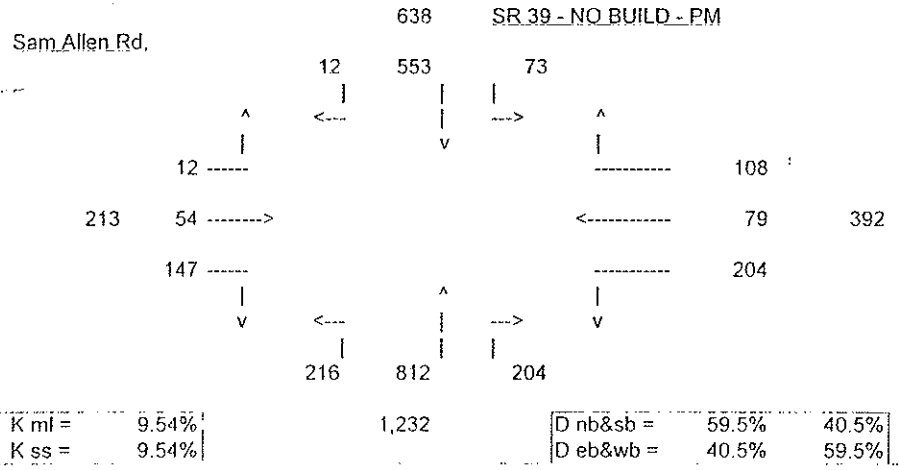
K nl =	9.54%	948	D nb&sb =	59.5% 40.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



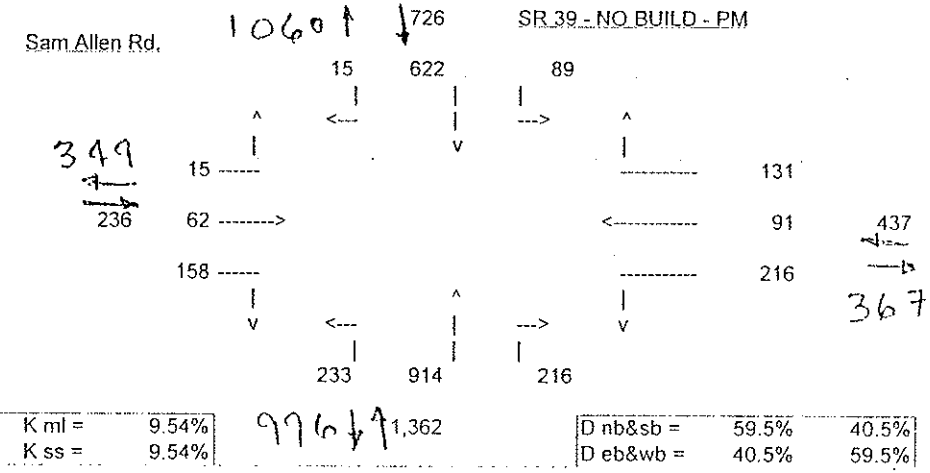
K nl =	9.54%	807 ↓ ↑ 1,096	D nb&sb =	59.5% 40.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K nl =	9.54%	1,232	D nb&sb =	59.5% 40.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

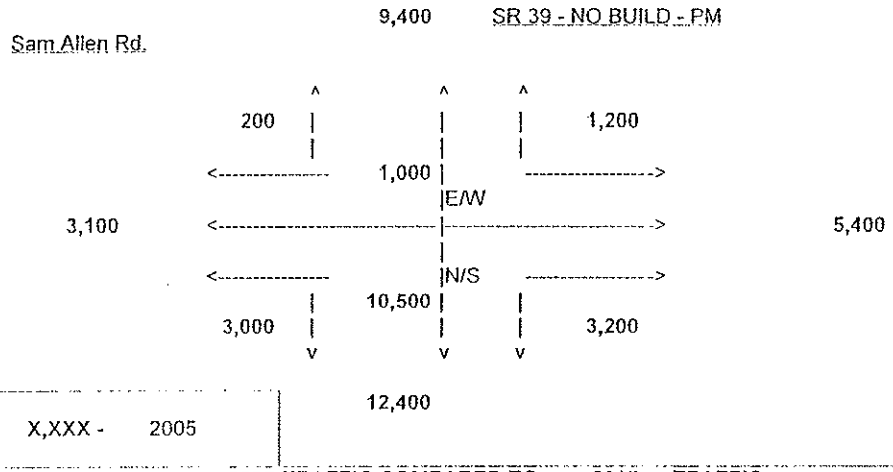
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K nl =	9.54%	976 ↓ ↑ 1,362	D nb&sb =	59.5% 40.5%
K ss =	9.54%		D eb&wb =	40.5% 59.5%

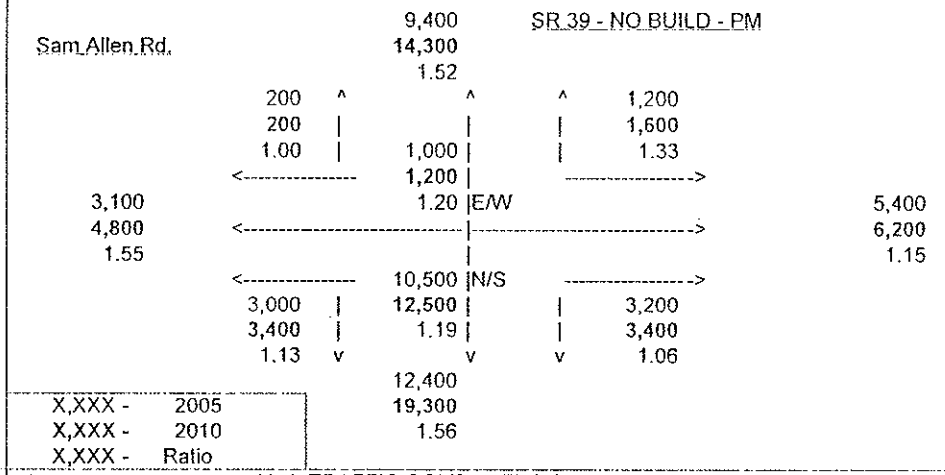
PROJECT TRAFFIC FOR SR 39 - NO BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



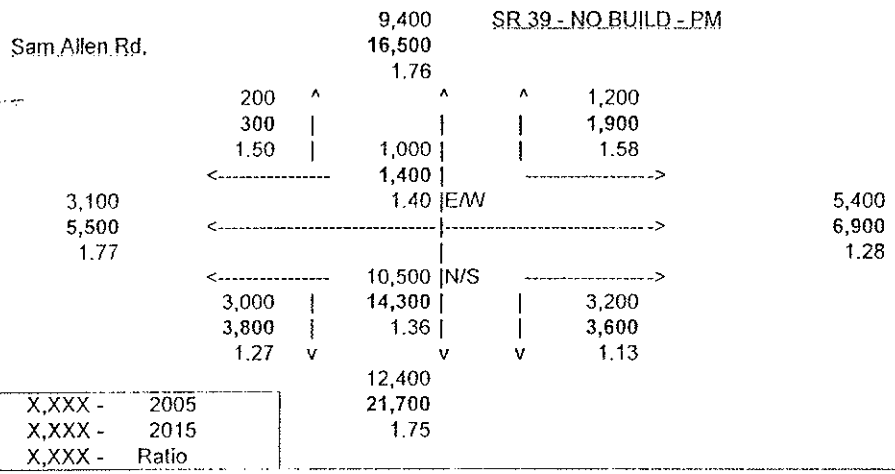
X,XXX - 2005 | 12,400

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



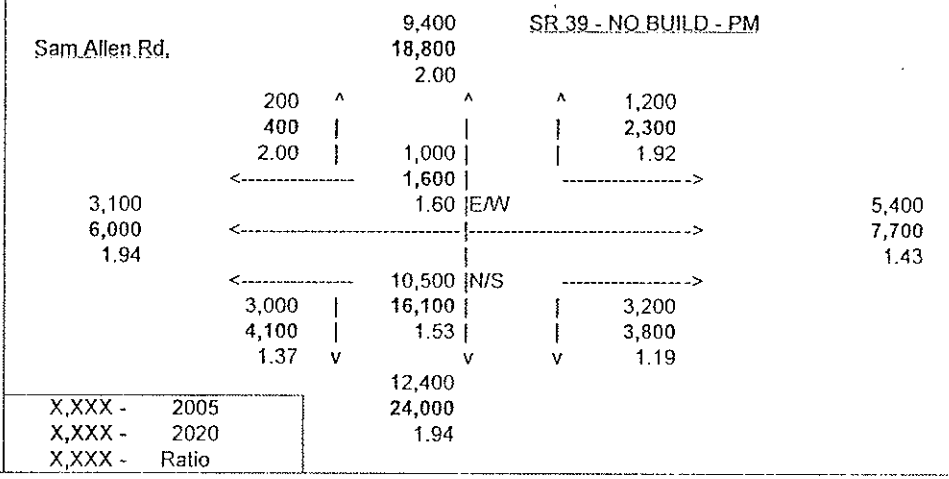
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

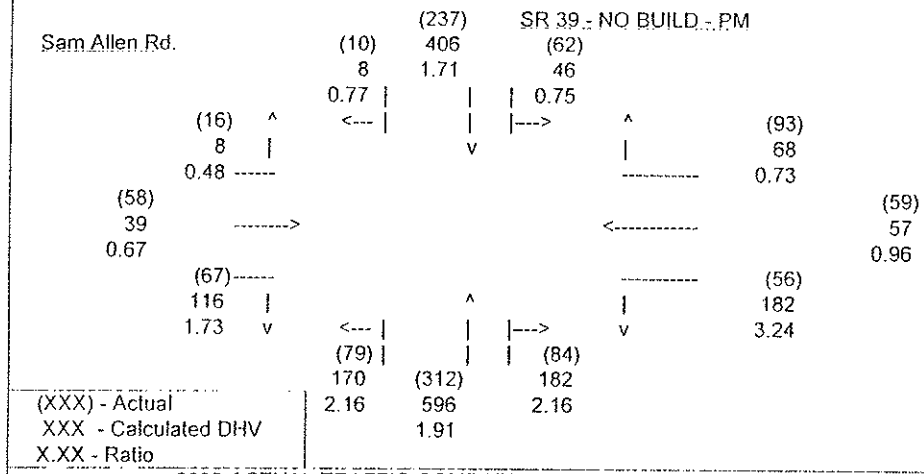
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



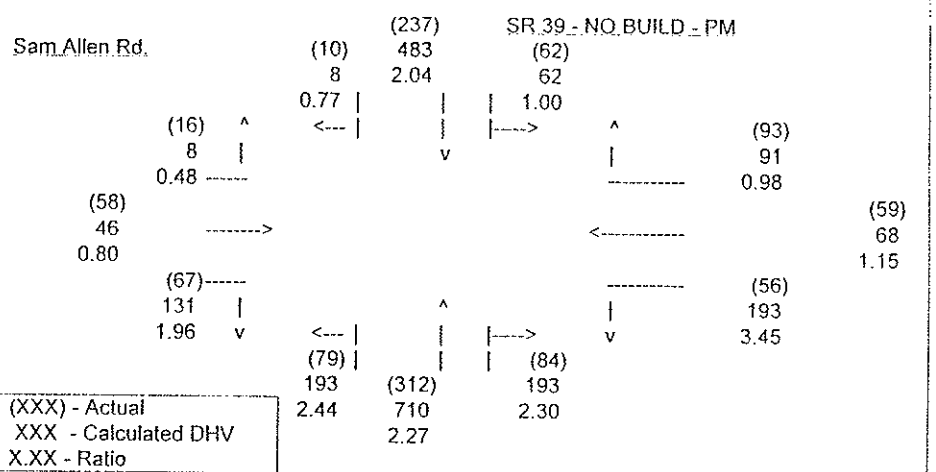
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - NO BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

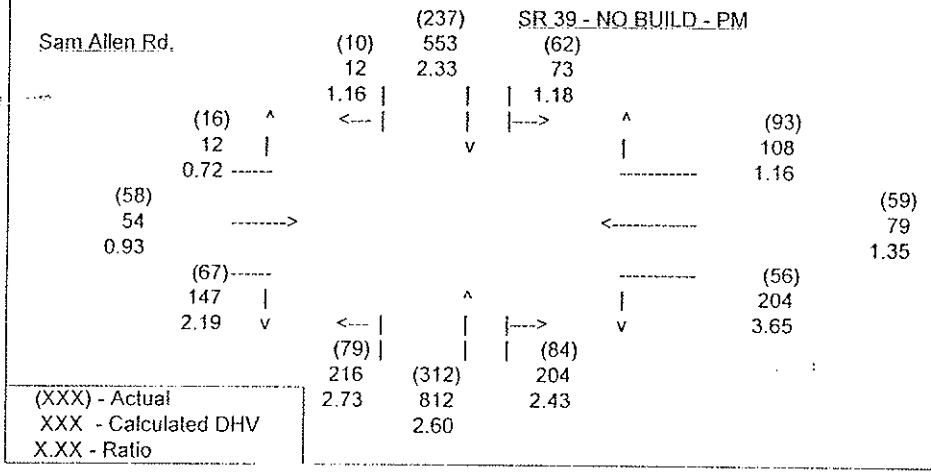
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



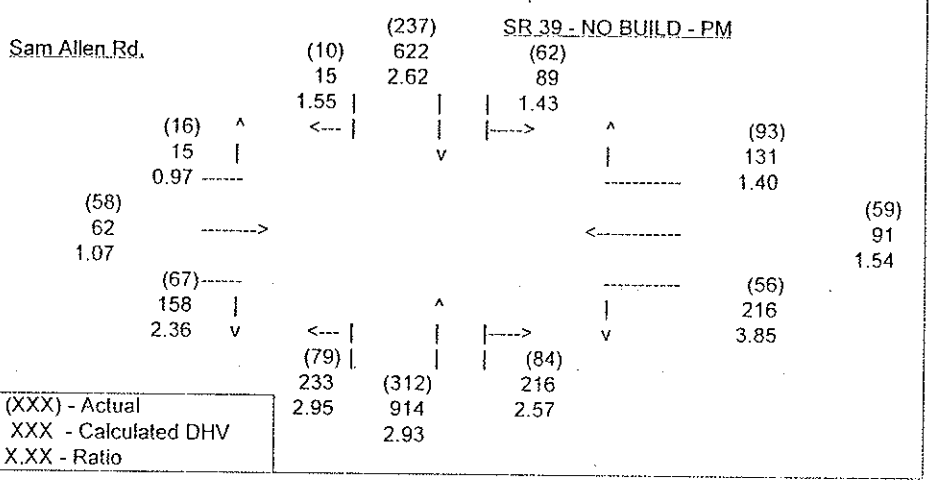
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



1995 TMC - V

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

Highway:	SR 39 - No-Build - AM
Intersection:	Knights Griffin Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

40.5%	Northbound(NB)
59.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,050	1,950	5,200	5,950	15,150
2010	2,333	2,233	6,217	7,100	17,883
2015	2,617	2,517	7,233	8,250	20,617
2020	2,900	2,800	8,250	9,400	23,350

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,050	1,950	5,200	5,950	15,150
2010	2,333	2,233	6,217	7,100	17,883
2015	2,617	2,517	7,233	8,250	20,617
2020	2,900	2,800	8,250	9,400	23,350

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

IF YES: **Enter Project & Model Years:**

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,100	3,900	10,400	11,900	30,300
Model					
2020	5,800	5,600	16,500	18,800	46,700

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1700	1700	6100	6900	
year	EB	WB	SB	NB	
2005	4,100	3,900	10,400	11,900	30,300
2010	4,667	4,467	12,433	14,200	35,767
2015	5,233	5,033	14,467	16,500	41,233
2020	5,800	5,600	16,500	18,800	46,700

Enter "1st Guess" Turning Percentages for AADT Balancing:

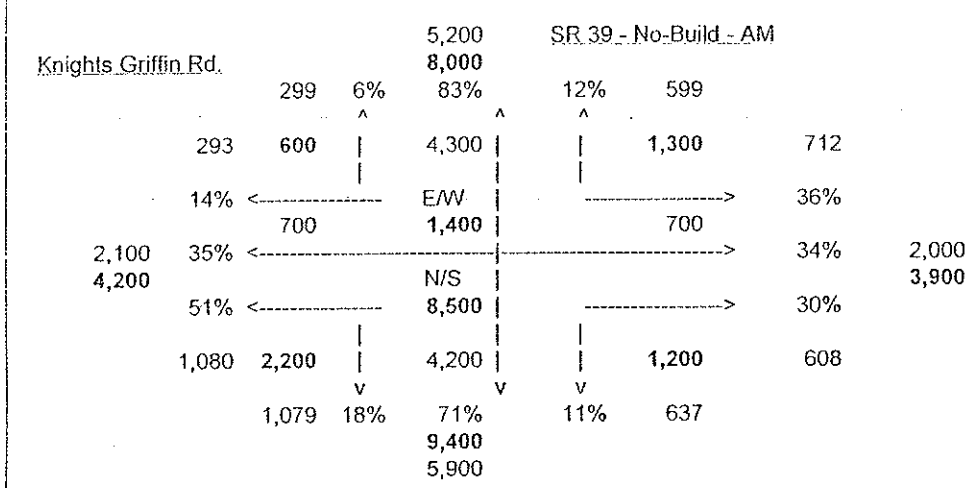
(EB THRU)	W-to-E	0.44
(EB LT)	W-to-N	0.15
(EB RT)	W-to-S	0.41
(WB THRU)	E-to-W	0.51
(WB RT)	E-to-N	0.30
(WB LT)	E-to-S	0.19
(SB RT)	N-to-W	0.12
(SB LT)	N-to-E	0.16
(SB THRU)	N-to-S	0.72
(NB LT)	S-to-W	0.28
(NB RT)	S-to-E	0.11
(NB THRU)	S-to-N	0.61
Desired Closure:		0.010

Actual/Counted Traffic:

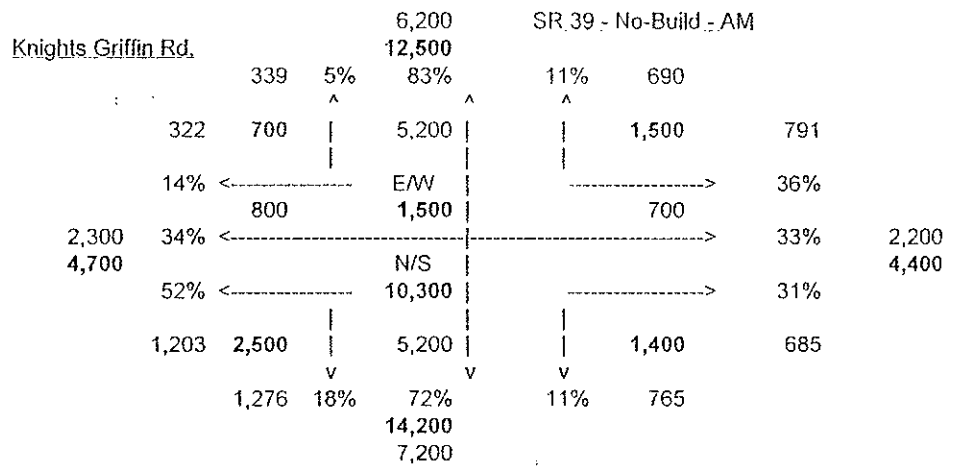
	2005
W-to-E	63
W-to-N	21
W-to-S	58
E-to-W	137
E-to-N	78
E-to-S	49
N-to-W	46
N-to-E	61
N-to-S	280
S-to-W	60
S-to-E	25
S-to-N	133

PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

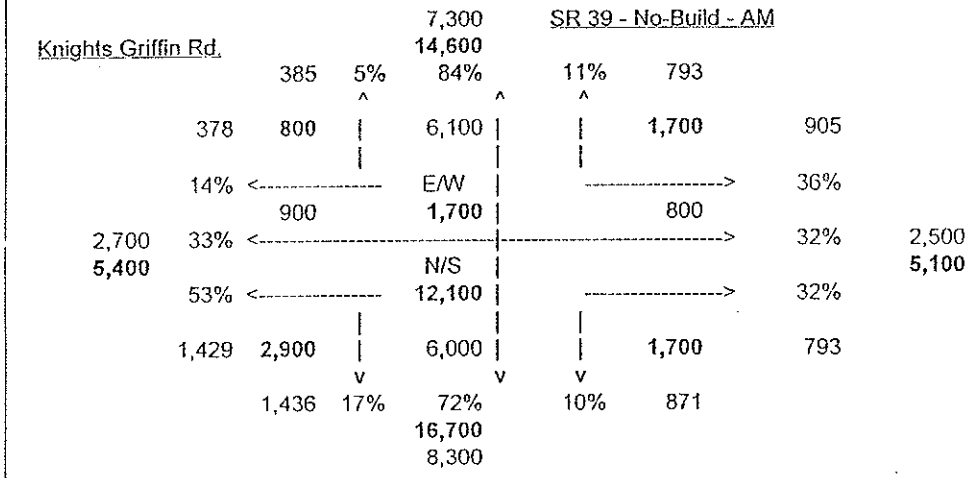
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



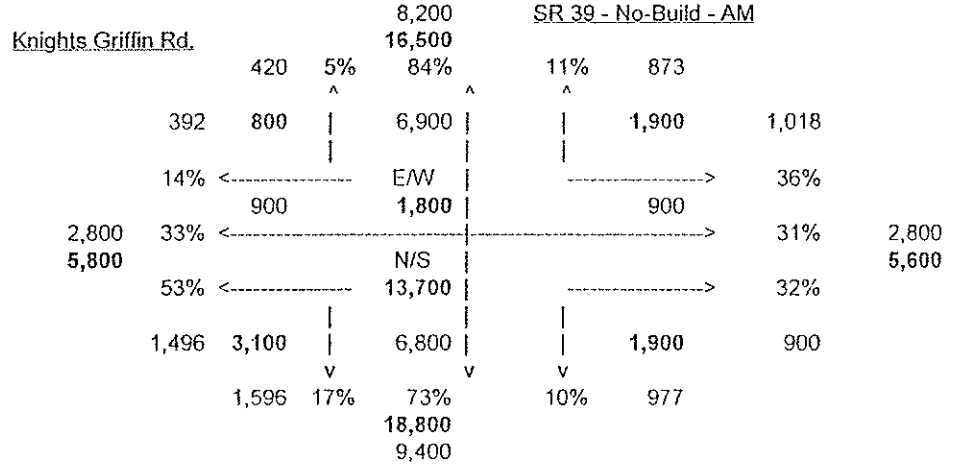
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

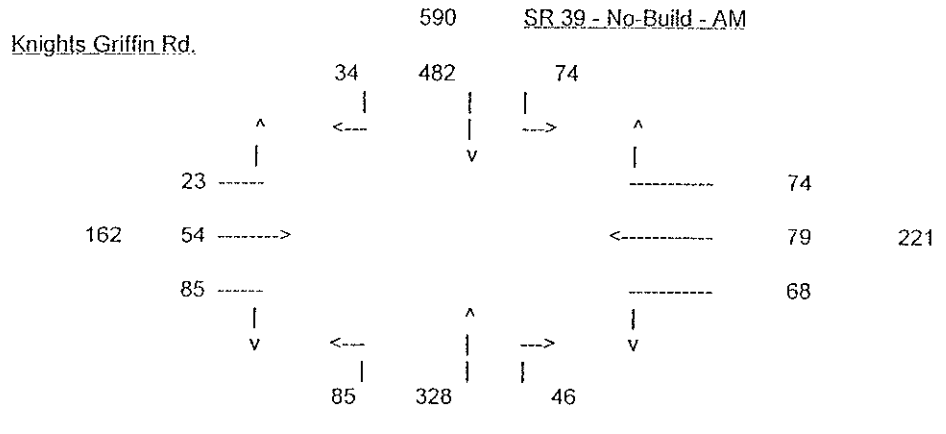


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



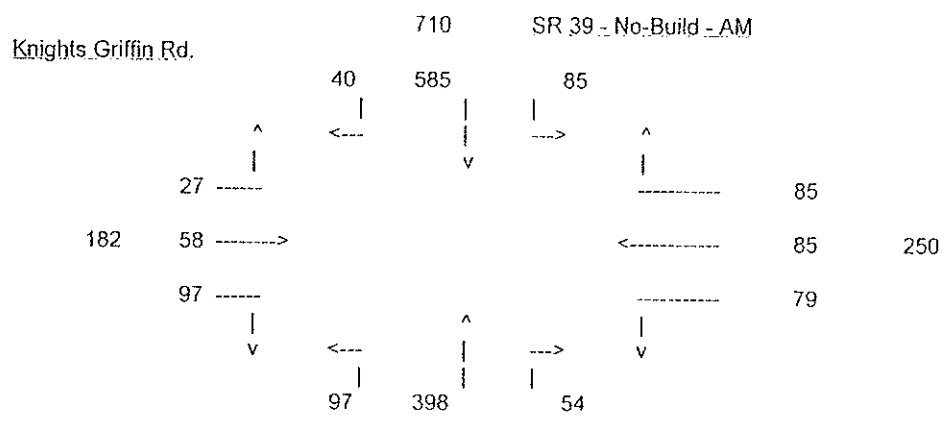
PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



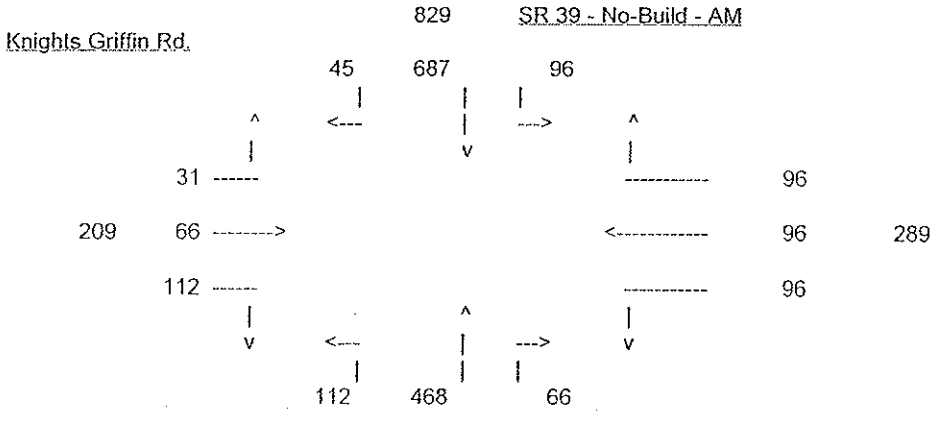
K nl =	9.54%	460	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



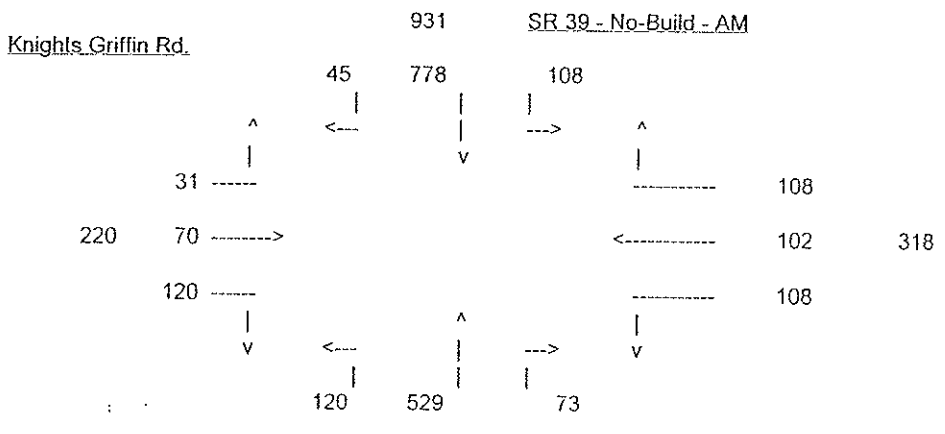
K nl =	9.54%	549	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K nl =	9.54%	645	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

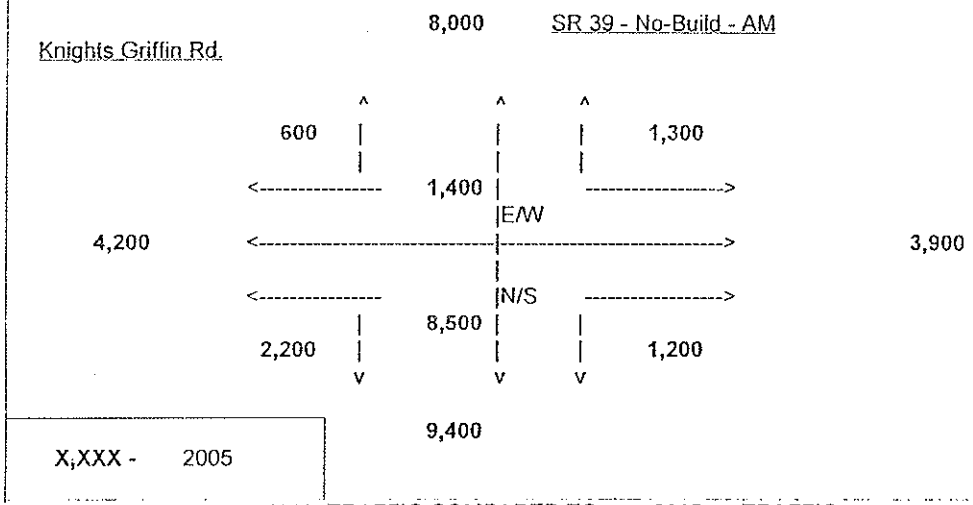
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K nl =	9.54%	723	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

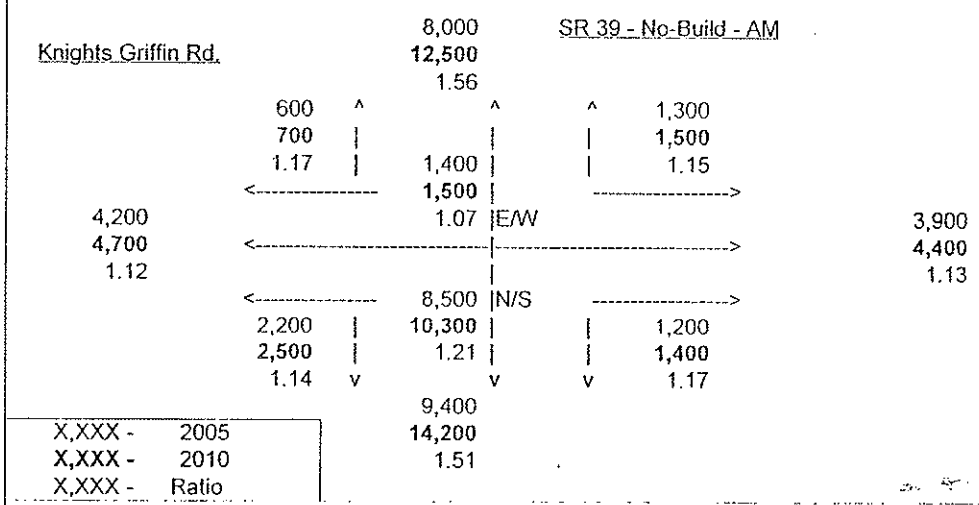
PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



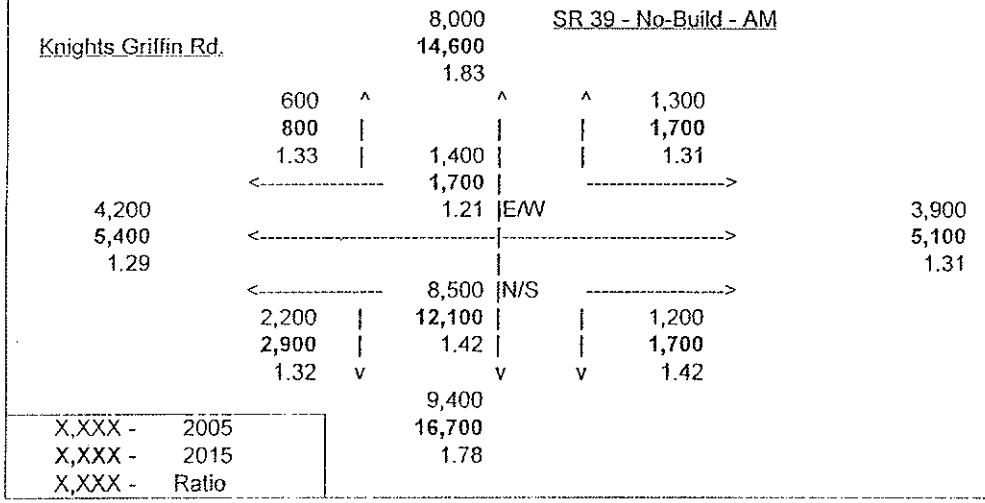
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



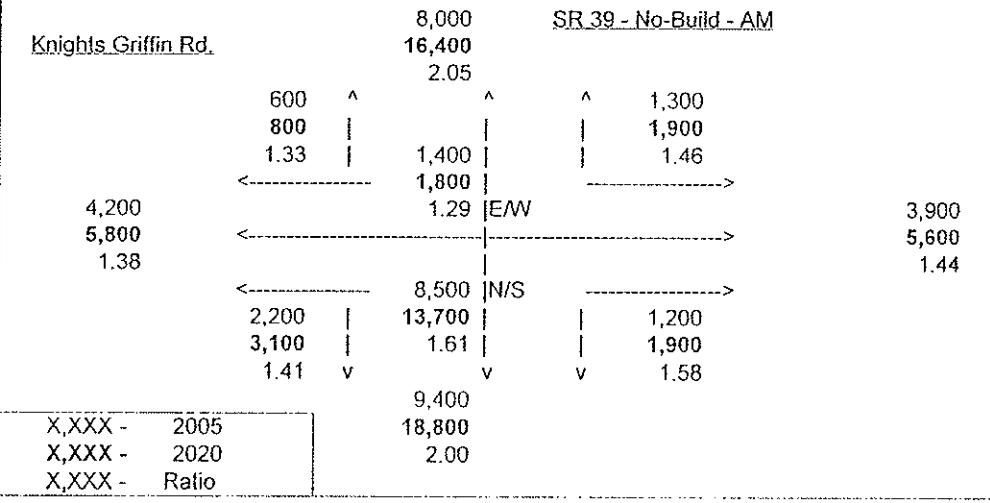
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

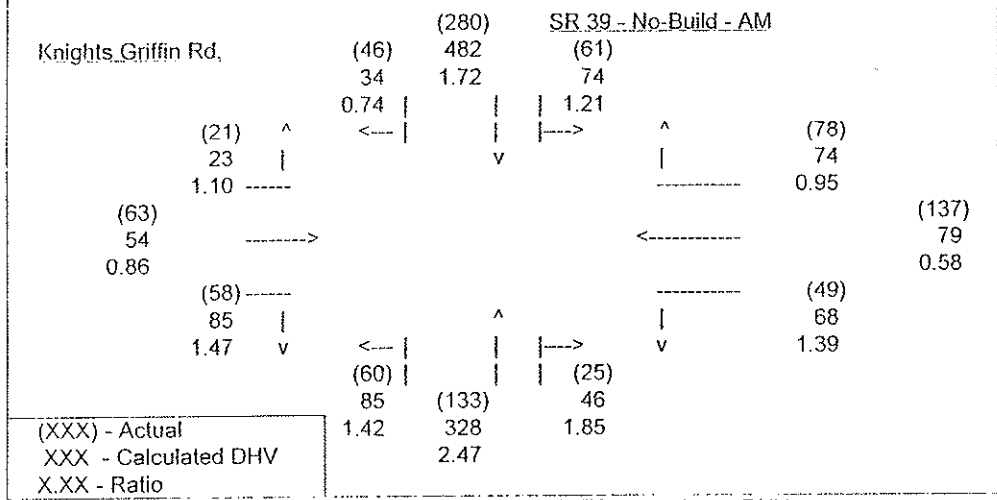
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



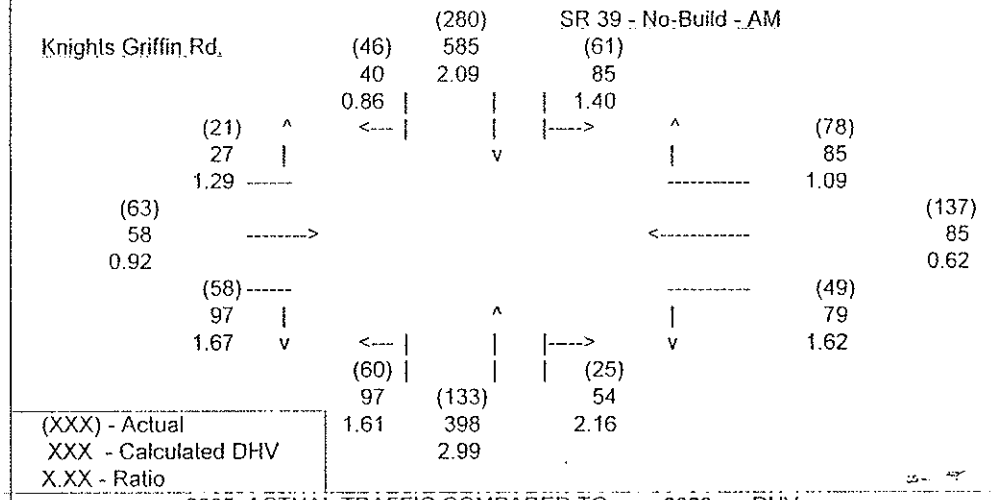
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

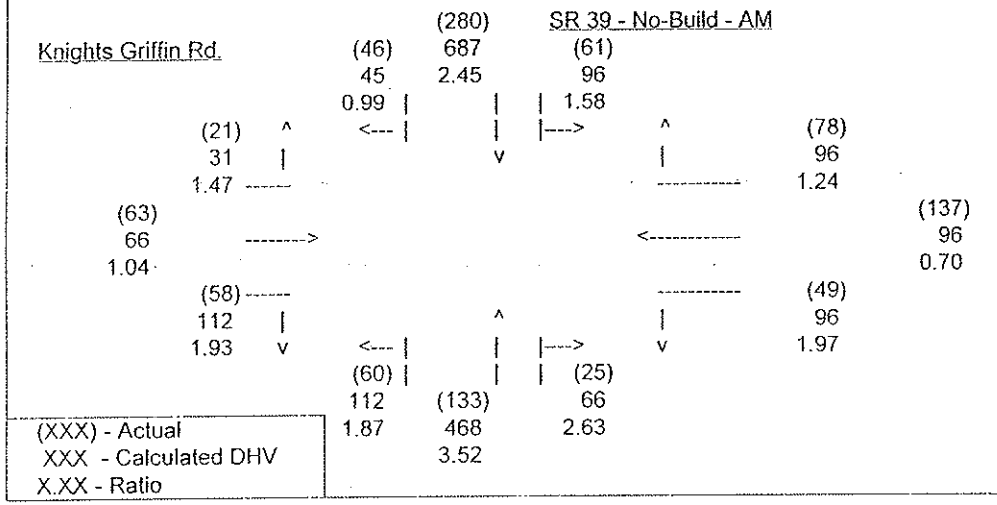
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



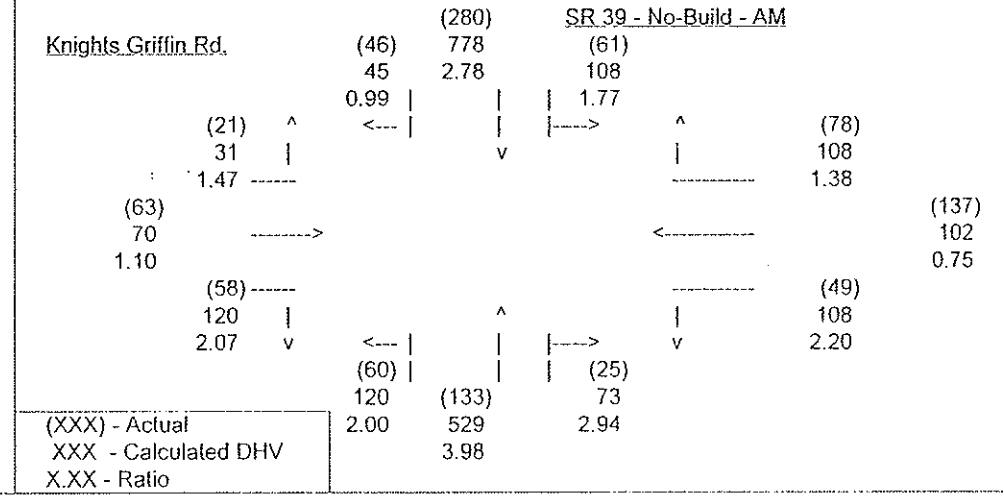
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



1998 THC - V

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - No-Build - PM
Intersection:	Knights Griffin Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet	Must Total 1
9.54%	9.54%	

D Factors:

a. Mainline

59.4%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,050	1,950	5,200	5,950	15,150
2010	2,333	2,233	6,217	7,100	17,883
2015	2,617	2,517	7,233	8,250	20,617
2020	2,900	2,800	8,250	9,400	23,350

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,050	1,950	5,200	5,950	15,150
2010	2,333	2,233	6,217	7,100	17,883
2015	2,617	2,517	7,233	8,250	20,617
2020	2,900	2,800	8,250	9,400	23,350

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

IF YES: **Enter Project & Model Years:**

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,100	3,900	10,400	11,900	30,300
Model					
2020	5,800	5,600	16,500	18,800	46,700

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1700	1700	6100	6900	
year	EB	WB	SB	NB	
2005	4,100	3,900	10,400	11,900	30,300
2010	4,667	4,467	12,433	14,200	35,767
2015	5,233	5,033	14,467	16,500	41,233
2020	5,800	5,600	16,500	18,800	46,700

Enter "1st Guess" Turning Percentages for AADT Balancing:

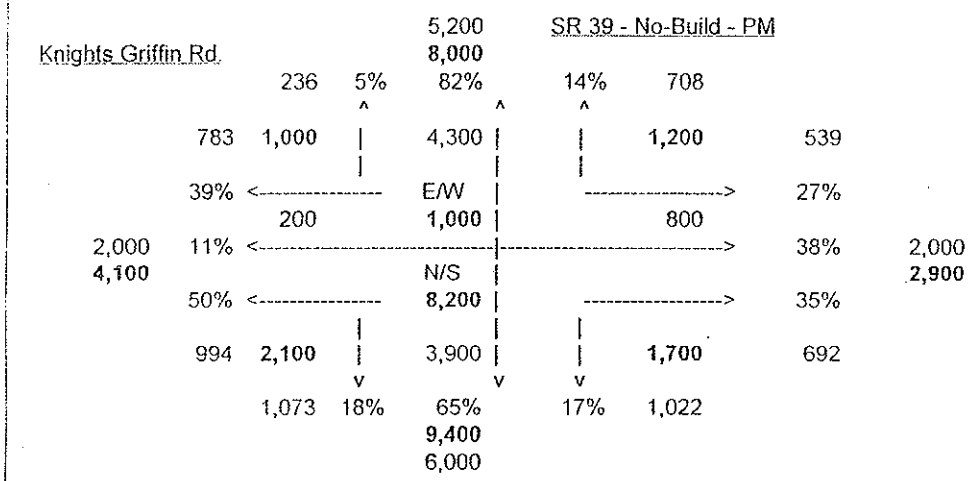
(EB THRU)	W-to-E	0.14
(EB LT)	W-to-N	0.61
(EB RT)	W-to-S	0.25
(WB THRU)	E-to-W	0.42
(WB RT)	E-to-N	0.41
(WB LT)	E-to-S	0.17
(SB RT)	N-to-W	0.08
(SB LT)	N-to-E	0.27
(SB THRU)	N-to-S	0.65
(NB LT)	S-to-W	0.14
(NB RT)	S-to-E	0.15
(NB THRU)	S-to-N	0.71
Desired Closure:		0.010

Actual/Counted Traffic:

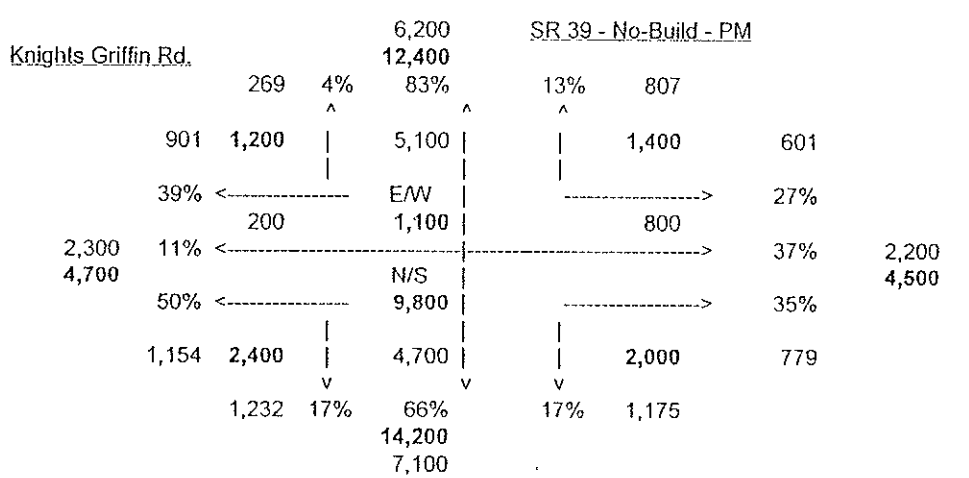
	2005
W-to-E	135
W-to-N	31
W-to-S	54
E-to-W	98
E-to-N	94
E-to-S	38
N-to-W	20
N-to-E	70
N-to-S	168
S-to-W	57
S-to-E	63
S-to-N	287

PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

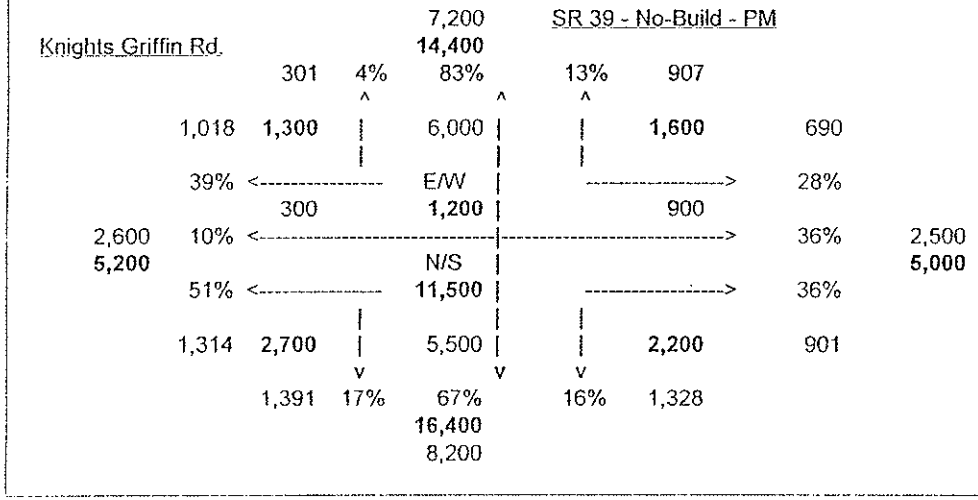
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



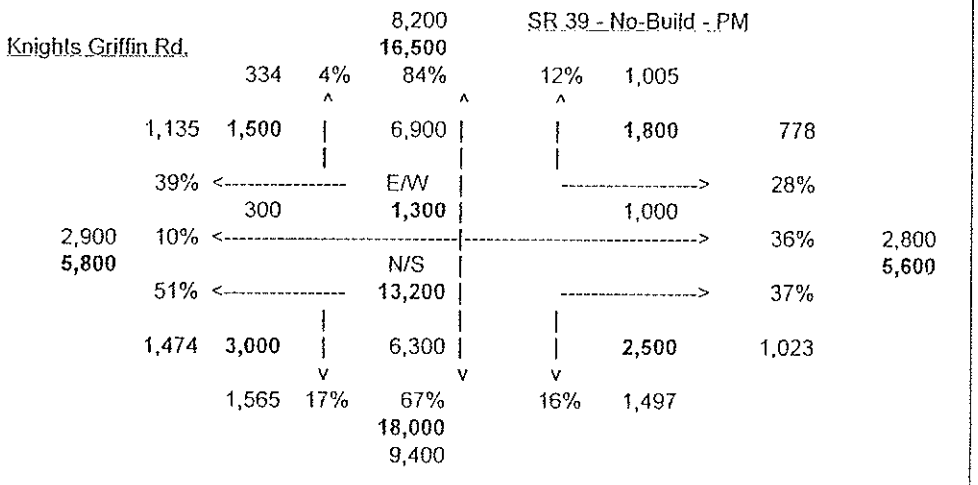
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

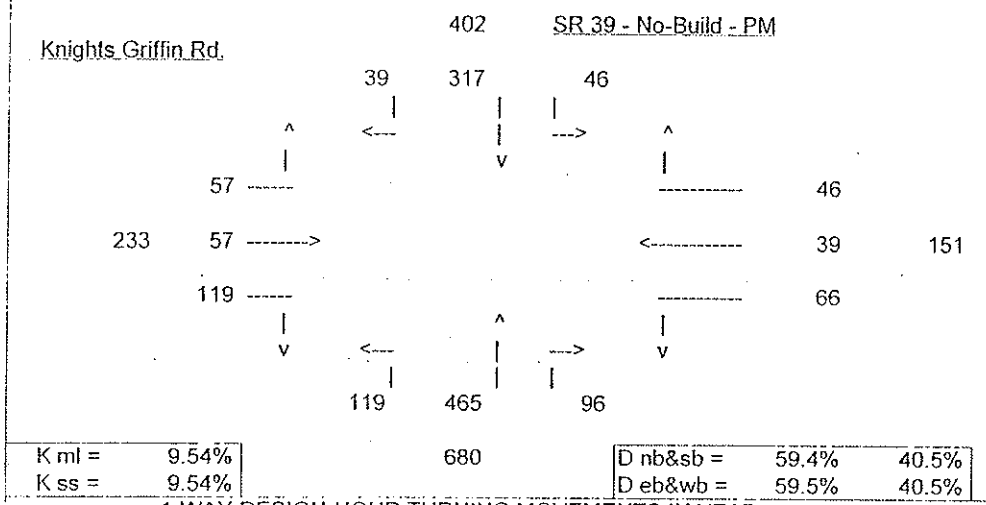


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



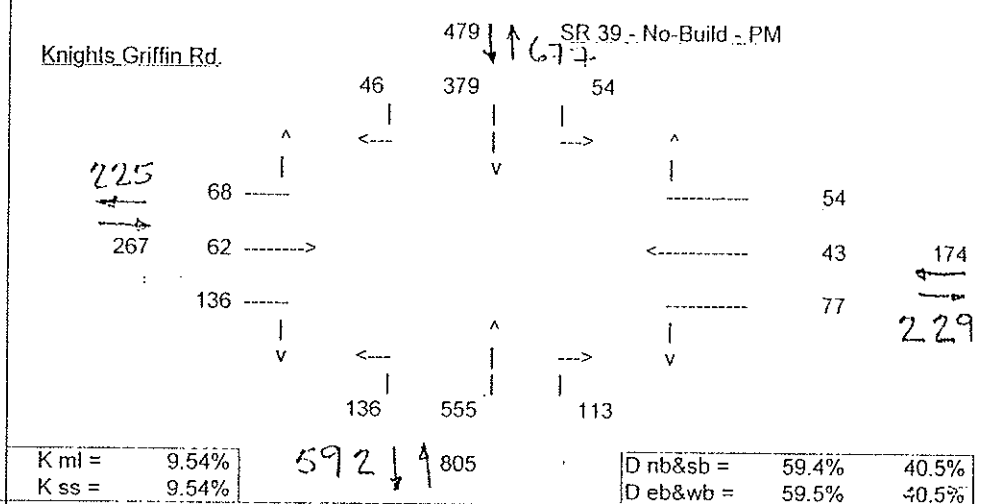
PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



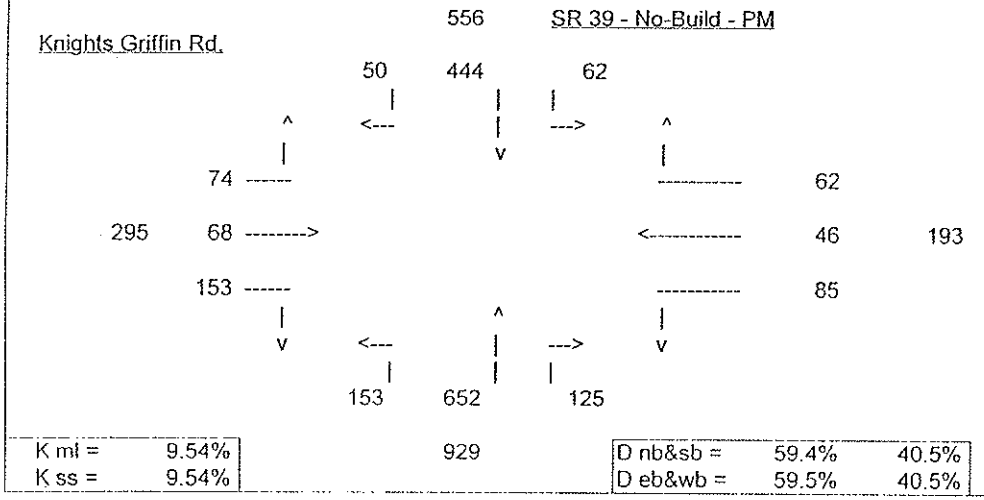
K ml =	9.54%	D nb&sb =	59.4% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



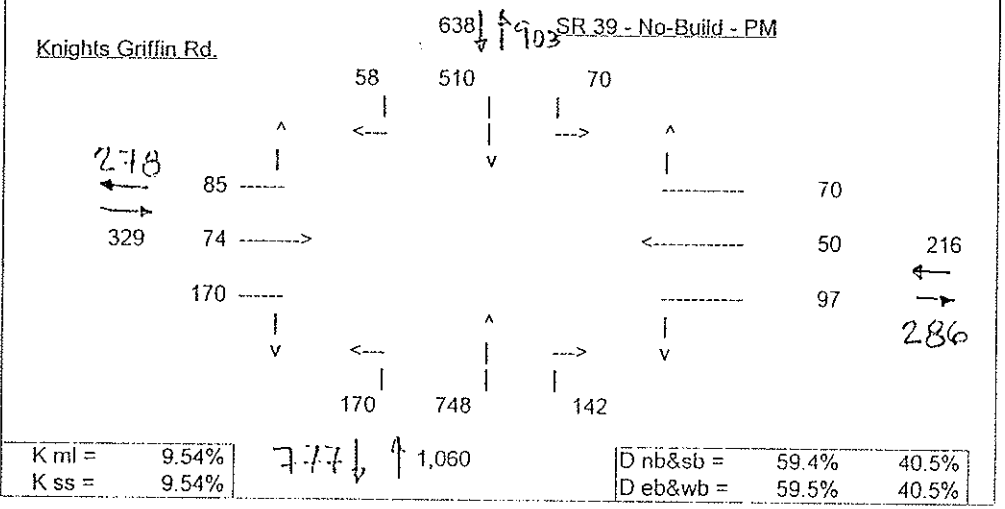
K ml =	9.54%	D nb&sb =	59.4% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	D nb&sb =	59.4% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

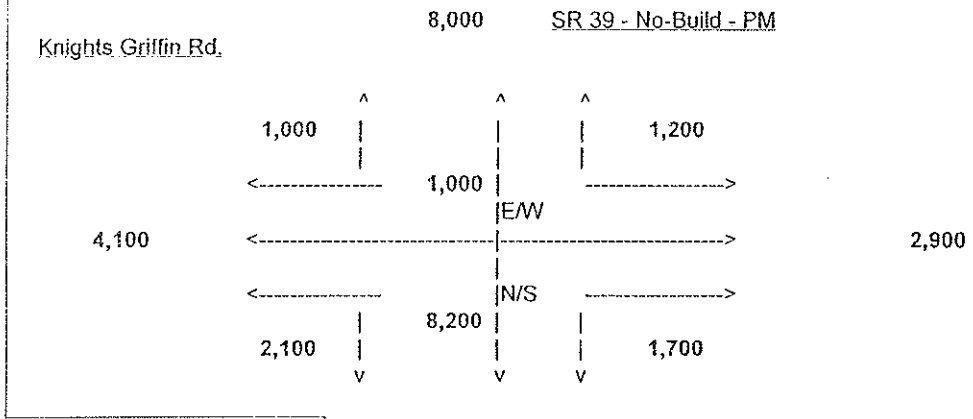
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K ml =	9.54%	D nb&sb =	59.4% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

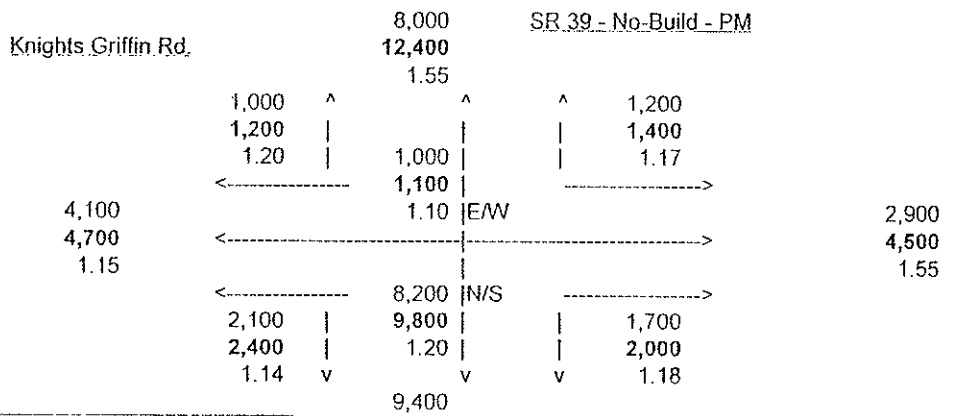
PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



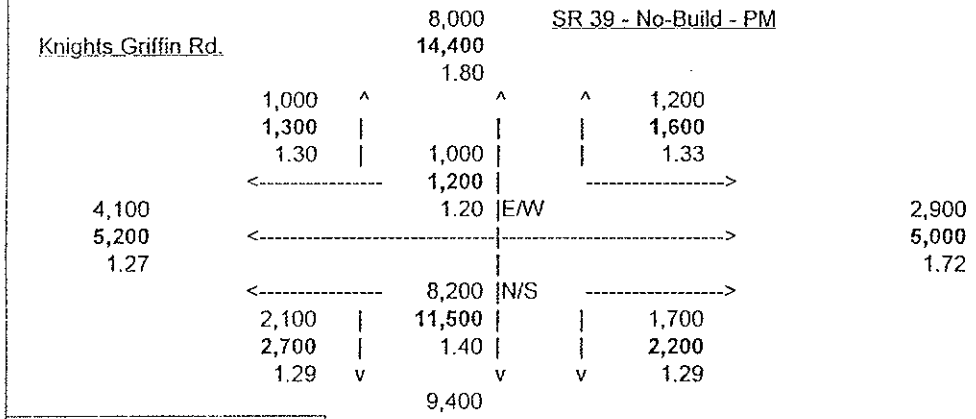
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



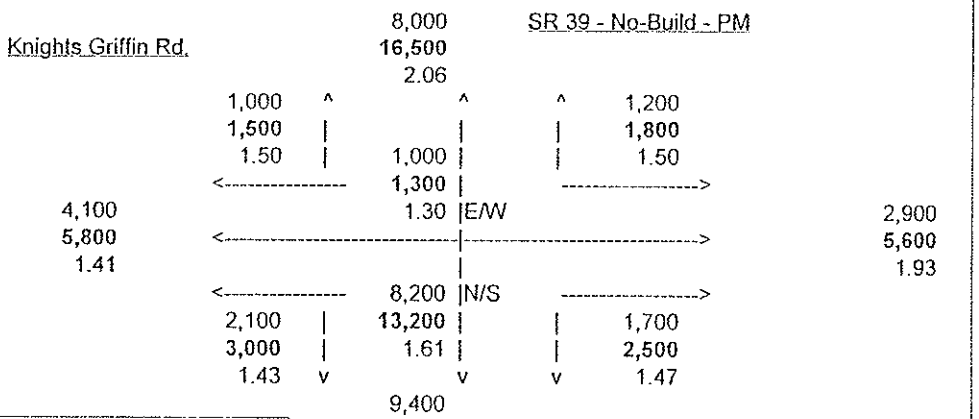
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

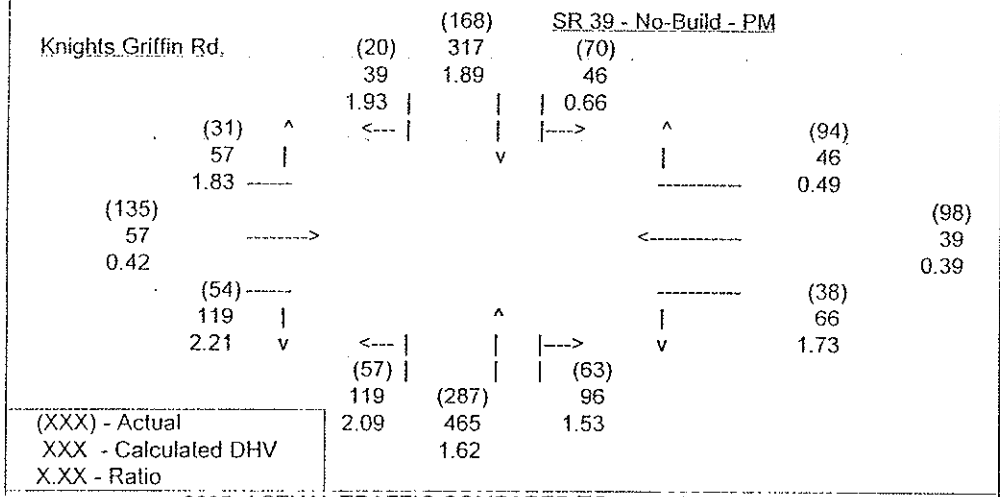
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



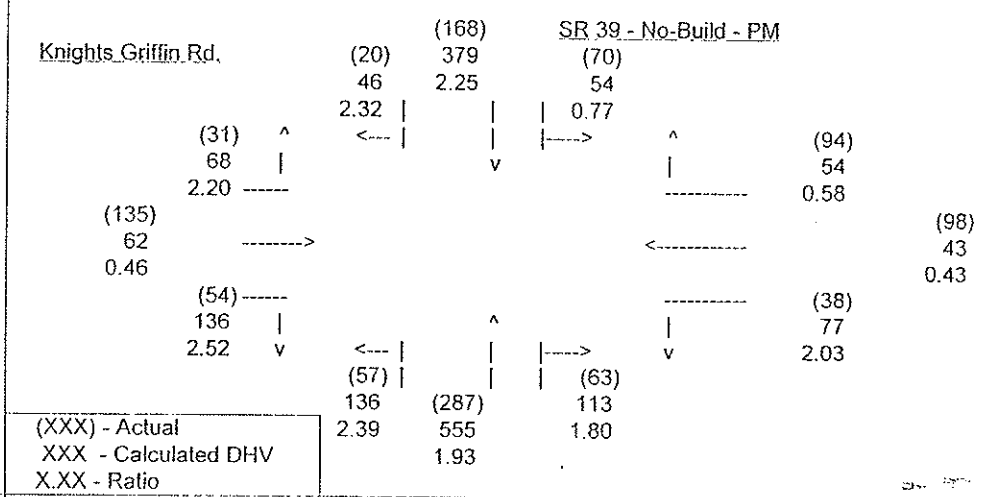
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

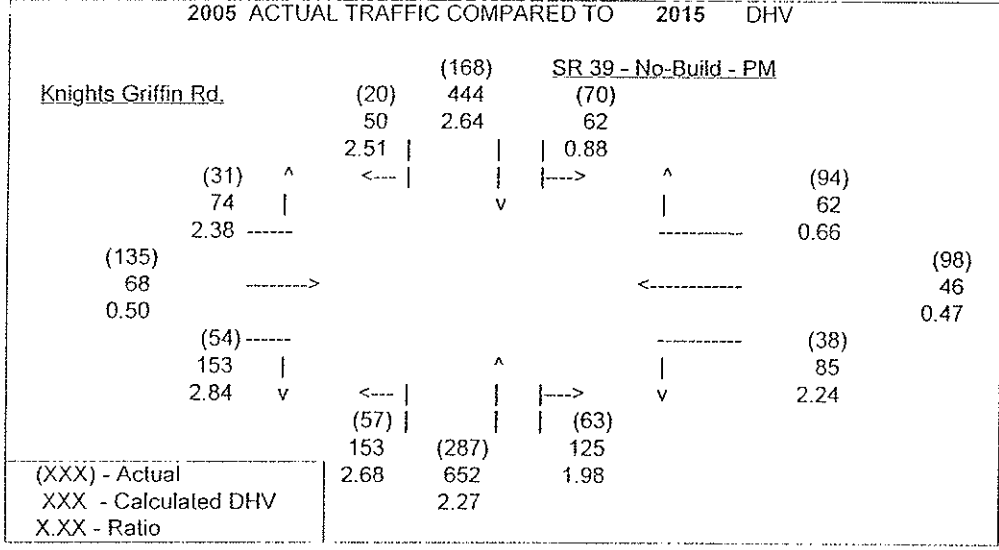
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



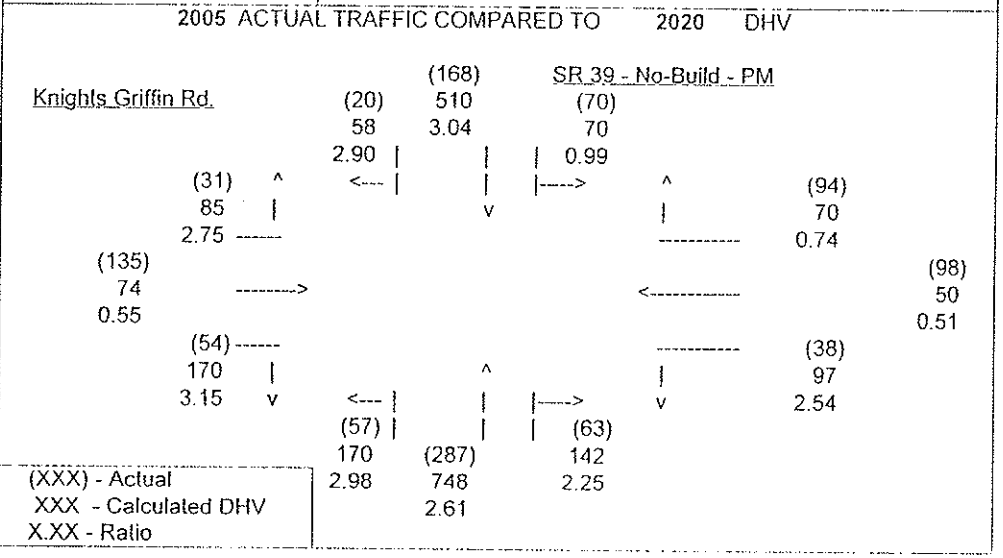
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



1998 TRC - V

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

Highway:	SR 39 - No-Build - AM
Intersection:	Zephyrhills Bypass
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	1,300	950	5,250	5,750	13,250
2010	1,567	1,133	6,300	6,833	15,833
2015	1,833	1,317	7,350	7,917	18,417
2020	2,100	1,500	8,400	9,000	21,000

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	1,300	950	5,250	5,750	13,250
2010	1,567	1,133	6,300	6,833	15,833
2015	1,833	1,317	7,350	7,917	18,417
2020	2,100	1,500	8,400	9,000	21,000

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	2,600	1,900	10,500	11,500	26,500
Model					
2020	4,200	3,000	16,800	18,000	42,000

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1600	1100	6300	6500	
year	EB	WB	SB	NB	
2005	2,600	1,900	10,500	11,500	26,500
2010	3,133	2,267	12,600	13,667	31,667
2015	3,667	2,633	14,700	15,833	36,833
2020	4,200	3,000	16,800	18,000	42,000

Enter "1st Guess" Turning Percentages for AADT Balancing:

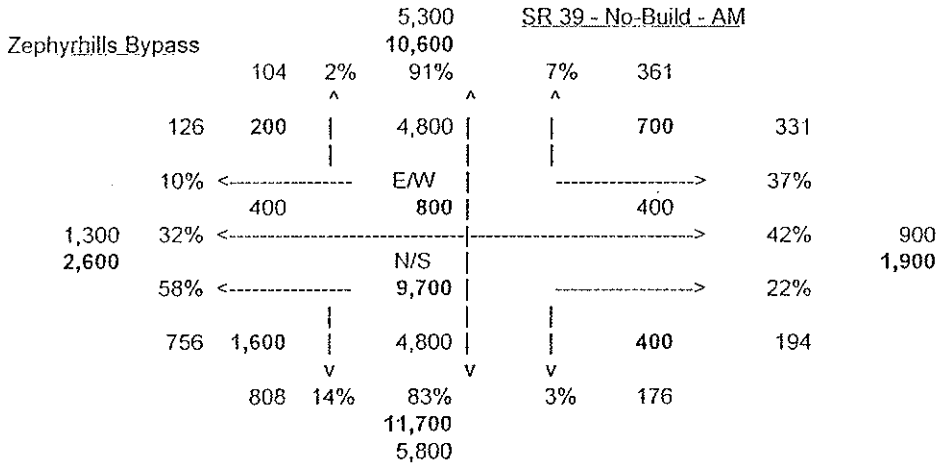
(EB THRU)	W-to-E	0.46
(EB LT)	W-to-N	0.47
(EB RT)	W-to-S	0.07
(WB THRU)	E-to-W	0.30
(WB RT)	E-to-N	0.69
(WB LT)	E-to-S	0.01
(SB RT)	N-to-W	0.15
(SB LT)	N-to-E	0.40
(SB THRU)	N-to-S	0.45
(NB LT)	S-to-W	0.06
(NB RT)	S-to-E	0.01
(NB THRU)	S-to-N	0.93
Desired Closure:		0.010

Actual/Counted Traffic:

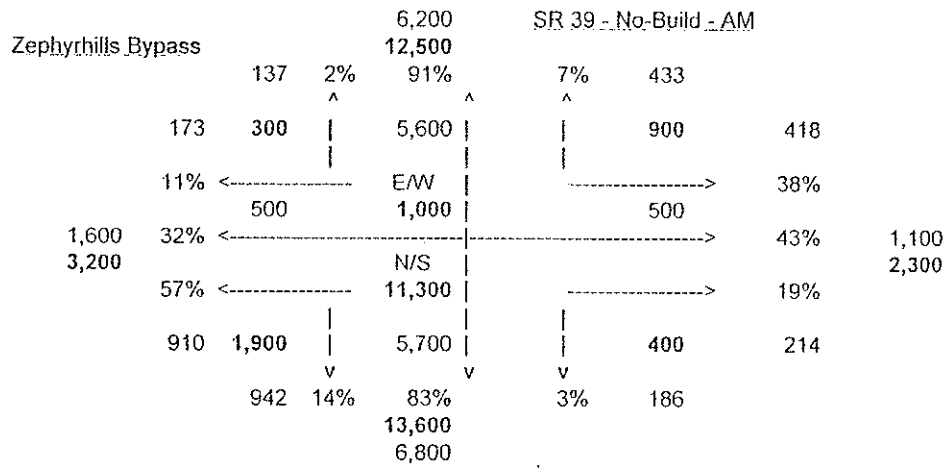
	2005
W-to-E	107
W-to-N	108
W-to-S	16
E-to-W	45
E-to-N	102
E-to-S	0
N-to-W	40
N-to-E	111
N-to-S	124
S-to-W	12
S-to-E	3
S-to-N	202

PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

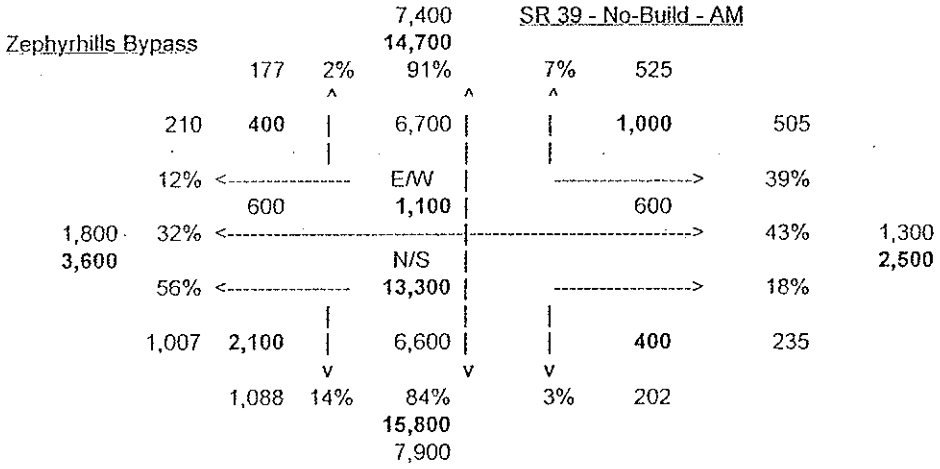
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



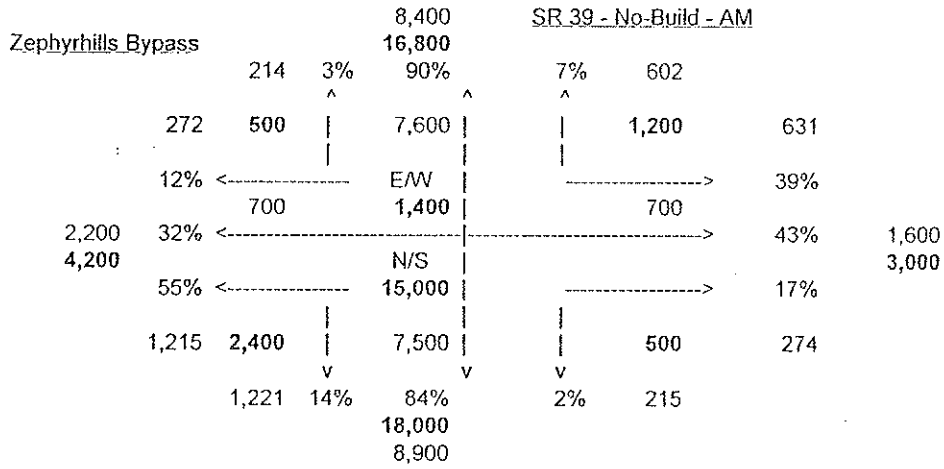
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

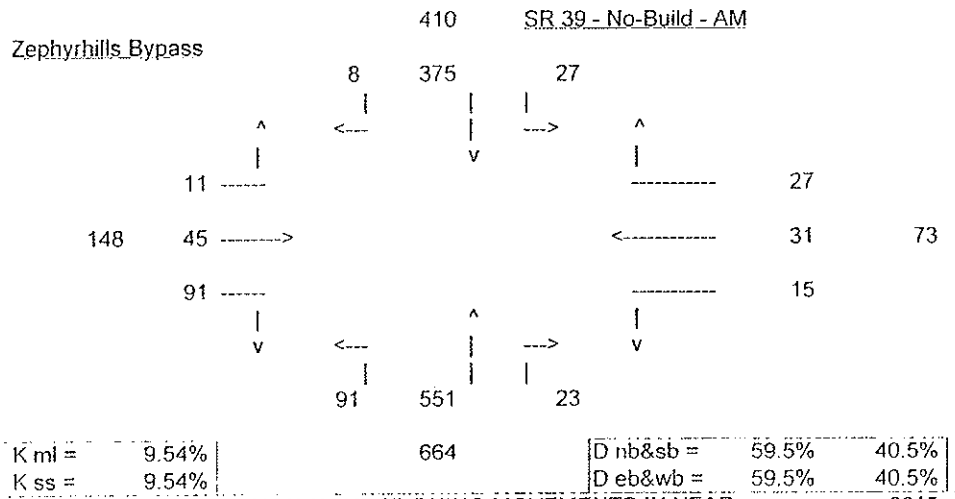


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



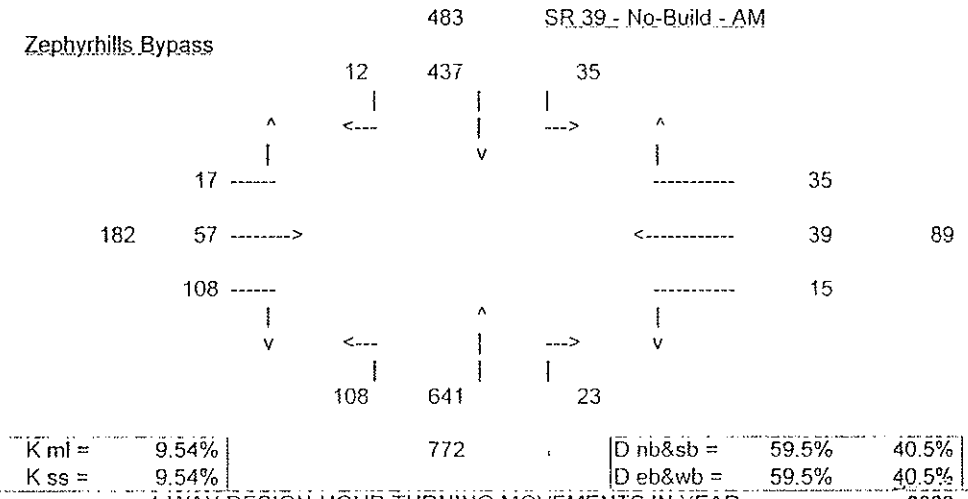
PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



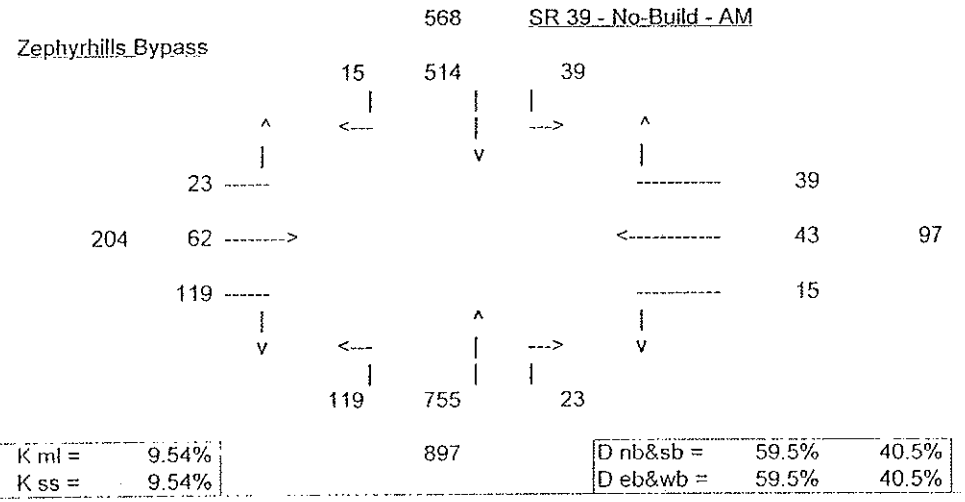
K ml =	9.54%	664	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



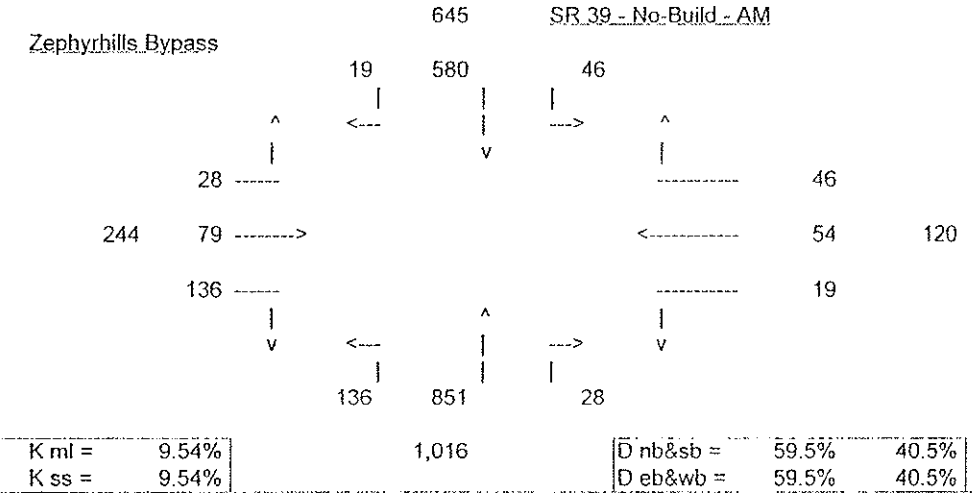
K ml =	9.54%	772	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	897	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

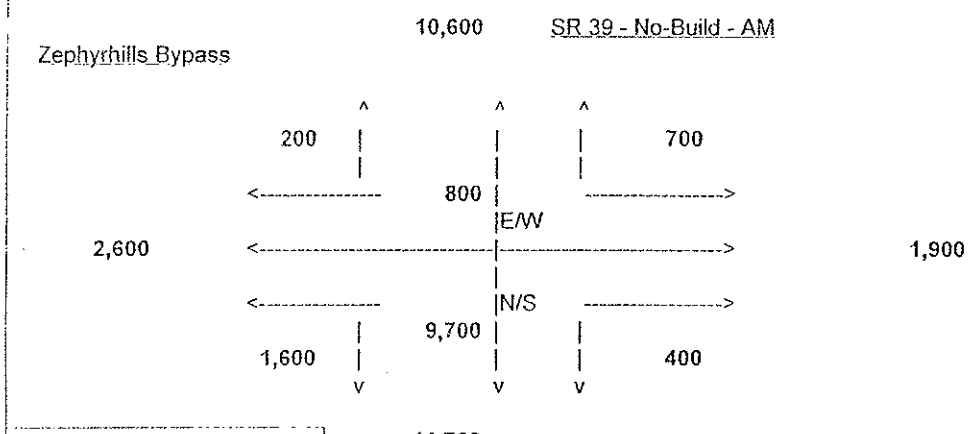
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K ml =	9.54%	1,016	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

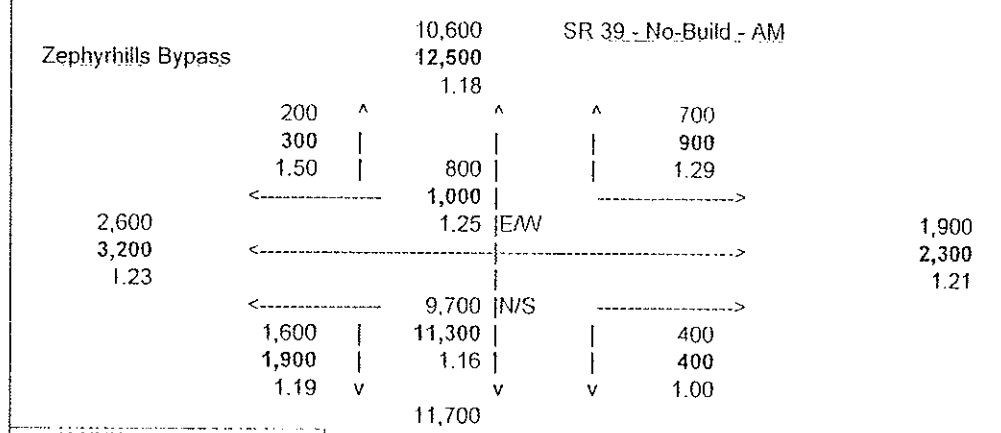
PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



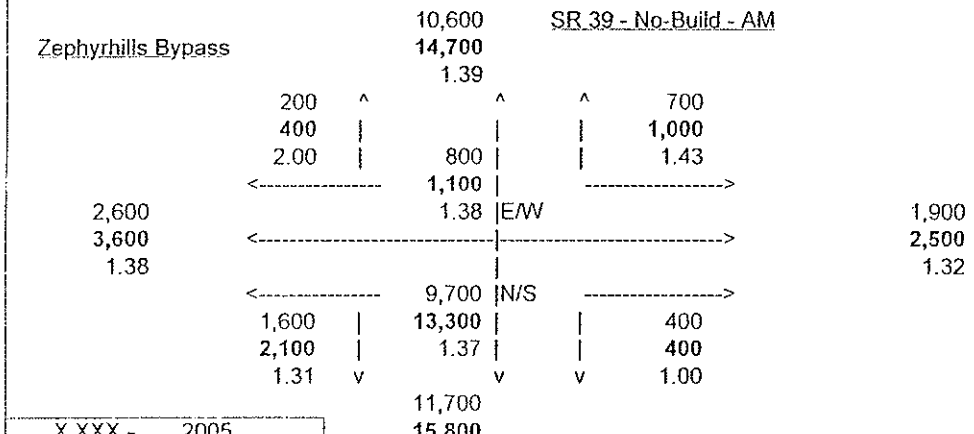
X,XXX -	2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



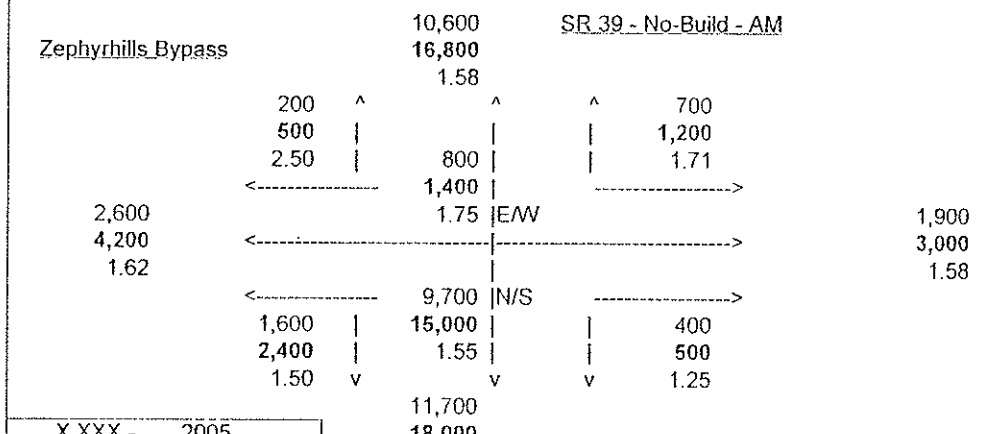
X,XXX -	2005
X,XXX -	2010
X,XXX -	Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX -	2005
X,XXX -	2015
X,XXX -	Ratio

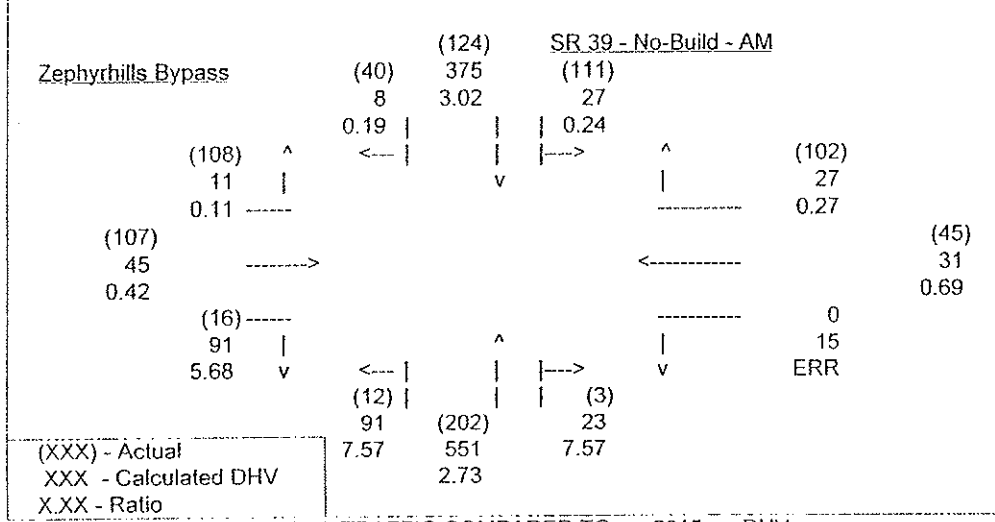
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



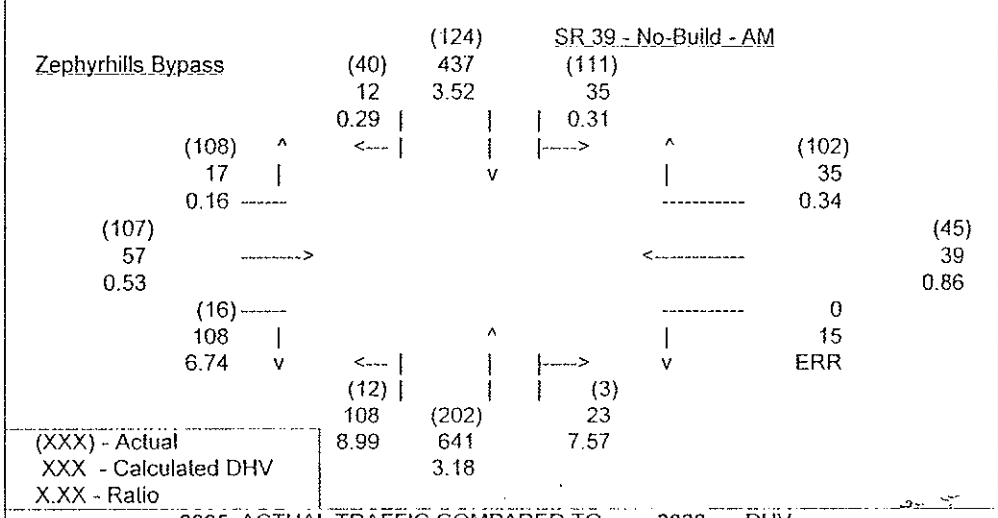
X,XXX -	2005
X,XXX -	2020
X,XXX -	Ratio

PROJECT TRAFFIC FOR SR 39 - No-Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

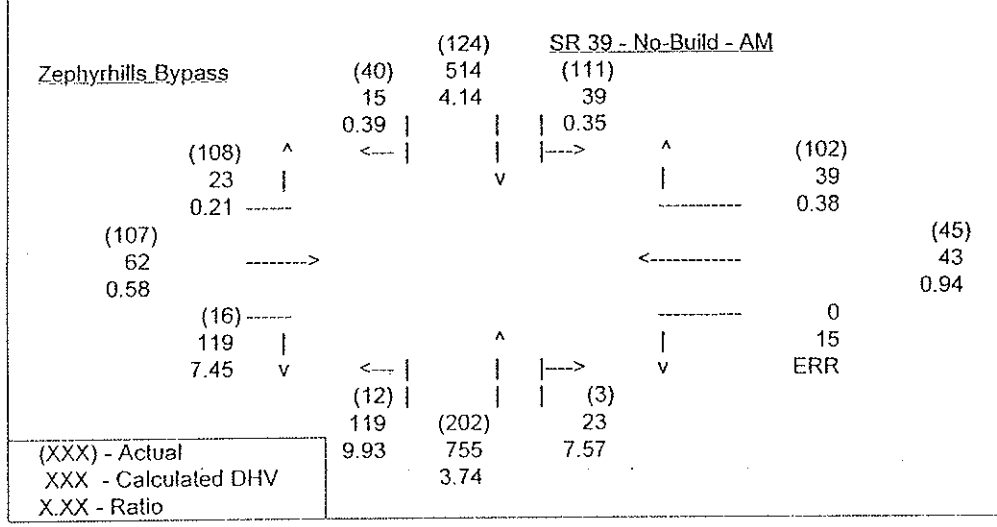
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



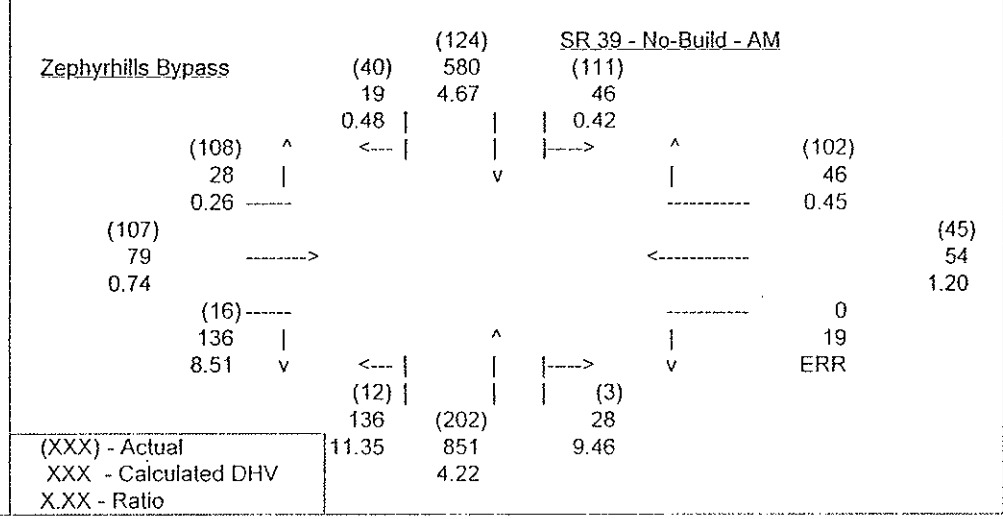
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



1998 TRC - V

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

Highway:	SR 39 - No-Build - PM
Intersection:	Zephyrhills Bypass
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Pasco

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	1,300	950	5,250	5,750	13,250
2010	1,567	1,133	6,300	6,833	15,833
2015	1,833	1,317	7,350	7,917	18,417
2020	2,100	1,500	8,400	9,000	21,000

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	1,300	950	5,250	5,750	13,250
2010	1,567	1,133	6,300	6,833	15,833
2015	1,833	1,317	7,350	7,917	18,417
2020	2,100	1,500	8,400	9,000	21,000

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	2,600	1,900	10,500	11,500	26,500
Model					
2020	4,200	3,000	16,800	18,000	42,000

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1600	1100	6300	6500	
year	EB	WB	SB	NB	
2005	2,600	1,900	10,500	11,500	26,500
2010	3,133	2,267	12,600	13,667	31,667
2015	3,667	2,633	14,700	15,833	36,833
2020	4,200	3,000	16,800	18,000	42,000

Enter "1st Guess" Turning Percentages for AADT Balancing:

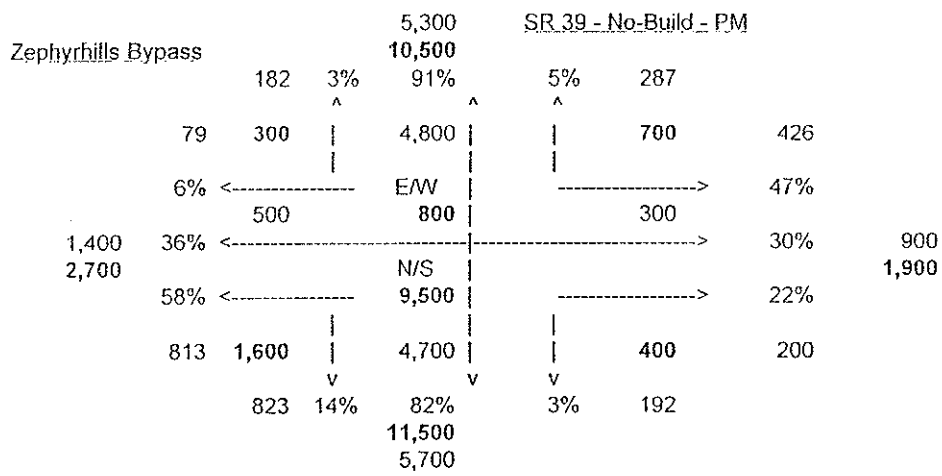
(EB THRU)	W-to-E	0.51
(EB LT)	W-to-N	0.01
(EB RT)	W-to-S	0.48
(WB THRU)	E-to-W	0.36
(WB RT)	E-to-N	0.20
(WB LT)	E-to-S	0.44
(SB RT)	N-to-W	0.02
(SB LT)	N-to-E	0.09
(SB THRU)	N-to-S	0.89
(NB LT)	S-to-W	0.27
(NB RT)	S-to-E	0.18
(NB THRU)	S-to-N	0.55
Desired Closure:		0.010

Actual/Counted Traffic:

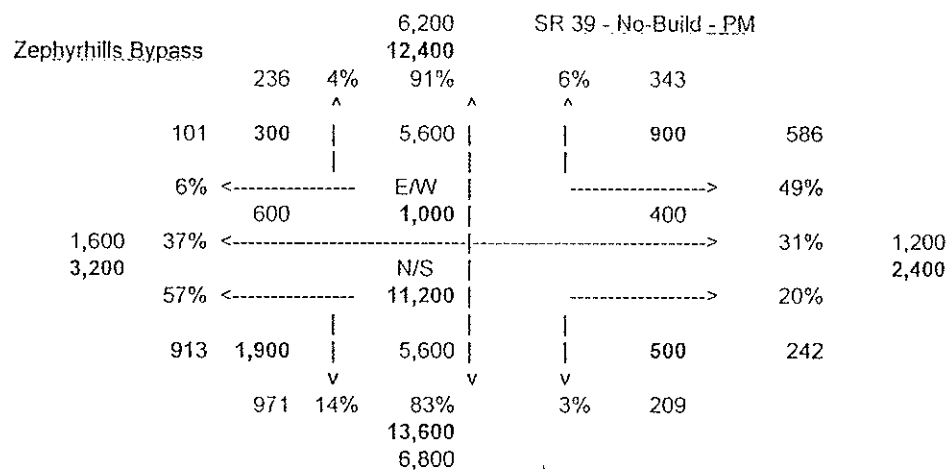
	2005
W-to-E	88
W-to-N	2
W-to-S	82
E-to-W	57
E-to-N	31
E-to-S	68
N-to-W	4
N-to-E	19
N-to-S	183
S-to-W	97
S-to-E	65
S-to-N	193

PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

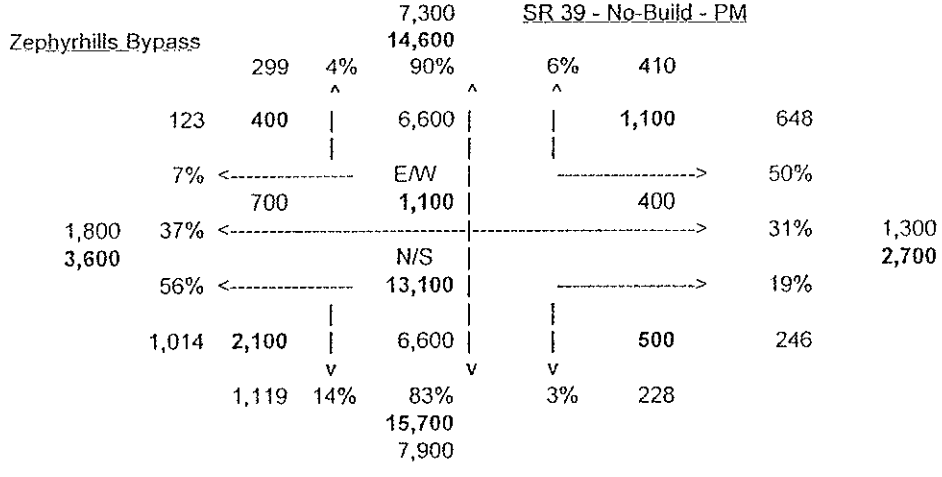
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



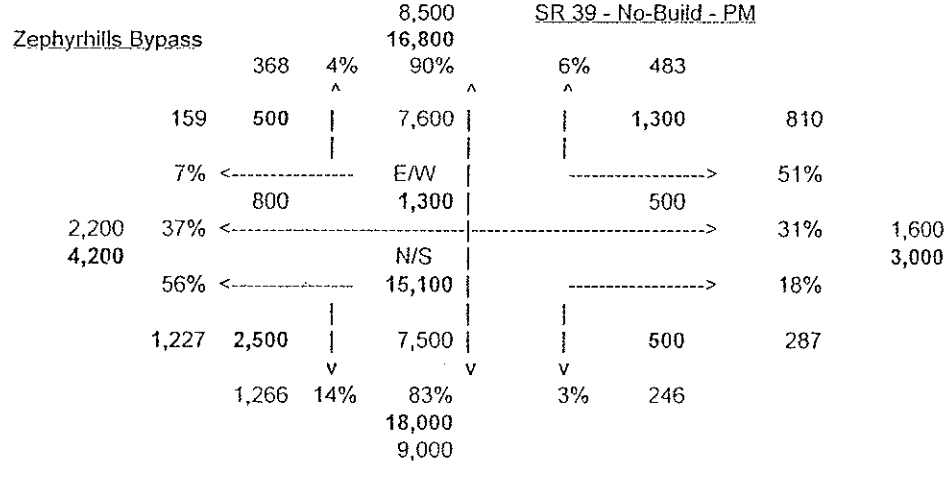
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

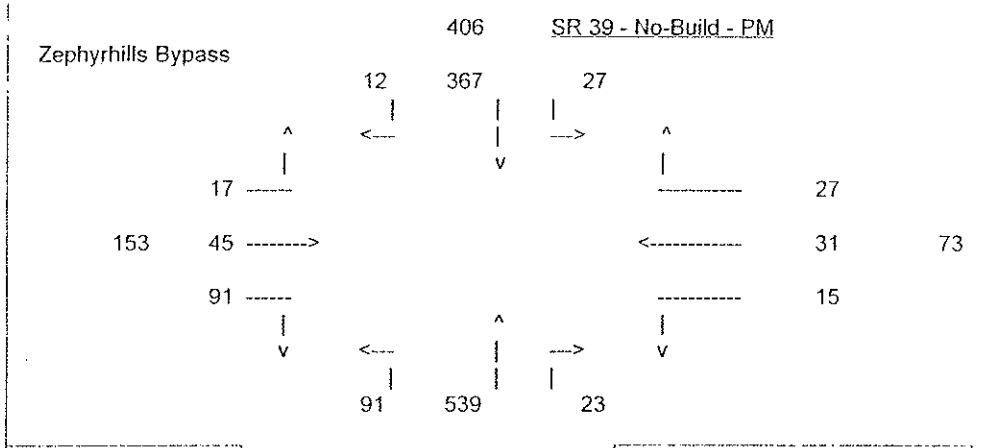


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



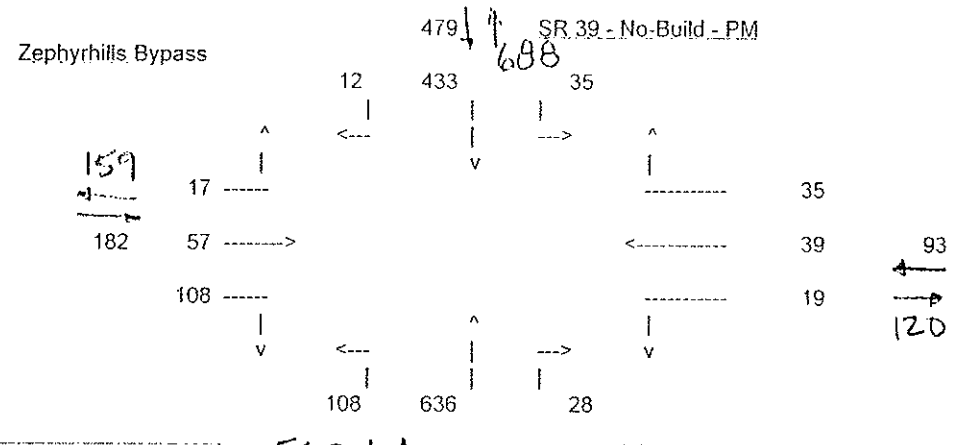
PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



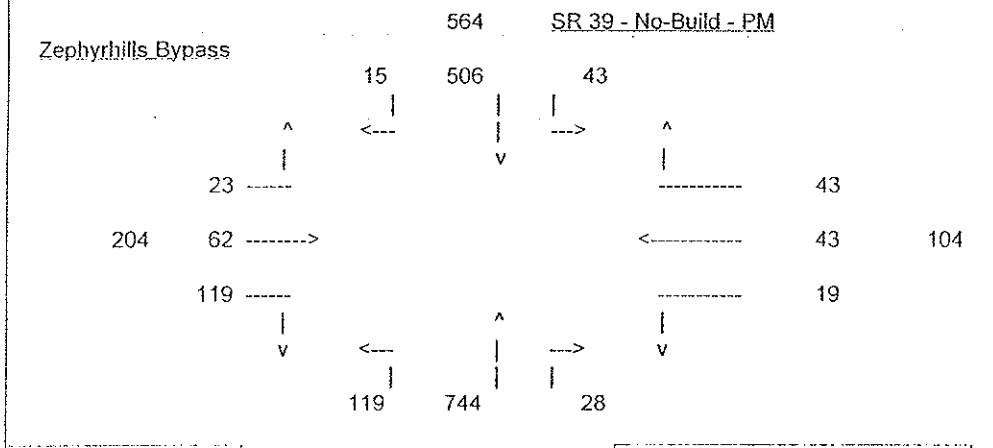
K ml =	9.54%	D nb&sb =	59.5% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



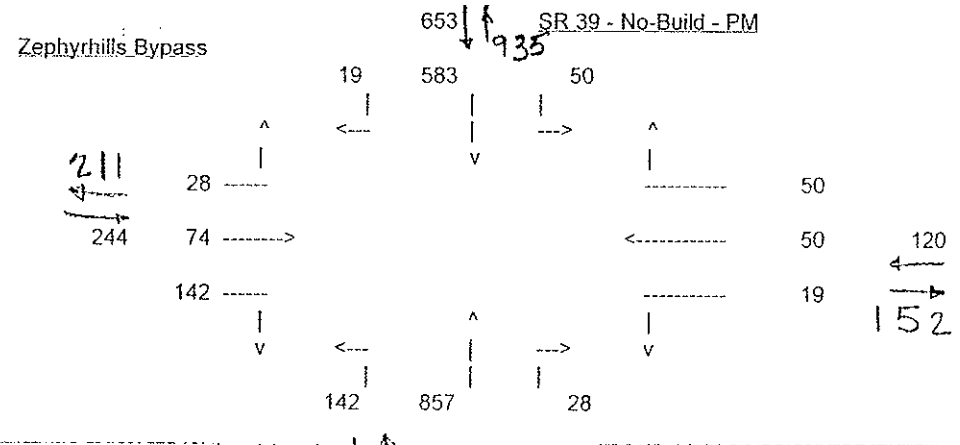
K ml =	9.54%	D nb&sb =	59.5% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	D nb&sb =	59.5% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

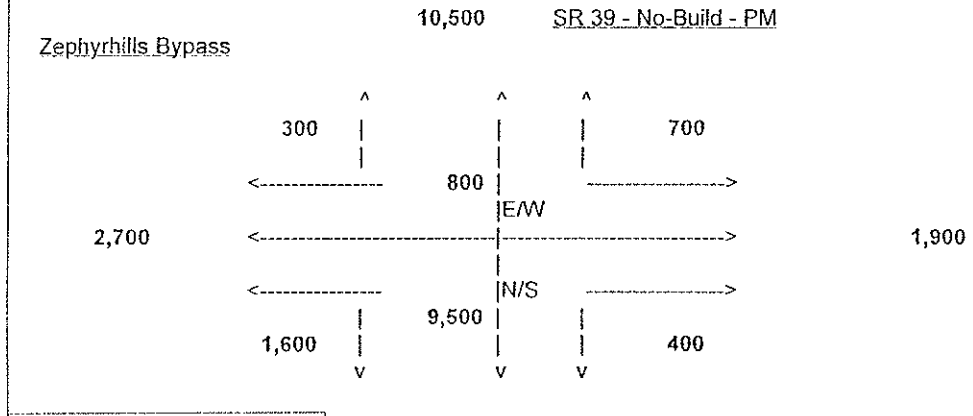
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



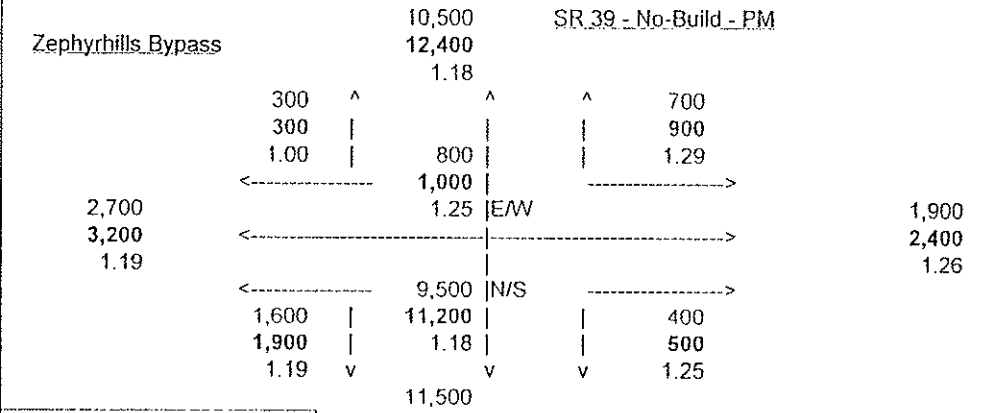
K ml =	9.54%	D nb&sb =	59.5% 40.5%
K ss =	9.54%	D eb&wb =	59.5% 40.5%

PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

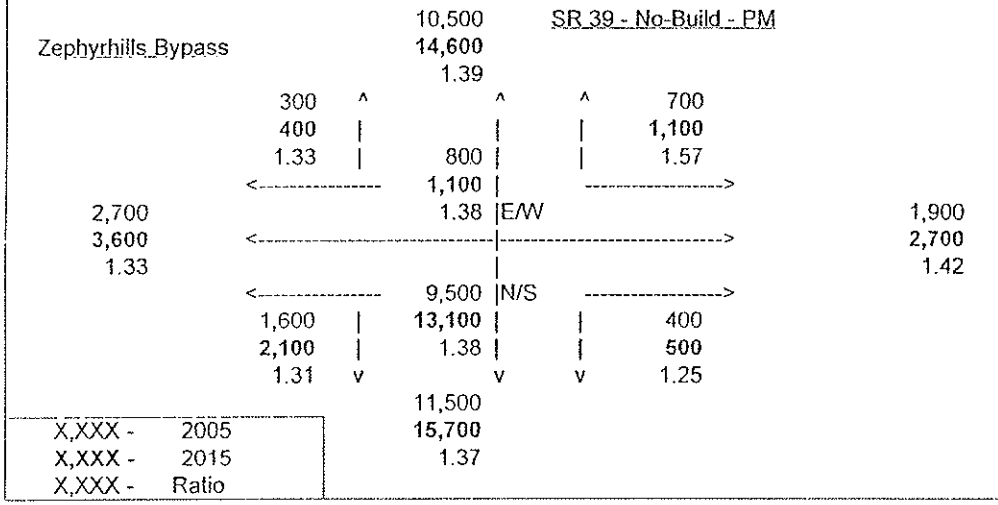
2005 TRAFFIC



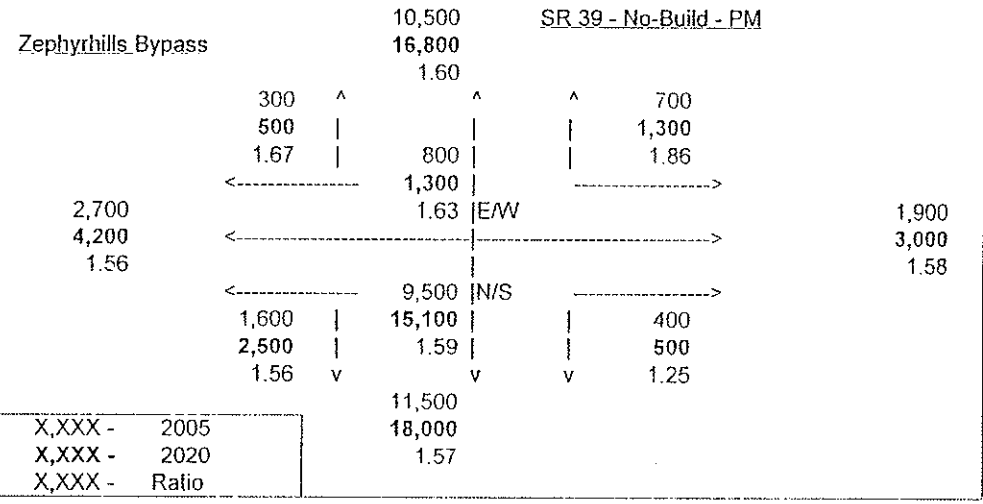
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

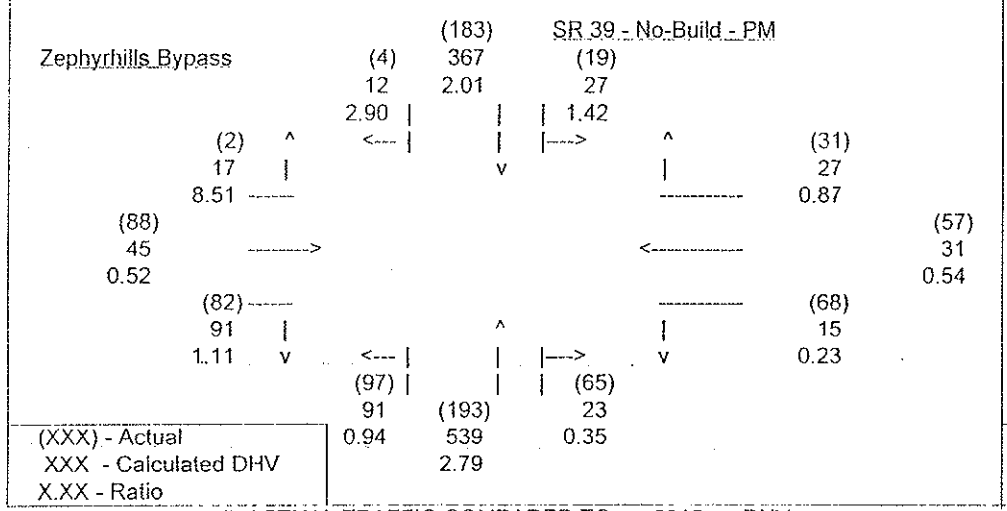


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

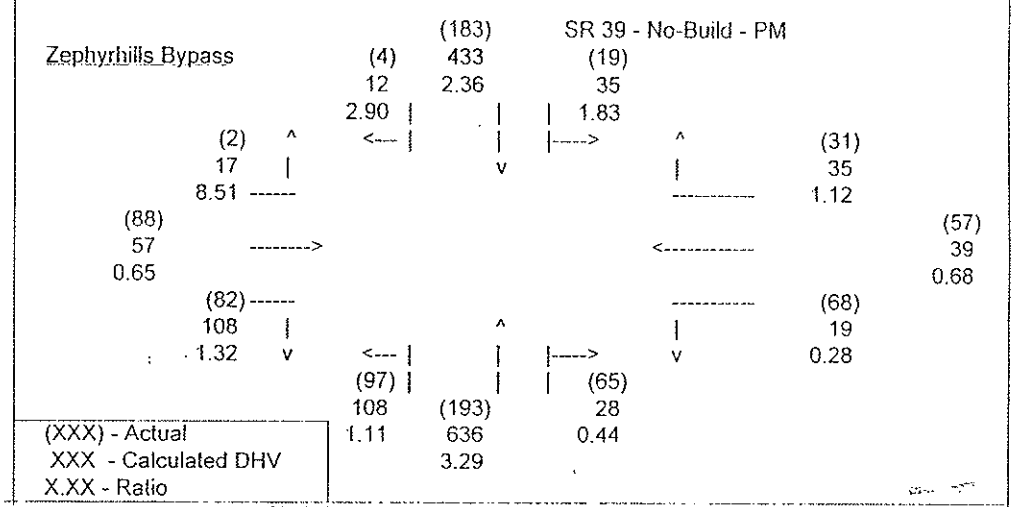


PROJECT TRAFFIC FOR SR 39 - No-Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

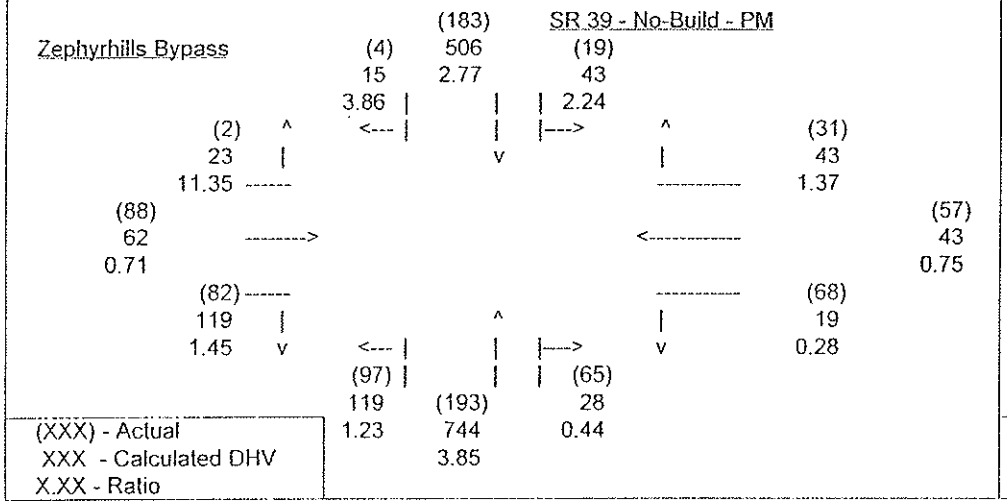
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



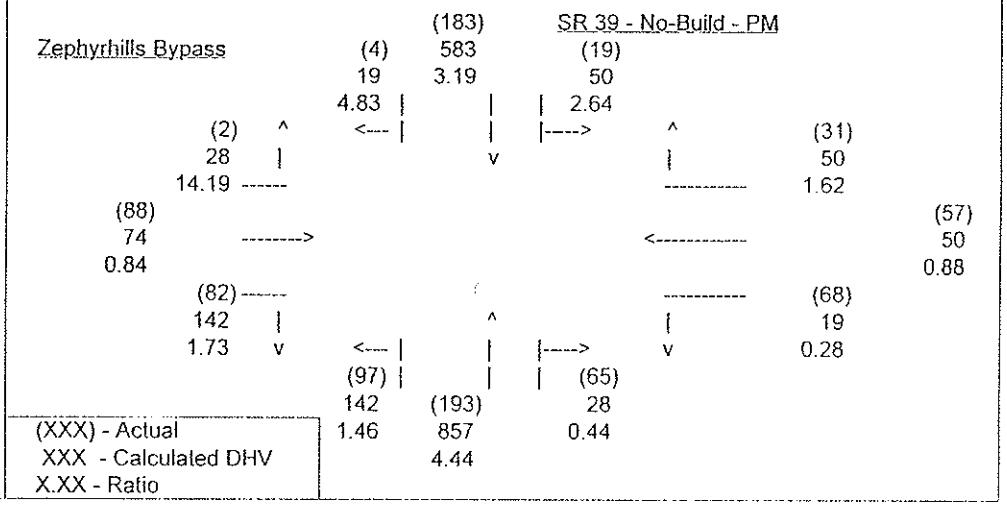
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway: SR 39 - No Build - AM
Intersection: US 301
From: Opening Day
To: 2010 (From 2005 Base)
County: Pasco

North/South Orientation of Mainline?
(Y/N) N

K Factors:

Sidestreet	Mainline
9.54%	10.56%

D Factors:

a. Mainline

54.1%	Westbound(WB)
45.9%	Eastbound(EB)

b. Sidestreet

59.5%	Northbound(NB)
40.5%	Southbound(SB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	5,350	10,550	0	5,250	21,150
2010	6,400	12,617	0	6,300	25,317
2015	7,450	14,683	0	7,350	29,483
2020	8,500	16,750	0	8,400	33,650

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	5,350	10,550	0	5,250	21,150
2010	6,400	12,617	0	6,300	25,317
2015	7,450	14,683	0	7,350	29,483
2020	8,500	16,750	0	8,400	33,650

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	10,700	21,100		10,500	42,300
Model					
2020	17,000	33,500		16,800	67,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15			
diff of vols:	6300	12400	0	6300
year	EB	WB	SB	NB	
2005	10,700	21,100	0	10,500	42,300
2010	12,800	25,233	0	12,600	50,633
2015	14,900	29,367	0	14,700	58,967
2020	17,000	33,500	0	16,800	67,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

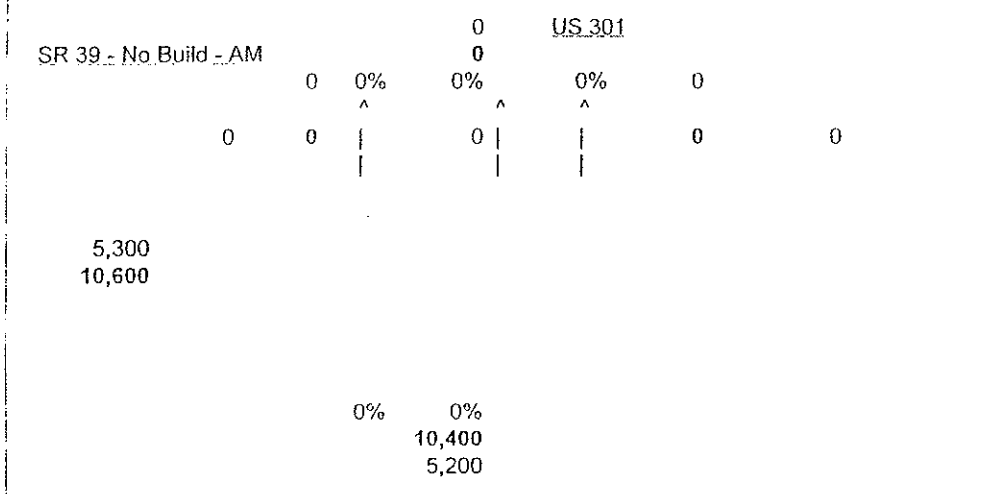
(EB THRU)	W-to-E	0.95
(EB LT)	W-to-N	0.00
(EB RT)	W-to-S	0.05
(WB THRU)	E-to-W	0.70
(WB RT)	E-to-N	0.00
(WB LT)	E-to-S	0.30
(SB RT)	N-to-W	0.00
(SB LT)	N-to-E	0.00
(SB THRU)	N-to-S	0.00
(NB LT)	S-to-W	0.05
(NB RT)	S-to-E	0.95
(NB THRU)	S-to-N	0.00
Desired Closure:		0.010

Actual/Counted Traffic:

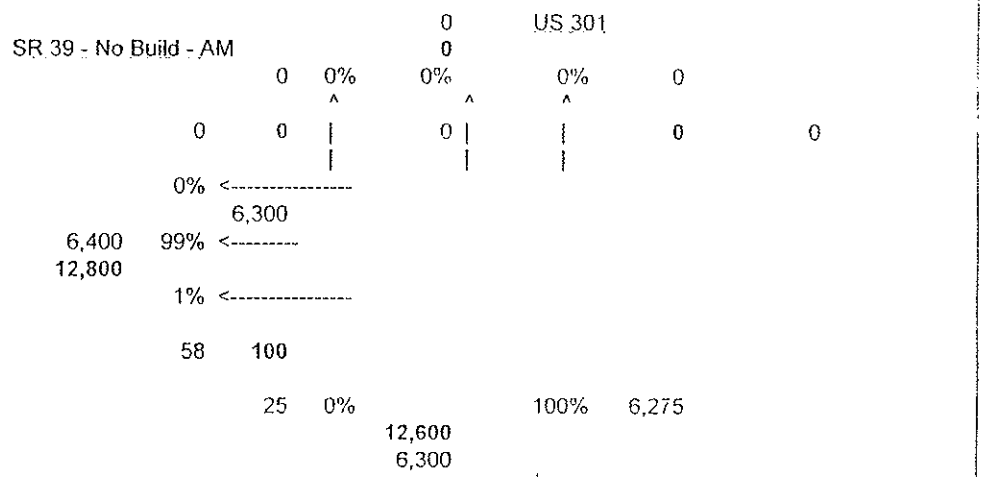
	2005
W-to-E	213
W-to-N	
W-to-S	3
E-to-W	400
E-to-N	0
E-to-S	174
N-to-W	0
N-to-E	0
N-to-S	0
S-to-W	4
S-to-E	172
S-to-N	0

PROJECT TRAFFIC FOR SR 39 - No Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

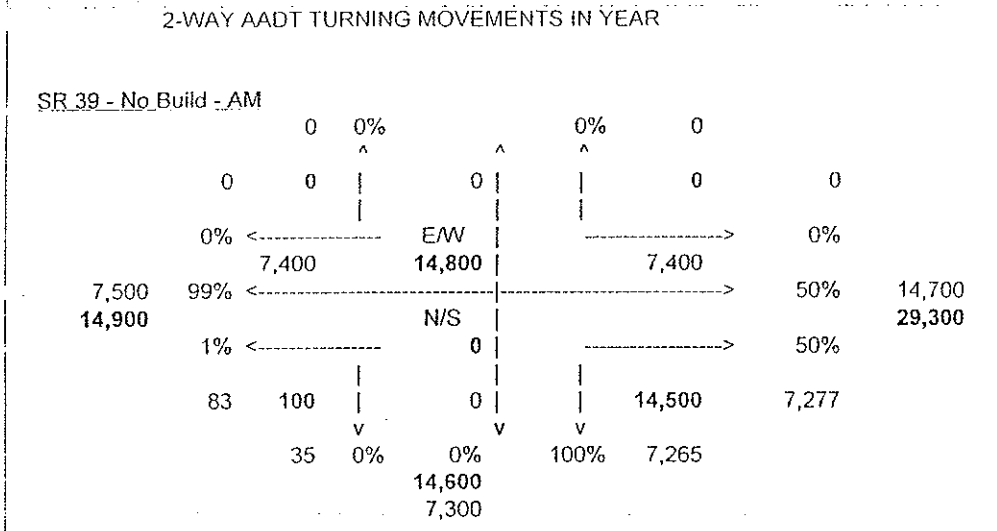
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



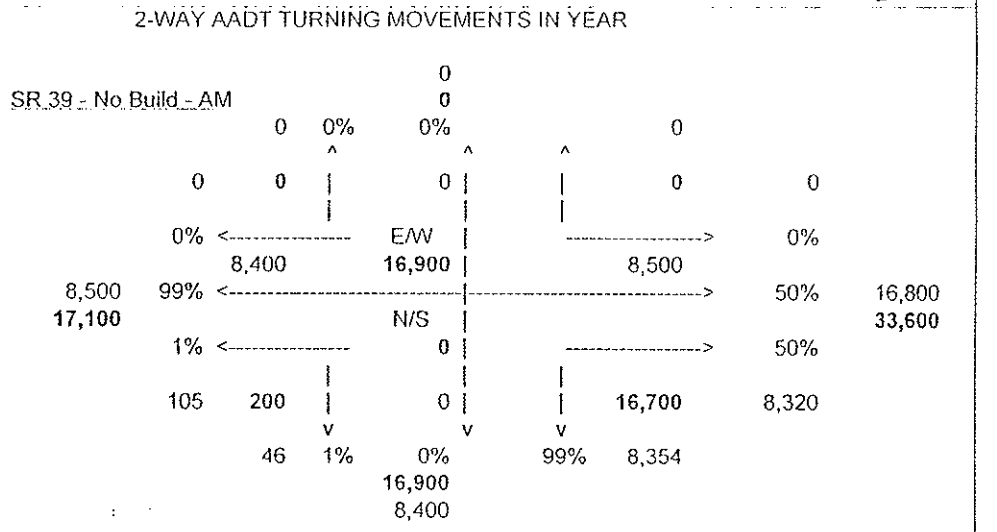
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR

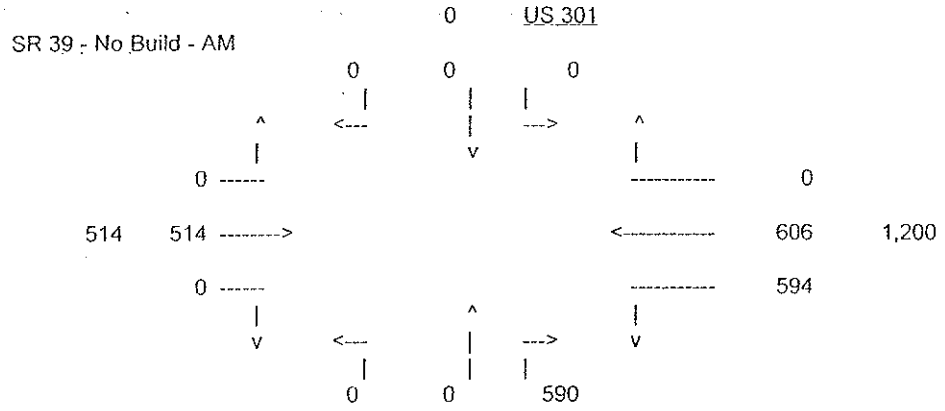


2-WAY AADT TURNING MOVEMENTS IN YEAR



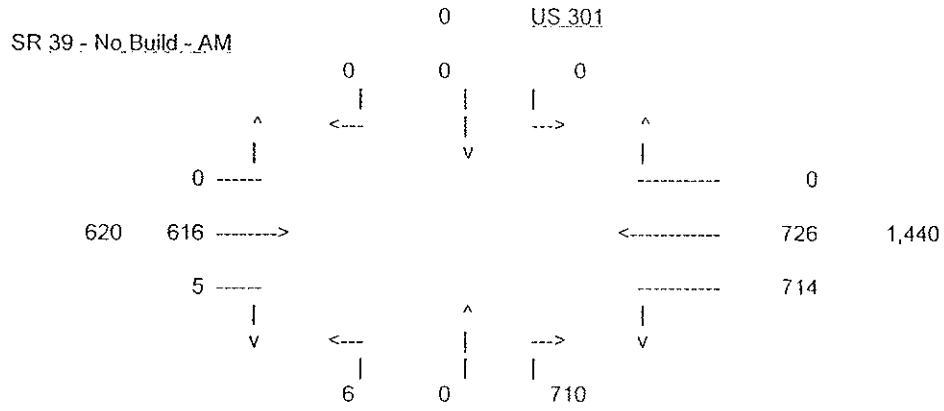
PROJECT TRAFFIC FOR SR 39 - No Build - AM @ US 301 Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



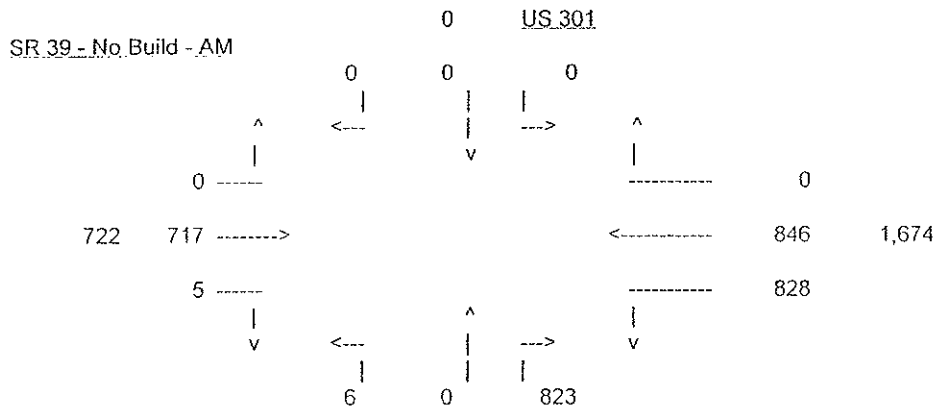
K ml =	*********	590	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



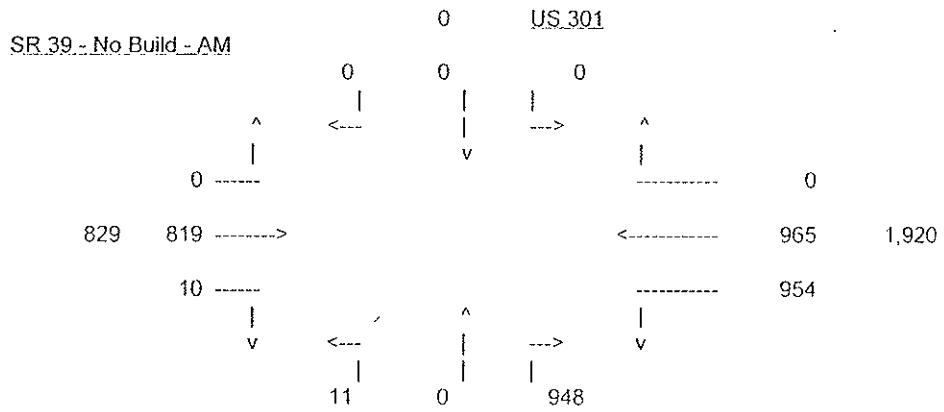
K ml =	*********	715	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	*********	829	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

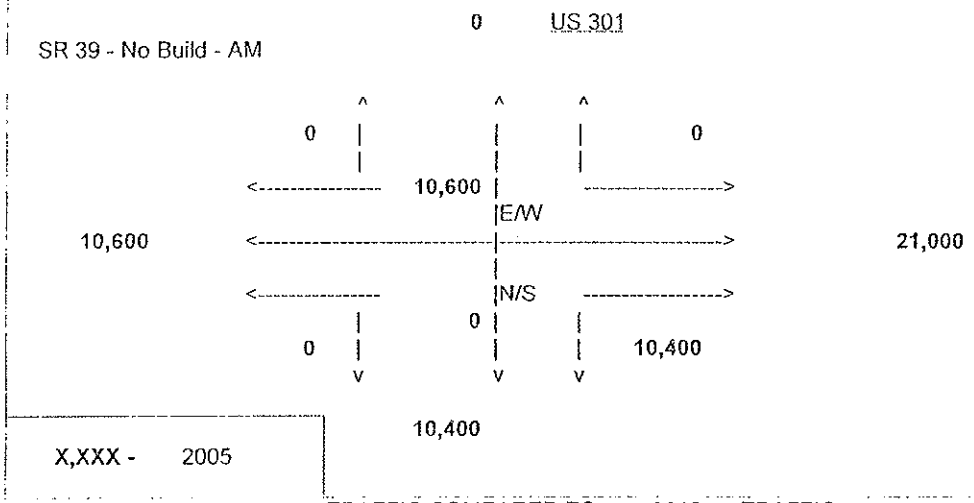
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



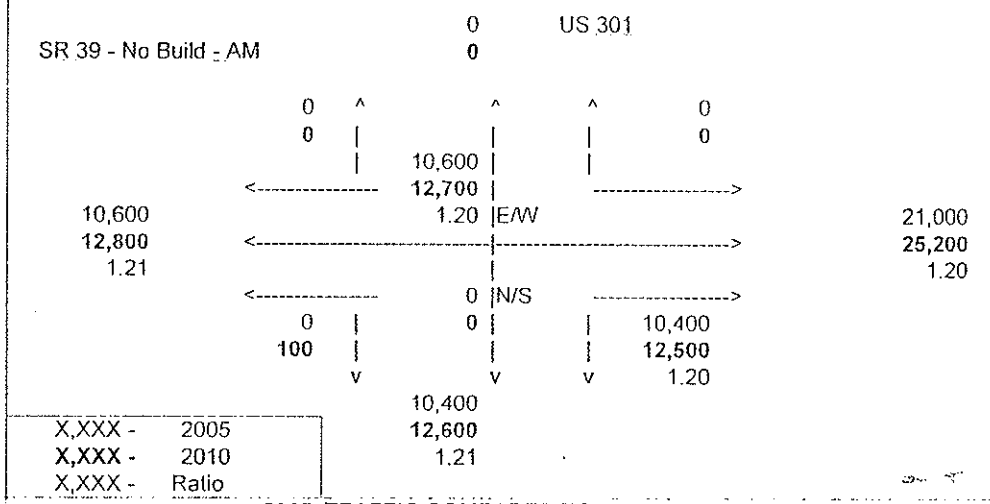
K ml =	*********	959	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

PROJECT TRAFFIC FOR SR 39 - No Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

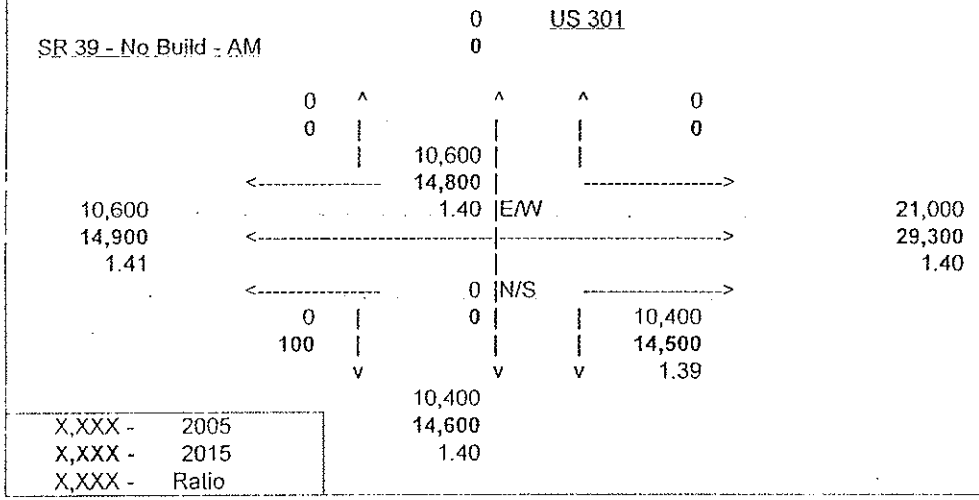
2005 TRAFFIC



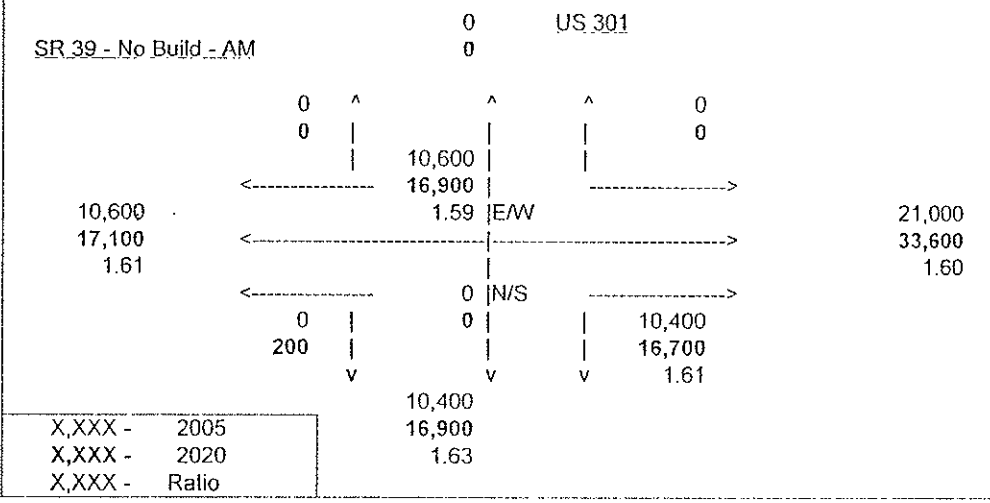
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

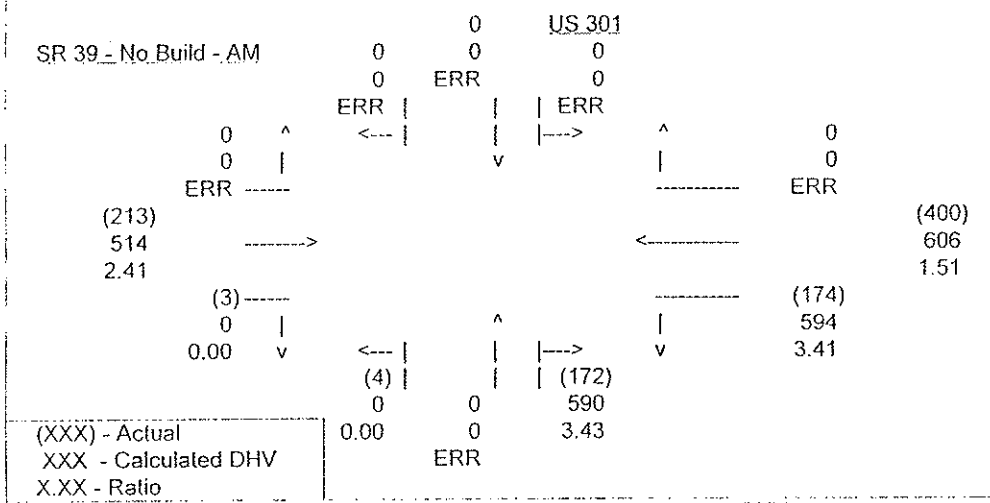


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

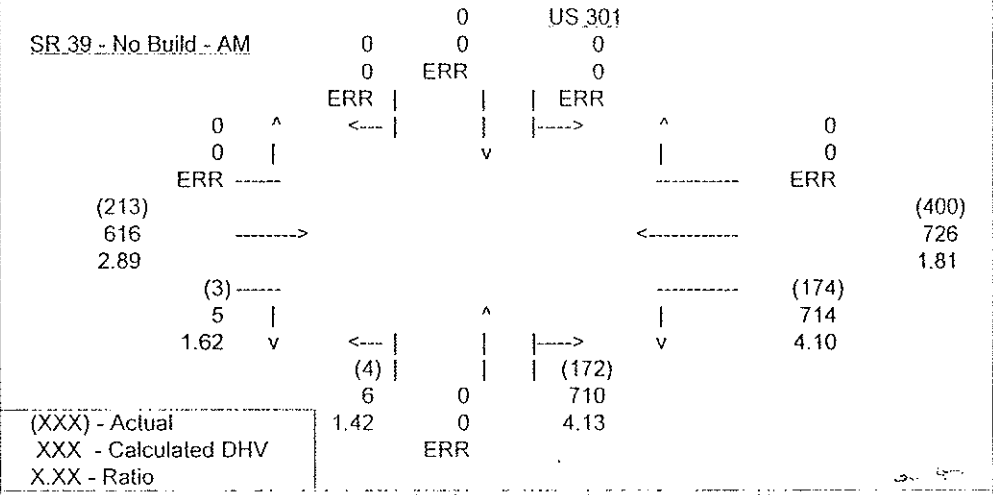


PROJECT TRAFFIC FOR SR 39 - No Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

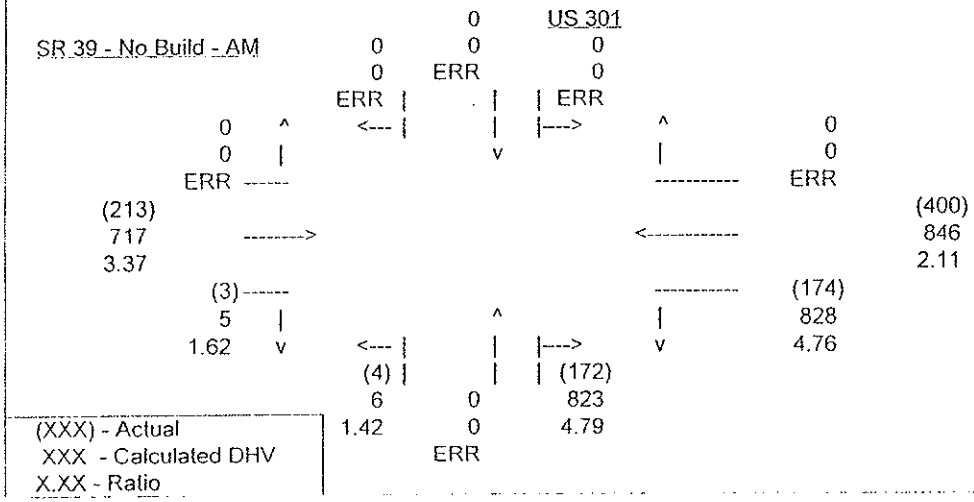
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



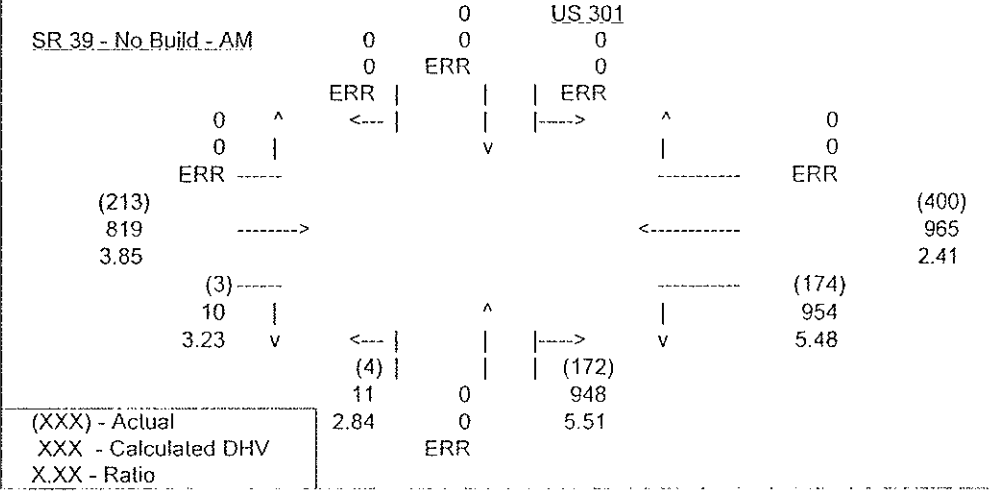
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - No Build - PM
Intersection:	US 301
From:	Opening Day
To:	2010 (From 2005 Base)
County:	PASCO

North/South Orientation of Mainline? (Y/N): N

K Factors:

Sidestreet	Mainline
9.54%	10.56%

D Factors:

a. Mainline

45.9%	Westbound(WB)
54.1%	Eastbound(EB)

b. Sidestreet

59.1%	Northbound(NB)
40.5%	Southbound(SB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N): Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	5,350	10,550	0	5,250	21,150
2010	6,400	12,617	0	6,300	25,317
2015	7,450	14,683	0	7,350	29,483
2020	8,500	16,750	0	8,400	33,650

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	5,350	10,550	0	5,250	21,150
2010	6,400	12,617	0	6,300	25,317
2015	7,450	14,683	0	7,350	29,483
2020	8,500	16,750	0	8,400	33,650

DATA INPUT

Date: 30-Nov-98

Analyst: PAP

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	10,700	21,100		10,500	42,300
Model					
2020	17,000	33,500		16,800	67,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	6300	12400		0	6300
year	EB	WB	SB	NB	
2005	10,700	21,100	0	10,500	42,300
2010	12,800	25,233	0	12,600	50,633
2015	14,900	29,367	0	14,700	58,967
2020	17,000	33,500	0	16,800	67,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

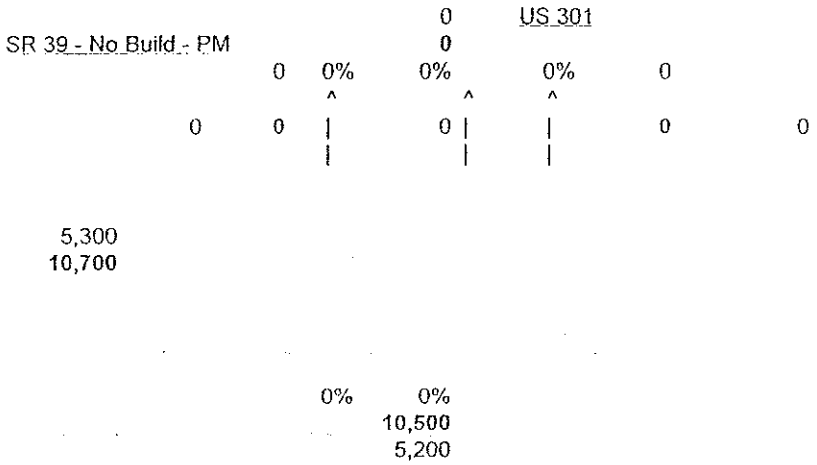
(EB THRU)	W-to-E	0.96
(EB LT)	W-to-N	0.00
(EB RT)	W-to-S	0.04
(WB THRU)	E-to-W	0.53
(WB RT)	E-to-N	0.00
(WB LT)	E-to-S	0.47
(SB RT)	N-to-W	0.00
(SB LT)	N-to-E	0.00
(SB THRU)	N-to-S	0.00
(NB LT)	S-to-W	0.02
(NB RT)	S-to-E	0.98
(NB THRU)	S-to-N	0.00
Desired Closure:		0.010

Actual/Counted Traffic:

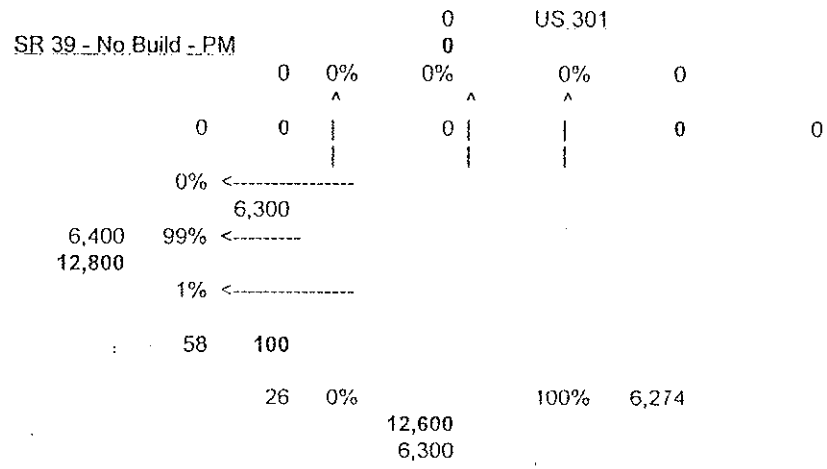
	2005
W-to-E	463
W-to-N	0
W-to-S	7
E-to-W	272
E-to-N	0
E-to-S	240
N-to-W	0
N-to-E	0
N-to-S	0
S-to-W	6
S-to-E	268
S-to-N	0

PROJECT TRAFFIC FOR SR 39 - No Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

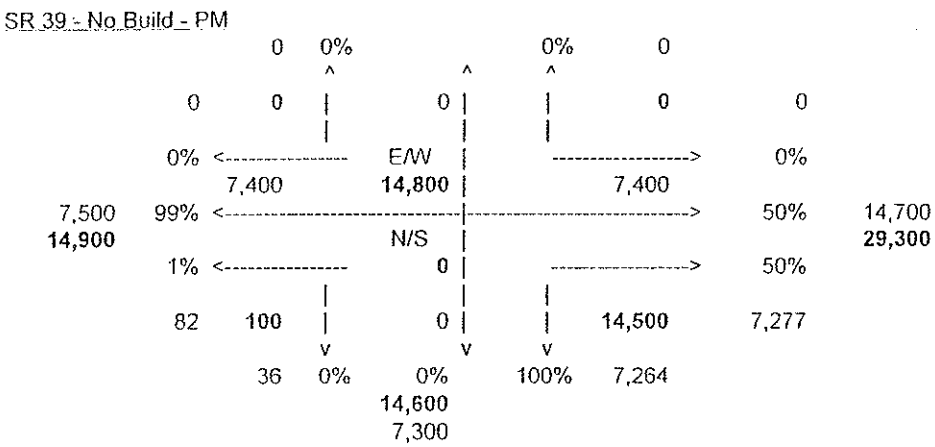
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



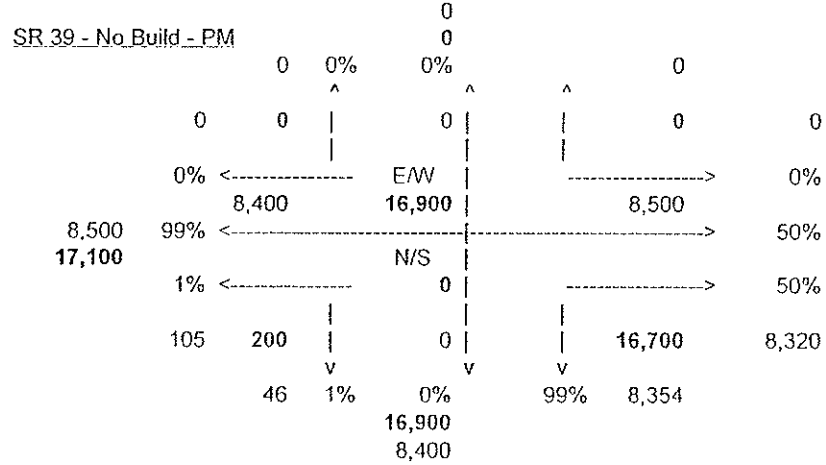
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR

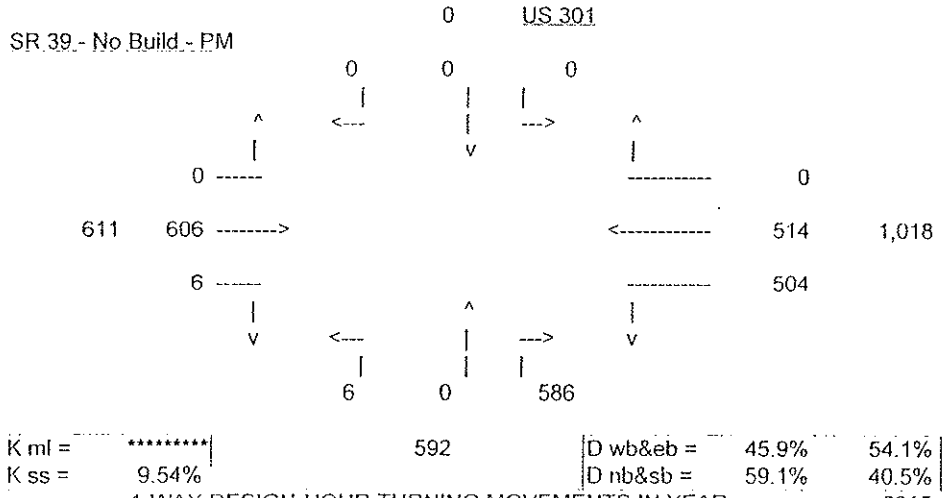


2-WAY AADT TURNING MOVEMENTS IN YEAR

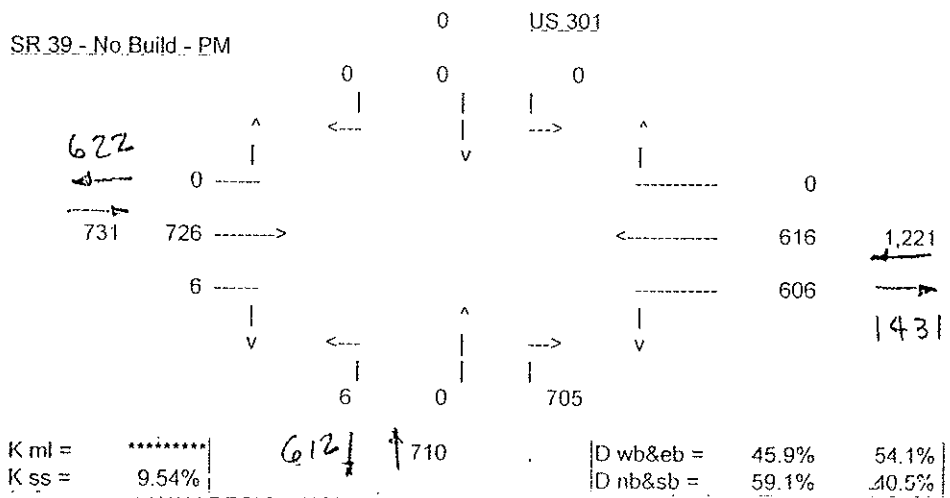


PROJECT TRAFFIC FOR SR 39 - No Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

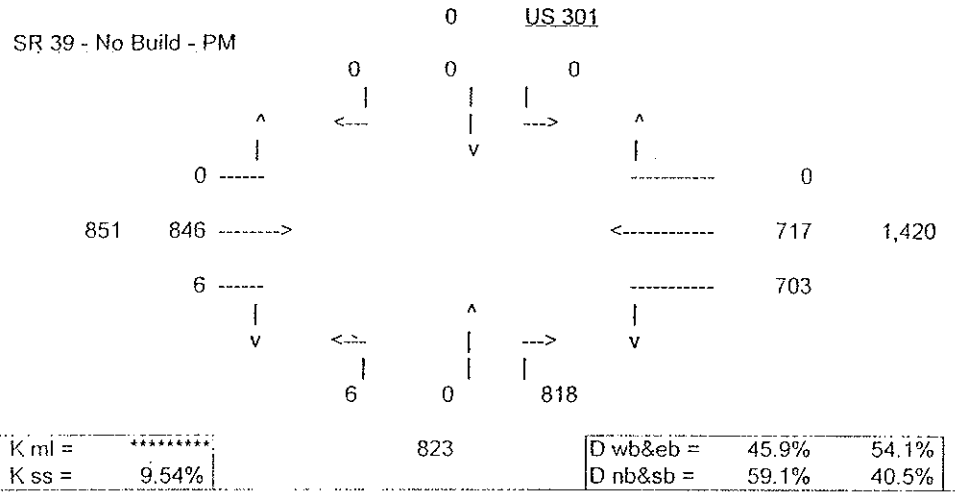
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



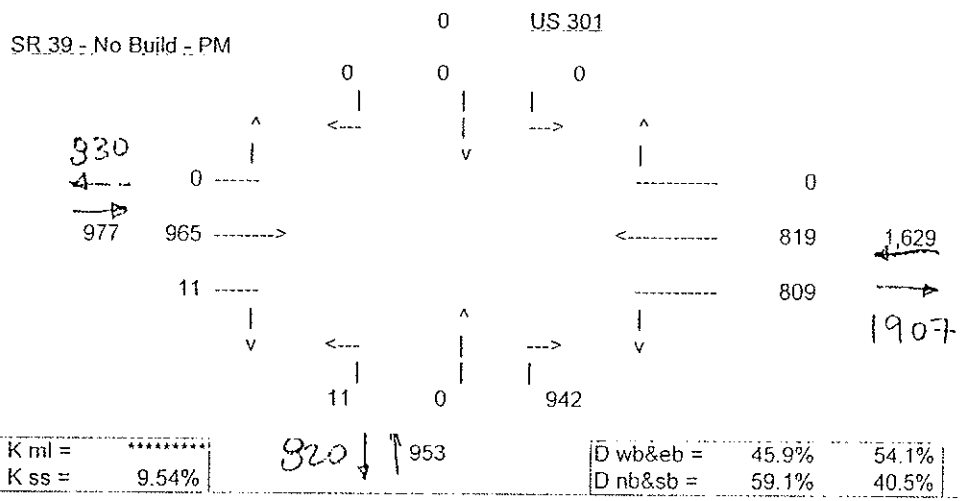
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015

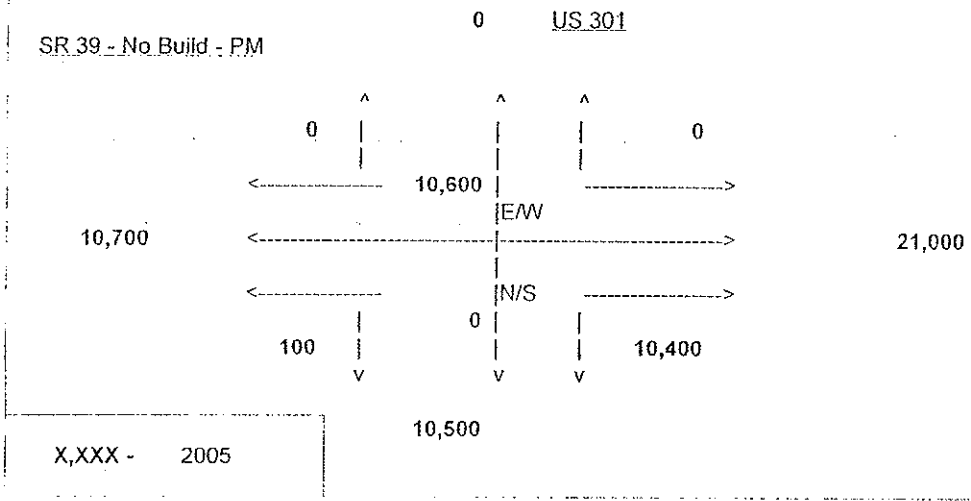


1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



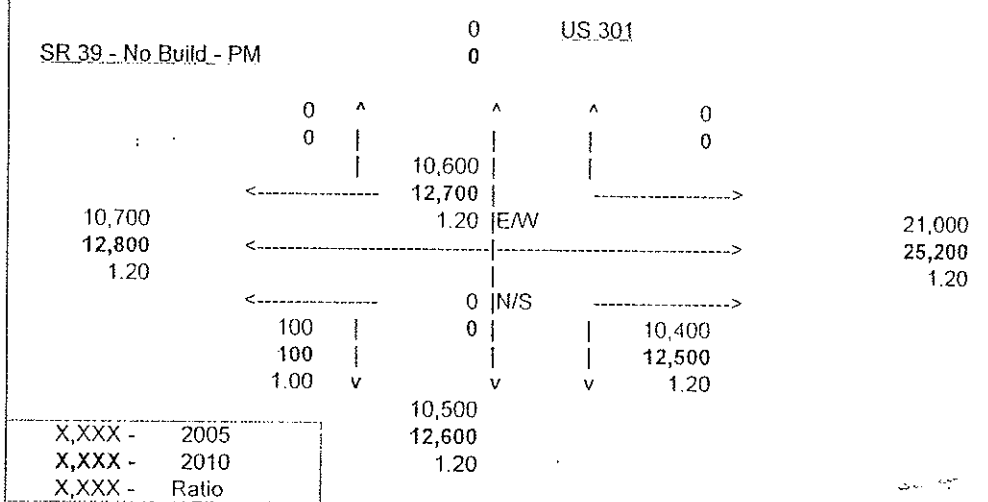
PROJECT TRAFFIC FOR SR 39 - No Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



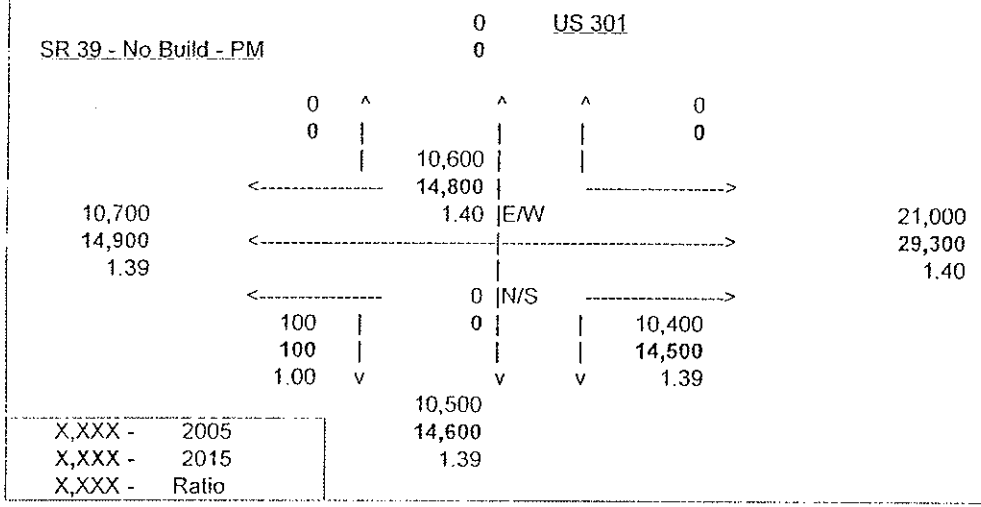
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



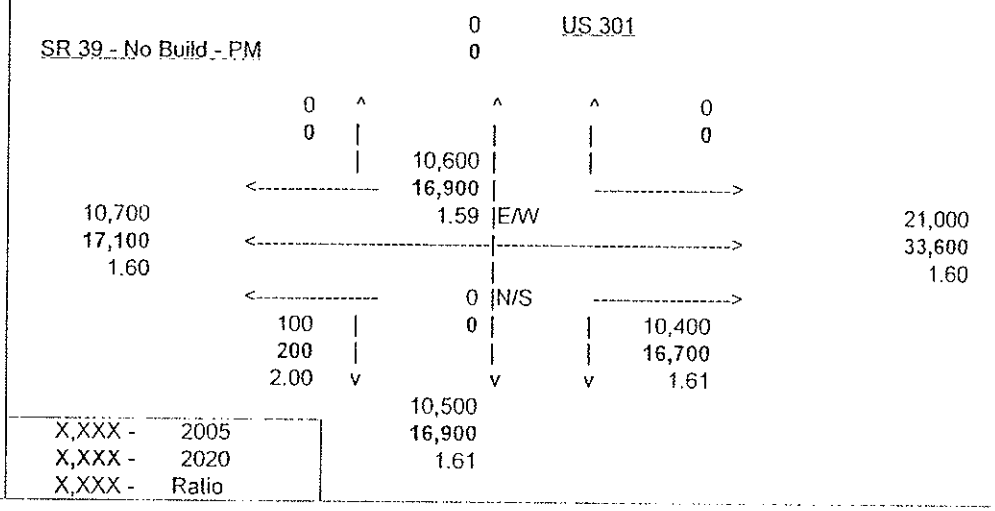
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

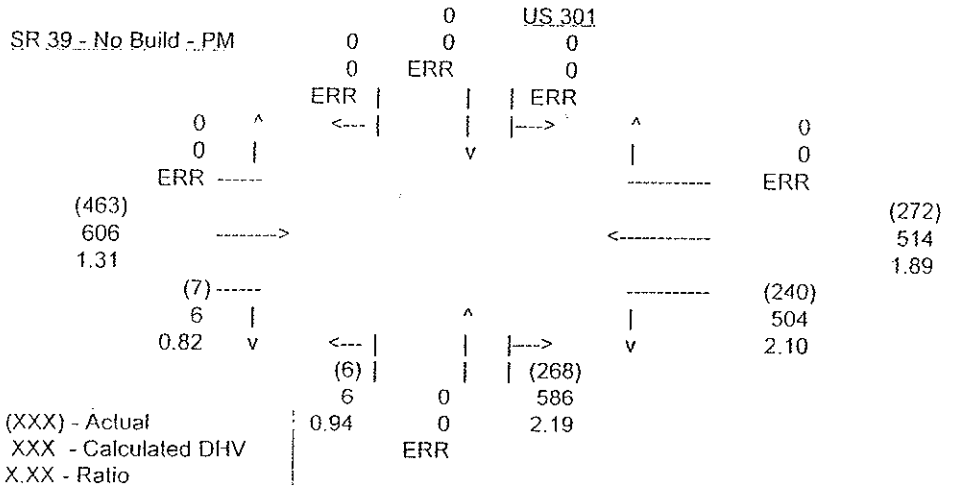
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



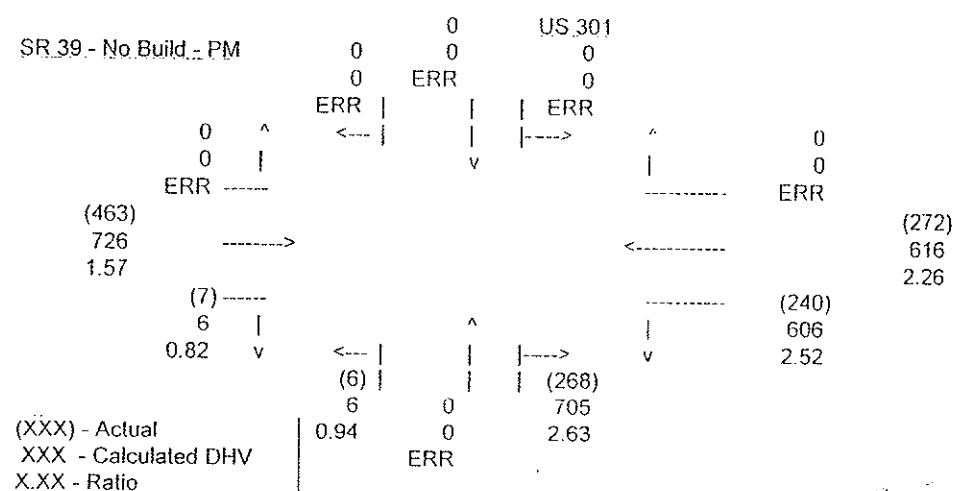
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - No Build - PM @ US 301 Opening Day TO 2010 (From 2005 Base)

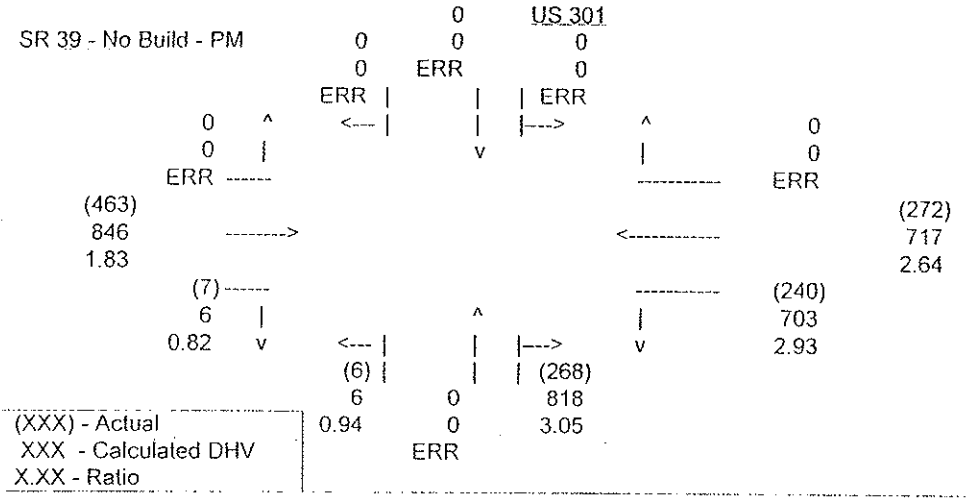
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



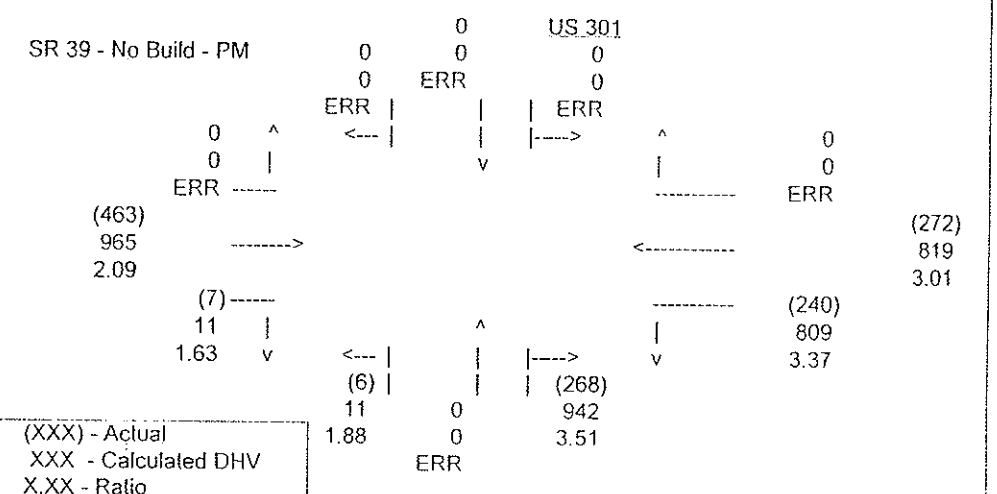
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



Build Alternative

TURNS4 Analysis Documentation

DATA INPUT

Date: 30-Mar-99

Analyst: PAP

Highway:	SR 39 - BUILD - AM
Intersection:	Sam Allen Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline? (Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

40.5%	Northbound(NB)
59.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,300	2,700	2,500	5,650	13,150
2010	2,667	3,083	3,000	5,933	14,683
2015	3,033	3,467	3,500	6,217	16,217
2020	3,400	3,850	4,000	6,500	17,750

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,300	2,700	2,500	5,650	13,150
2010	2,667	3,083	3,000	5,933	14,683
2015	3,033	3,467	3,500	6,217	16,217
2020	3,400	3,850	4,000	6,500	17,750

DATA INPUT

Date:

Analyst: PAP

30-Mar-99

IF YES: **Enter Project & Model Years:**

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,600	5,400	5,000	11,300	26,300
Model					
2020	6,800	7,700	8,000	13,000	35,500

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	2200	2300	3000	1700	
year	EB	WB	SB	NB	
2005	4,600	5,400	5,000	11,300	26,300
2010	5,333	6,167	6,000	11,867	29,367
2015	6,067	6,933	7,000	12,433	32,433
2020	6,800	7,700	8,000	13,000	35,500

Enter "1st Guess" Turning Percentages for AADT Balancing:

(EB THRU)	W-to-E	0.40
(EB LT)	W-to-N	0.10
(EB RT)	W-to-S	0.50
(WB THRU)	E-to-W	0.32
(WB RT)	E-to-N	0.35
(WB LT)	E-to-S	0.33
(SB RT)	N-to-W	0.03
(SB LT)	N-to-E	0.22
(SB THRU)	N-to-S	0.75
(NB LT)	S-to-W	0.23
(NB RT)	S-to-E	0.14
(NB THRU)	S-to-N	0.63
Desired Closure:		0.010

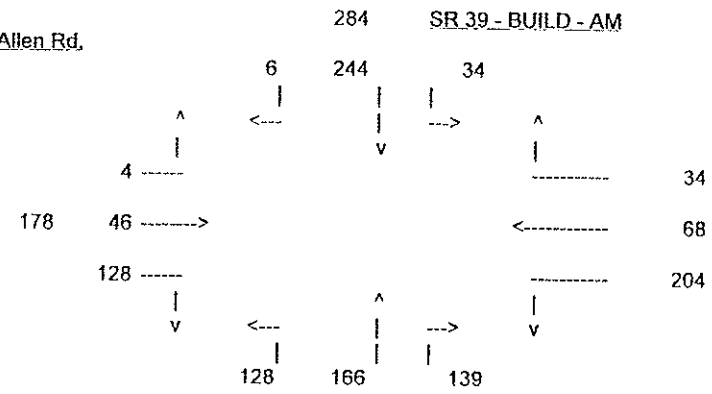
Actual/Counted Traffic:

	2005
W-to-E	73
W-to-N	19
W-to-S	90
E-to-W	72
E-to-N	78
E-to-S	76
N-to-W	15
N-to-E	105
N-to-S	354
S-to-W	61
S-to-E	37
S-to-N	169

PROJECT TRAFFIC FOR SR 39 - BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005

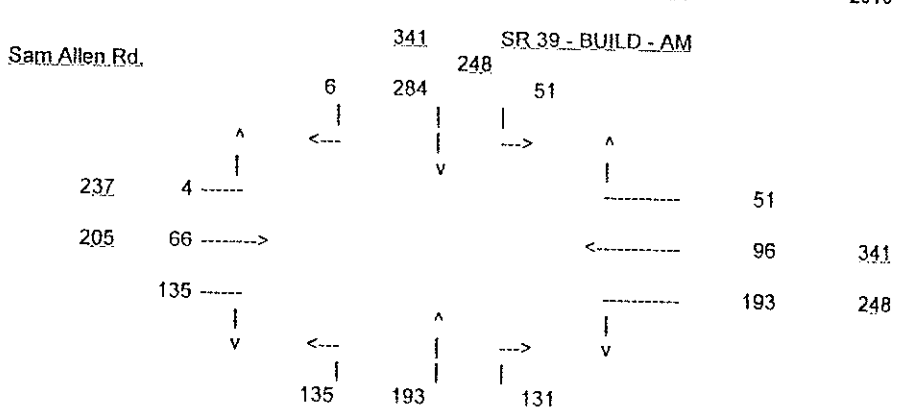
Sam Allen Rd. 284 SR 39 - BUILD - AM



K nl =	9.54%	433	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010

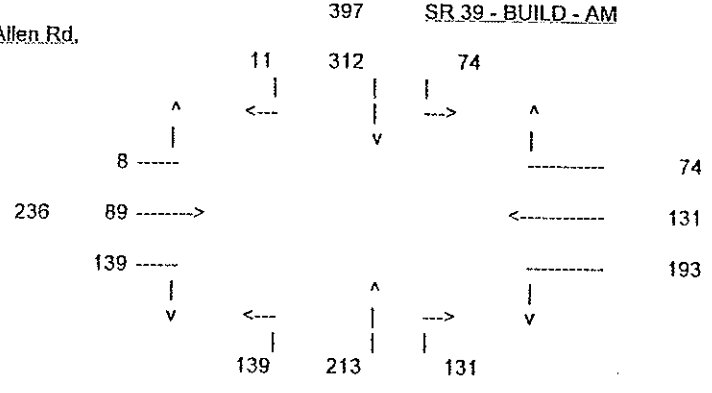
Sam Allen Rd. 341 SR 39 - BUILD - AM 248



K nl =	9.54%	612 460	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015

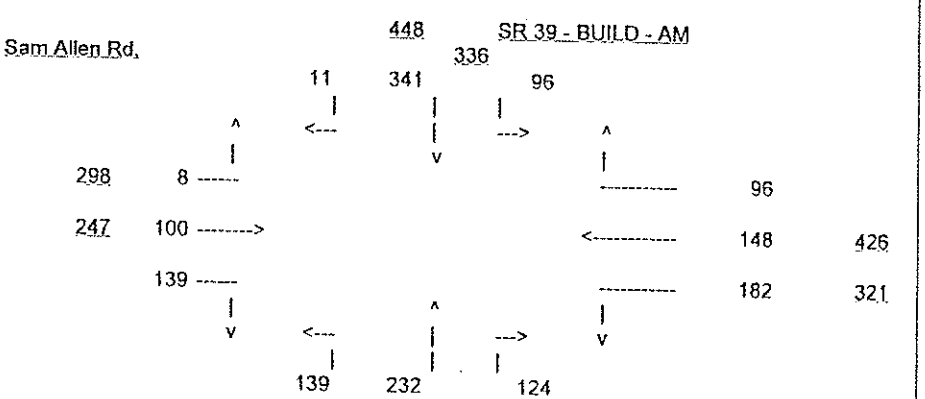
Sam Allen Rd. 397 SR 39 - BUILD - AM



K nl =	9.54%	483	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020

Sam Allen Rd. 448 SR 39 - BUILD - AM 336

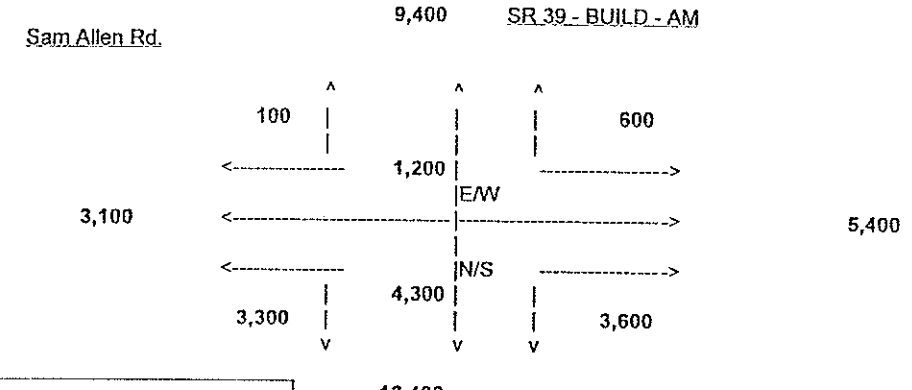


K nl =	9.54%	661 495	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

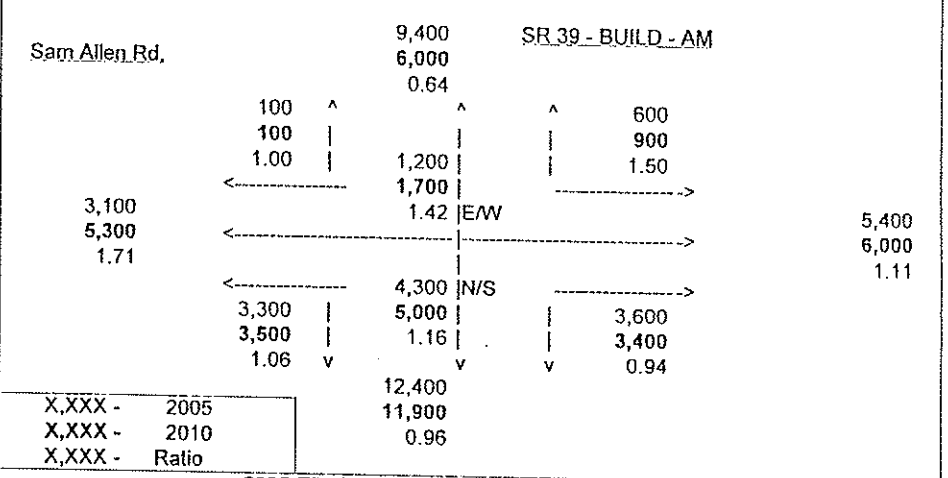
SA39AMBD.WK4

PROJECT TRAFFIC FOR SR 39 - BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

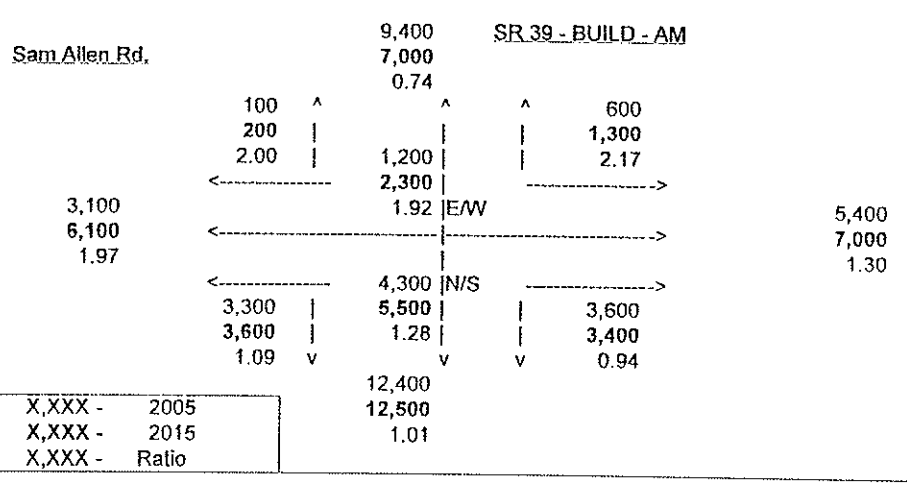
2005 TRAFFIC



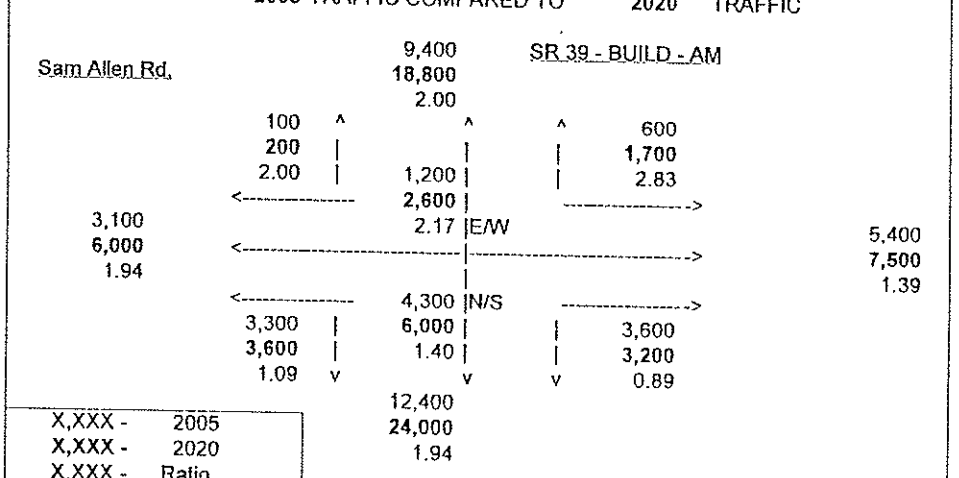
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

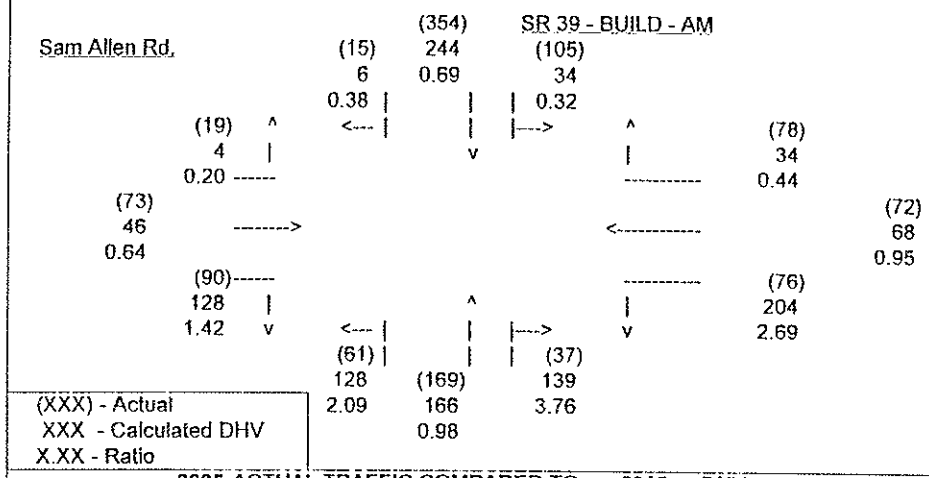


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

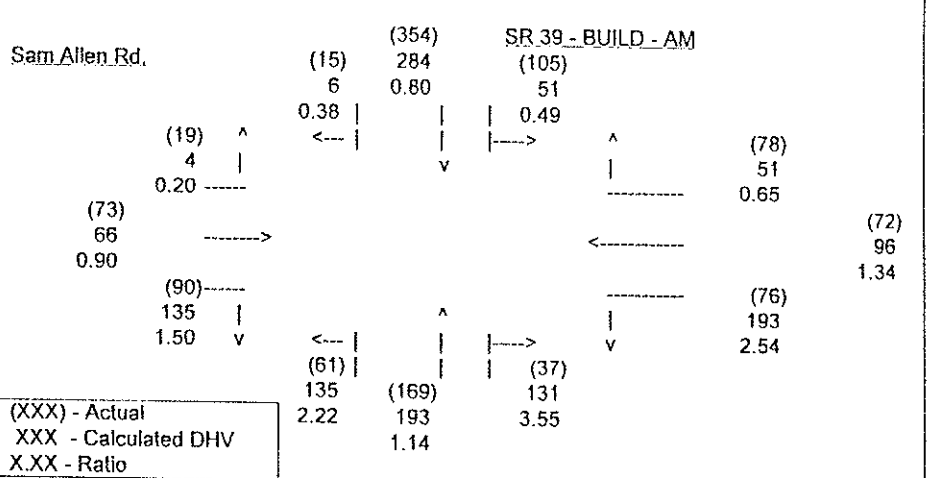


PROJECT TRAFFIC FOR SR 39 - BUILD - AM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

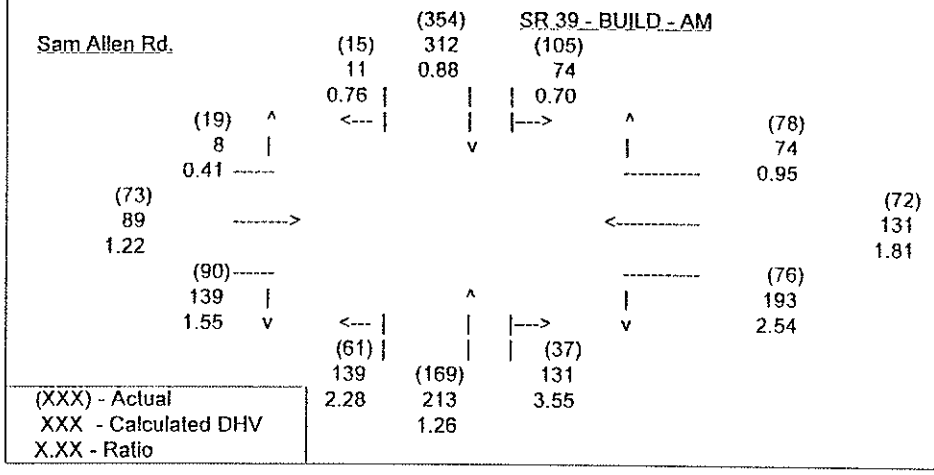
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



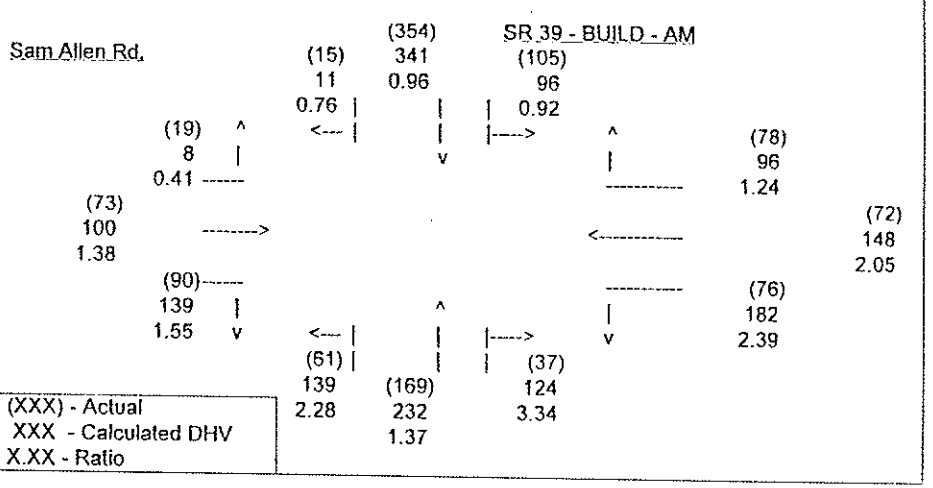
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst:	PAP
Highway:	SR 39 - BUILD - PM
Intersection:	Sam Allen Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

28-Nov-98

North/South Orientation of Mainline? (Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,300	2,700	2,500	5,650	13,150
2010	2,667	3,083	3,000	5,933	14,683
2015	3,033	3,467	3,500	6,217	16,217
2020	3,400	3,850	4,000	6,500	17,750

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,300	2,700	2,500	5,650	13,150
2010	2,667	3,083	3,000	5,933	14,683
2015	3,033	3,467	3,500	6,217	16,217
2020	3,400	3,850	4,000	6,500	17,750

DATA INPUT

Date:

Analyst: PAP

28-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,600	5,400	5,000	11,300	26,300
Model					
2020	6,800	7,700	8,000	13,000	35,500

AREA FOR CALCULATION ; INTERPOLATION

model - base:	15				
diff of vols:	2200	2300	3000	1700	
year	EB	WB	SB	NB	
2005	4,600	5,400	5,000	11,300	26,300
2010	5,333	6,167	6,000	11,867	29,367
2015	6,067	6,933	7,000	12,433	32,433
2020	6,800	7,700	8,000	13,000	35,500

Enter "1st Guess" Turning Percentages for AADT Balancing:

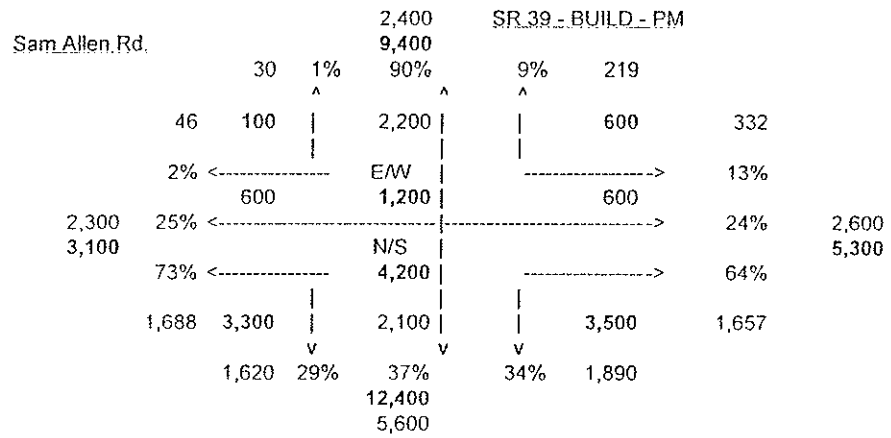
Actual/Counted Traffic:

				2005
(EB THRU)	W-to-E	0.41	W-to-E	58
(EB LT)	W-to-N	0.11	W-to-N	16
(EB RT)	W-to-S	0.48	W-to-S	67
(WB THRU)	E-to-W	0.28	E-to-W	59
(WB RT)	E-to-N	0.45	E-to-N	93
(WB LT)	E-to-S	0.27	E-to-S	56
(SB RT)	N-to-W	0.03	N-to-W	10
(SB LT)	N-to-E	0.20	N-to-E	62
(SB THRU)	N-to-S	0.77	N-to-S	237
(NB LT)	S-to-W	0.17	S-to-W	79
(NB RT)	S-to-E	0.18	S-to-E	84
(NB THRU)	S-to-N	0.65	S-to-N	312

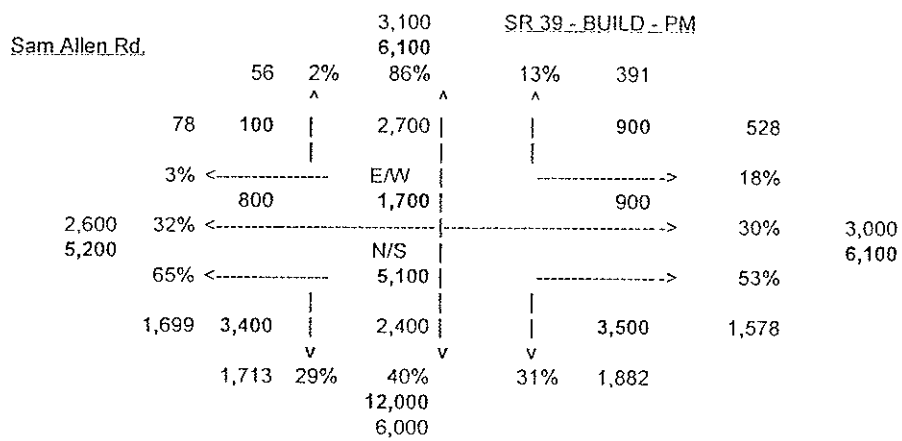
Desired Closure:	0.010

PROJECT TRAFFIC FOR SR 39 - BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

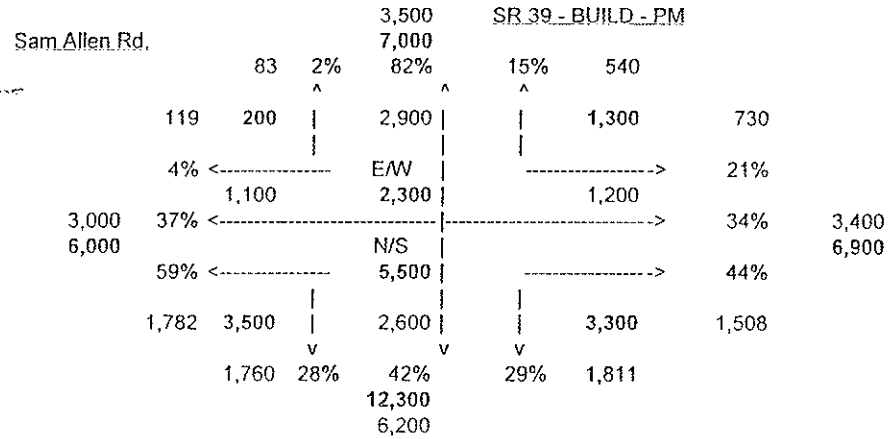
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



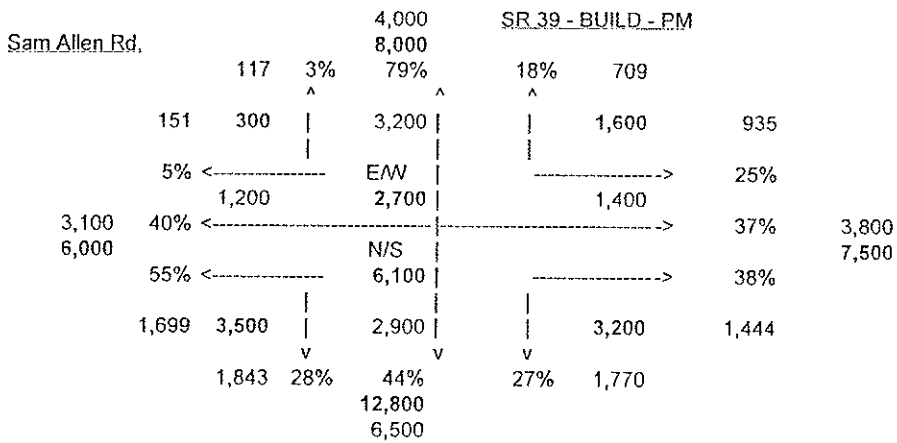
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

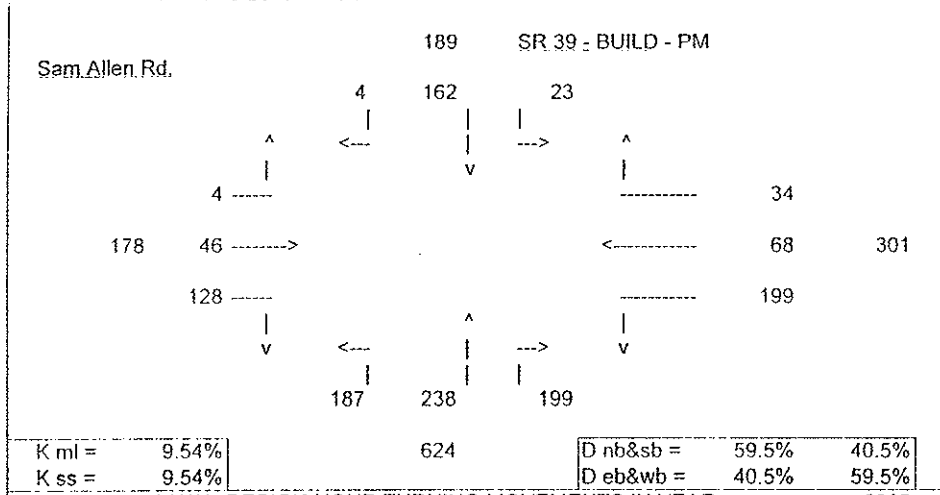


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



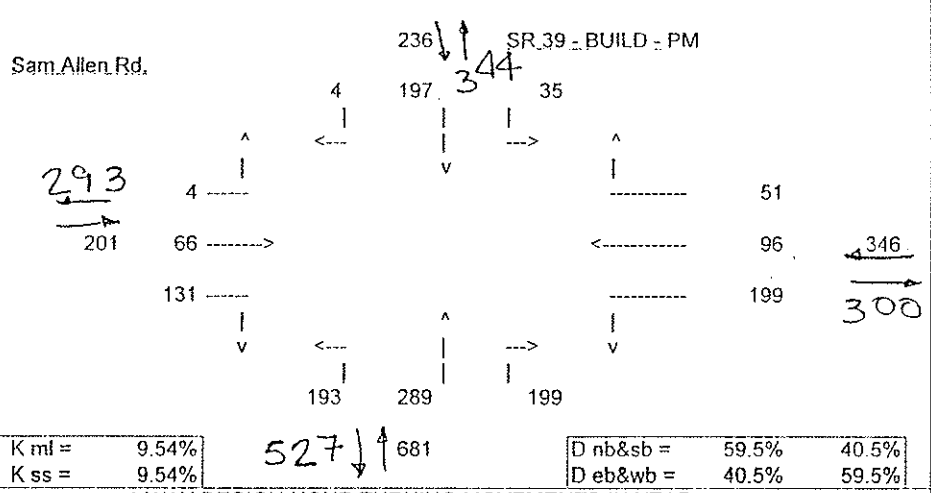
PROJECT TRAFFIC FOR SR 39 - BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



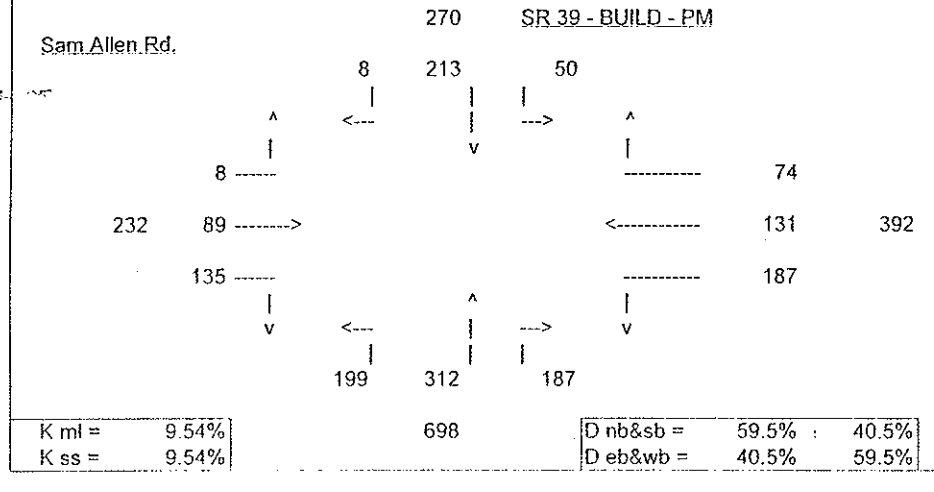
K nl =	9.54%	624	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



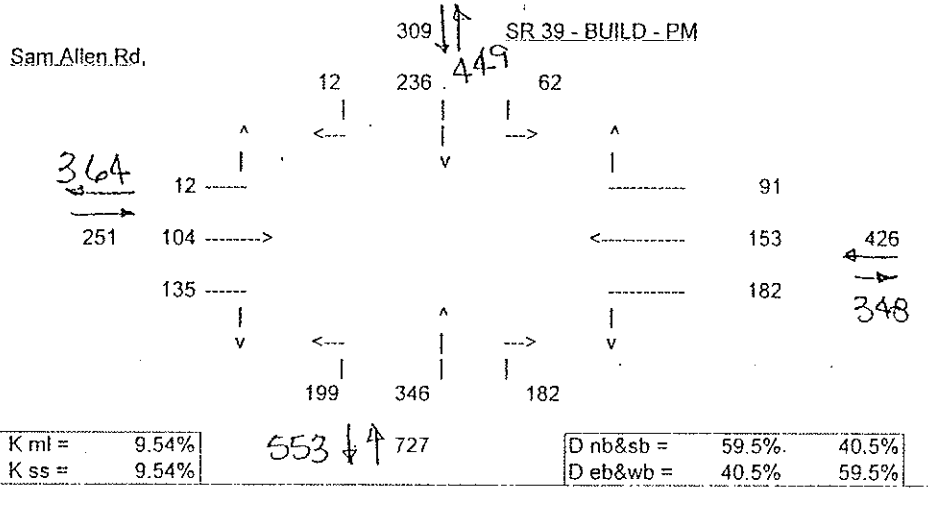
K nl =	9.54%	527 ↓ ↑ 681	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K nl =	9.54%	698	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

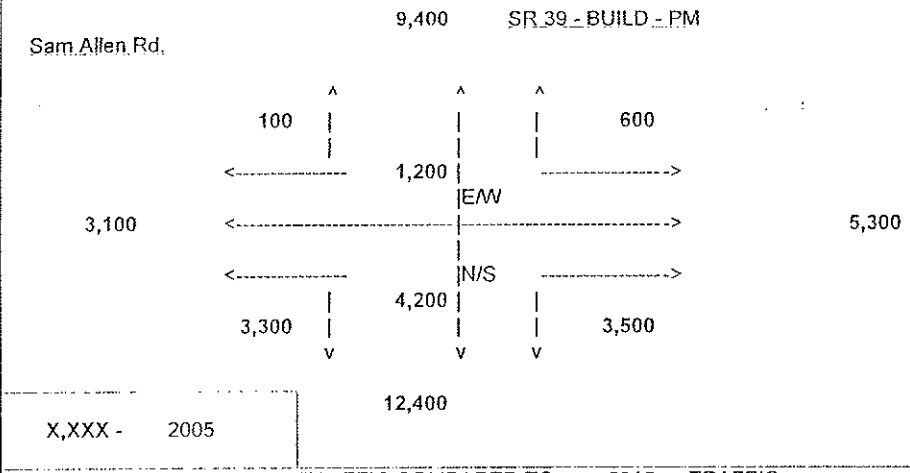
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K nl =	9.54%	553 ↓ ↑ 727	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

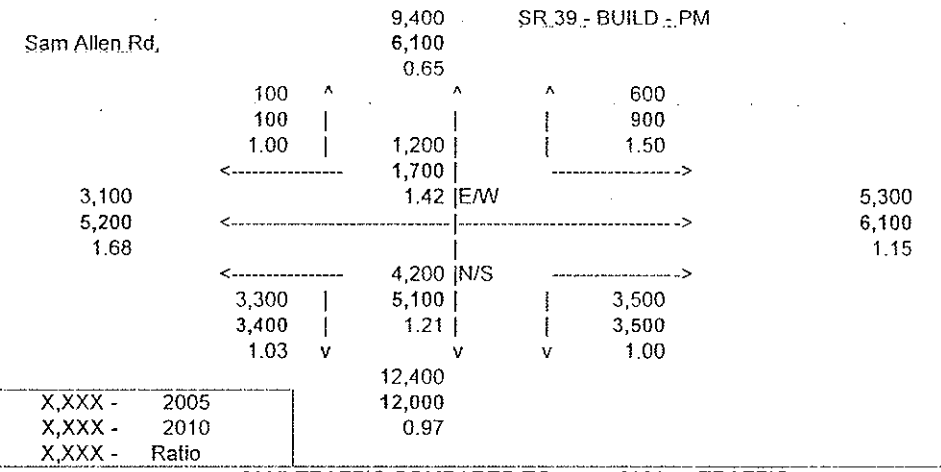
PROJECT TRAFFIC FOR SR 39 - BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



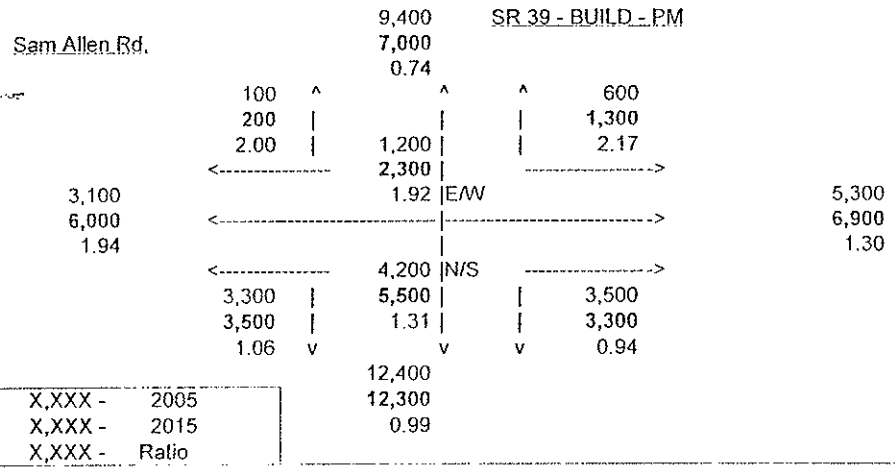
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



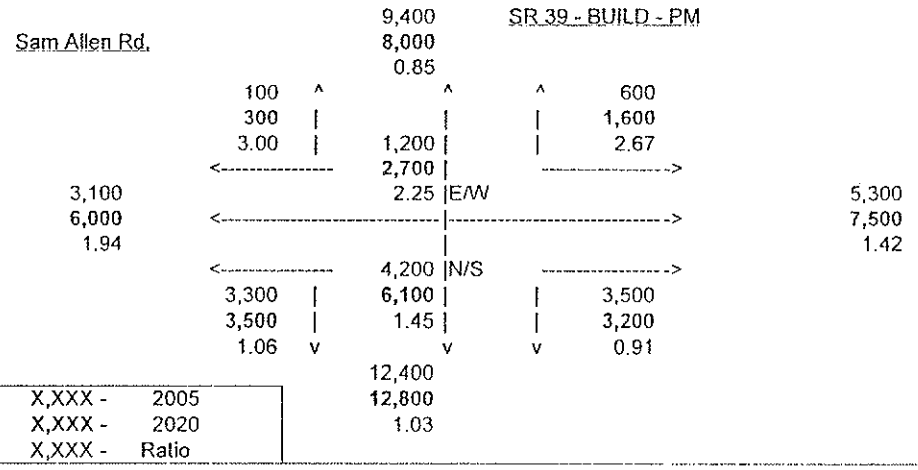
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

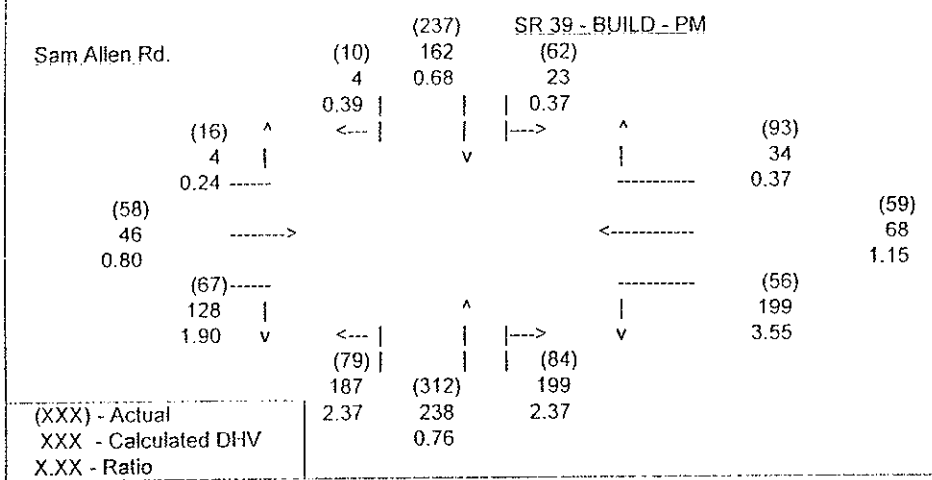
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

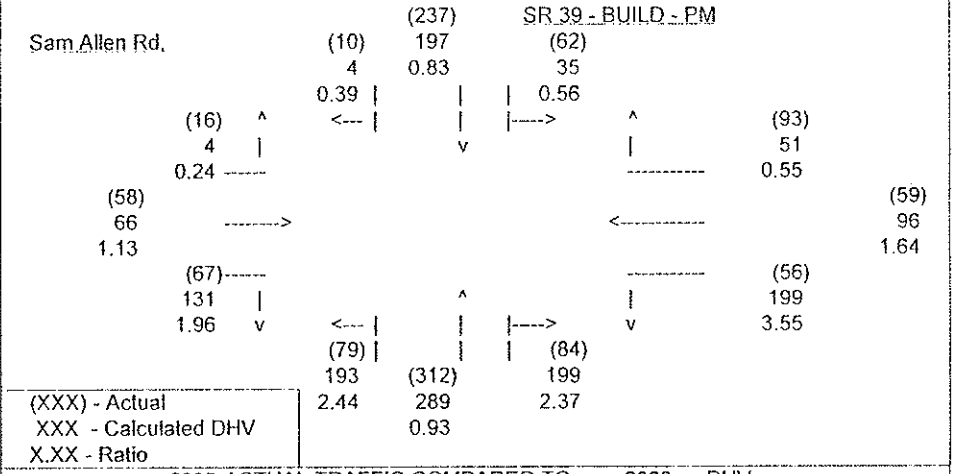
PROJECT TRAFFIC FOR SR 39 - BUILD - PM @ Sam Allen Rd. : Opening Day TO 2010 (From 2005 Base)

2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



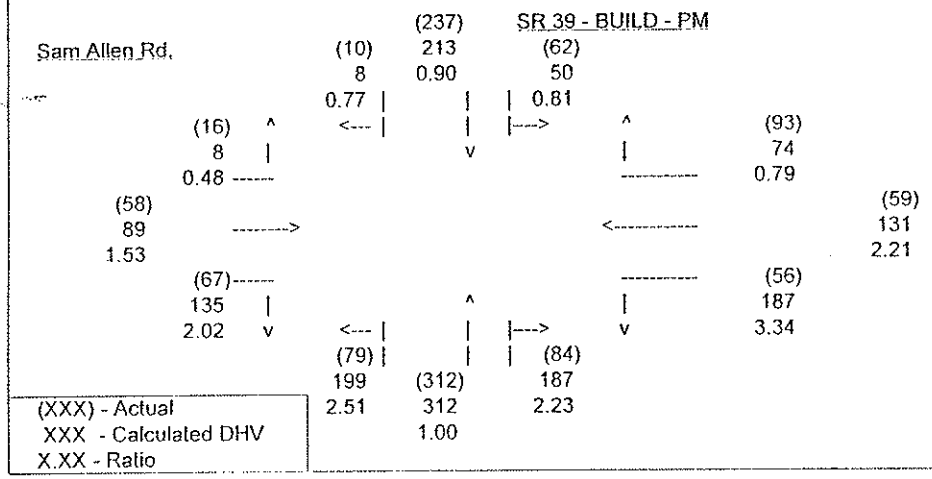
(XXX) - Actual
XXX - Calculated DHV
X.XX - Ratio

2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



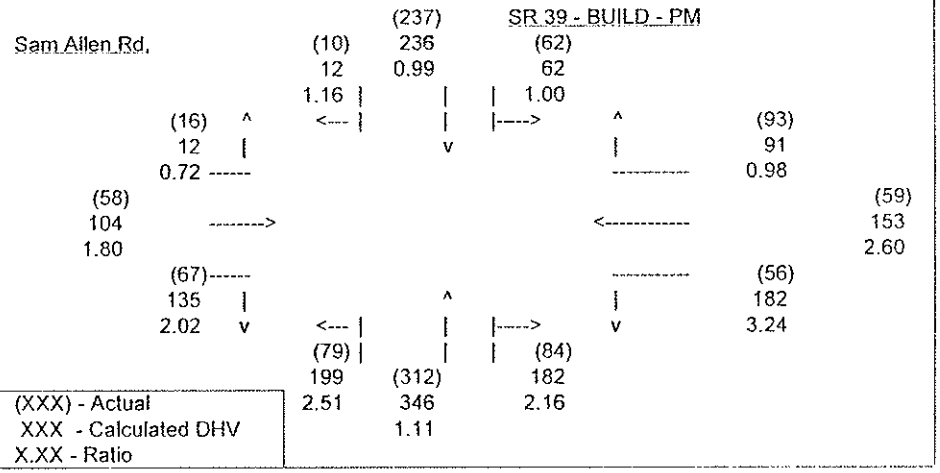
(XXX) - Actual
XXX - Calculated DHV
X.XX - Ratio

2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



(XXX) - Actual
XXX - Calculated DHV
X.XX - Ratio

2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



(XXX) - Actual
XXX - Calculated DHV
X.XX - Ratio

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - Build - AM
Intersection:	Knights Griffin Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

40.5%	Northbound(NB)
59.5%	Southbound(SB)

b. Sidestreet

40.5%	Eastbound(EB)
59.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,050	1,950	6,000	6,600	16,600
2010	2,333	2,233	7,167	7,883	19,616
2015	2,617	2,517	8,333	9,167	22,634
2020	2,900	2,800	9,500	10,450	25,650

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,050	1,950	6,000	6,600	16,600
2010	2,333	2,233	7,167	7,883	19,616
2015	2,617	2,517	8,333	9,167	22,634
2020	2,900	2,800	9,500	10,450	25,650

DATA INPUT

Date:

Analyst: PAP 30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,100	3,900	12,000	13,200	33,200
Model					
2020	5,800	5,600	19,000	20,900	51,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1700	1700	7000	7700	
year	EB	WB	SB	NB	
2005	4,100	3,900	12,000	13,200	33,200
2010	4,667	4,467	14,333	15,767	39,233
2015	5,233	5,033	16,667	18,333	45,267
2020	5,800	5,600	19,000	20,900	51,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

(EB THRU)	W-to-E	0.44
(EB LT)	W-to-N	0.15
(EB RT)	W-to-S	0.41
(WB THRU)	E-to-W	0.51
(WB RT)	E-to-N	0.30
(WB LT)	E-to-S	0.19
(SB RT)	N-to-W	0.12
(SB LT)	N-to-E	0.16
(SB THRU)	N-to-S	0.72
(NB LT)	S-to-W	0.28
(NB RT)	S-to-E	0.11
(NB THRU)	S-to-N	0.61

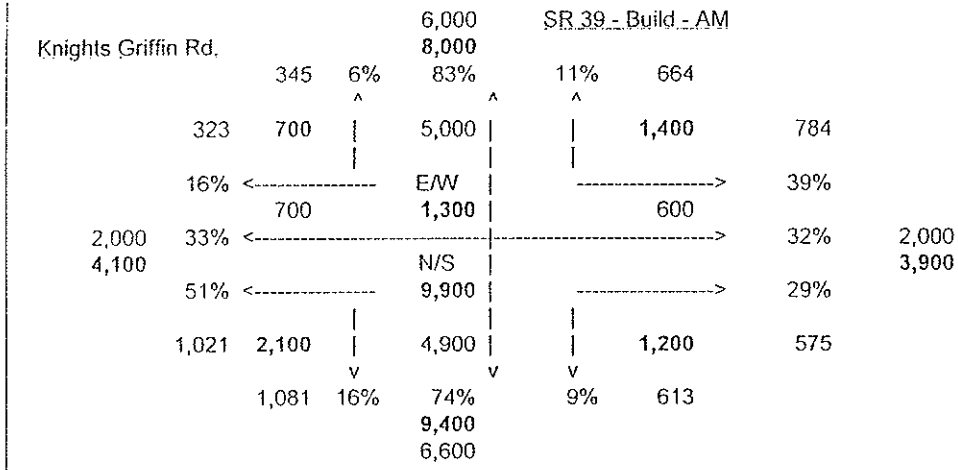
Desired Closure: 0.010

Actual/Counted Traffic:

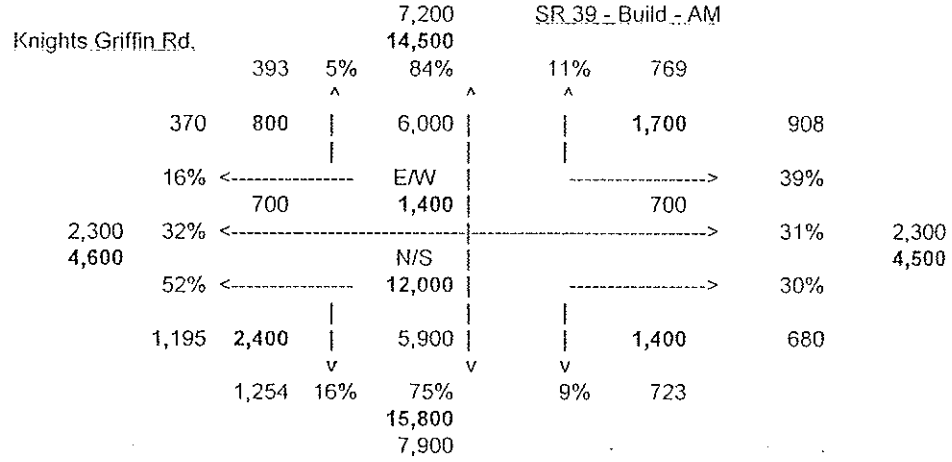
	2005
W-to-E	63
W-to-N	21
W-to-S	58
E-to-W	137
E-to-N	78
E-to-S	49
N-to-W	46
N-to-E	61
N-to-S	280
S-to-W	60
S-to-E	25
S-to-N	133

PROJECT TRAFFIC FOR SR 39 - Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

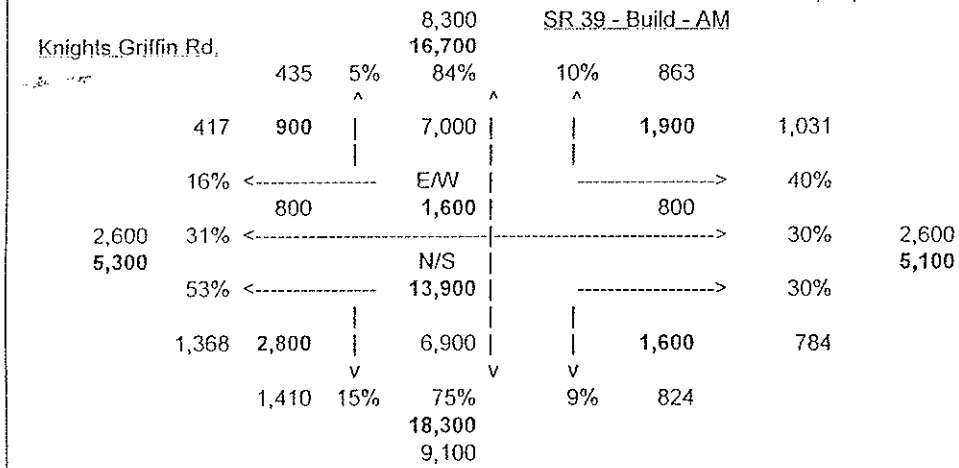
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



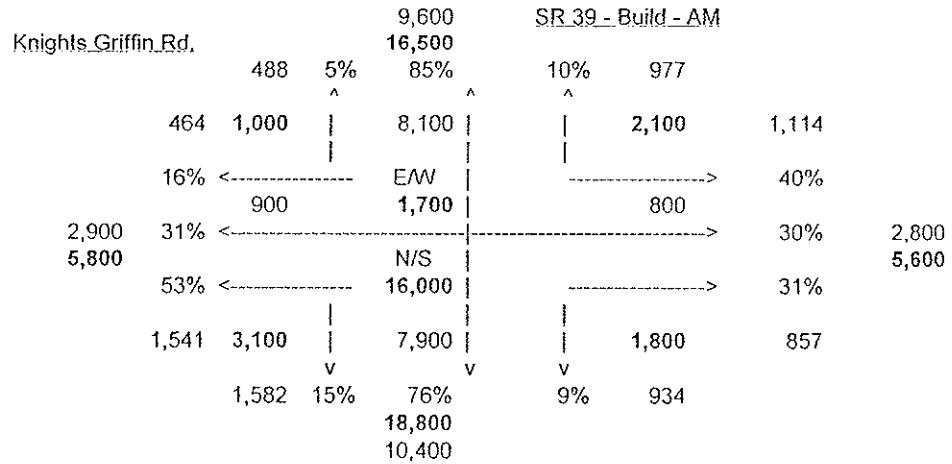
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

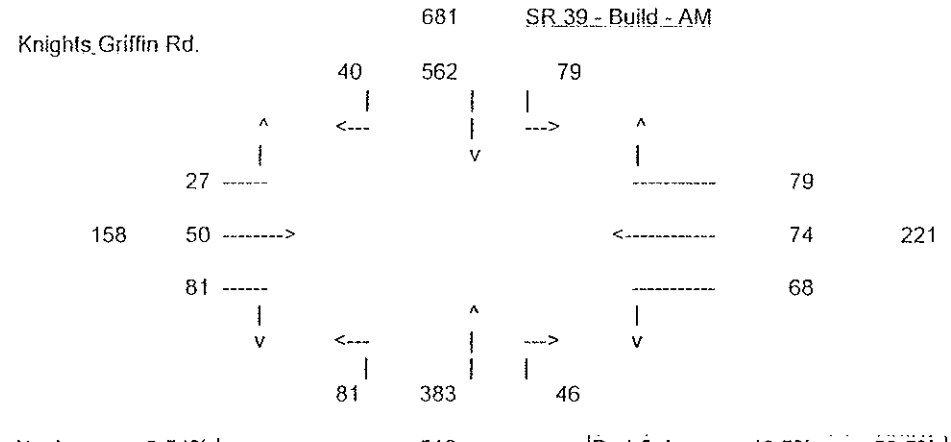


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



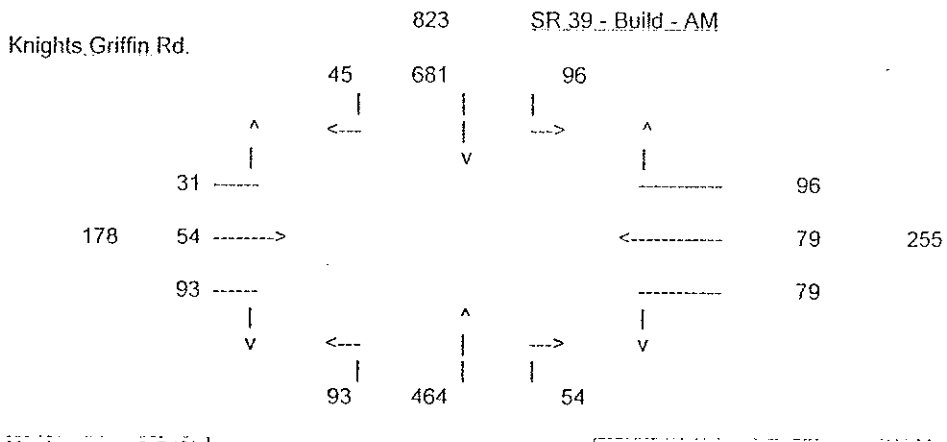
PROJECT TRAFFIC FOR SR 39 - Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



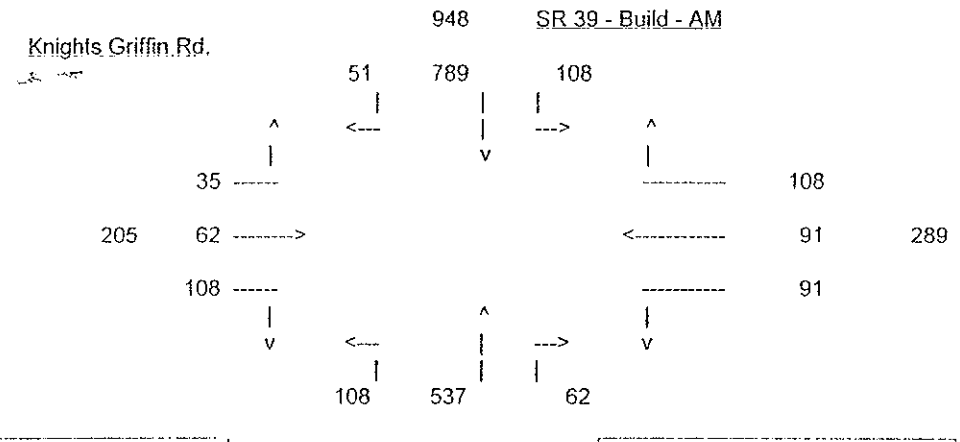
K ml =	9.54%	510	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



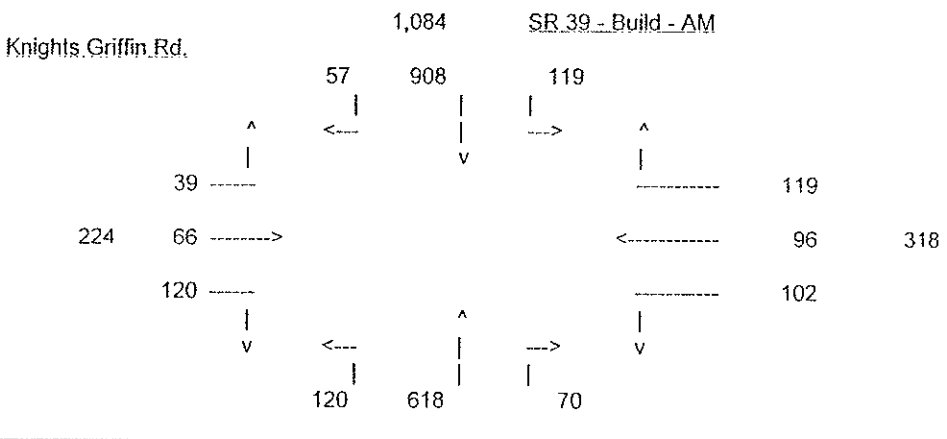
K ml =	9.54%	610	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	707	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

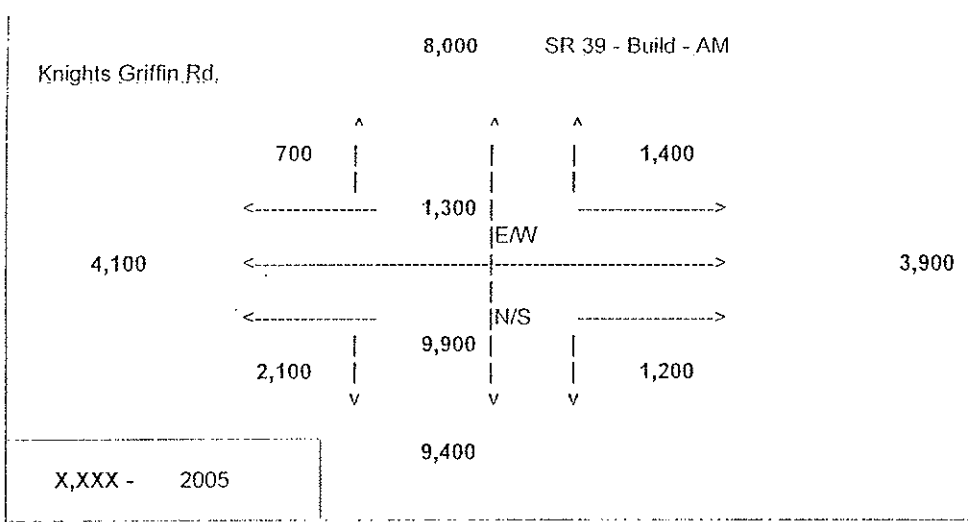
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



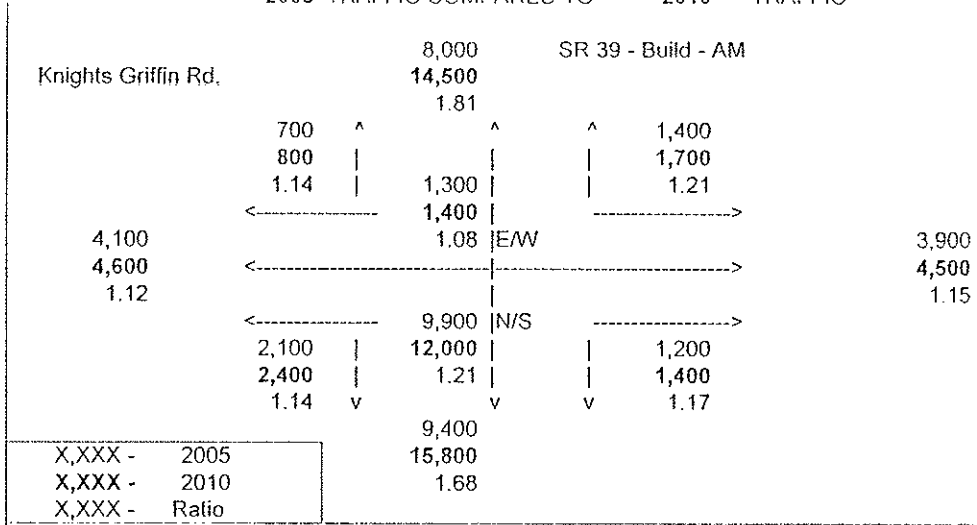
K ml =	9.54%	808	D nb&sb =	40.5%	59.5%
K ss =	9.54%		D eb&wb =	40.5%	59.5%

PROJECT TRAFFIC FOR SR 39 - Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

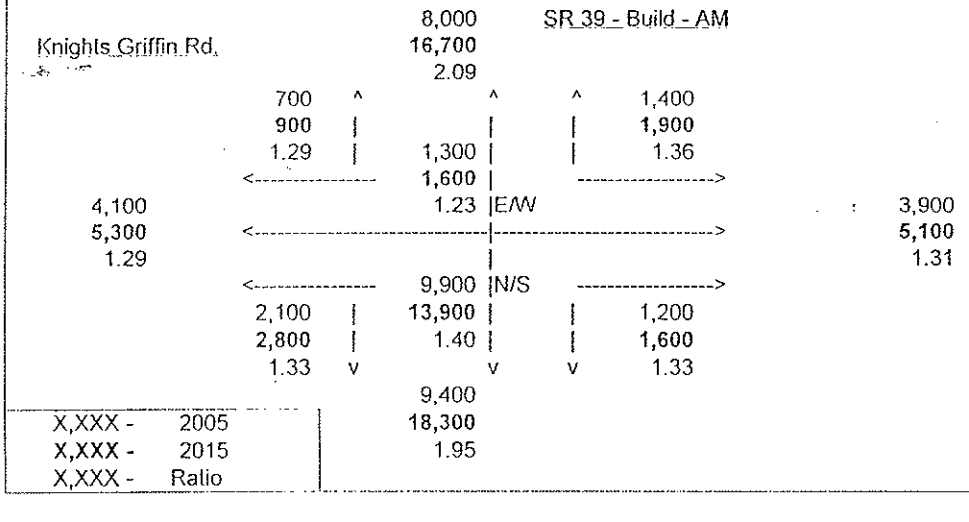
2005 TRAFFIC



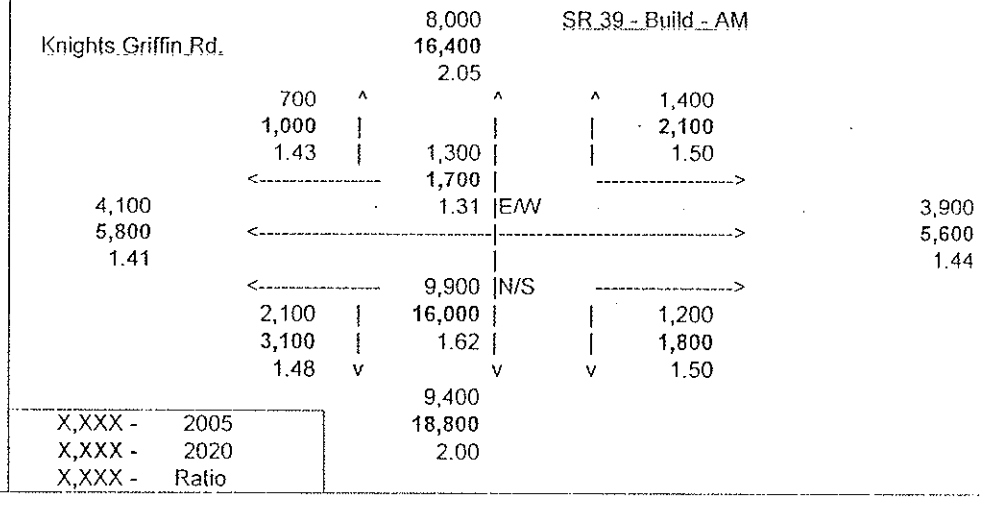
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

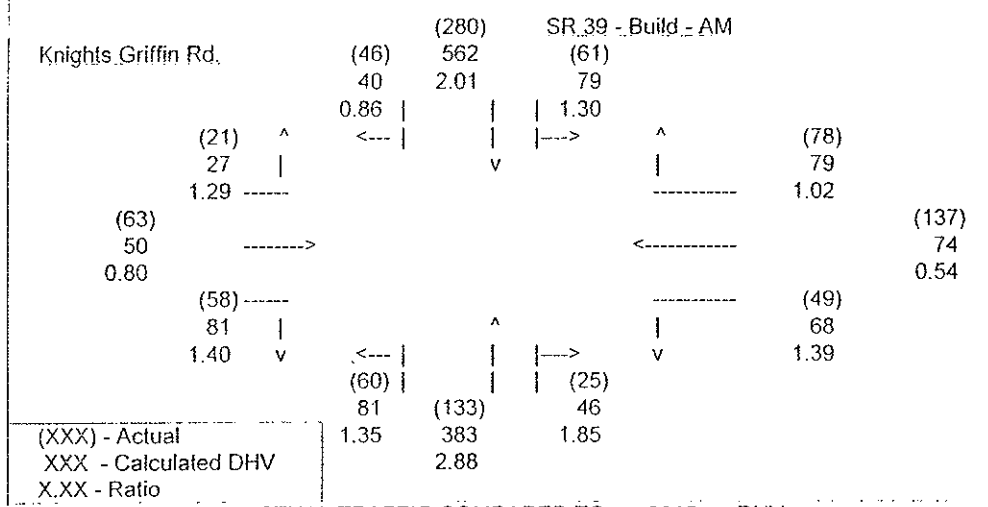


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

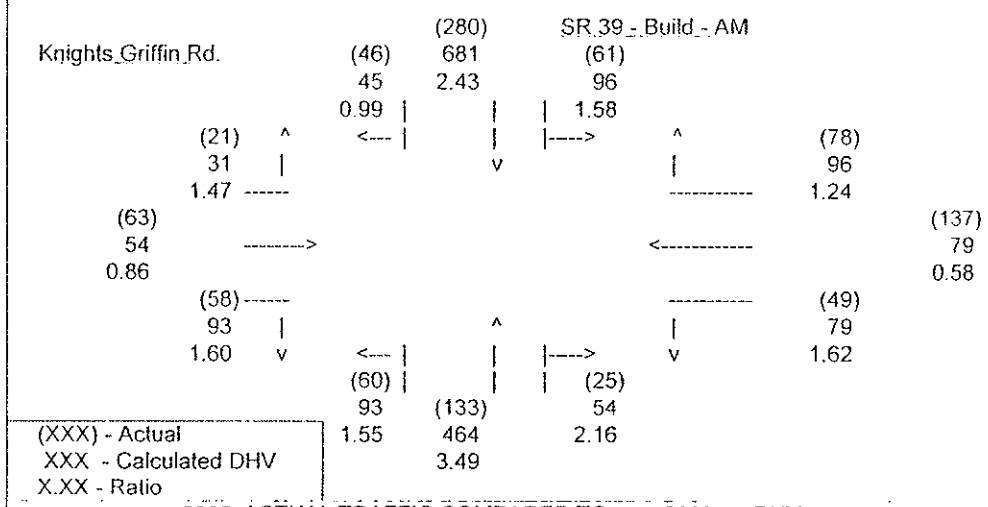


PROJECT TRAFFIC FOR SR 39 - Build - AM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

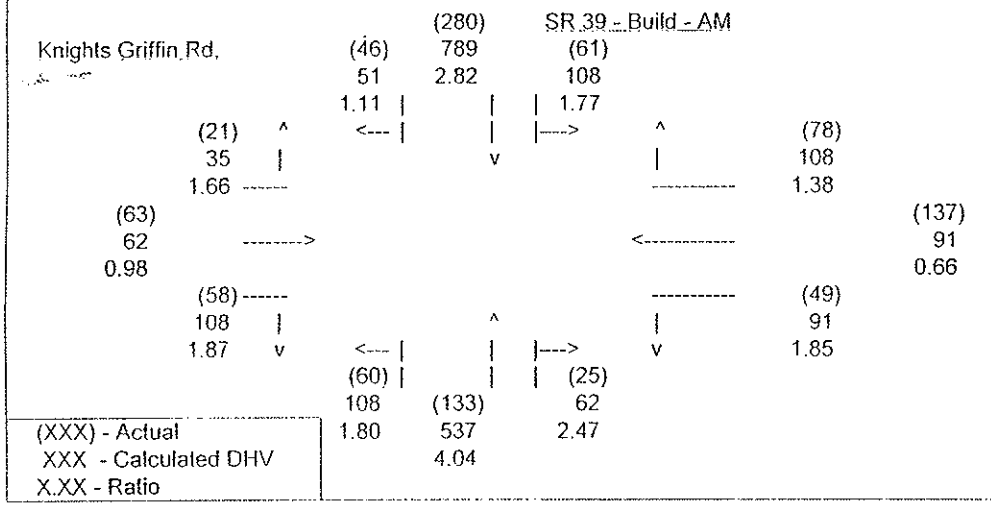
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



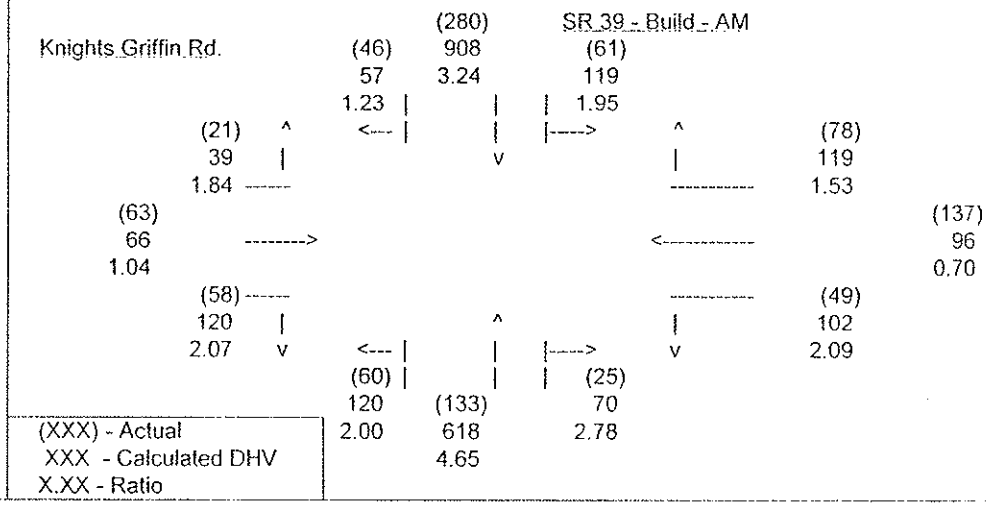
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP — 30-Nov-98

Highway:	SR 39 - Build - PM
Intersection:	Knights Griffin Rd.
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline? (Y/N): Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N): Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	2,050	1,950	6,000	6,600	16,600
2010	2,333	2,233	7,167	7,883	19,616
2015	2,617	2,517	8,333	9,167	22,634
2020	2,900	2,800	9,500	10,450	25,650

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	2,050	1,950	6,000	6,600	16,600
2010	2,333	2,233	7,167	7,883	19,616
2015	2,617	2,517	8,333	9,167	22,634
2020	2,900	2,800	9,500	10,450	25,650

DATA INPUT

Date:

Analyst: PAP 30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	4,100	3,900	12,000	13,200	33,200
Model					
2020	5,800	5,600	19,000	20,900	51,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	1700	1700	7000	7700	
year	EB	WB	SB	NB	
2005	4,100	3,900	12,000	13,200	33,200
2010	4,667	4,467	14,333	15,767	39,233
2015	5,233	5,033	16,667	18,333	45,267
2020	5,800	5,600	19,000	20,900	51,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

(EB THRU)	W-to-E	0.14
(EB LT)	W-to-N	0.61
(EB RT)	W-to-S	0.25
(WB THRU)	E-to-W	0.42
(WB RT)	E-to-N	0.41
(WB LT)	E-to-S	0.17
(SB RT)	N-to-W	0.08
(SB LT)	N-to-E	0.27
(SB THRU)	N-to-S	0.65
(NB LT)	S-to-W	0.14
(NB RT)	S-to-E	0.15
(NB THRU)	S-to-N	0.71

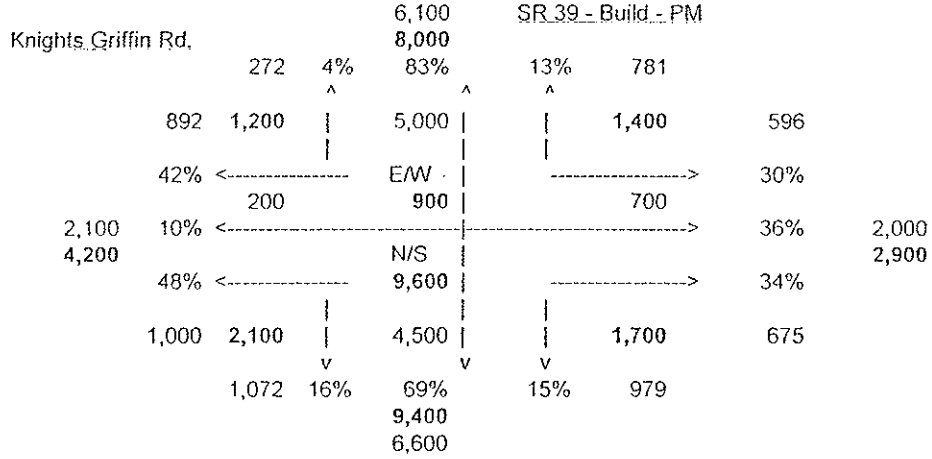
Desired Closure: 0.010

Actual/Counted Traffic:

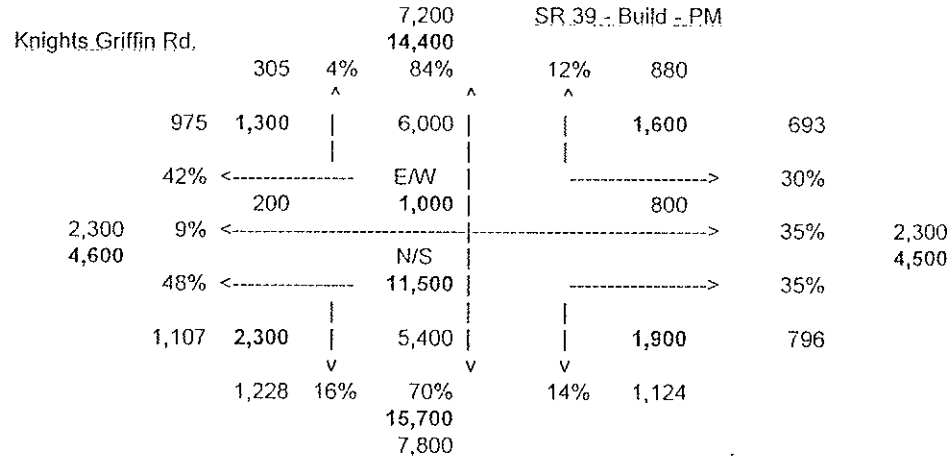
	2005
W-to-E	135
W-to-N	31
W-to-S	54
E-to-W	98
E-to-N	94
E-to-S	38
N-to-W	20
N-to-E	70
N-to-S	168
S-to-W	57
S-to-E	63
S-to-N	287

PROJECT TRAFFIC FOR SR 39 - Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

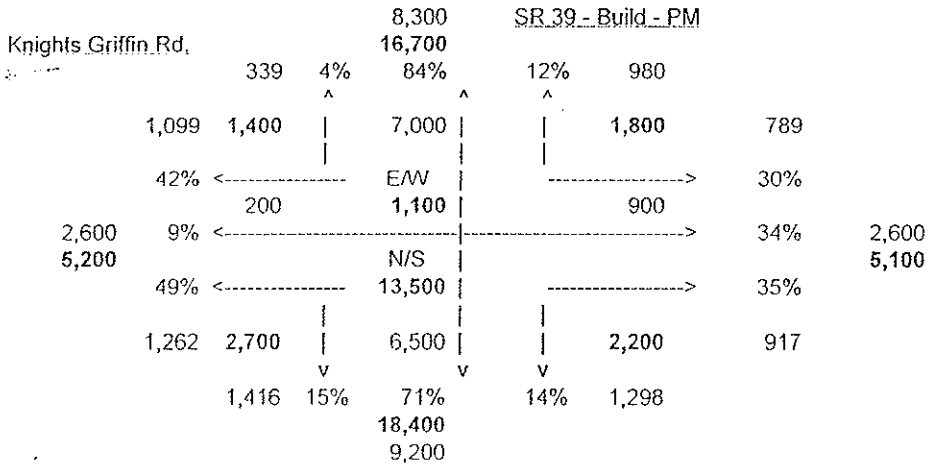
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



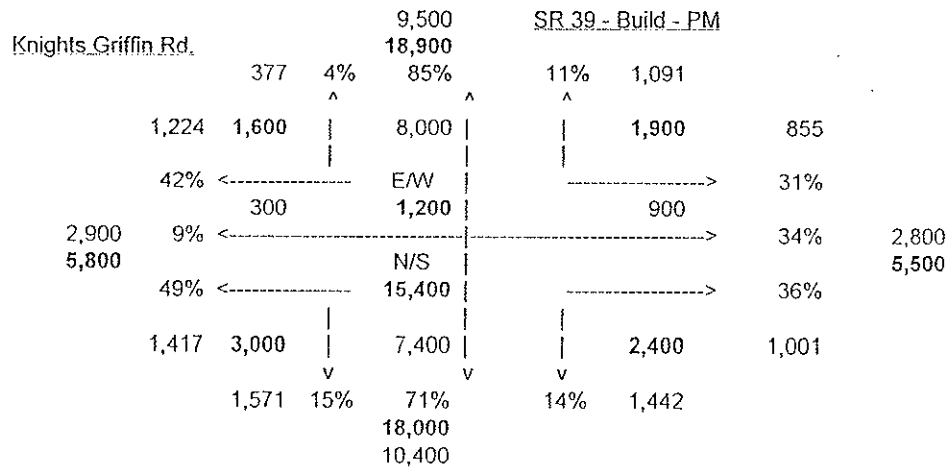
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

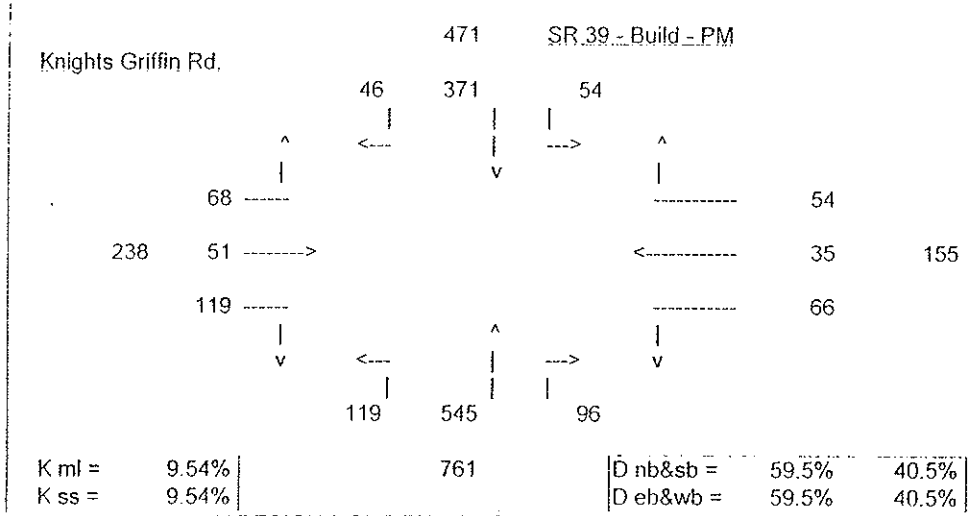


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



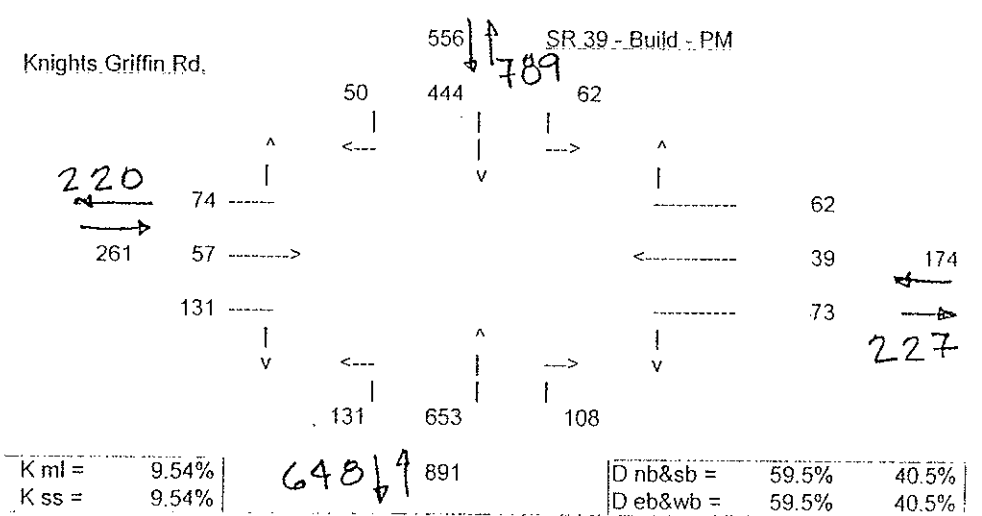
PROJECT TRAFFIC FOR SR 39 - Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



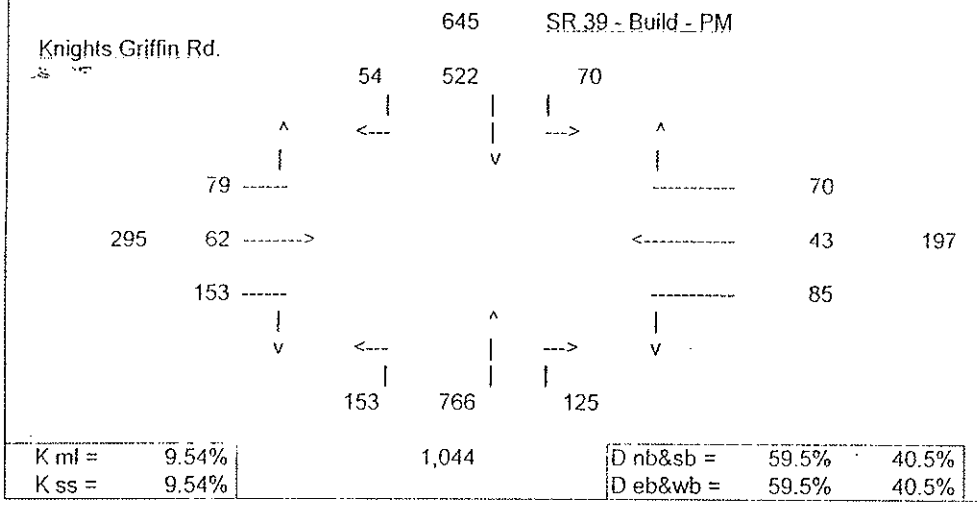
K ml =	9.54%	761	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



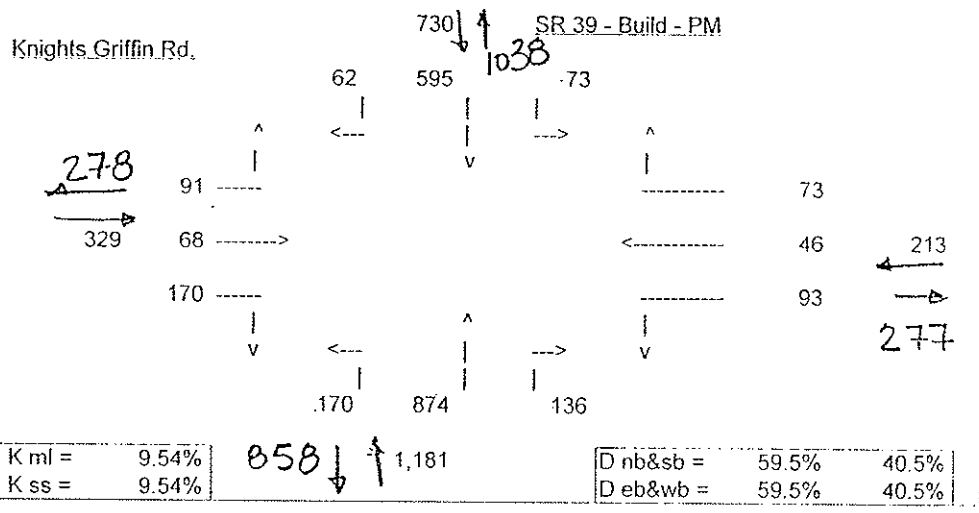
K ml =	9.54%	648 ↓ ↑ 891	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	1,044	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

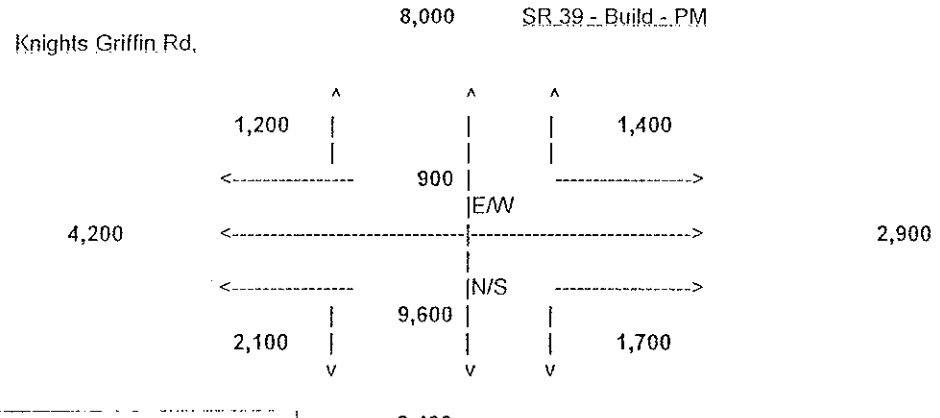
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



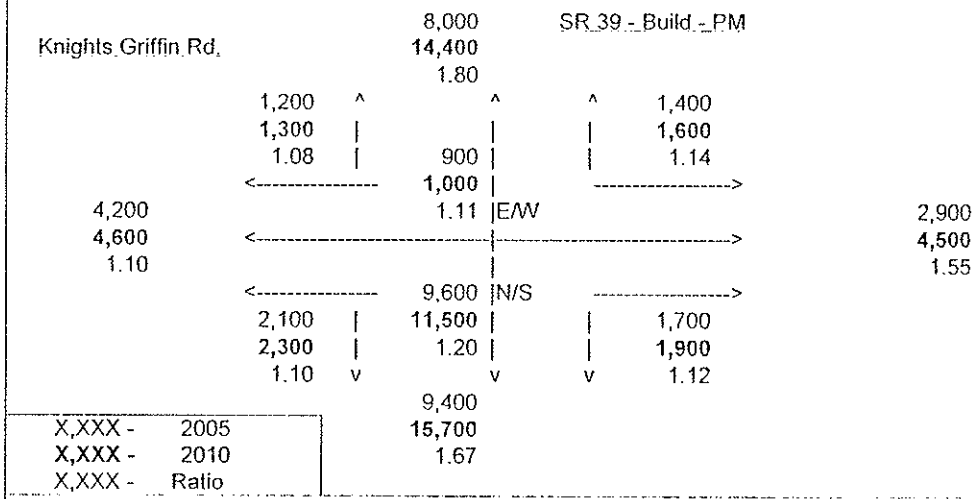
K ml =	9.54%	858 ↓ ↑ 1,181	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

PROJECT TRAFFIC FOR SR 39 - Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

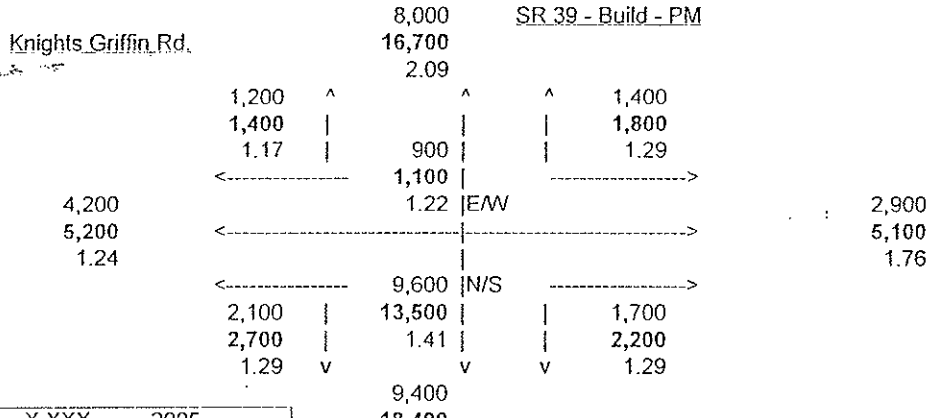
2005 TRAFFIC



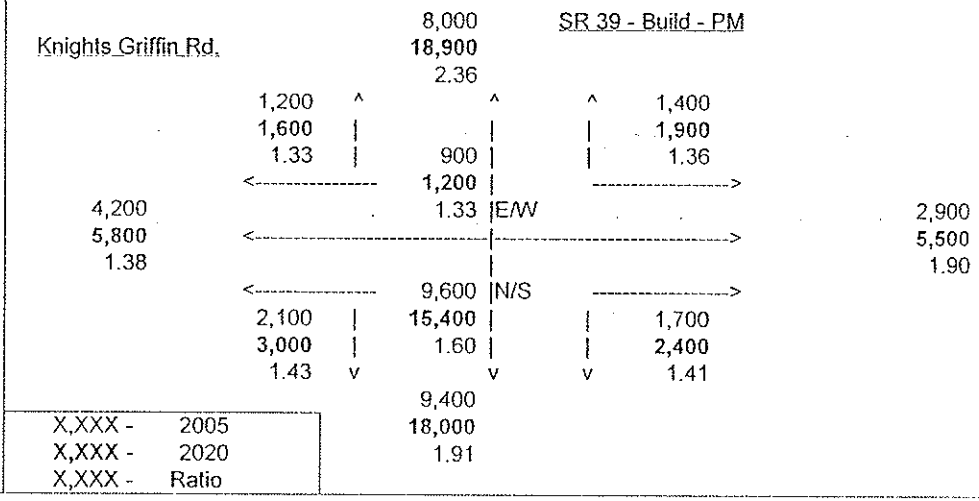
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

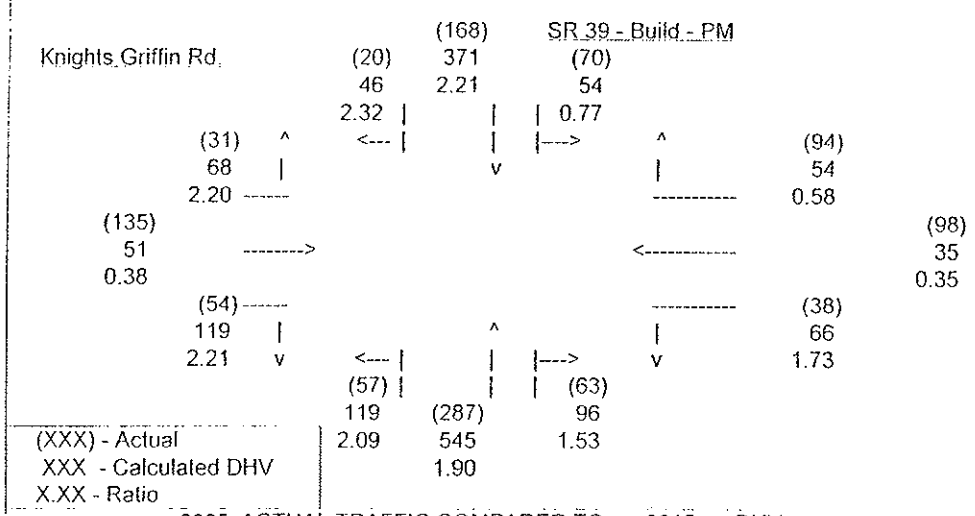


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

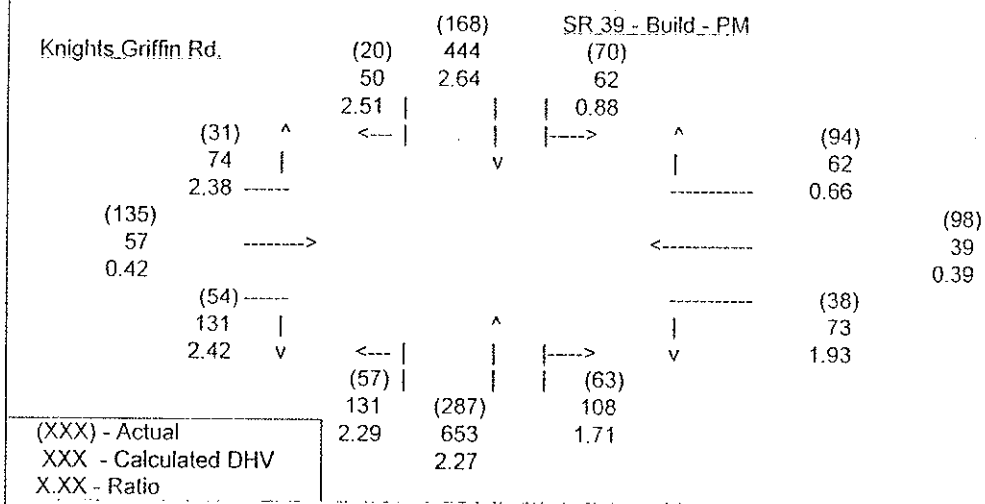


PROJECT TRAFFIC FOR SR 39 - Build - PM @ Knights Griffin Rd. : Opening Day TO 2010 (From 2005 Base)

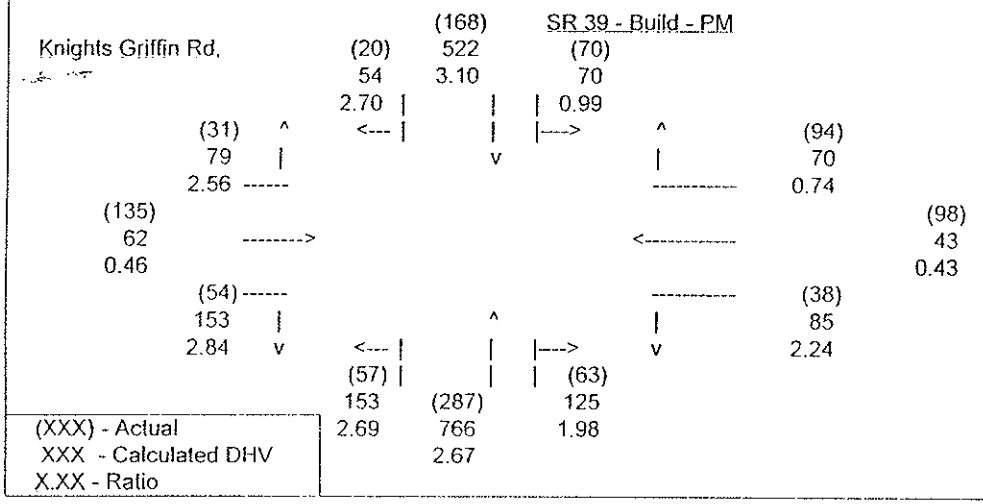
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



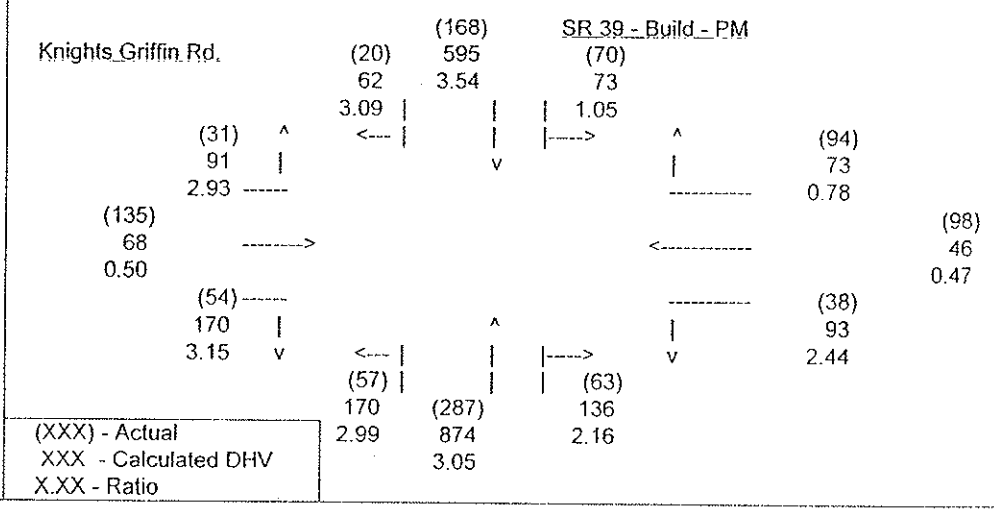
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - Build - AM
Intersection:	Zephyrhills Bypass
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Hillsborough

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	1,750	1,250	5,800	6,600	15,400
2010	2,100	1,500	6,933	7,900	18,433
2015	2,450	1,750	8,067	9,200	21,467
2020	2,800	2,000	9,200	10,500	24,500

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	1,750	1,250	5,800	6,600	15,400
2010	2,100	1,500	6,933	7,900	18,433
2015	2,450	1,750	8,067	9,200	21,467
2020	2,800	2,000	9,200	10,500	24,500

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	3,500	2,500	11,600	13,200	30,800
Model					
2020	5,600	4,000	18,400	21,000	49,000

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	2100	1500	6800	7800	
year	EB	WB	SB	NB	
2005	3,500	2,500	11,600	13,200	30,800
2010	4,200	3,000	13,867	15,800	36,867
2015	4,900	3,500	16,133	18,400	42,933
2020	5,600	4,000	18,400	21,000	49,000

Enter "1st Guess" Turning Percentages for AADT Balancing:

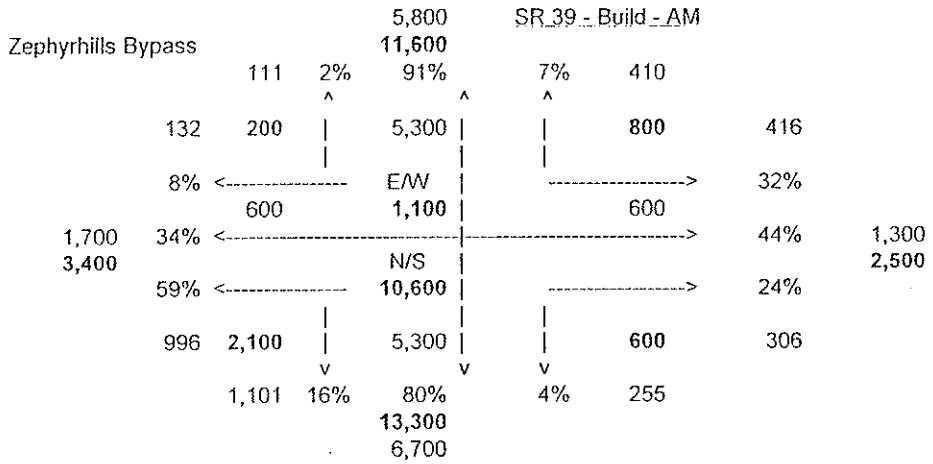
Actual/Counted Traffic:

				2005
(EB THRU)	W-to-E	0.46	W-to-E	107
(EB LT)	W-to-N	0.47	W-to-N	108
(EB RT)	W-to-S	0.07	W-to-S	16
(WB THRU)	E-to-W	0.30	E-to-W	45
(WB RT)	E-to-N	0.69	E-to-N	102
(WB LT)	E-to-S	0.01	E-to-S	0
(SB RT)	N-to-W	0.15	N-to-W	40
(SB LT)	N-to-E	0.40	N-to-E	111
(SB THRU)	N-to-S	0.45	N-to-S	124
(NB LT)	S-to-W	0.06	S-to-W	12
(NB RT)	S-to-E	0.01	S-to-E	3
(NB THRU)	S-to-N	0.93	S-to-N	202

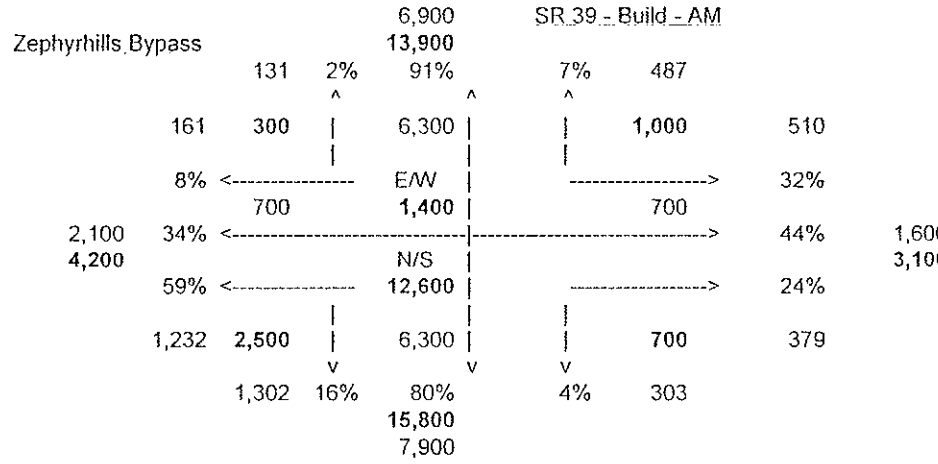
Desired Closure:	0.010

PROJECT TRAFFIC FOR SR 39 - Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

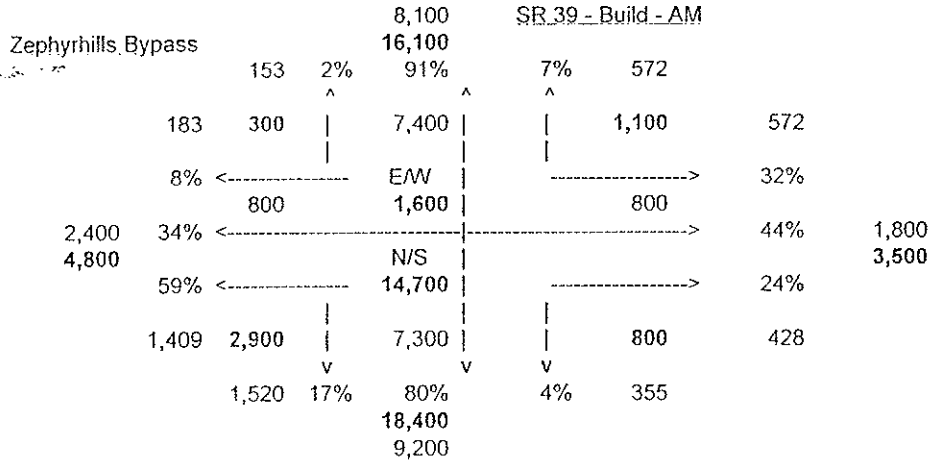
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



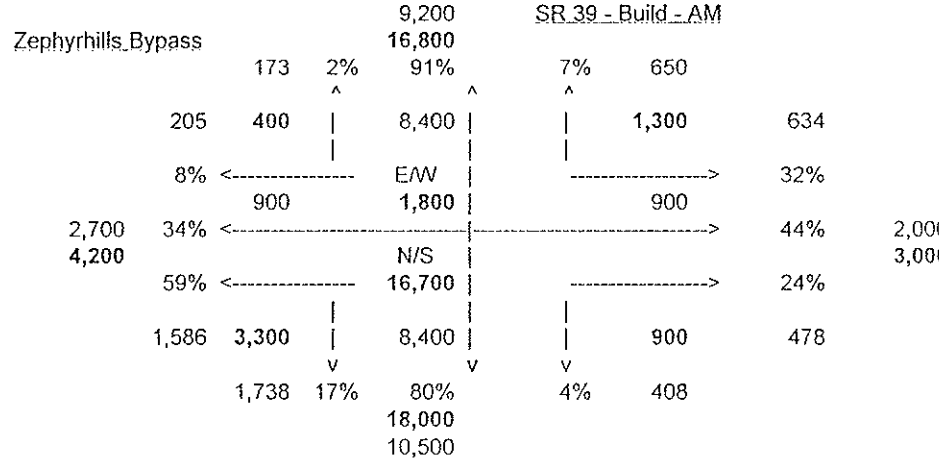
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

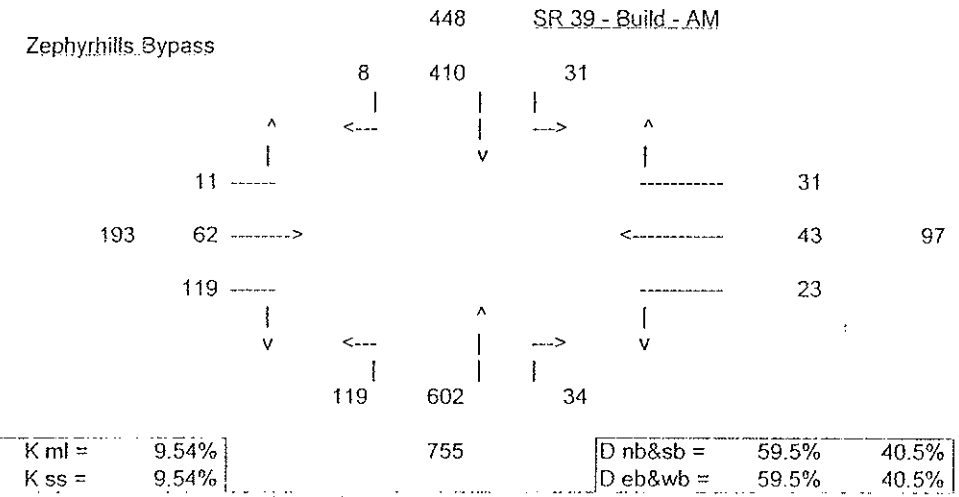


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



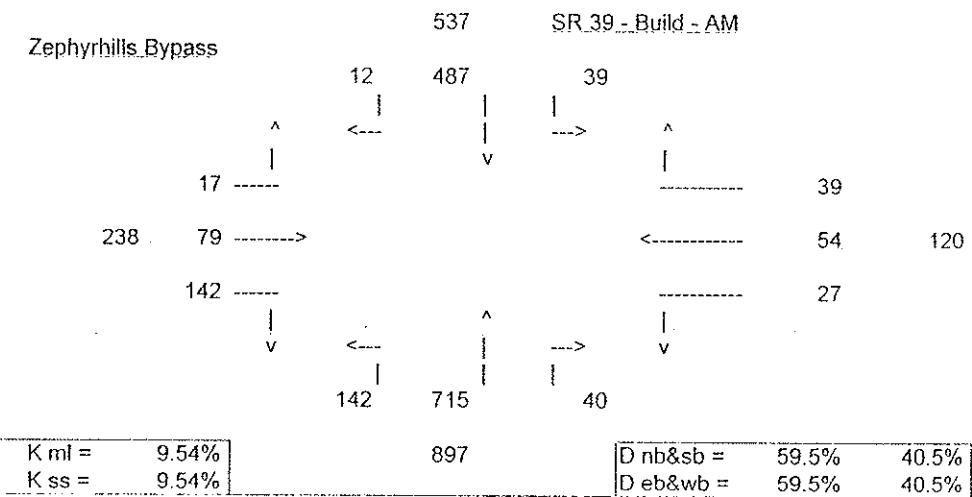
PROJECT TRAFFIC FOR SR 39 - Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



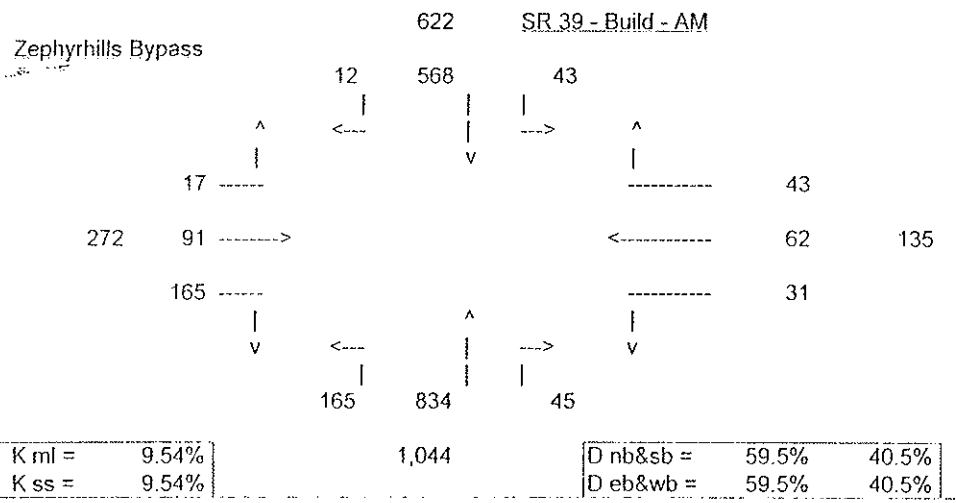
K nl =	9.54%	755	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



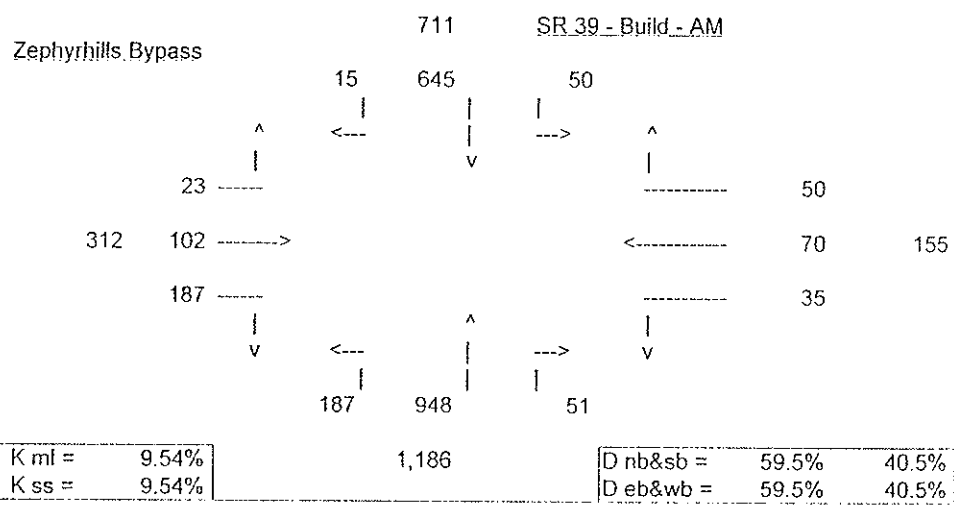
K nl =	9.54%	897	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K nl =	9.54%	1,044	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

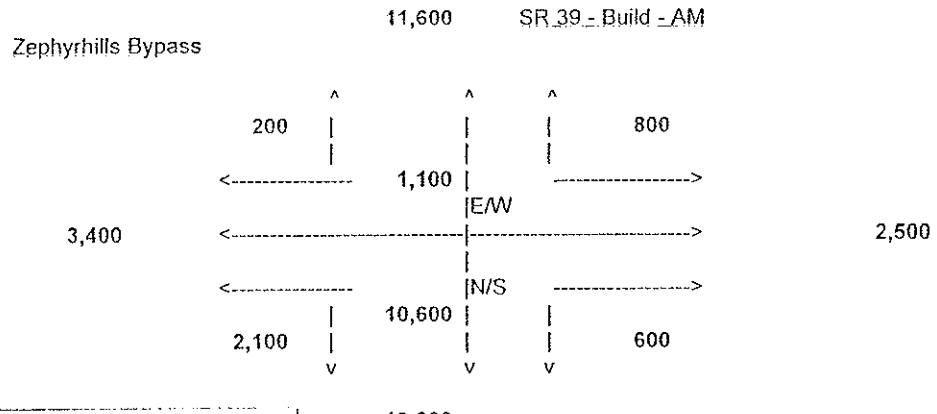
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K nl =	9.54%	1,186	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

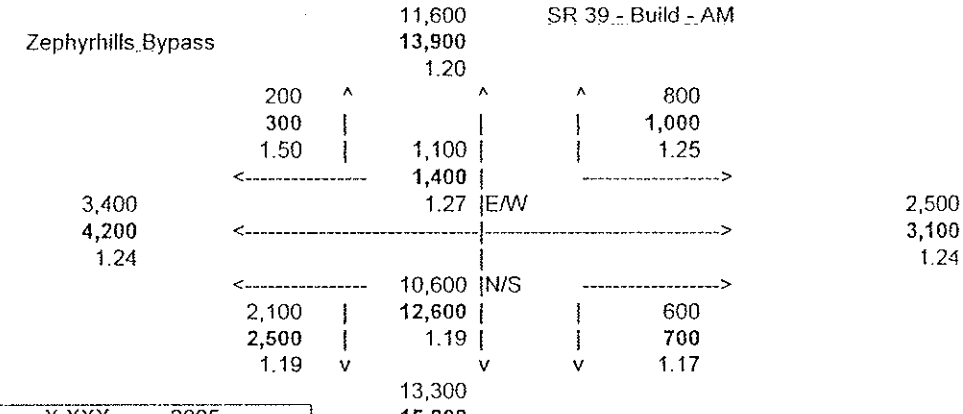
PROJECT TRAFFIC FOR SR 39 - Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



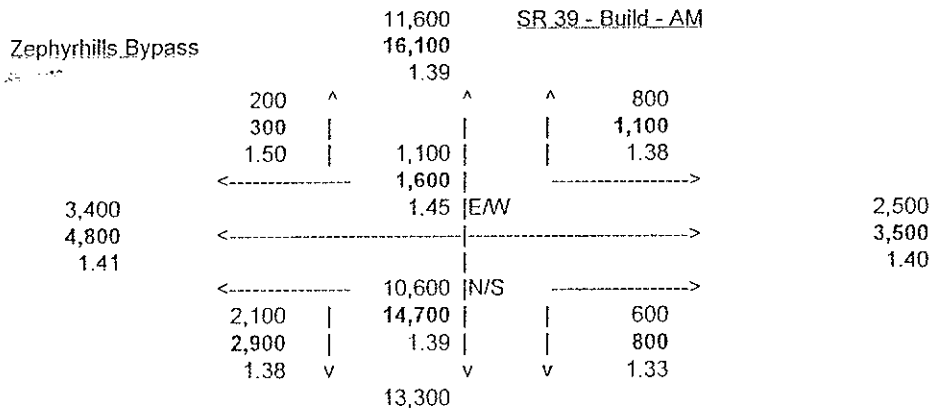
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



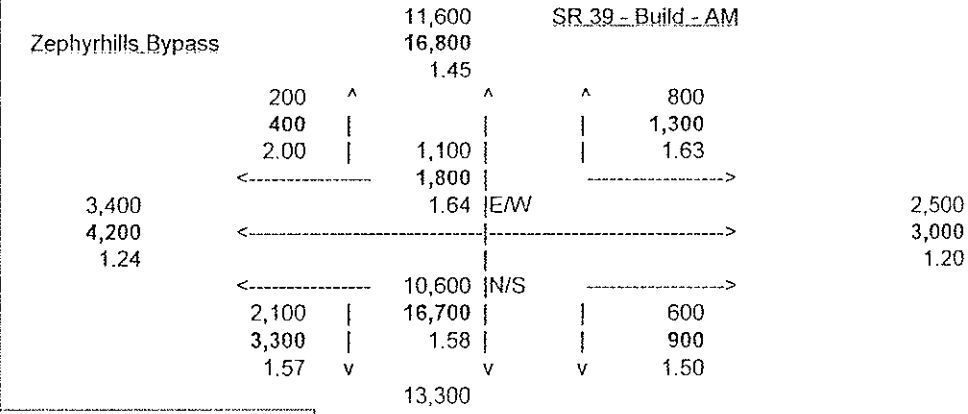
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

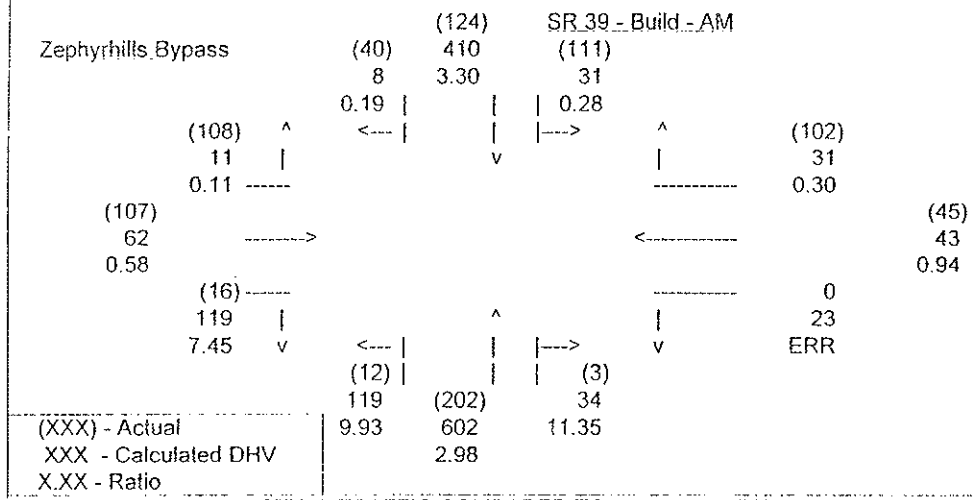
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



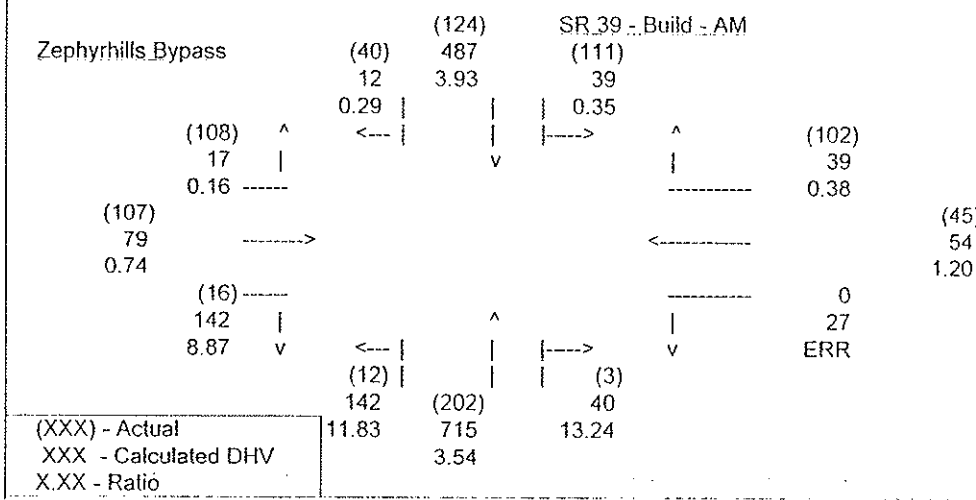
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - Build - AM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

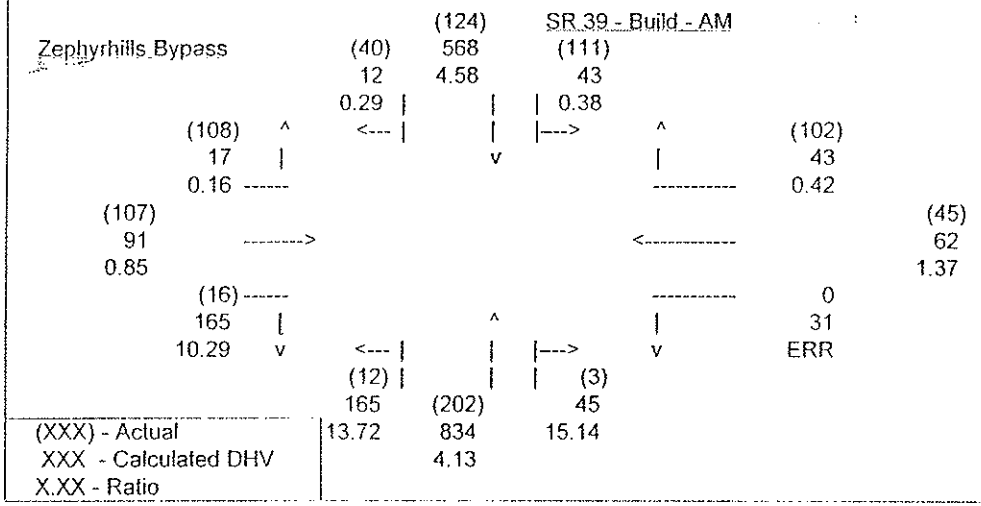
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



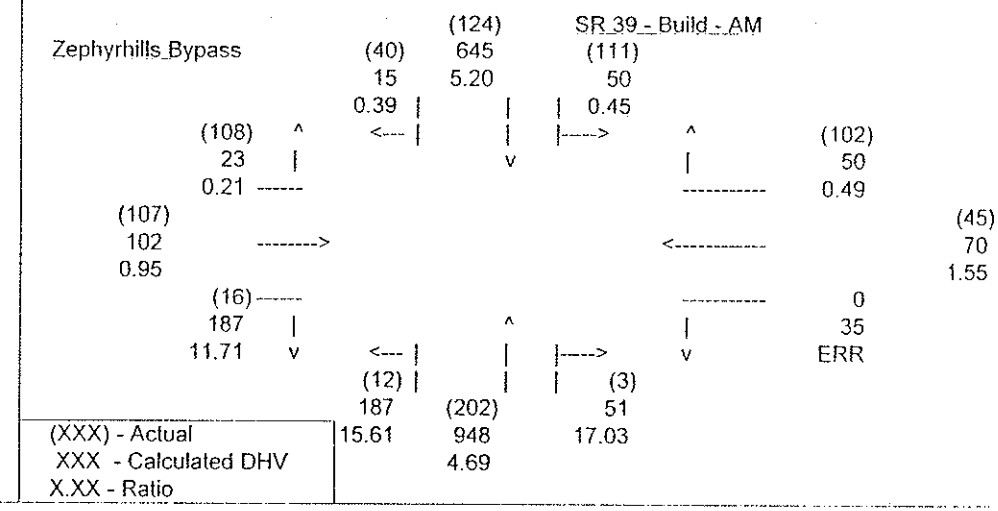
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - Build - PM
Intersection:	Zephyrhills Bypass
From:	Opening Day
To:	2010 (From 2005 Base)
County:	Pasco

North/South Orientation of Mainline?
(Y/N) Y

K Factors:

Mainline	Sidestreet
9.54%	9.54%

D Factors:

a. Mainline

59.5%	Northbound(NB)
40.5%	Southbound(SB)

b. Sidestreet

59.5%	Eastbound(EB)
40.5%	Westbound(WB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: **Enter Year and Growth Rates from Base Year:**

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	1,750	1,250	5,800	6,600	15,400
2010	2,100	1,500	6,933	7,900	18,433
2015	2,450	1,750	8,067	9,200	21,467
2020	2,800	2,000	9,200	10,500	24,500

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	1,750	1,250	5,800	6,600	15,400
2010	2,100	1,500	6,933	7,900	18,433
2015	2,450	1,750	8,067	9,200	21,467
2020	2,800	2,000	9,200	10,500	24,500

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	3,500	2,500	11,600	13,200	30,800
Model					
2020	5,600	4,000	18,400	21,000	49,000

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	2100	1500	6800	7800	
year	EB	WB	SB	NB	
2005	3,500	2,500	11,600	13,200	30,800
2010	4,200	3,000	13,867	15,800	36,867
2015	4,900	3,500	16,133	18,400	42,933
2020	5,600	4,000	18,400	21,000	49,000

Enter "1st Guess" Turning Percentages for AADT Balancing:

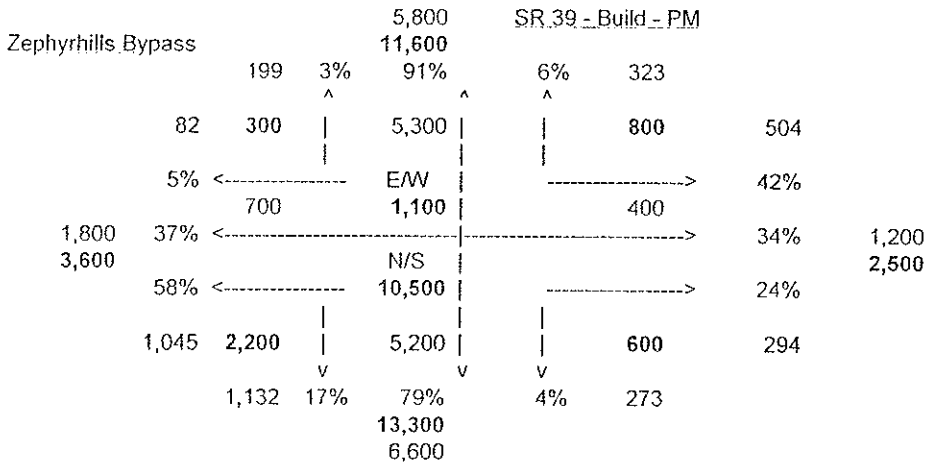
(EB THRU)	W-to-E	0.51
(EB LT)	W-to-N	0.01
(EB RT)	W-to-S	0.48
(WB THRU)	E-to-W	0.36
(WB RT)	E-to-N	0.20
(WB LT)	E-to-S	0.44
(SB RT)	N-to-W	0.02
(SB LT)	N-to-E	0.09
(SB THRU)	N-to-S	0.89
(NB LT)	S-to-W	0.27
(NB RT)	S-to-E	0.18
(NB THRU)	S-to-N	0.55
Desired Closure:		0.010

Actual/Counted Traffic:

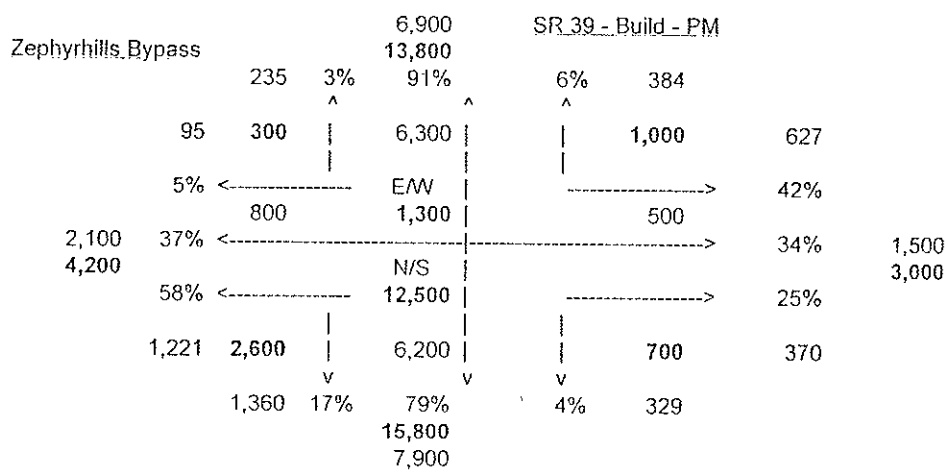
		2005
	W-to-E	88
	W-to-N	2
	W-to-S	82
	E-to-W	57
	E-to-N	31
	E-to-S	68
	N-to-W	4
	N-to-E	19
	N-to-S	183
	S-to-W	97
	S-to-E	65
	S-to-N	193

PROJECT TRAFFIC FOR SR 39 - Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

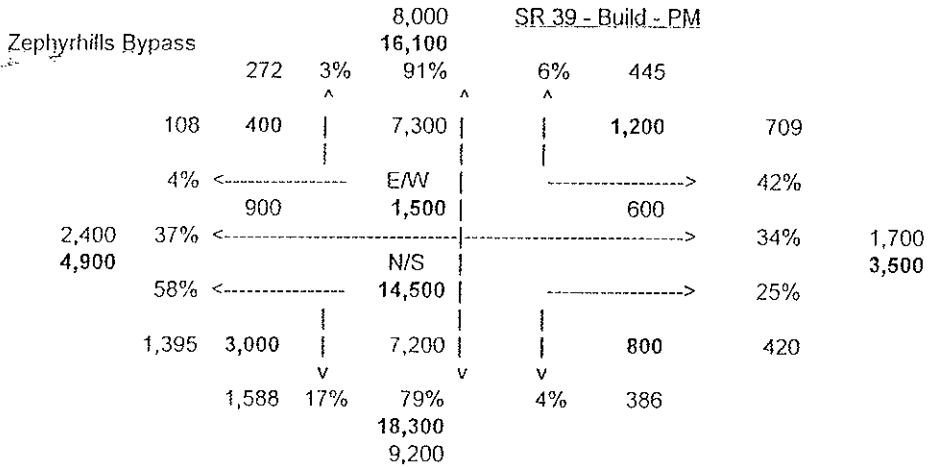
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



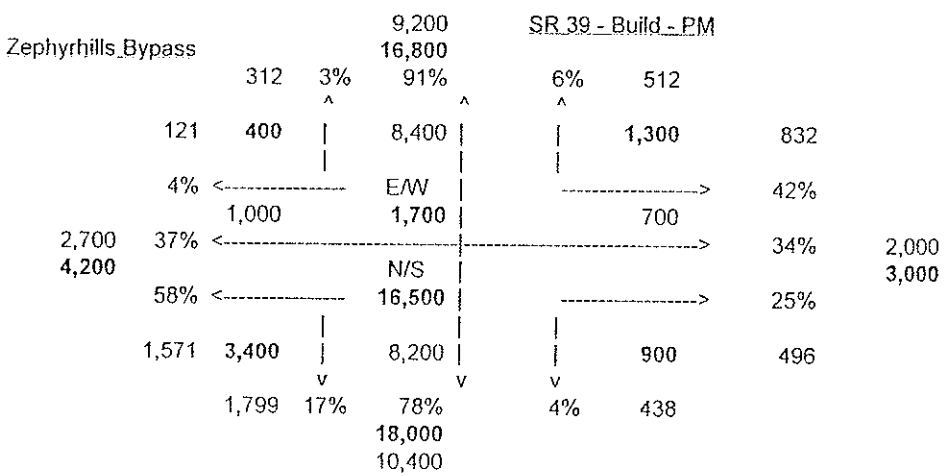
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR 2015

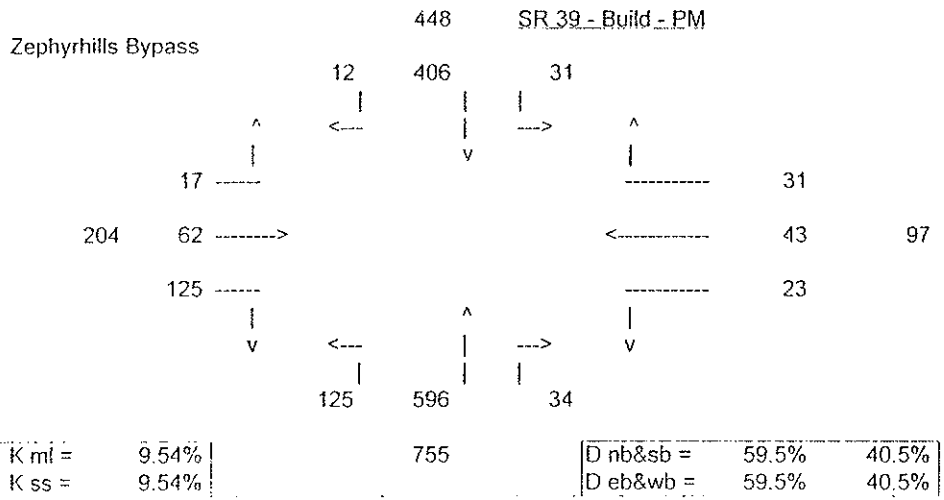


2-WAY AADT TURNING MOVEMENTS IN YEAR 2020



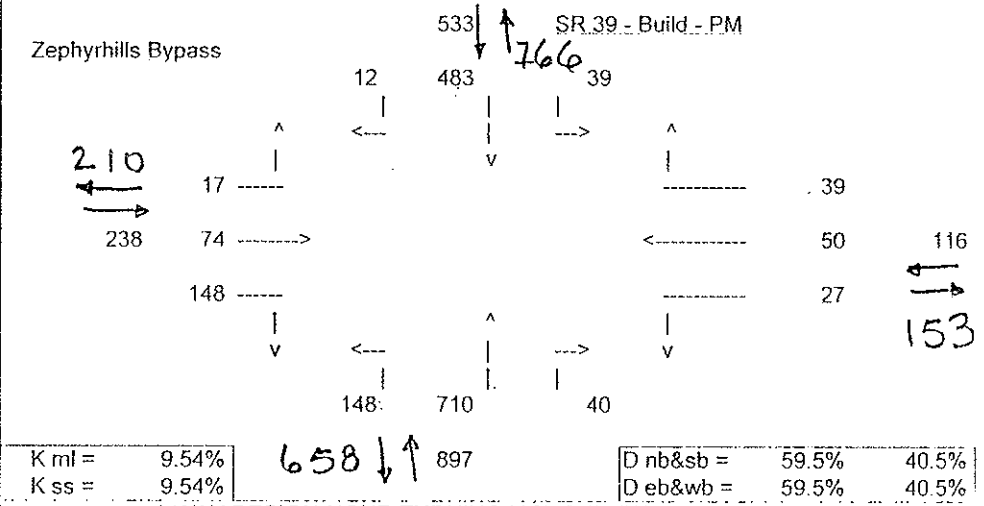
PROJECT TRAFFIC FOR SR 39 - Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



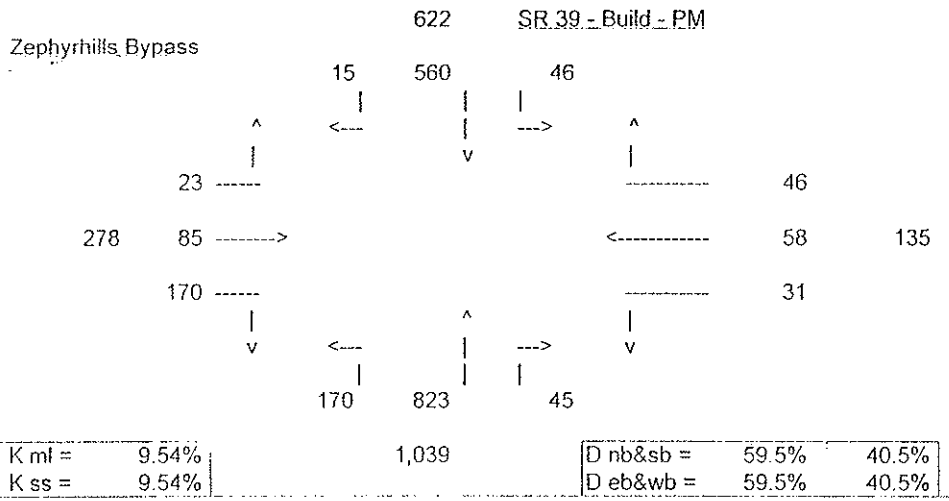
K ml =	9.54%	755	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



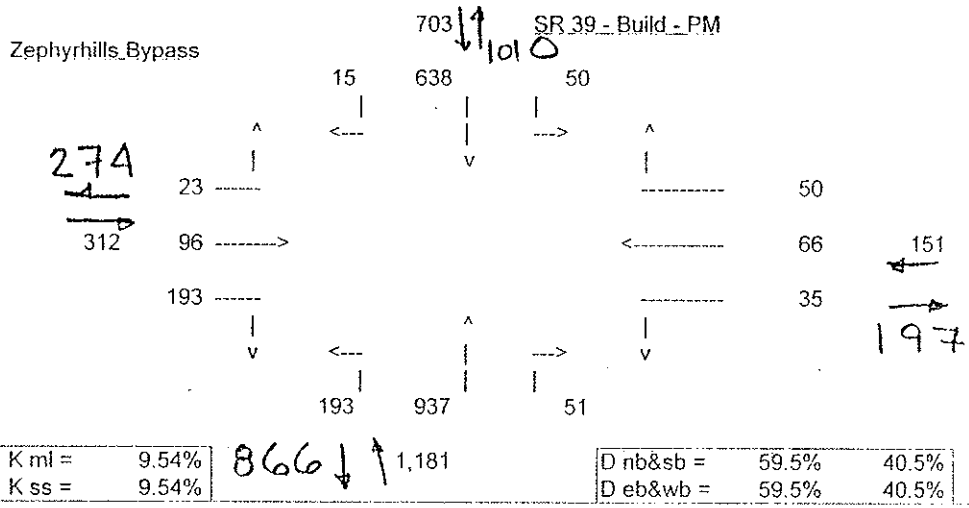
K ml =	9.54%	658 ↓ ↑ 897	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	9.54%	1,039	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

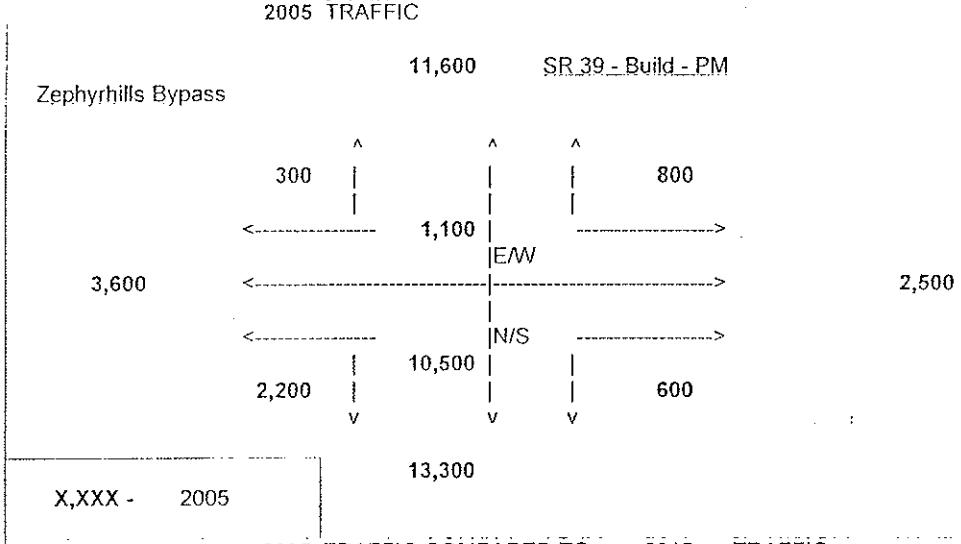
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



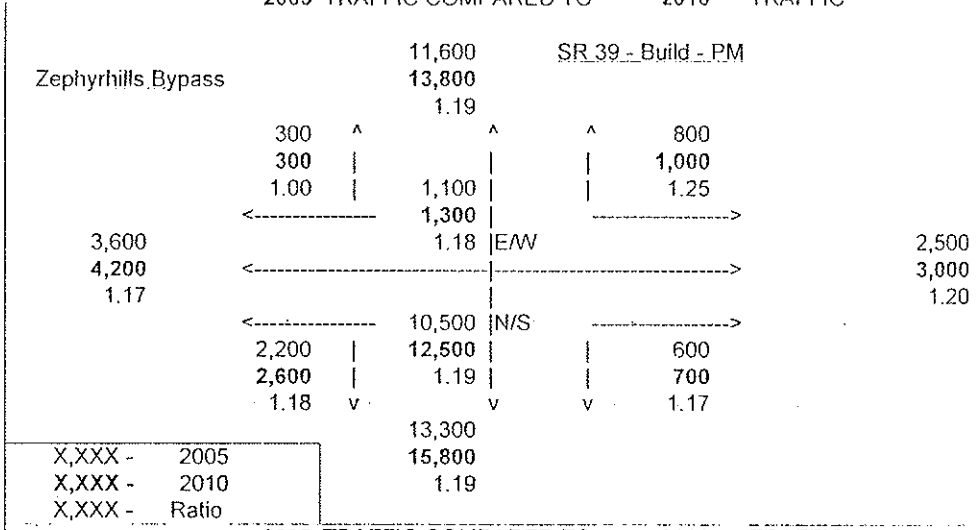
K ml =	9.54%	866 ↓ ↑ 1,181	D nb&sb =	59.5%	40.5%
K ss =	9.54%		D eb&wb =	59.5%	40.5%

PROJECT TRAFFIC FOR SR 39 - Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

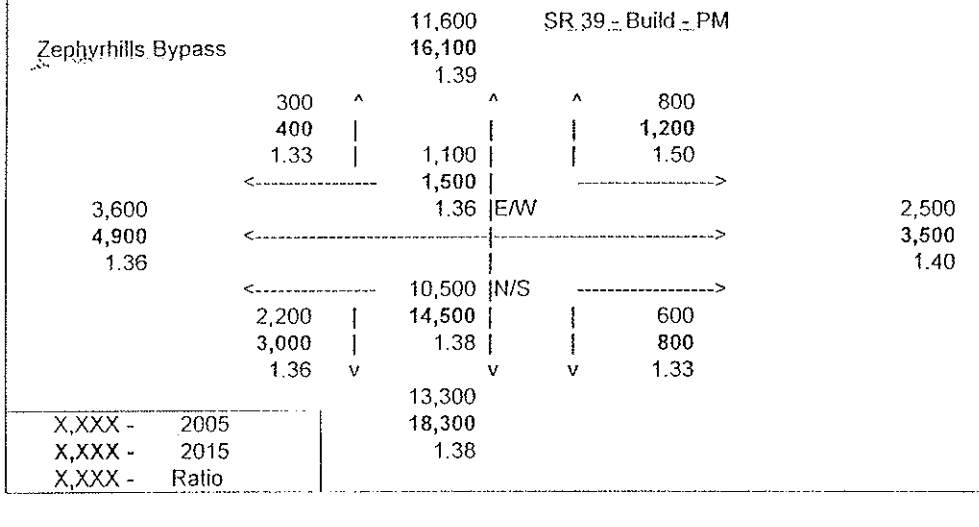
2005 TRAFFIC



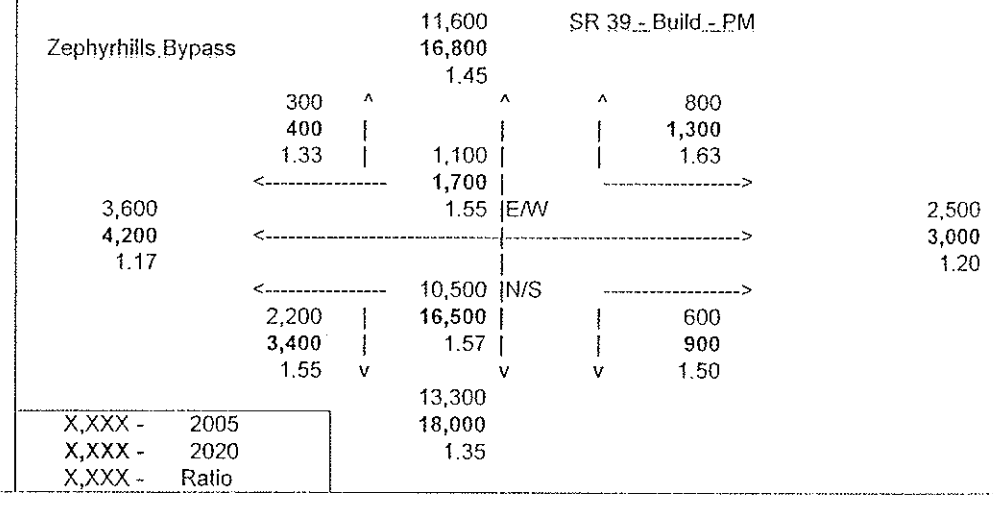
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

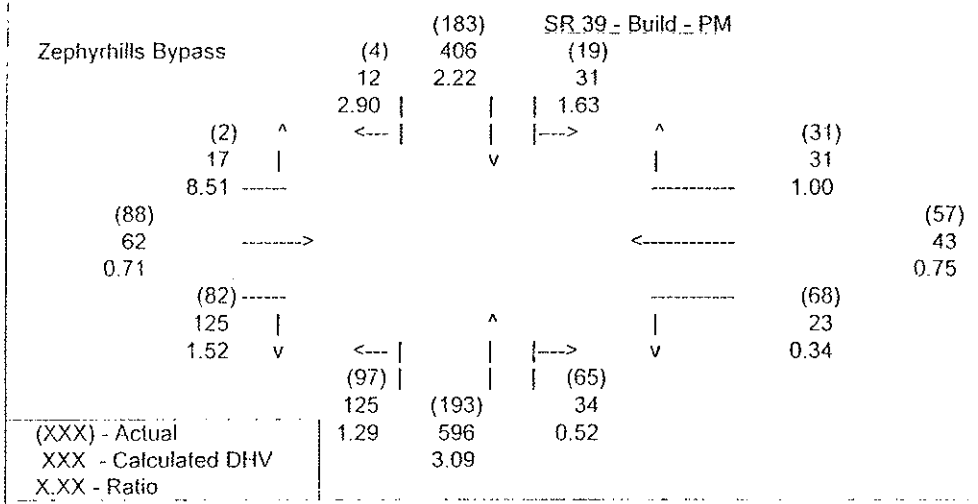


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

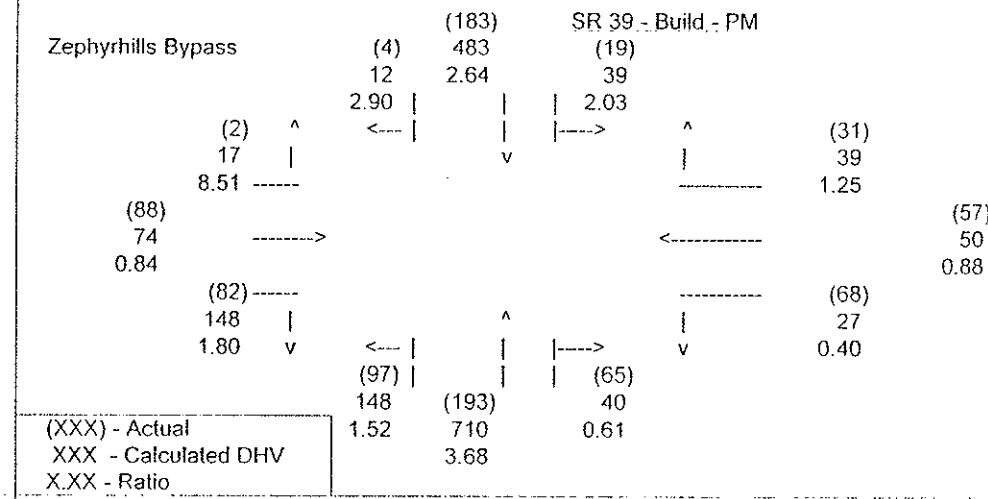


PROJECT TRAFFIC FOR SR 39 - Build - PM @ Zephyrhills Bypass : Opening Day TO 2010 (From 2005 Base)

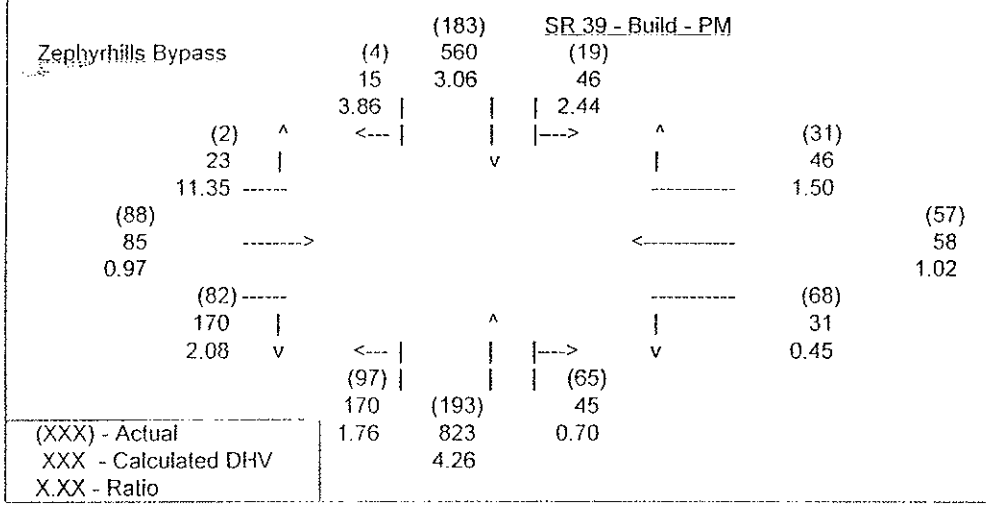
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



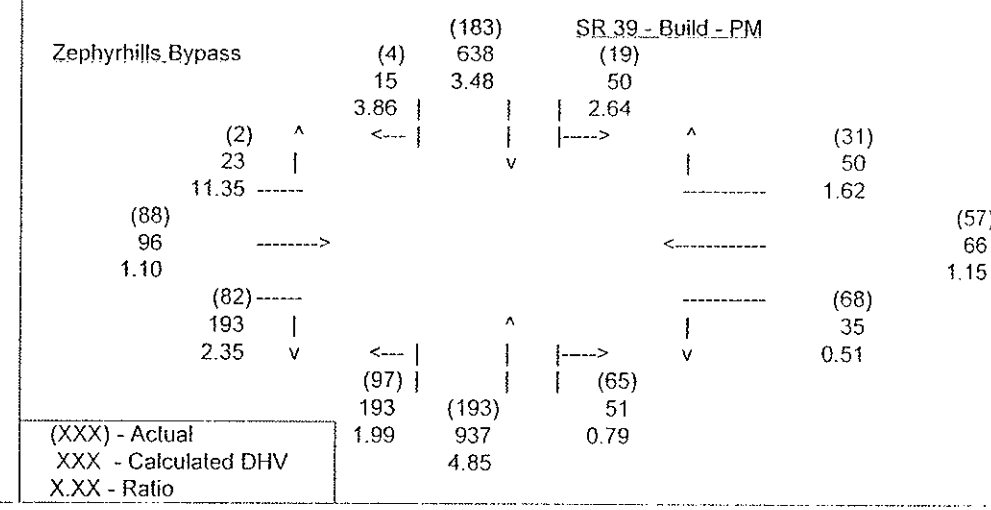
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway: SR 39 - Build - AM
Intersection: US 301
From: Opening Day
To: 2010 (From 2005 Base)
County: Pasco

North/South Orientation of Mainline?
(Y/N) N

K Factors:

Sidestreet	Mainline
9.54%	10.56%

D Factors:

a. Mainline

54.1%	Westbound(WB)
45.9%	Eastbound(EB)

b. Sidestreet

59.5%	Northbound(NB)
40.5%	Southbound(SB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	5,500	11,200	0	5,800	22,500
2010	6,567	13,383	0	6,933	26,883
2015	7,633	15,567	0	8,067	31,267
2020	8,700	17,750	0	9,200	35,650

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	5,500	11,200	0	5,800	22,500
2010	6,567	13,383	0	6,933	26,883
2015	7,633	15,567	0	8,067	31,267
2020	8,700	17,750	0	9,200	35,650

DATA INPUT

Date:

Analyst: PAP

30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

	From West	From East	From North	From South	
Base	(EB)Approach	(WB)Approach	(SB)Approach	(NB)Approach	TOTAL
2005	11,000	22,400		11,600	45,000
Model					
2020	17,400	35,500		18,400	71,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	6400	13100	0	6800	
year	EB	WB	SB	NB	
2005	11,000	22,400	0	11,600	45,000
2010	13,133	26,767	0	13,867	53,767
2015	15,267	31,133	0	16,133	62,533
2020	17,400	35,500	0	18,400	71,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

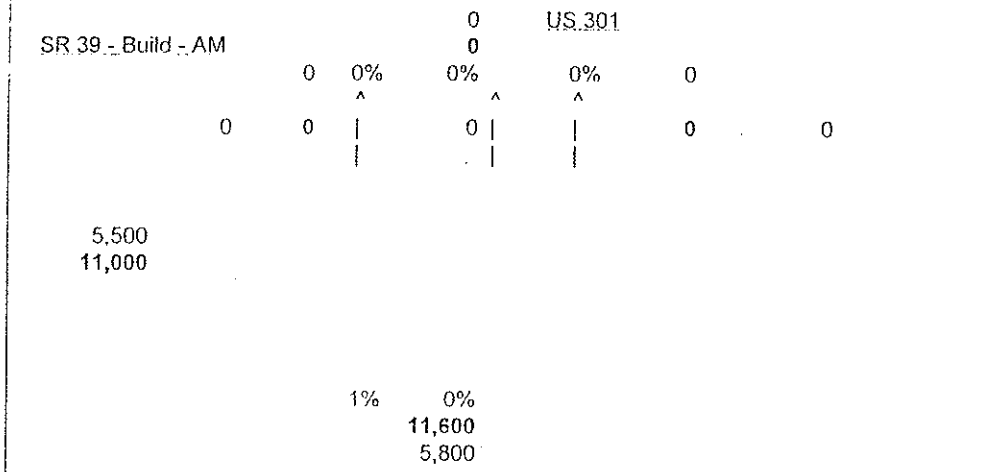
(EB THRU)	W-to-E	0.95
(EB LT)	W-to-N	0.00
(EB RT)	W-to-S	0.05
(WB THRU)	E-to-W	0.70
(WB RT)	E-to-N	0.00
(WB LT)	E-to-S	0.30
(SB RT)	N-to-W	0.00
(SB LT)	N-to-E	0.00
(SB THRU)	N-to-S	0.00
(NB LT)	S-to-W	0.05
(NB RT)	S-to-E	0.95
(NB THRU)	S-to-N	0.00
Desired Closure:		0.010

Actual/Counted Traffic:

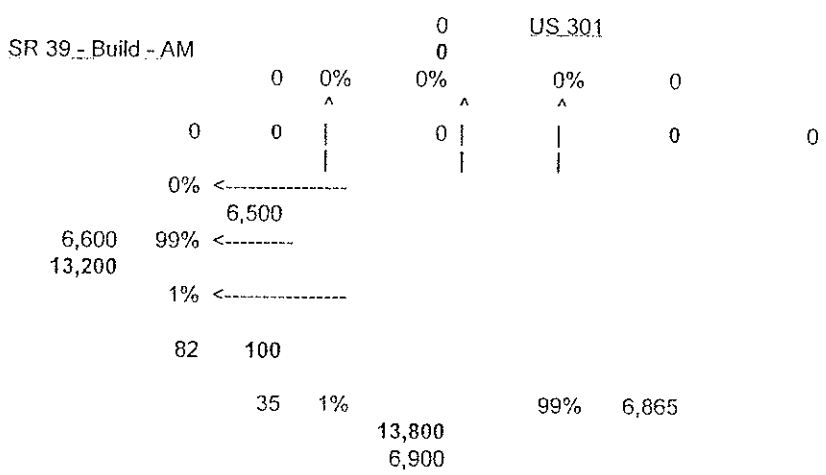
	2005
W-to-E	213
W-to-N	
W-to-S	3
E-to-W	400
E-to-N	0
E-to-S	174
N-to-W	0
N-to-E	0
N-to-S	0
S-to-W	4
S-to-E	172
S-to-N	0

PROJECT TRAFFIC FOR SR 39 - Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

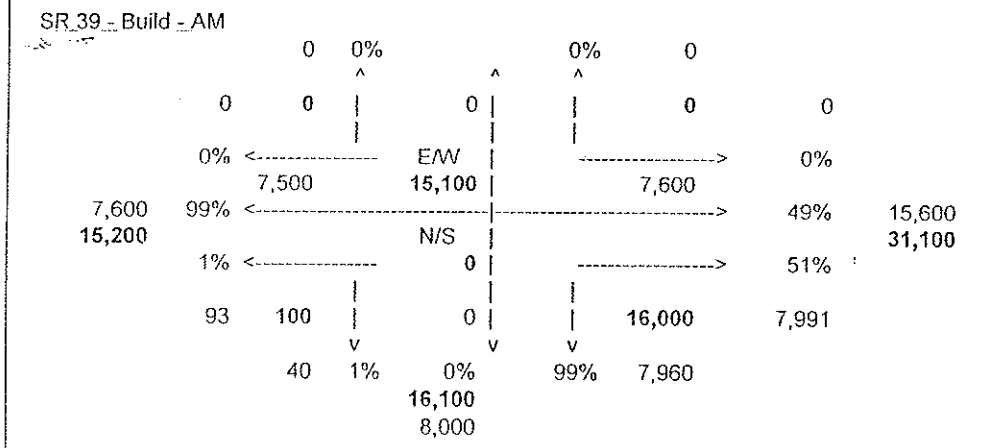
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



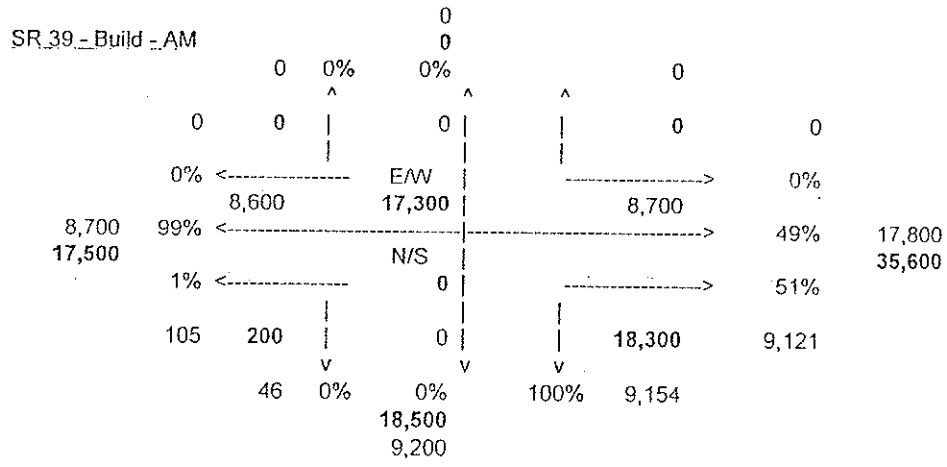
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR

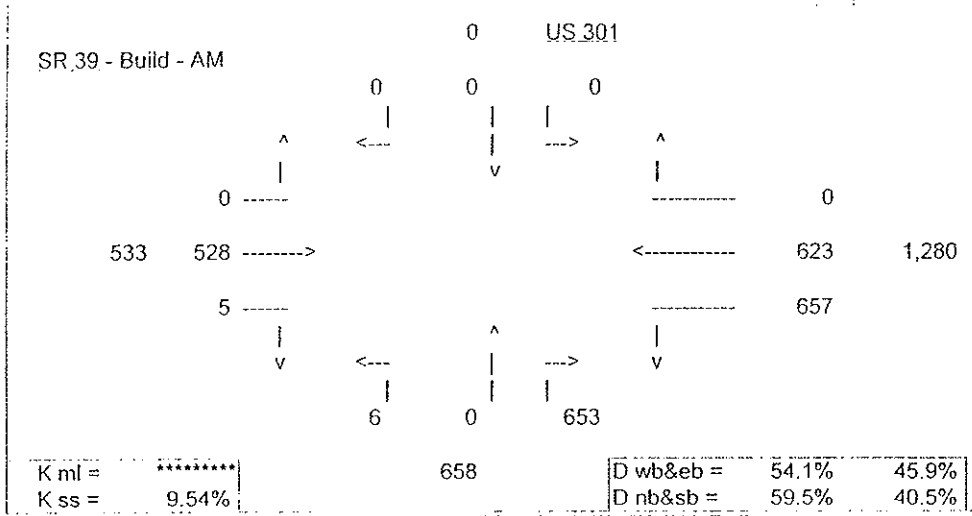


2-WAY AADT TURNING MOVEMENTS IN YEAR



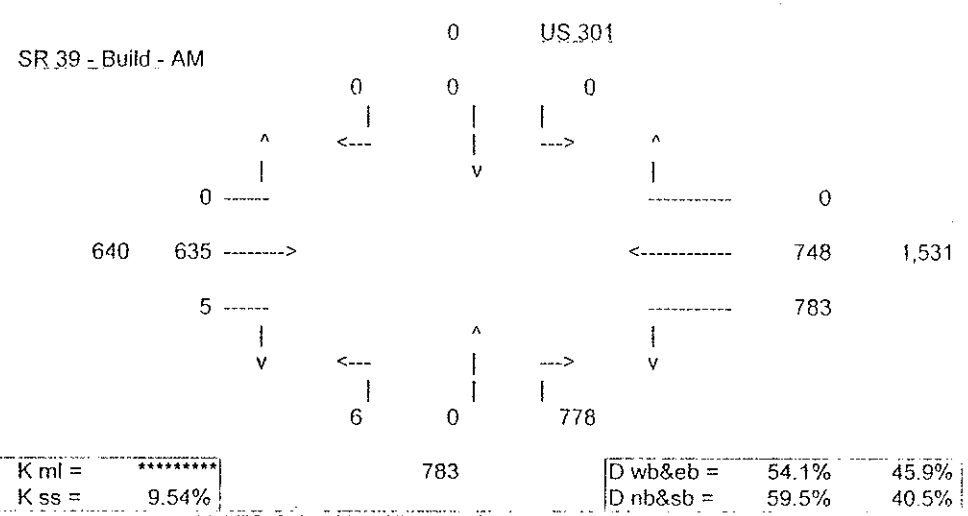
PROJECT TRAFFIC FOR SR 39 - Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



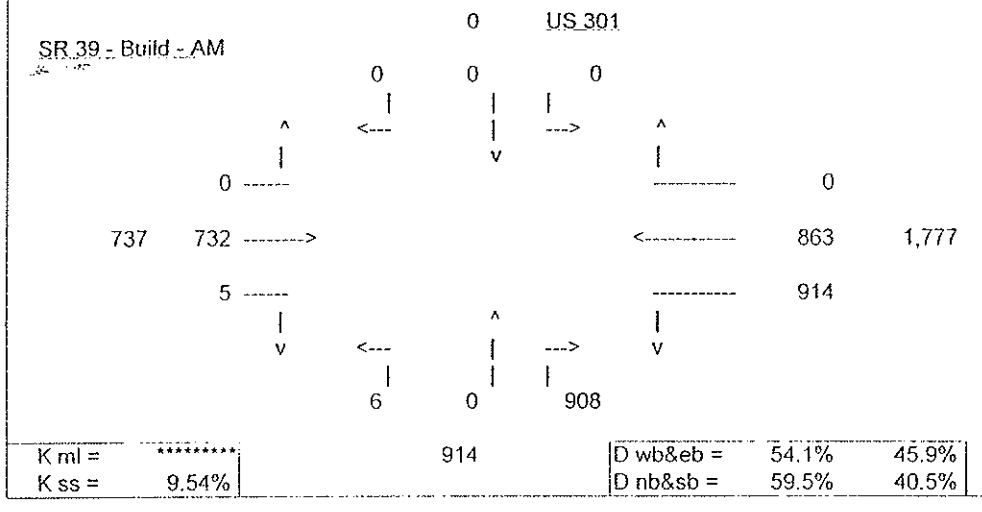
K ml =	*********	658	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



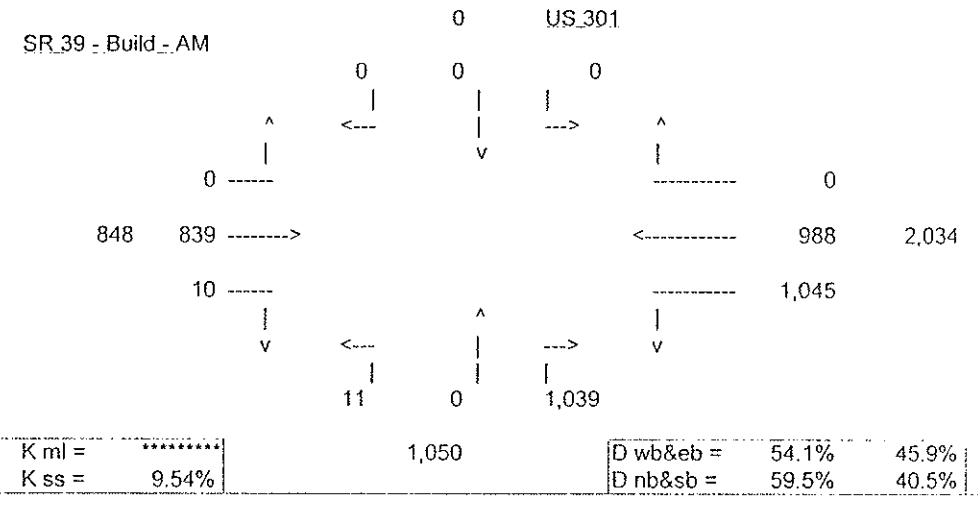
K ml =	*********	783	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	*********	914	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

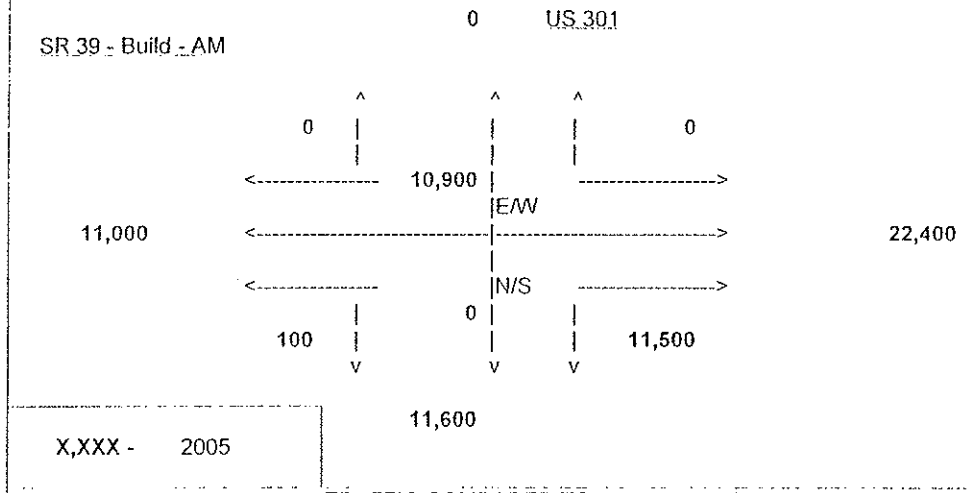
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



K ml =	*********	1,050	D wb&eb =	54.1%	45.9%
K ss =	9.54%		D nb&sb =	59.5%	40.5%

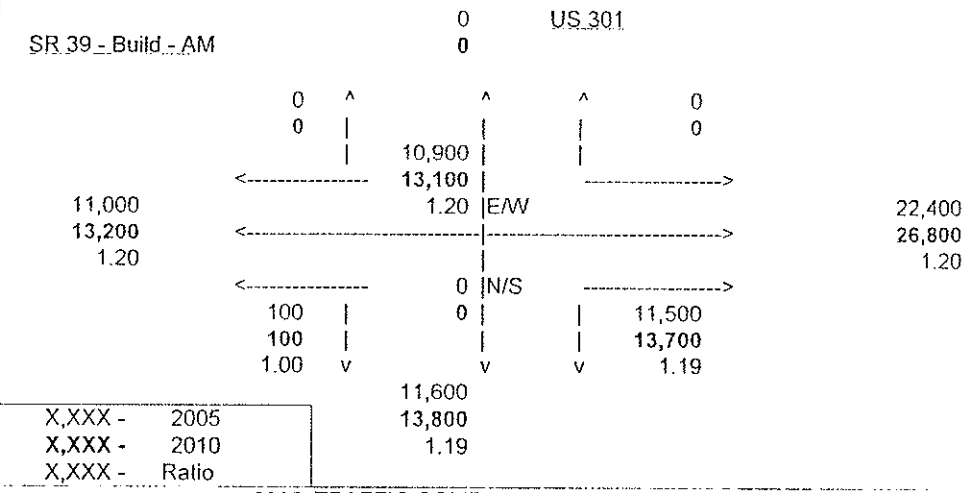
PROJECT TRAFFIC FOR SR 39 - Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

2005 TRAFFIC



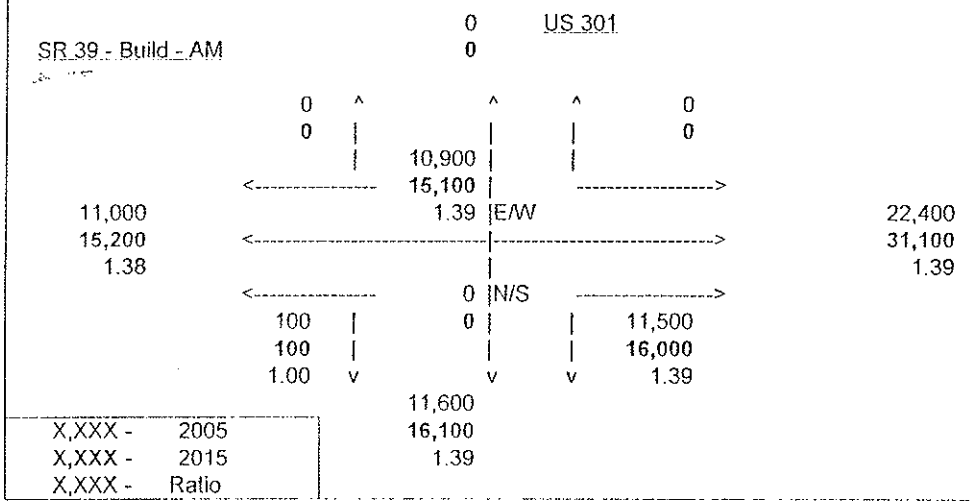
X,XXX - 2005

2005 TRAFFIC COMPARED TO 2010 TRAFFIC



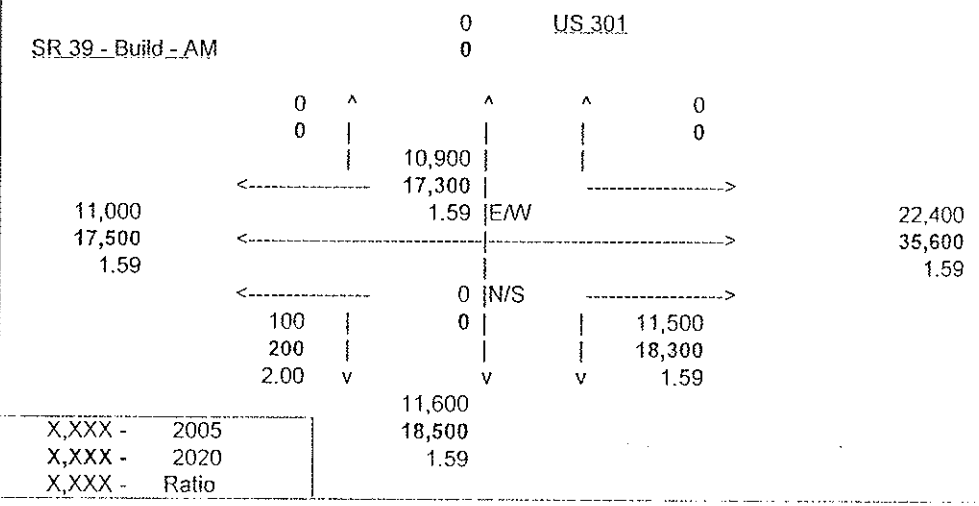
X,XXX - 2005
X,XXX - 2010
X,XXX - Ratio

2005 TRAFFIC COMPARED TO 2015 TRAFFIC



X,XXX - 2005
X,XXX - 2015
X,XXX - Ratio

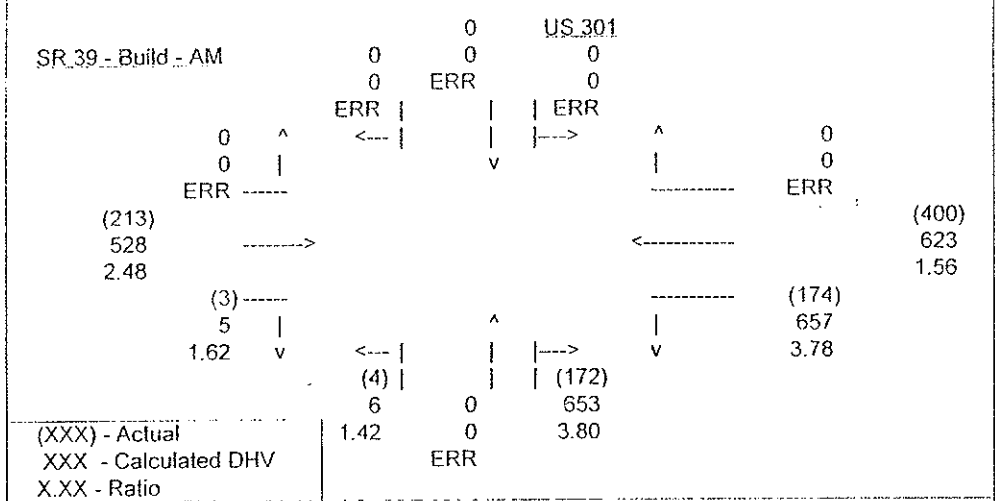
2005 TRAFFIC COMPARED TO 2020 TRAFFIC



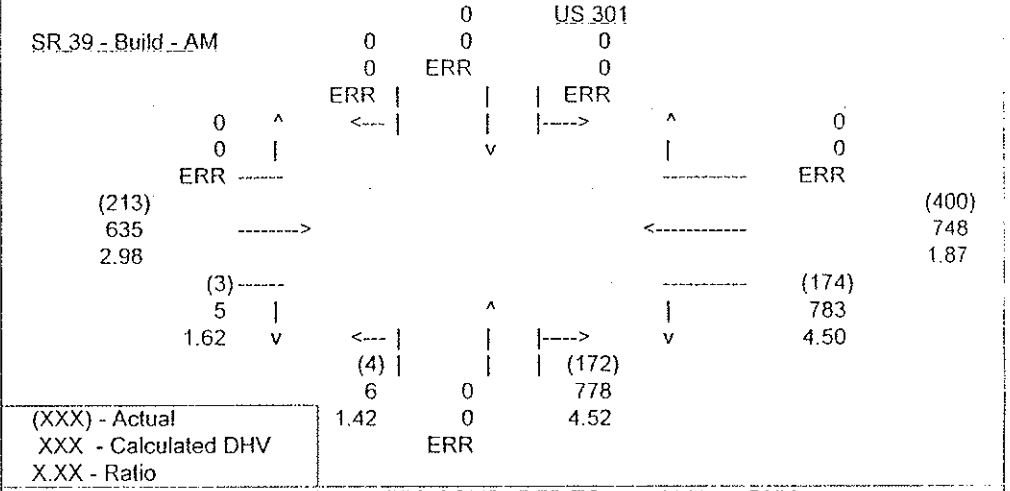
X,XXX - 2005
X,XXX - 2020
X,XXX - Ratio

PROJECT TRAFFIC FOR SR 39 - Build - AM @ US 301 : Opening Day TO 2010 (From 2005 Base)

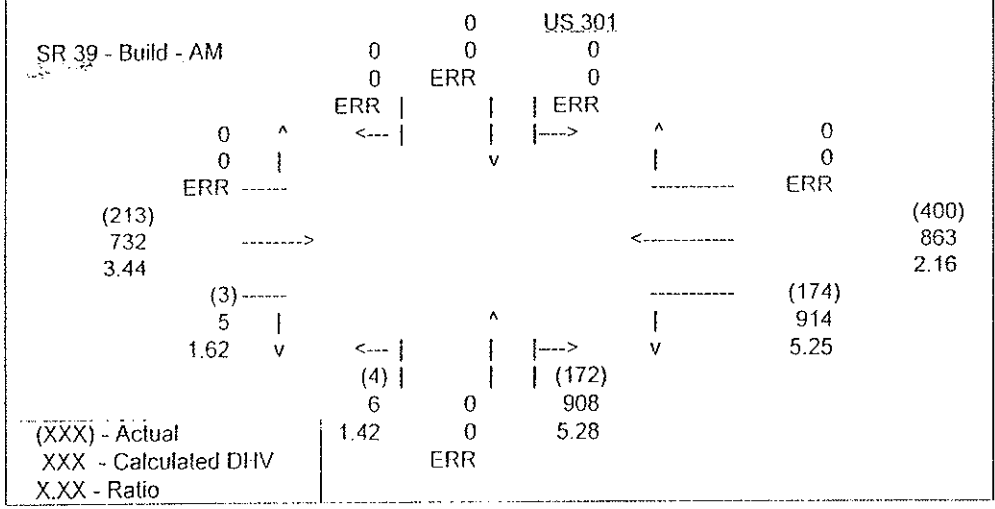
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



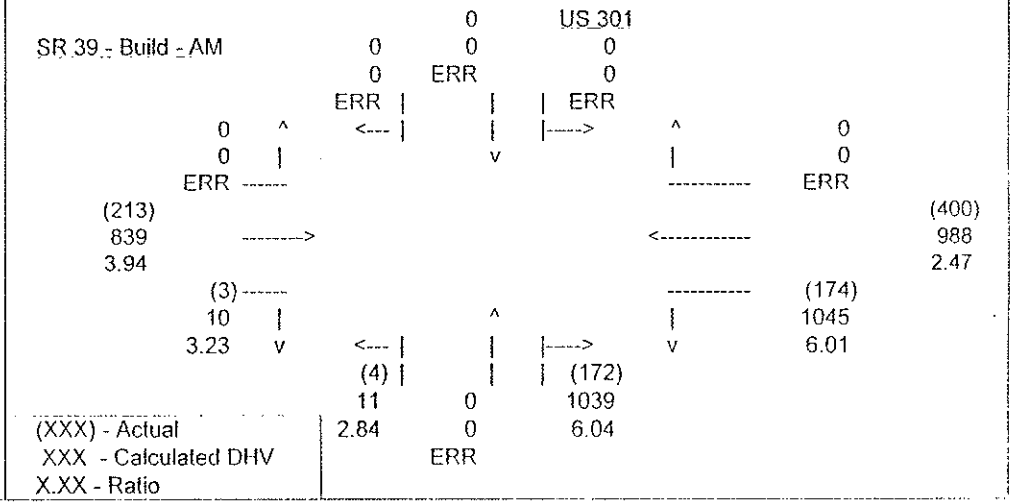
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



DATA INPUT

Date:

Analyst: PAP

30-Nov-98

Highway:	SR 39 - Build - PM
Intersection:	US 301
From:	Opening Day
To:	2010 (From 2005 Base)
County:	PASCO

North/South Orientation of Mainline?
(Y/N) N

K Factors:

Sidestreet	Mainline
9.54%	10.56%

D Factors:

a. Mainline

45.9%	Westbound(WB)
54.1%	Eastbound(EB)

b. Sidestreet

59.1%	Northbound(NB)
40.5%	Southbound(SB)

Do you have FSUTMS Model Year Traffic from which you would like to interpolate/extrapolate for project years? (Y/N) Y

Manual Instr:
If Y, go to A43
If N, go to A24

IF NO: Enter Year and Growth Rates from Base Year:

	Year	Rate
Base		
Opening		
Mid		
Design		

RANGE NAMES FOR YEARS:

Base	2005
Open	2010
Mid	2015
Design	2020

AREA FOR CALCULATIONS: 1/2 OF INPUT AADT

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005	5,500	11,200	0	5,800	22,500
2010	6,567	13,383	0	6,933	26,883
2015	7,633	15,567	0	8,067	31,267
2020	8,700	17,750	0	9,200	35,650

Enter Base Year AADTs for Volume Comparison:
(uses growth rates to calculate other project years)

Year	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2005					0
2010					0
2015					0
2020					0

	To West wbApproach	To East ebApproach	To North nbApproach	To South sbApproach	TOTAL
2005	5,500	11,200	0	5,800	22,500
2010	6,567	13,383	0	6,933	26,883
2015	7,633	15,567	0	8,067	31,267
2020	8,700	17,750	0	9,200	35,650

DATA INPUT

Date:

Analyst: PAP 30-Nov-98

IF YES: Enter Project & Model Years:

Base	2005
Opening	2010
Mid	2015
Design	2020
Model	2020

Enter Base & Model Year AADTs for Interpolation:

Base	From West (EB)Approach	From East (WB)Approach	From North (SB)Approach	From South (NB)Approach	TOTAL
2005	11,000	22,400		11,600	45,000
Model					
2020	17,400	35,500		18,400	71,300

AREA FOR CALCULATION : INTERPOLATION

model - base:	15				
diff of vols:	6400	13100	0	6800	
year	EB	WB	SB	NB	
2005	11,000	22,400	0	11,600	45,000
2010	13,133	26,767	0	13,867	53,767
2015	15,267	31,133	0	16,133	62,533
2020	17,400	35,500	0	18,400	71,300

Enter "1st Guess" Turning Percentages for AADT Balancing:

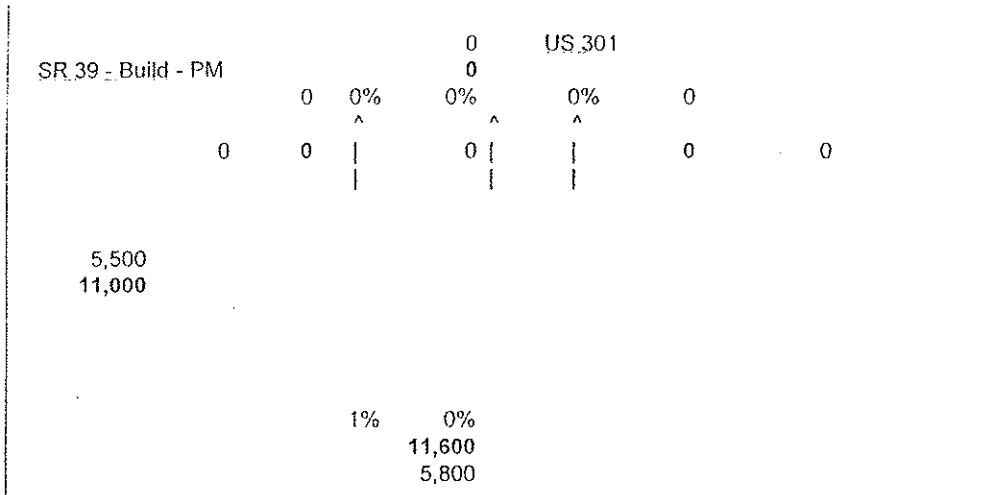
(EB THRU)	W-to-E	0.96
(EB LT)	W-to-N	0.00
(EB RT)	W-to-S	0.04
(WB THRU)	E-to-W	0.53
(WB RT)	E-to-N	0.00
(WB LT)	E-to-S	0.47
(SB RT)	N-to-W	0.00
(SB LT)	N-to-E	0.00
(SB THRU)	N-to-S	0.00
(NB LT)	S-to-W	0.02
(NB RT)	S-to-E	0.98
(NB THRU)	S-to-N	0.00
Desired Closure:		0.010

Actual/Counted Traffic:

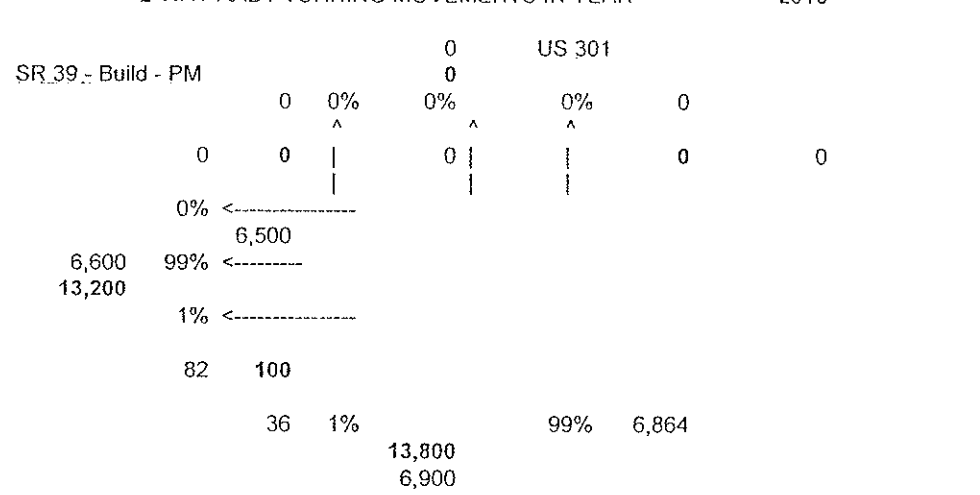
	2005
W-to-E	463
W-to-N	0
W-to-S	7
E-to-W	272
E-to-N	0
E-to-S	240
N-to-W	0
N-to-E	0
N-to-S	0
S-to-W	6
S-to-E	268
S-to-N	0

PROJECT TRAFFIC FOR SR 39 - Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

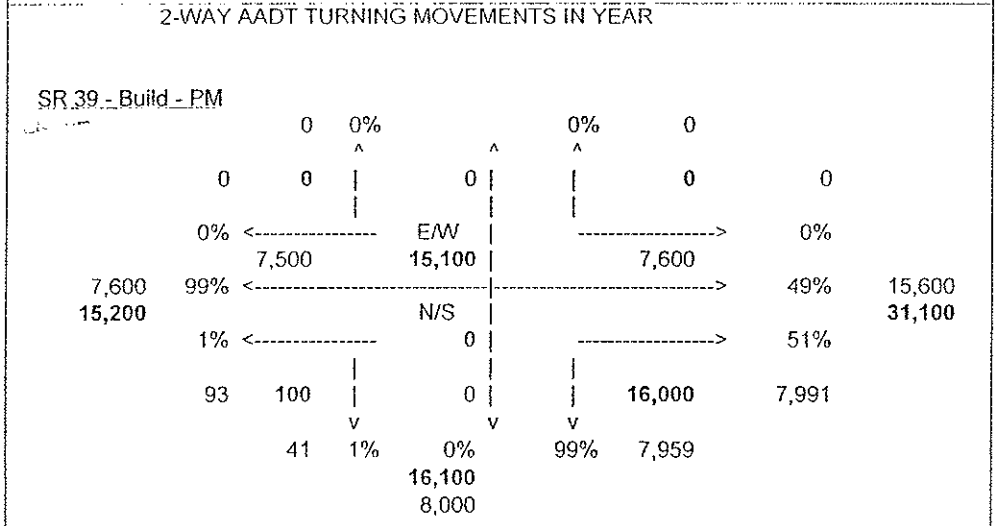
2-WAY AADT TURNING MOVEMENTS IN YEAR 2005



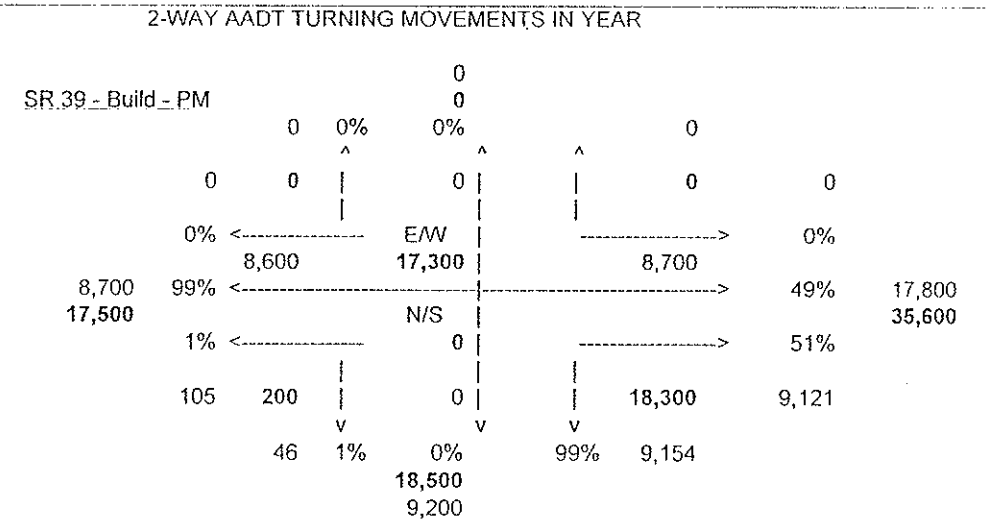
2-WAY AADT TURNING MOVEMENTS IN YEAR 2010



2-WAY AADT TURNING MOVEMENTS IN YEAR

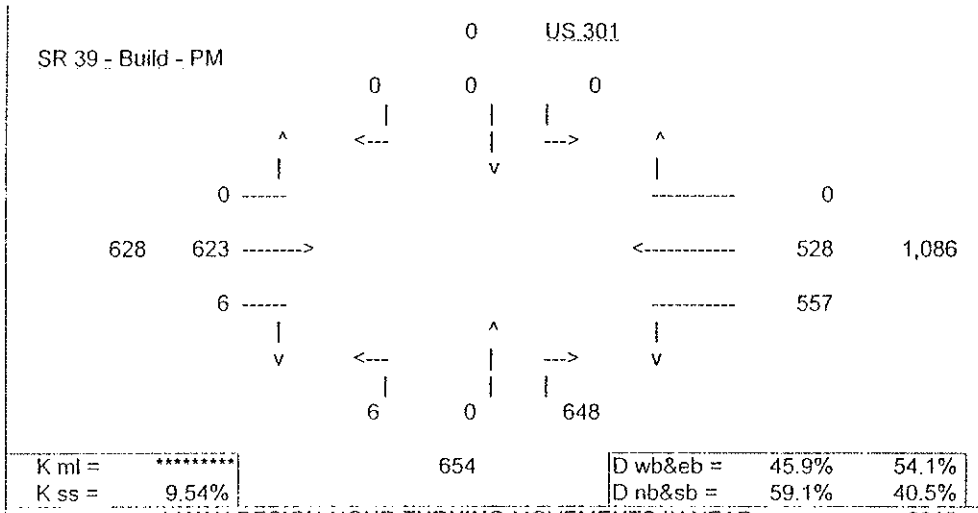


2-WAY AADT TURNING MOVEMENTS IN YEAR



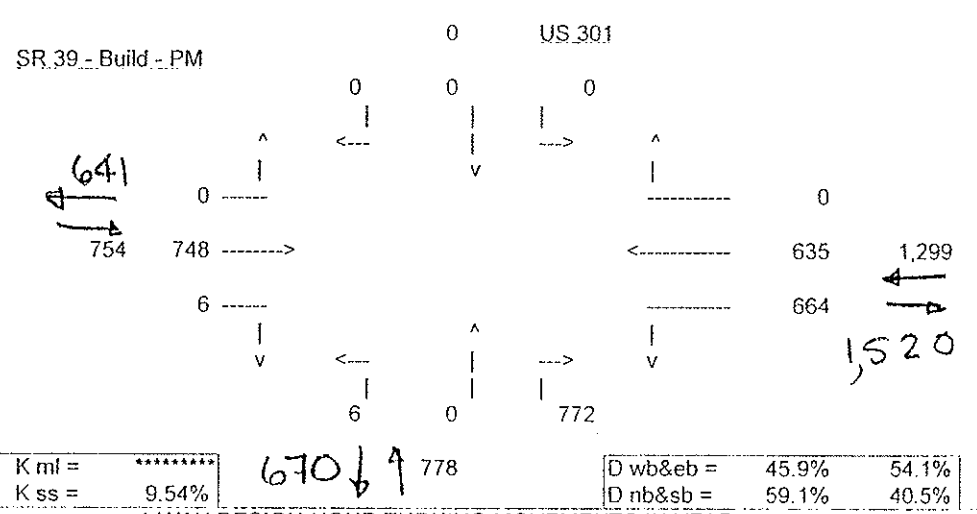
PROJECT TRAFFIC FOR SR 39 - Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2005



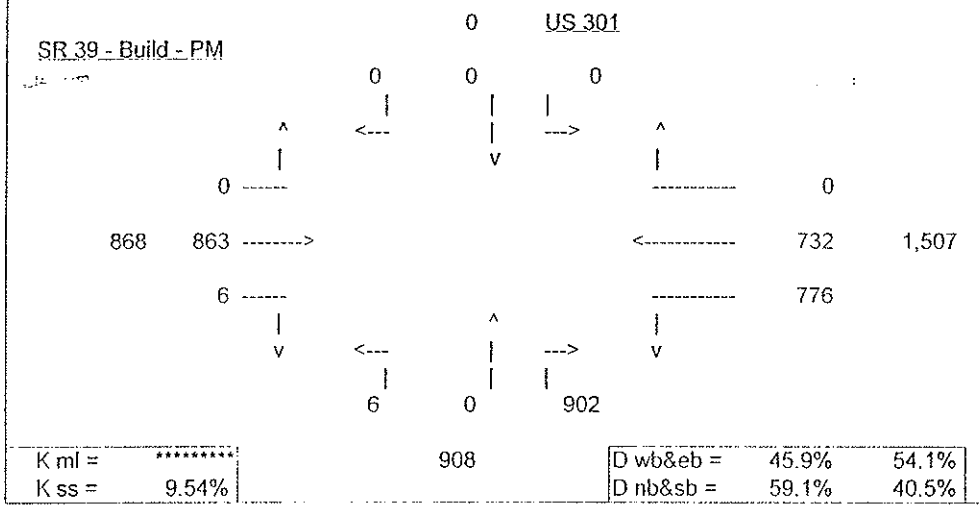
K ml =	**********	654	
K ss =	9.54%		
D wb&eb =	45.9%	54.1%	
D nb&sb =	59.1%	40.5%	

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2010



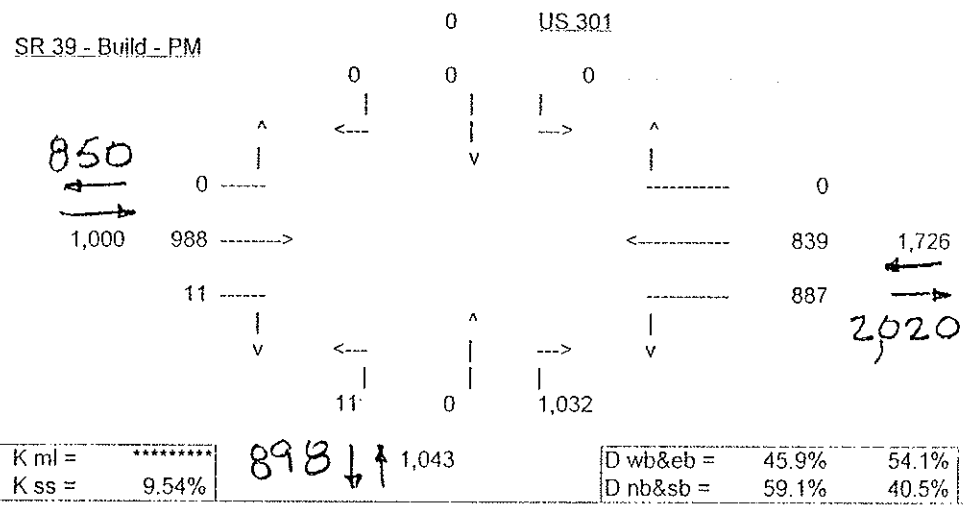
K ml =	**********	670 ↓ ↑ 778	
K ss =	9.54%		
D wb&eb =	45.9%	54.1%	
D nb&sb =	59.1%	40.5%	

1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2015



K ml =	**********	908	
K ss =	9.54%		
D wb&eb =	45.9%	54.1%	
D nb&sb =	59.1%	40.5%	

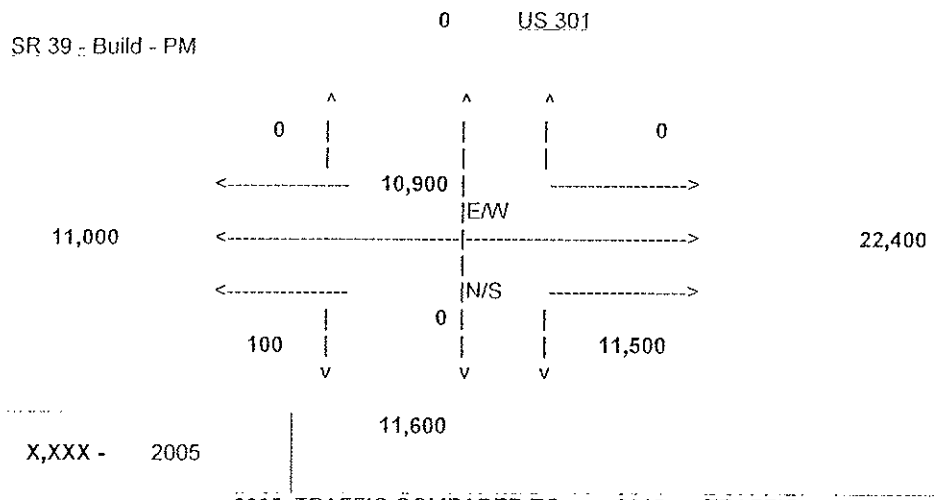
1-WAY DESIGN-HOUR TURNING MOVEMENTS IN YEAR 2020



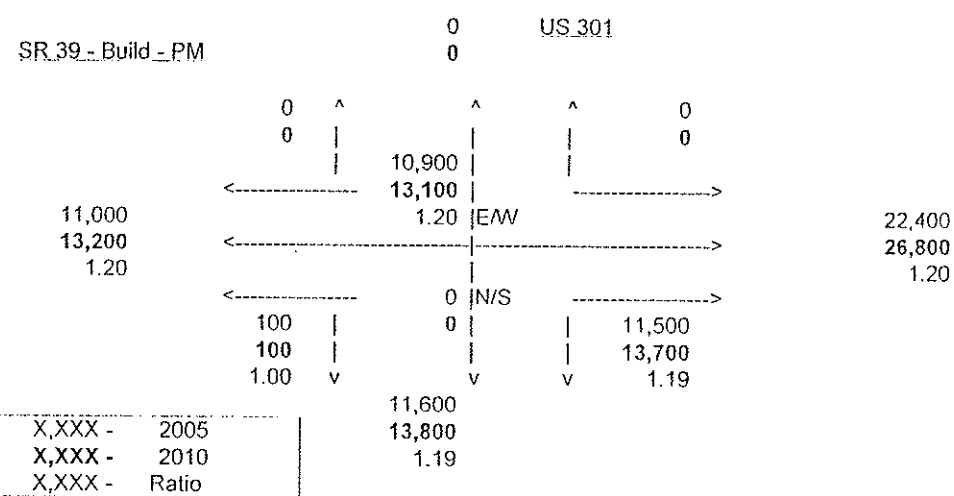
K ml =	**********	898 ↓ ↑ 1,043	
K ss =	9.54%		
D wb&eb =	45.9%	54.1%	
D nb&sb =	59.1%	40.5%	

PROJECT TRAFFIC FOR SR 39 - Build - PM @ US 301 : Opening Day TO 2010 (From 2005 Base)

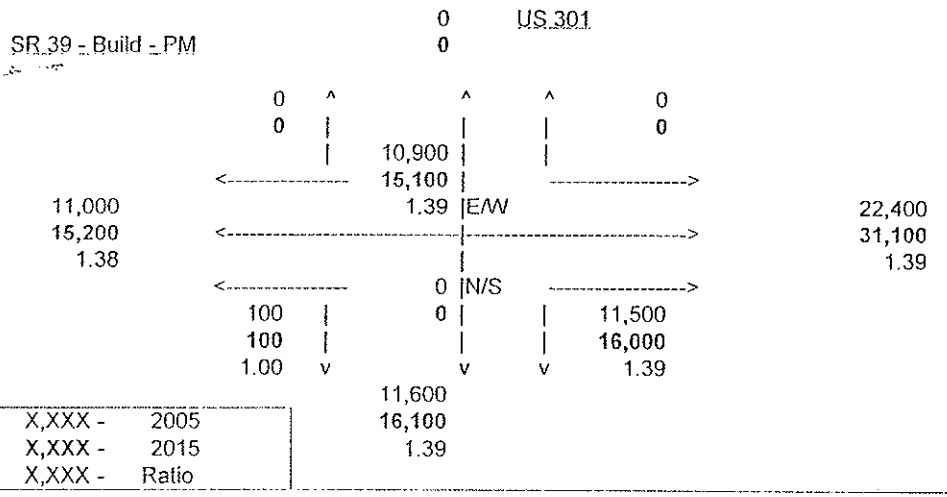
2005 TRAFFIC



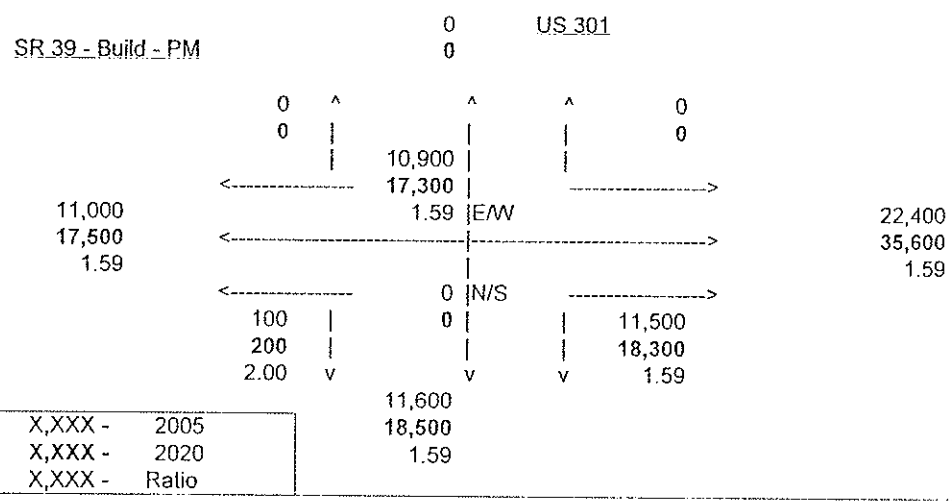
2005 TRAFFIC COMPARED TO 2010 TRAFFIC



2005 TRAFFIC COMPARED TO 2015 TRAFFIC

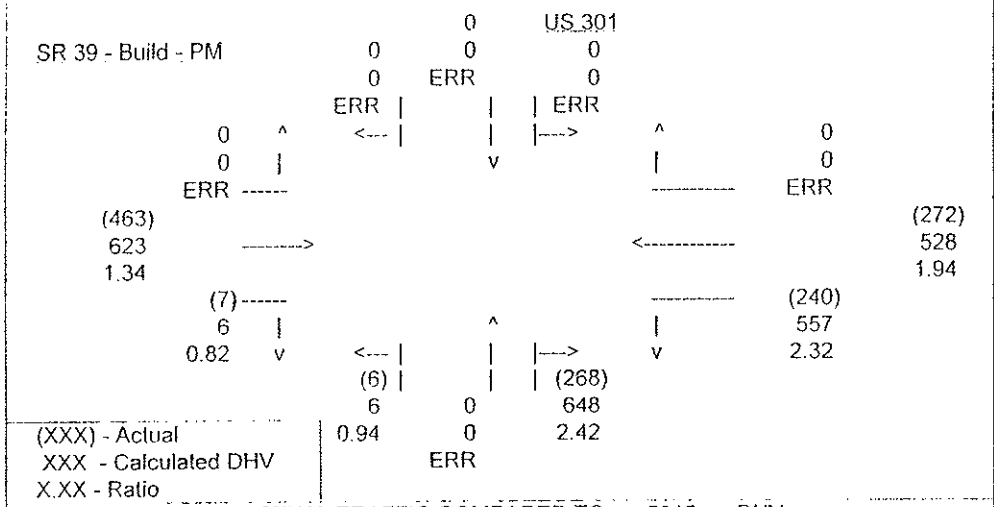


2005 TRAFFIC COMPARED TO 2020 TRAFFIC

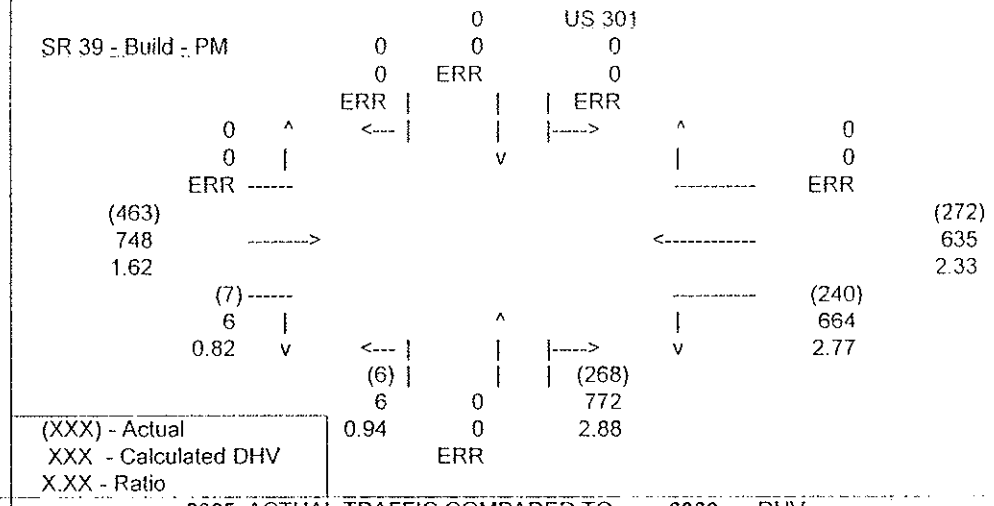


PROJECT TRAFFIC FOR SR 39 - Build - PM @ US 301 Opening Day TO 2010 (From 2005 Base)

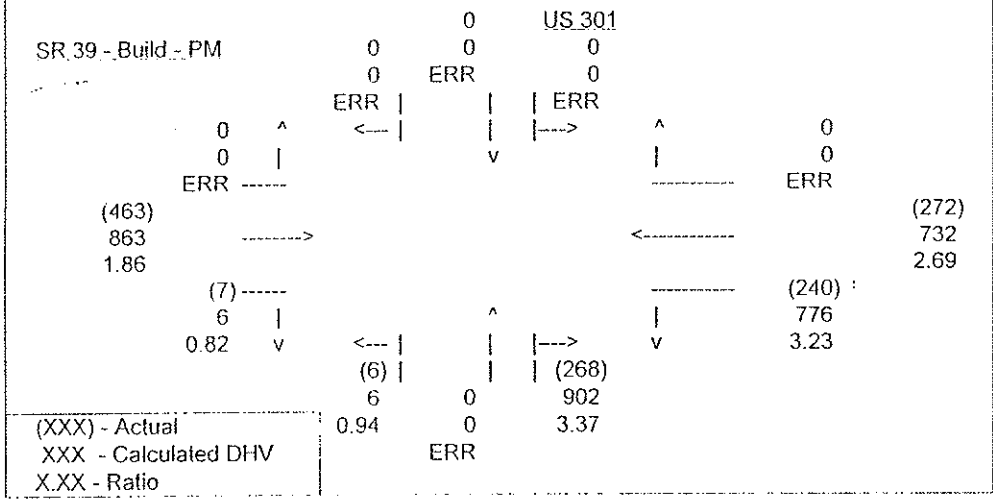
2005 ACTUAL TRAFFIC COMPARED TO 2005 DHV



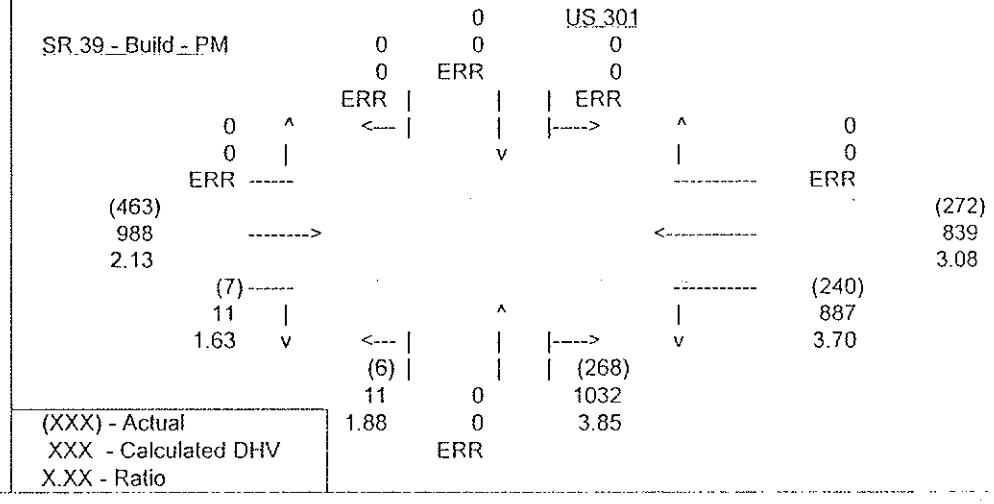
2005 ACTUAL TRAFFIC COMPARED TO 2010 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2015 DHV



2005 ACTUAL TRAFFIC COMPARED TO 2020 DHV



APPENDIX F

HCS WORKSHEETS/2010 AND 2020 LOS ANALYSIS

NO-BUILD ALTERNATIVE

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-1.HC9
Area Type: Other 1-7-99 AM
Comment: 2010 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	25	85	130	195	85	90	130	485	130	125	710	15
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	27.0A				Green	10.0A 38.0A		
Yellow/AR	5.0				Yellow/AR	5.0 5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	295	916	0.088	0.322	13.7	B	15.5	C
	TR	540	1677	0.418	0.322	15.8	C		
WB	L	239	741	0.859	0.322	35.9	D	26.1	D
	TR	548	1702	0.336	0.322	15.1	C		
NB	L	316	1752	0.434	0.611	10.9	B	12.7	B
	T	789	1776	0.647	0.444	13.9	B		
	R	697	1568	0.197	0.444	9.8	B		
SB	L	316	1752	0.418	0.611	7.7	B	30.3	D
	TR	787	1770	0.970	0.444	34.2	D		

Intersection Delay = 22.0 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.873

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-2.HC9
Area Type: Other 1-7-99 PM
Comment: 2010 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	15	70	130	195	70	115	195	710	195	75	485	10
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left	*				SB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	25.0A				Green	10.0A	38.0A		
Yellow/AR	6.0				Yellow/AR	5.0	6.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	270	868	0.059	0.311	14.1	B	16.0	C
	TR	518	1665	0.407	0.311	16.1	C		
WB	L	248	797	0.827	0.311	32.3	D	24.3	C
	TR	520	1673	0.375	0.311	15.8	C		
NB	L	316	1752	0.649	0.622	14.0	B	21.3	C
	T	809	1776	0.923	0.456	26.5	D		
	R	714	1568	0.287	0.456	10.0	B		
SB	L	316	1752	0.250	0.622	9.2	B	12.9	B
	TR	806	1770	0.647	0.456	13.5	B		

Intersection Delay = 19.2 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.883

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR39-9.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	25	75	95	80	165	85	95	400	55	85	585	55
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	26.0A				Green 54.0A			
Yellow/AR	5.0				Yellow/AR 5.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	407	1308	0.258	0.311	15.1	C	14.9	B
	R	488	1568	0.205	0.311	14.8	B		
WB	LTR	446	1433	0.778	0.311	24.1	C	24.1	C
NB	L	116	187	0.860	0.622	38.4	D	11.1	B
	T	1105	1776	0.381	0.622	5.5	B		
	R	976	1568	0.059	0.622	4.3	A		
SB	L	353	568	0.252	0.622	5.0	A	7.2	B
	TR	1091	1753	0.618	0.622	7.5	B		

Intersection Delay = 12.3 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.832

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR39-10.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	70	160	135	75	120	115	135	555	115	85	380	45
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
WB Left	*				SB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	26.0A				Green	52.0A			
Yellow/AR	6.0				Yellow/AR	6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	282	875	0.858	0.322	33.8	D	26.7	D
	R	505	1568	0.281	0.322	14.8	B		
WB	LTR	369	1144	0.884	0.322	33.8	D	33.8	D
NB	L	308	503	0.462	0.611	6.9	B	6.7	B
	T	1085	1776	0.538	0.611	7.0	B		
	R	958	1568	0.126	0.611	4.8	A		
SB	L	186	305	0.478	0.611	7.7	B	6.3	B
	TR	1068	1748	0.419	0.611	6.1	B		

Intersection Delay = 14.5 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.658

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-17.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1 < 0		1	1	1
Volumes	130	130	110	15	55	125	110	640	25	140	435	45
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	15.0A				Green	15.0A 45.0P		
Yellow/AR	5.0				Yellow/AR	5.0 5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	275	1455	0.498	0.189	22.3	C	21.5	C
	T	348	1845	0.393	0.189	21.1	C		
	R	296	1568	0.392	0.189	21.1	C		
WB	L	183	971	0.087	0.189	19.5	C	20.9	C
	T	348	1845	0.166	0.189	19.8	C		
	R	296	1568	0.446	0.189	21.6	C		
NB	L	331	1752	0.350	0.189	20.8	C	14.6	B
	TR	922	1766	0.759	0.522	13.6	B		
SB	L	331	1752	0.444	0.189	21.5	C	11.9	B
	T	927	1776	0.494	0.522	9.3	B		
	R	819	1568	0.057	0.522	6.8	B		

Intersection Delay = 15.7 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.638

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-18.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1	< 0	1	1	1
Volumes	15	55	110	80	70	40	110	635	80	35	435	10
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	35.0A				Green 43.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	604	1429	0.027	0.422	9.8	B	10.3	B
	T	779	1845	0.074	0.422	10.0	B		
	R	662	1568	0.175	0.422	10.5	B		
WB	L	629	1489	0.134	0.422	10.3	B	10.2	B
	T	779	1845	0.095	0.422	10.1	B		
	R	662	1568	0.063	0.422	10.0	B		
NB	L	217	425	0.534	0.511	11.6	B	16.6	C
	TR	892	1746	0.843	0.511	17.4	C		
SB	L	82	160	0.451	0.511	11.7	B	9.8	B
	T	908	1776	0.505	0.511	9.8	B		
	R	801	1568	0.014	0.511	7.0	B		

Intersection Delay = 13.3 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.541

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst.....
Date of Analysis..... 1/11/99
Other Information.....2010 No Build AM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		615	0	515	925				710			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	647	
Potential Capacity: (pcph)	651	
Movement Capacity: (pcph)	651	
Prob. of Queue-Free State:	0.00	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	647	
Potential Capacity: (pcph)	843	
Movement Capacity: (pcph)	843	
Prob. of Queue-Free State:	0.31	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	799	651		442.7	85.1	F	442.7
WB	L	580	843		13.5	6.6	C	4.8

Intersection Delay = 116.2 sec/veh

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512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst.....
Date of Analysis..... 1/11/99
Other Information.....2010 No Build PM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		725	0	505	715				705			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	763	
Potential Capacity: (pcph)	569	
Movement Capacity: (pcph)	569	
Prob. of Queue-Free State:	0.00	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	763	
Potential Capacity: (pcph)	742	
Movement Capacity: (pcph)	742	
Prob. of Queue-Free State:	0.23	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	794	569		739.8	119.5	F	739.8
WB	L	569	742		20.2	9.1	D	8.4

Intersection Delay = 200.7 sec/veh

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 04-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-4.HC9
Area Type: Other 1-7-99 AM
Comment: 2020 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1 < 0		1	1 < 0		1	1	1	1	1 < 0	
Volumes	10	60	160	215	90	130	160	620	145	130	910	15
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3		3	3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	10.0A	38.0A	
Yellow/AR	6.0				Yellow/AR	5.0	6.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	219	705	0.050	0.311	14.0	B	16.4	C
	TR	511	1643	0.452	0.311	16.5	C		
WB	L	221	709	1.025	0.311	74.2	F	44.9	E
	TR	523	1681	0.444	0.311	16.4	C		
NB	L	316	1752	0.532	0.622	12.3	B	15.6	C
	T	809	1776	0.807	0.456	17.9	C		
	R	714	1568	0.214	0.456	9.6	B		
SB	L	316	1752	0.434	0.622	9.1	B	*	*
	TR	807	1771	1.207	0.456	*	*		

Intersection Delay = * (sec/veh) Intersection LOS = *
(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-07-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-3.HC9
Area Type: Other 1-7-99 PM
Comment: 2020 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	15	60	160	215	90	130	235	915	215	90	620	15
PHF or PK15	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Grade		0			0			0			0	
% Heavy Veh	3	3	3	3	3	3	3	7	3	3	7	3
Parking	N	N		N	N		N	N		N	N	
Bus Stops			0			0			0			0
Con. Peds			0			0			0			0
Ped Button	(Y/N)	N		(Y/N)	N		(Y/N)	N		(Y/N)	N	
Arr Type	3	3		3	3		3	3	3	3	3	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Prop. Share												
Prop. Prot.												

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	10.0A	38.0A	
Yellow/AR	6.0				Yellow/AR	5.0	6.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Adj Sat Flow Cap	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	219	705	0.073	0.311	14.1	B	16.3	C
	TR	511	1643	0.452	0.311	16.5	C		
WB	L	221	709	1.025	0.311	74.2	F	44.9	E
	TR	523	1681	0.444	0.311	16.4	C		
NB	L	316	1752	0.782	0.622	22.4	C	*	*
	T	809	1776	1.190	0.456	*	*		
	R	714	1568	0.316	0.456	10.2	B		
SB	L	316	1752	0.301	0.622	10.6	B	17.9	C
	TR	806	1769	0.830	0.456	19.0	C		

Intersection Delay = * (sec/veh) Intersection LOS = *

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR39-11.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	30	85	120	110	190	110	120	530	75	110	780	45
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	*				NB	Left	*			
	Thru	*					Thru		*		
	Right	*					Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru	*					Thru		*		
	Right	*					Right		*		
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		22.0A				Green		15.0A	38.0P		
Yellow/AR		5.0				Yellow/AR		5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	200	748	0.606	0.267	22.3	C	19.7	C
	R	418	1568	0.301	0.267	17.1	C		
WB	LTR	348	1303	1.243	0.267	*	*	*	*
NB	L	331	1752	0.381	0.189	21.0	C	15.5	C
	T	789	1776	0.707	0.444	15.1	C		
	R	697	1568	0.113	0.444	9.5	B		
SB	L	331	1752	0.350	0.189	20.8	C	*	*
	TR	783	1761	1.109	0.444	*	*		

Intersection Delay = * (sec/veh) Intersection LOS = *

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR 39-12.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	1	1	1	1	< 0
Volumes	85	180	170	95	135	130	170	750	140	70	510	60
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	24.0A				Green 54.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	177	591	1.569	0.300	*	*	*	*
	R	470	1568	0.381	0.300	16.3	C		
WB	LTR	269	897	1.408	0.300	*	*	*	*
NB	L	190	300	0.944	0.633	45.3	E	13.8	B
	T	1125	1776	0.702	0.633	8.4	B		
	R	993	1568	0.148	0.633	4.3	A		
SB	L	82	129	0.903	0.633	56.1	E	11.8	B
	TR	1107	1748	0.542	0.633	6.4	B		

Intersection Delay = * (sec/veh) Intersection LOS = *

(g/C)*(V/c) is greater than one. Calculation of D1 is infeasible.

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-19.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 No Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1 <	0	1	1	1
Volumes	150	150	135	20	55	140	135	850	30	155	580	50
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	15.0A				Green	15.0A 45.0P		
Yellow/AR	5.0				Yellow/AR	5.0 5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	275	1455	0.575	0.189	23.6	C	22.4	C
	T	348	1845	0.453	0.189	21.6	C		
	R	296	1568	0.479	0.189	22.0	C		
WB	L	162	857	0.130	0.189	19.6	C	21.3	C
	T	348	1845	0.166	0.189	19.8	C		
	R	296	1568	0.496	0.189	22.2	C		
NB	L	331	1752	0.429	0.189	21.4	C	35.6	D
	TR	923	1767	1.005	0.522	37.8	D		
SB	L	331	1752	0.492	0.189	22.0	C	13.2	B
	T	927	1776	0.659	0.522	11.3	B		
	R	819	1568	0.065	0.522	6.9	B		

Intersection Delay = 24.8 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.807

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-20.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 No Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	1 <	0	1	1	1
Volumes	30	75	140	90	75	50	140	855	30	65	585	20
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	23.0A				Green	55.0A		
Yellow/AR	6.0				Yellow/AR	6.0		

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	408	1412	0.078	0.289	15.0	B	15.9	C
	T	533	1845	0.148	0.289	15.4	C		
	R	453	1568	0.325	0.289	16.4	C		
WB	L	408	1412	0.233	0.289	15.8	C	15.5	C
	T	533	1845	0.148	0.289	15.4	C		
	R	453	1568	0.117	0.289	15.2	C		
NB	L	176	274	0.834	0.644	26.6	D	13.3	B
	TR	1138	1767	0.819	0.644	11.2	B		
SB	L	82	127	0.829	0.644	39.6	D	9.2	B
	T	1144	1776	0.538	0.644	6.0	B		
	R	1010	1568	0.021	0.644	3.7	A		

Intersection Delay = 12.5 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.676

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst.....
Date of Analysis..... 1/11/99
Other Information.....2020 No Build AM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		820	0	755	1165				950			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	863	
Potential Capacity: (pcph)	506	
Movement Capacity: (pcph)	506	
Prob. of Queue-Free State:	0.00	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	863	
Potential Capacity: (pcph)	665	
Movement Capacity: (pcph)	665	
Prob. of Queue-Free State:	0.00	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	1070	506	*	284.6	F		*
WB	L	851	665	532.5	102.5	F		209.4

Intersection Delay = 630.8 sec/veh

* The calculated value was greater than 999.9.

Center For Microcomputers In Transportation
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512 Weil Hall
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Streets: (N-S) SR 39 (E-W) US 301
Major Street Direction.... EW
Length of Time Analyzed... 60 (min)
Analyst.....
Date of Analysis..... 1/11/99
Other Information.....2020 No Build PM Peak Hour
Two-way Stop-controlled Intersection

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	< 0	1	1	0	0	0	1	0	0	0
Stop/Yield			N			N						
Volumes		725	0	605	615				705			
PHF		.95	.95	.95	.95				.95			
Grade		0			0			0				
MC's (%)				0					0			
SU/RV's (%)				0					0			
CV's (%)				7					7			
PCE's				1.07					1.07			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph)	763	
Potential Capacity: (pcph)	569	
Movement Capacity: (pcph)	569	
Prob. of Queue-Free State:	0.00	

Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph)	763	
Potential Capacity: (pcph)	742	
Movement Capacity: (pcph)	742	
Prob. of Queue-Free State:	0.08	

Intersection Performance Summary

Movement		Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	794	569		739.8	119.5	F	739.8
WB	L	682	742		47.5	19.8	F	23.6

Intersection Delay = 207.7 sec/veh

APPENDIX G

- HCS WORKSHEETS/2010 AND 2020 LOS ANALYSIS
  BUILD ALTERNATIVE

- CAPACITY TABLE FOR ROADWAY SEGMENT ANALYSIS

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-11-2000

Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Rd (N-S) Alexander Ext

Analyst: DK File Name: AL2020AM.HC9

Area Type: Other 1-14-99

Comment: Year 2020 Build AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Volumes	35	90	215	225	85	50	185	240	210	75	425	50
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
WB Left		*			SB Left		*		
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	20.0A	15.0A			Green	20.0A	15.0A		
Yellow/AR	5.0	5.0			Yellow/AR	5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	433	1770	0.086	0.244	17.0	C	19.7	C
	T	455	1863	0.209	0.244	17.5	C		
	R	387	1583	0.584	0.244	21.0	C		
WB	L	334	1770	0.709	0.189	26.7	D	24.2	C
	T	352	1863	0.253	0.189	20.2	C		
	R	299	1583	0.177	0.189	19.8	C		
NB	L	433	1770	0.451	0.244	19.2	C	19.2	C
	T	911	3725	0.292	0.244	17.9	C		
	R	387	1583	0.571	0.244	20.8	C		
SB	L	334	1770	0.236	0.189	20.1	C	22.8	C
	T	704	3725	0.666	0.189	23.6	C		
	R	299	1583	0.177	0.189	19.8	C		

Intersection Delay = 21.3 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.626

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 01-11-2000

Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Rd (N-S) Alexander Ext
Analyst: DK File Name: AL2020PM.HC9
Area Type: Other 1-14-99
Comment: Year 2020 Build PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Volumes	10	115	215	205	105	50	175	270	185	85	455	10
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
WB Left		*			SB Left		*		
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	20.0A	15.0A			Green	20.0A	15.0A		
Yellow/AR	5.0	5.0			Yellow/AR	5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	433	1770	0.025	0.244	16.7	C	19.8	C
	T	455	1863	0.266	0.244	17.8	C		
	R	387	1583	0.584	0.244	21.0	C		
WB	L	334	1770	0.646	0.189	24.8	C	22.8	C
	T	352	1863	0.315	0.189	20.5	C		
	R	299	1583	0.177	0.189	19.8	C		
NB	L	433	1770	0.425	0.244	18.9	C	18.8	C
	T	911	3725	0.327	0.244	18.1	C		
	R	387	1583	0.504	0.244	19.8	C		
SB	L	334	1770	0.266	0.189	20.2	C	23.8	C
	T	704	3725	0.715	0.189	24.5	C		
	R	299	1583	0.037	0.189	19.3	C		

Intersection Delay = 21.2 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.603

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Alexander St. (N-S) SR 39
Analyst: JW File Name: SR39-33.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	> 1	< 0	0	2	< 0	1	2	0
Volumes				10	1	320		295	10	235	620	
Lane W (ft)					12.0			12.0		12.0	12.0	
RTOR Vols						0			0			0
Lost Time				3.00	3.00	3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*	*	
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		25.0A			Green	25.0A	25.0P	
Yellow/AR		5.0			Yellow/AR	5.0	5.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
WB	LTR	429	1431	0.813	0.300	26.6	D	26.6	D
NB	TR	1060	3533	0.319	0.300	15.8	C	15.8	C
SB	L	531	1770	0.465	0.300	17.0	C	8.1	B
	T	2249	3551	0.305	0.633	4.9	A		

Intersection Delay = 13.7 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.532

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Alexander St. (N-S) SR 39
Analyst: JW File Name: SR39-34.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	> 1	< 0	0	2	< 0	1	2	0
Volumes				10	1	335		560	10	240	410	
Lane W (ft)					12.0			12.0		12.0	12.0	
RTOR Vols						0			0			0
Lost Time				3.00	3.00	3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*	*	
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	25.0A	25.0P	
Yellow/AR	5.0				Yellow/AR	5.0	5.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group:	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
WB	LTR	429	1431	0.850	0.300	29.5	D	29.5	D
NB	TR	1062	3542	0.593	0.300	18.0	C	18.0	C
SB	L	531	1770	0.477	0.300	17.2	C	9.0	B
	T	2249	3551	0.202	0.633	4.5	A		

Intersection Delay = 16.7 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.640

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR 39-14.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	2	1	1	2	< 0
Volumes	30	75	95	80	165	100	95	465	55	95	680	60
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left	*				SB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	24.0A				Green	10.0A	39.0P		
Yellow/AR	6.0				Yellow/AR	5.0	6.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	299	997	0.371	0.300	16.4	C	15.9	C
	R	470	1568	0.213	0.300	15.3	C		
WB	LTR	418	1395	0.867	0.300	31.3	D	31.3	D
NB	L	337	1752	0.297	0.633	5.4	B	9.0	B
	T	1657	3551	0.310	0.467	9.7	B		
	R	732	1568	0.079	0.467	8.6	B		
SB	L	480	1752	0.208	0.633	4.5	A	10.3	B
	TR	1637	3508	0.500	0.467	11.0	B		

Intersection Delay = 13.9 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.612

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR 39-13.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	2	1	1	2	< 0
Volumes	75	160	130	75	120	115	130	655	110	85	445	50
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0A				Green	10.0A 35.0P		
Yellow/AR	5.0				Yellow/AR	5.0 5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	303	852	0.816	0.356	27.7	D	22.6	C
	R	557	1568	0.246	0.356	13.3	B		
WB	LTR	403	1134	0.809	0.356	24.9	C	24.9	C
NB	L	424	1752	0.323	0.578	6.2	B	11.7	B
	T	1460	3551	0.495	0.411	12.9	B		
	R	645	1568	0.180	0.411	10.9	B		
SB	L	342	1752	0.260	0.578	6.4	B	11.2	B
	TR	1438	3497	0.380	0.411	12.0	B		

Intersection Delay = 15.2 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.635

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-21.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	< 0	1	2	< 0
Volumes	130	130	140	30	55	125	140	715	40	140	490	45
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green 53.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	463	1489	0.296	0.311	15.3	C	15.2	C
	T	574	1845	0.239	0.311	14.9	B		
	R	488	1568	0.301	0.311	15.3	C		
WB	L	355	1141	0.090	0.311	14.2	B	14.8	B
	T	574	1845	0.101	0.311	14.2	B		
	R	488	1568	0.271	0.311	15.1	C		
NB	L	374	601	0.393	0.622	5.9	B	5.5	B
	TR	2192	3523	0.381	0.622	5.5	B		
SB	L	224	359	0.657	0.622	11.7	B	6.3	B
	TR	2182	3507	0.271	0.622	5.0	A		

Intersection Delay = 8.4 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.539

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-22.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	< 0	1	2	< 0
Volumes	15	75	150	80	70	40	150	710	80	40	485	10
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
WB Left	*				SB Left *			
Thru	*				Thru *			
Right	*				Right *			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green 53.0A			
Yellow/AR	6.0				Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	445	1429	0.036	0.311	14.0	B	15.1	C
	T	574	1845	0.138	0.311	14.4	B		
	R	488	1568	0.324	0.311	15.5	C		
WB	L	439	1412	0.191	0.311	14.7	B	14.5	B
	T	574	1845	0.129	0.311	14.4	B		
	R	488	1568	0.086	0.311	14.2	B		
NB	L	399	641	0.396	0.622	5.9	B	5.6	B
	TR	2176	3498	0.401	0.622	5.6	B		
SB	L	203	326	0.207	0.622	4.8	A	4.9	A
	TR	2203	3540	0.249	0.622	4.9	A		

Intersection Delay = 7.4 sec/veh Intersection LOS = B
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.375

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) US 301 (N-S) SR 39
Analyst: JW File Name: SR39-29.HC9
Area Type: Other 1-11-99 AM
Comment: 2010 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2 <	0	2	2	0	0	> 2 <	0	0	0	0
Volumes		635	5	610	920		5	1	780			
Lane W (ft)		12.0		12.0	12.0			12.0				
RTOR Vols			0			0			0			
Lost Time		3.00	3.00	3.00	3.00		3.00	3.00	3.00			

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru		*			Thru *			
Right		*			Right *			
Peds					Peds			
WB Left	*				SB Left			
Thru	*	*			Thru			
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A	23.0A			Green 25.0A			
Yellow/AR	5.0	6.0			Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #2 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	TR	1075	3721	0.658	0.289	19.2	C	19.2	C
WB	L	1012	3374	0.653	0.300	18.8	C	10.9	B
	T	2318	3725	0.438	0.622	5.8	B		
NB	LTR	940	3022	0.923	0.311	29.7	D	29.7	D

Intersection Delay = 17.7 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.748

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) US 301 (N-S) SR 39
Analyst: JW File Name: SR39-30.HC9
Area Type: Other 1-11-99 PM
Comment: 2010 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2 < 0		2	2	0	0 > 2 < 0			0	0	0
Volumes		750	5	565	735		5	1	770			
Lane W (ft)		12.0		12.0	12.0			12.0				
RTOR Vols			0			0			0			
Lost Time		3.00	3.00	3.00	3.00		3.00	3.00	3.00			

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru		*			Thru *			
Right		*			Right *			
Peds					Peds			
WB Left	*				SB Left			
Thru	*	*			Thru			
Right					Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A	23.0A			Green 25.0A			
Yellow/AR	5.0	6.0			Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #2 #5

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	TR	1075	3722	0.776	0.289	21.5	C	21.5	C
WB	L	1012	3374	0.606	0.300	18.2	C	10.9	B
	T	2318	3725	0.351	0.622	5.3	B		
NB	LTR	940	3022	0.913	0.311	28.6	D	28.6	D

Intersection Delay = 18.6 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.766

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Rd (N-S) Alexander Ext
Analyst: DK File Name: AL2020AM.HC9
Area Type: Other 1-14-99
Comment: Year 2020 Build AM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	1	1	2 <	0
Volumes	34	92	214	227	83	50	183	239	208	77	423	50
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
WB Left		*			SB Left		*		
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	20.0A	15.0A			Green	20.0A	15.0A		
Yellow/AR	5.0	5.0			Yellow/AR	5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	433	1770	0.083	0.244	16.9	C	19.6	C
	T	455	1863	0.213	0.244	17.5	C		
	R	387	1583	0.581	0.244	21.0	C		
WB	L	334	1770	0.715	0.189	27.0	D	24.4	C
	T	352	1863	0.247	0.189	20.1	C		
	R	299	1583	0.177	0.189	19.8	C		
NB	L	433	1770	0.446	0.244	19.1	C	19.2	C
	T	911	3725	0.291	0.244	17.9	C		
	R	387	1583	0.566	0.244	20.7	C		
SB	L	334	1770	0.242	0.189	20.1	C	24.9	C
	TR	692	3666	0.755	0.189	25.6	D		

Intersection Delay = 21.9 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.644

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Rd (N-S) Alexander Ext
Analyst: DK File Name: AL2020PM.HC9
Area Type: Other 1-14-99
Comment: Year 2020 Build PM

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	1	1	2	< 0
Volumes	7	116	217	206	104	50	176	270	184	83	456	11
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*			
Thru	*				Thru	*			
Right	*				Right	*			
Peds					Peds				
WB Left		*			SB Left		*		
Thru		*			Thru		*		
Right		*			Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	20.0A	15.0A			Green	20.0A	15.0A		
Yellow/AR	5.0	5.0			Yellow/AR	5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #2 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	433	1770	0.016	0.244	16.7	C	19.9	C
	T	455	1863	0.268	0.244	17.8	C		
	R	387	1583	0.589	0.244	21.1	C		
WB	L	334	1770	0.649	0.189	24.8	C	22.9	C
	T	352	1863	0.310	0.189	20.5	C		
	R	299	1583	0.177	0.189	19.8	C		
NB	L	433	1770	0.428	0.244	19.0	C	18.8	C
	T	911	3725	0.327	0.244	18.1	C		
	R	387	1583	0.501	0.244	19.8	C		
SB	L	334	1770	0.260	0.189	20.2	C	24.4	C
	TR	701	3712	0.737	0.189	25.1	D		

Intersection Delay = 21.4 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 12.0 sec Critical v/c(x) = 0.610

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-5.HC9
Area Type: Other 1-7-99 AM
Comment: 2020 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	10	100	140	180	150	95	140	230	125	95	340	10
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	*				NB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
WB Left	*				SB Left	*	*		
Thru	*				Thru		*		
Right	*				Right		*		
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	30.0A				Green	10.0A	33.0A		
Yellow/AR	6.0				Yellow/AR	5.0	6.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	243	662	0.045	0.367	11.9	B	13.9	B
	TR	617	1683	0.408	0.367	14.0	B		
WB	L	250	682	0.756	0.367	24.5	C	18.4	C
	TR	637	1737	0.405	0.367	13.9	B		
NB	L	401	1752	0.367	0.567	7.1	B	10.6	B
	T	710	1776	0.341	0.400	12.2	B		
	R	627	1568	0.210	0.400	11.5	B		
SB	L	530	1752	0.189	0.567	6.1	B	12.2	B
	TR	707	1768	0.522	0.400	13.8	B		

Intersection Delay = 13.6 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.633

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Sam Allen Road (N-S) SR 39
Analyst: JW File Name: SR39-6.HC9
Area Type: Other 1-7-99 PM
Comment: 2020 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	< 0	1	1	< 0	1	1	1	1	1	< 0
Volumes	10	105	135	180	150	90	200	350	180	60	240	15
Lane W (ft)	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
WB Left	*				SB Left *	*		
Thru	*				Thru	*		
Right	*				Right	*		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0A				Green	10.0A 33.0A		
Yellow/AR	6.0				Yellow/AR	5.0 6.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	249	679	0.044	0.367	11.9	B	13.9	B
	TR	619	1689	0.408	0.367	14.0	B		
WB	L	249	679	0.760	0.367	24.8	C	18.5	C
	TR	638	1741	0.396	0.367	13.9	B		
NB	L	494	1752	0.427	0.567	7.0	B	11.5	B
	T	710	1776	0.518	0.400	13.8	B		
	R	627	1568	0.301	0.400	12.0	B		
SB	L	402	1752	0.157	0.567	6.4	B	11.4	B
	TR	704	1760	0.382	0.400	12.5	B		

Intersection Delay = 13.5 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.674

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Alexander St. (N-S) SR 39
Analyst: JW File Name: SR39-35.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	> 1	< 0	0	2	< 0	1	2	0
Volumes				10	1	445		395	10	310	820	
Lane W (ft)					12.0			12.0		12.0	12.0	
RTOR Vols						0			0			0
Lost Time				3.00	3.00	3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	*		
Right					Right	*		
Peds					Peds			
WB Left		*			SB Left	*		
Thru		*			Thru	*	*	
Right		*			Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		30.0A			Green	20.0A	25.0P	
Yellow/AR		5.0			Yellow/AR	5.0	5.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Group: Mvmts	Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
WB	LTR	508	1430	0.944	0.356	37.5	D	37.5	D
NB	TR	1061	3538	0.422	0.300	16.5	C	16.5	C
SB	L	433	1770	0.754	0.244	25.4	D	11.9	B
	T	2052	3551	0.442	0.578	7.1	B		

Intersection Delay = 18.5 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.718

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) Alexander St. (N-S) SR 39
Analyst: JW File Name: SR39-36.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	0	> 1	< 0	0	2	< 0	1	2	0
Volumes				10	1	440		740	10	315	545	
Lane W (ft)					12.0			12.0		12.0	12.0	
RTOR Vols						0			0			0
Lost Time				3.00	3.00	3.00		3.00	3.00	3.00	3.00	

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left								
Thru								
Right								
Peds								
WB Left		*						
Thru		*						
Right		*						
Peds								
NB Right								
SB Right								
Green		30.0A						
Yellow/AR		5.0						

NB Left								
Thru						*		
Right						*		
Peds								
SB Left					*			
Thru					*	*		
Right								
Peds								
EB Right								
WB Right								
Green					20.0A	25.0P		
Yellow/AR					5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
WB	LTR	508	1430	0.934	0.356	35.9	D	35.9	D
NB	TR	1063	3544	0.780	0.300	21.2	C	21.2	C
SB	L	433	1770	0.768	0.244	26.0	D	13.3	B
	T	2052	3551	0.294	0.578	6.3	B		

Intersection Delay = 21.0 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.838

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR 39-15.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	2	1	1	2	< 0
Volumes	40	85	120	100	190	120	120	620	70	120	910	60
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	30.0A				Green	10.0A	33.0P	
Yellow/AR	6.0				Yellow/AR	5.0	6.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	331	902	0.396	0.367	14.1	B	13.4	B
	R	575	1568	0.219	0.367	12.7	B		
WB	LTR	496	1353	0.869	0.367	27.8	D	27.8	D
NB	L	316	1752	0.399	0.567	8.9	B	12.4	B
	T	1421	3551	0.483	0.400	13.2	B		
	R	627	1568	0.118	0.400	11.0	B		
SB	L	351	1752	0.359	0.567	7.0	B	15.8	C
	TR	1407	3519	0.762	0.400	16.8	C		

Intersection Delay = 16.3 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.772

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Knights-Griffin Rd. (N-S) SR 39
Analyst: JW File Name: SR 39-16.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	> 1	1	0	> 1	< 0	1	2	1	1	2	< 0
Volumes	90	180	170	95	135	130	170	875	135	75	595	60
Lane W (ft)		12.0	12.0		12.0		12.0	12.0	12.0	12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				NB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
WB Left	*				SB Left	*	*	
Thru	*				Thru		*	
Right	*				Right		*	
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	35.0A				Green	10.0A	30.0P	
Yellow/AR	5.0				Yellow/AR	5.0	5.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	LT	317	770	0.897	0.411	34.6	D	25.6	D
	R	645	1568	0.278	0.411	11.4	B		
WB	LTR	414	1006	0.916	0.411	33.9	D	33.9	D
NB	L	317	1752	0.565	0.522	10.6	B	16.9	C
	T	1263	3551	0.766	0.356	18.6	C		
	R	557	1568	0.255	0.356	13.3	B		
SB	L	316	1752	0.250	0.522	8.9	B	15.1	C
	TR	1245	3503	0.581	0.356	15.7	C		

Intersection Delay = 20.0 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.835

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-23.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	< 0	1	2	< 0
Volumes	150	150	190	35	70	140	190	950	50	155	645	50
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	*				*			
Thru	*					*		
Right	*					*		
Peds								
WB Left	*				*			
Thru	*					*		
Right	*					*		
Peds								
NB Right					EB Right			
SB Right					WB Right			
Green	25.0A				Green	15.0A	35.0P	
Yellow/AR	5.0				Yellow/AR	5.0	5.0	

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	417	1390	0.379	0.300	16.4	C	16.3	C
	T	553	1845	0.286	0.300	15.7	C		
	R	470	1568	0.425	0.300	16.7	C		
WB	L	299	996	0.124	0.300	14.8	B	15.4	C
	T	553	1845	0.134	0.300	14.8	B		
	R	470	1568	0.313	0.300	15.8	C		
NB	L	331	1752	0.604	0.189	23.8	C	17.6	C
	TR	1449	3525	0.763	0.411	16.4	C		
SB	L	331	1752	0.492	0.189	22.0	C	14.8	B
	TR	1444	3513	0.532	0.411	13.2	B		

Intersection Delay = 16.3 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.617

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 10-27-1999
Center For Microcomputers In Transportation

Streets: (E-W) Zepherhills Bypass (N-S) SR 39
Analyst: JW File Name: SR 39-24.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	1	2	< 0	1	2	< 0
Volumes	20	95	195	90	75	50	195	935	90	65	640	15
Lane W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
RTOR Vols			0			0			0			0
Lost Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	*				NB	Left	*			
	Thru	*					Thru		*		
	Right	*					Right		*		
	Peds						Peds				
WB	Left	*				SB	Left	*			
	Thru	*					Thru		*		
	Right	*					Right		*		
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		25.0A				Green		15.0A	35.0A		
Yellow/AR		5.0				Yellow/AR		5.0	5.0		

Cycle Length: 90 secs Phase combination order: #1 #5 #6

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	L	411	1370	0.051	0.300	14.5	B	16.1	C
	T	553	1845	0.181	0.300	15.1	C		
	R	470	1568	0.436	0.300	16.8	C		
WB	L	378	1261	0.251	0.300	15.5	C	15.1	C
	T	553	1845	0.143	0.300	14.9	B		
	R	470	1568	0.113	0.300	14.7	B		
NB	L	331	1752	0.619	0.189	24.1	C	18.1	C
	TR	1441	3504	0.786	0.411	17.0	C		
SB	L	331	1752	0.205	0.189	19.9	C	13.5	B
	TR	1455	3539	0.498	0.411	12.9	B		

Intersection Delay = 16.2 sec/veh Intersection LOS = C

Lost Time/Cycle, L = 9.0 sec Critical v/c(x) = 0.634

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) US 301 (N-S) SR 39
Analyst: JW File Name: SR39-31.HC9
Area Type: Other 1-11-99 AM
Comment: 2020 Build AM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	2	2	0	1	0	2	0	0	0
Volumes		840	10	805	1230		5		1040			
Lane W (ft)		12.0		12.0	12.0		12.0		12.0			
RTOR Vols			0			0			0			
Lost Time		3.00	3.00	3.00	3.00		3.00		3.00			

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru		*			Thru			
Right		*			Right *			
Peds					Peds			
WB Left	*				SB Left			
Thru	*	*			Thru			
Right					Right			
Peds					Peds			
NB Right	*				EB Right			
SB Right					WB Right			
Green	25.0A	23.0A			Green 25.0A			
Yellow/AR	5.0	6.0			Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #2 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	TR	1074	3719	0.875	0.289	25.5	D	25.5	D
WB	L	1012	3374	0.861	0.300	24.7	C	13.8	B
	T	2318	3725	0.587	0.622	6.8	B		
NB	L	525	1687	0.010	0.311	13.8	B	6.8	B
	R	1946	3019	0.636	0.644	6.7	B		

Intersection Delay = 14.3 sec/veh Intersection LOS = B

Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.710

HCM: SIGNALIZED INTERSECTION SUMMARY Version 2.4e 11-02-1999
Center For Microcomputers In Transportation

Streets: (E-W) US 301 (N-S) SR 39
Analyst: JW File Name: SR39-32.HC9
Area Type: Other 1-11-99 PM
Comment: 2020 Build PM Peak Hour

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	2	2	0	1	0	2	0	0	0
Volumes		990	10	805	920		10		1030			
Lane W (ft)		12.0		12.0	12.0		12.0		12.0			
RTOR Vols			0			0			0			
Lost Time		3.00	3.00	3.00	3.00		3.00		3.00			

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left *			
Thru		*			Thru			
Right		*			Right *			
Peds					Peds			
WB Left	*				SB Left			
Thru	*	*			Thru			
Right					Right			
Peds					Peds			
NB Right	*				EB Right			
SB Right					WB Right			
Green	25.0A	26.0A			Green 22.0A			
Yellow/AR	5.0	6.0			Yellow/AR 6.0			

Cycle Length: 90 secs Phase combination order: #1 #2 #5

Intersection Performance Summary

	Lane Mvmts	Group: Cap	Adj Sat Flow	v/c Ratio	g/C Ratio	Delay	LOS	Approach: Delay	LOS
EB	TR	1199	3720	0.923	0.322	27.5	D	27.5	D
WB	L	1012	3374	0.861	0.300	24.7	C	14.0	B
	T	2442	3725	0.416	0.656	4.8	A		
NB	L	469	1687	0.023	0.278	15.3	C	8.1	B
	R	1845	3019	0.664	0.611	8.0	B		

Intersection Delay = 15.8 sec/veh Intersection LOS = C
Lost Time/Cycle, L = 6.0 sec Critical v/c(x) = 0.753

TABLE E - 2

GENERALIZED ANNUAL AVERAGE DAILY VOLUMES FOR FLORIDA'S AREAS TRANSITIONING INTO URBANIZED AREAS OR AREAS OVER 5000 NOT IN URBANIZED AREAS*

STATE TWO-WAY ARTERIALS UNINTERRUPTED FLOW

UNSIGNALIZED

Lanes	Level of Service A	B	C	D	E
2 Undiv.	8,400	13,000	17,700	23,300	31,000
4 Div.	20,600	34,500	47,800	57,000	66,300
6 Div.	30,800	51,700	71,600	85,600	99,500

INTERRUPTED FLOW

Class Ia (>0.00 to 2.49 signalized intersections per mile)

Lanes	Level of Service A**	B	C	D***	E***
2 Undiv.	-	11,500	14,000	15,300	15,900
4 Div.	-	25,500	30,600	32,800	33,500
6 Div.	-	39,600	46,400	49,700	50,300

Class Ib (2.50 to 4.50 signalized intersections per mile)

Lanes	Level of Service A**	B**	C	D	E
2 Undiv.	-	-	8,000	13,200	14,600
4 Div.	-	-	17,600	28,600	31,300
6 Div.	-	-	26,900	43,600	47,300

Class II (more than 4.50 signalized intersections per mile and not within primary city central business district of urbanized area over 500,000)

Lnes	Level of Service A**	B**	C**	D	E
2 Undiv.	-	-	-	10,900	14,100
4 Div.	-	-	-	24,600	30,900
6 Div.	-	-	-	37,800	47,000

FREEWAYS

Lanes	Level of Service A	B	C	D	E
4	20,100	32,200	47,900	60,400	68,100
6	30,400	48,500	72,200	91,100	107,300
8	40,500	64,700	96,300	121,500	143,100
10	50,600	80,900	120,400	151,900	178,900

NON-STATE ROADWAYS MAJOR CITY/COUNTY ROADWAYS

Lanes	Level of Service A**	B**	C	D	E
2 Undiv.	-	-	9,900	12,900	14,100
4 Div.	-	-	22,100	28,200	30,200
6 Div.	-	-	34,300	43,200	45,700

OTHER SIGNALIZED ROADWAYS (signalized intersection analysis)

Lanes	Level of Service A**	B**	C	D	E
2 Undiv.	-	-	4,700	9,200	10,600
4 Div.	-	-	10,300	20,500	22,800

ADJUSTMENTS

DIVIDED/UNDIVIDED

(alter corresponding two-way volume indicated percent)

Lanes	Median	Bays	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

ONE-WAY

(alter corresponding two-way volume indicated percent)

One-Way	Lanes	Adjustment Factors
2	4	-40%
3	6	-40%
4	6	-25%

* The table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are annual average daily traffic (AADT) maximum volumes (based on K_{100} factors, not peak to daily ratios) for levels of service, and are based on the 1994 Highway Capacity Manual Update and Florida traffic, roadway and signalization data. The table's input value assumptions and level of service criteria appear on the back.

** Cannot be achieved.

*** Volumes are comparable because intersection capacities are reached.

Source: Florida Department of Transportation, 1995.

APPENDIX H

RESULTS OF YEAR 2010 AND 2020 INTERSECTION QUEUE LENGTH ANALYSIS

Intersection	Queue Lengths (in meters)											
	Eastbound			Westbound			Northbound			Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2010 AM Peak												
SR 39/US 301	n/a	121	shared	114	173	n/a	2	n/a	146	n/a	n/a	n/a
SR 39/Zephyrhills Bypass	49	49	53	11	21	47	53	149	shared	53	109	shared
SR 39/Knights-Griffin Rd.	shared	39	36	shared	129	shared	36	87	21	36	150	shared
Alexander St. Ext./Joe McIntosh Rd	n/a	n/a	n/a	4	n/a	120	n/a	59	shared	88	116	n/a
Alexander St. Ext./Sam Allen Rd.	9	28	64	68	24	15	51	68	62	21	118	13
SR 39/Sam Allen Rd.	2	75	shared	73	54	shared	51	73	49	19	109	shared
2010 PM Peak												
SR 39/US 301	n/a	143	shared	106	138	n/a	2	n/a	144	n/a	n/a	n/a
SR 39/Zephyrhills Bypass	6	28	56	30	26	15	56	163	shared	15	95	shared
SR 39/Knights-Griffin Rd.	shared	88	49	shared	116	shared	49	123	41	32	102	shared
Alexander St. Ext./Joe McIntosh Rd	n/a	n/a	n/a	4	n/a	126	n/a	109	shared	90	77	n/a
Alexander St. Ext./Sam Allen Rd.	2	34	66	62	32	15	51	77	53	23	128	4
SR 39/Sam Allen Rd.	2	75	shared	75	56	shared	71	109	75	13	77	shared
2020 AM Peak												
SR 39/US 301	n/a	161	shared	151	231	n/a	2	n/a	195	n/a	n/a	n/a
SR 39/Zephyrhills Bypass	56	56	71	13	26	53	71	197	shared	58	140	shared
SR 39/Knights-Griffin Rd.	shared	47	45	shared	154	shared	45	116	26	45	193	shared
Alexander St. Ext./Joe McIntosh Rd	n/a	n/a	n/a	4	n/a	167	n/a	78	shared	116	154	n/a
Alexander St. Ext./Sam Allen Rd.	13	34	81	84	32	19	69	90	79	28	159	19
SR 39/Sam Allen Rd.	4	90	shared	68	92	shared	53	86	47	36	131	shared
2010 PM Peak												
SR 39/US 301	n/a	189	shared	151	173	n/a	4	n/a	193	n/a	n/a	n/a
SR 39/Zephyrhills Bypass	8	36	73	34	28	19	73	209	shared	24	126	shared
SR 39/Knights-Griffin Rd.	shared	101	64	shared	135	shared	64	164	51	28	134	shared
Alexander St. Ext./Joe McIntosh Rd	n/a	n/a	n/a	4	n/a	165	n/a	143	shared	118	102	n/a
Alexander St. Ext./Sam Allen Rd.	4	43	81	77	39	19	66	101	69	32	171	4
SR 39/Sam Allen Rd.	4	90	shared	68	90	shared	75	131	68	23	96	shared

Number of cycles per hour for peak hour = 40