



DRAFT ARTERIAL SAFETY STUDY

**S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM
COMMERCIAL DRIVE/PALM STREET TO
GUILFORD ROAD**

**COLLIER COUNTY
SECTION NO.: 03010000
MILEPOST: 13.208 - 14.974**

FM No. 409224-1-32-91
Contract No. C9M86

November 2017

PREPARED FOR
Florida Department of Transportation, District 1
Project Manager: Michael Kautz
801 N. Broadway Street
Bartow, Florida 33830

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INTRODUCTION

The Florida Department of Transportation (FDOT) – District One Safety Office has retained HNTB Corporation as part of a District-Wide Traffic Safety Project to perform an Arterial Safety Study for the segment of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road in the city of Naples in Collier County, Florida.

EXISTING CONDITIONS

This section of the report describes the existing physical and operational conditions of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road.

S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits is classified as an urban principal arterial roadway, which serves as an east-west corridor. Within the study area, S.R. 90 (U.S. 41/Tamiami Trail E) is characterized by two different typical sections. S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Espinal Boulevard/Courthouse Shadows has a six-lane divided, urban typical section with three 12-foot lanes westbound and three 11-foot lanes eastbound separated by a 25 to 27-foot wide raised, landscaped median and four-foot paved outside shoulders. S.R. 90 (U.S. 41/Tamiami Trail E) from Espinal Boulevard/Courthouse Shadows has a six-lane divided, suburban typical section with three 12-foot lanes in each direction, four to six-foot paved shoulders and a 32-foot wide raised, landscaped median. There is five-foot sidewalk and street lighting along both sides of S.R. 90 (U.S. 41/Tamiami Trail E) within the study corridor. However, there are no designated bicycle lanes provided.

Figure 1 shows the segment location in relation to the adjacent roadway system. This segment of S.R. 90 (U.S. 41/Tamiami Trail E) is approximately 1.766 miles long. The posted speed limit for S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits is 45 mph. Land uses along this segment consist of commercial development frontage surrounded by residential development.

Within the study corridor, there are six signalized intersections, which are located at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive, and Guilford Road. These intersections have pedestrian features, including crosswalks, pedestrian activated detectors, and countdown pedestrian signals. The intersection of S.R. 90 (U.S. 41 / Tamiami Trail E) and Shadowlawn Drive/Bayshore Drive is a designated school crossing for Shadowlawn Elementary School, which includes high emphasis crosswalks, advanced warning pavement markings, and school crossing signage.

Public transit along the study corridor is operated by Collier Area Transit (CAT), with nine bus stops that are served by one or more of the six routes (11, 13, 14, 17, 18 and 24) that provide service along the



study corridor. In addition, there is a CAT Transfer Center located at 3555 East Tamiami Trail in the Collier County Government Center, which allows passengers the opportunity to transfer from one route to another. **Appendix A** includes a condition diagram of the study area.

FIGURE 1 - STUDY LOCATION MAP





DATA COLLECTION

This section of the report presents the data that was obtained for this study. For the purposes of this study, it was determined that the following information would be required:

- Crash data from January 2011 through December 2015.
- Field observations of the segment operations during an average weekday.
- Vehicle count data from count station located within the study limits.
- Eight-hour turning movement counts at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road.
- *Pedestrian/Bicycle Safety Audit*, conducted by Cardno, Inc, in June 2015.
- Recently completed or future planned projects within the study limits.

Crash Data

Crash data was provided by the FDOT CARS Database and Signal 4 Analytics for the period extending between January 2011 and December 2015. Crash summaries for the period are presented in **Table 1**. Areas of concern are discussed in the Crash Analysis section of this report.

Traffic Volume Data

Traffic volume data on S.R. 90 (U.S. 41/Tamiami Trail E) was obtained from the Florida Department of Transportation's Florida Traffic Online 2016 Annual Average Daily Traffic Report. This website contains recent count data from the Department's count stations throughout the state. Within the project limits, there was one telemetered traffic monitoring site (Site 030094) identified. Site 030094 is located on S.R. 90 (U.S. 41/Tamiami Trail E) east of Espinal Boulevard/Courthouse Shadows and is reported to have an AADT of 42,286 with 2.9% truck traffic.

In addition, turning movement counts were performed at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue (C.R. 31), Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road with the study limits. Pedestrian and bicycle count data was also collected at each of the six signalized intersections. This data was collected over a period of two average weekdays from Tuesday, June 6, 2017 to Wednesday, June 7, 2017, from 7:00 am to 10:00 am, 11:00 am to 1:00 pm, and 3:00 pm to 6:00 pm. The count data is summarized in **Appendix B** of this report.

At the Department's direction, the pedestrian and bicycle count data from the *Pedestrian/Bicyclist Safety Audit* was utilized in conjunction with our pedestrian and bicycle count data at the signalized intersections to understand the overall pedestrian and bicycle traffic volumes along the study corridor. Refer to



Appendix C for this report. The pedestrian and bicycle count data from the *Pedestrian/Bicyclist Safety Audit* was obtained over 11 consecutive hours in January 2015 on a weekday from 7:00 am to 6:00 pm. The January counts revealed that the following corridor segments had at least four hours of 15 or more crossings per hour (pedestrian and bicycle combined) across US 41:

- Between Pelton Avenue and Pineland Avenue
- Between McDonald's and Shadowlawn Drive
- Between Shadowlawn Drive and Bayside Street
- Between River Drive and Andrew Drive
- Between Andrew Drive and Palm Lake Mobile Home Park
- Between Palm Drive and Seminole Avenue
- Between Seminole Avenue and Enchantment Boulevard

Additional pedestrian and bicycle counts were conducted over a two-day period in March 2015 for the same 11-hour time period at the following locations:

- Between Pelton Avenue and Pineland Avenue
- Between River Drive and Andrew Drive
- Between Seminole Avenue and Enchantment Boulevard

Pavement Condition Surveys

The Department has an extensive program to measure the pavement conditions along each state road. The program consists of a yearly review of each roadway that measures the cracking of the roadway surface and the ride-ability of the roadway. A rating between 0 and 10 is assigned for each of these characteristics, and when a roadway falls below 6 in any category, then the roadway is added to the Department's/District's resurfacing needs list. The segments on the needs list are prioritized annually and added to the Department's work program, usually with scheduling occurring in the 3rd or 4th year of the five-year work program.

The Crack/Ride values along S.R. 90 (U.S. 41/Tamiami Trail E) for Section 03010000 are as follows:

- Milepost 13.039 - 14.385 were reported as 8.5 for the cracking and 7.8 for the ride
- Milepost 14.385 - 15.795 were reported as 10.0 for the cracking and 7.9 for the ride

These reviews were conducted in 2017, and the results indicate that the roadway surface was in good condition.

The Department's Materials and Research Laboratory conducts skid tests on each state roadway on a regular basis to measure the pavement's surface resistance. Each year, between 25-35 percent of the state roadways are tested, so that each roadway is tested a minimum of once every four years.



Skid Test results are reported as a Skid Number (SN), and if the SN is less than 31, then the roadway's wet weather crashes are reviewed and any necessary remedial actions, such as a skid hazard elimination or resurfacing project, are identified.

The most recent skid tests for S.R. 90 (U.S. 41/Tamiami Trail E) within the study limits were conducted for Section 03010000, Milepost 13.037 - 16.224 on 05/10/2016 for the westbound and eastbound lanes. The SN was found to be above the threshold at 34 and 35, respectively.

Recently Completed/Future Projects

An investigation of the FDOT Work Program identified two projects occurred within the study limits. The first project was the ITS Surveillance System (FPID 430872-1), which involved the installation of arterial monitoring cameras along the section of S.R. 90 (U.S. 41/Tamiami Trail E) from MP 14.113 – 15.797, which was completed in May 2015. The other project (FPID 438059-1) involves resurfacing S.R. 90 (U.S. 41/Tamiami Trail E) from west of Frederick Street (MP 13.039) to east of Espinal Boulevard/Courthouse Shadows (MP 14.385). Pre-construction phase is currently underway for this project. There are no future planned projects identified in the FDOT Work Program for this segment.



CRASH ANALYSIS

Crash data was obtained from the Florida Department of Transportation for the period extending between January 2011 and December 2015. The collision data is summarized in **Table 1**.

According to the collision data, there have been 560 collisions reported along the corridor during this time period with the majority (82%) of the crashes occurring at the signalized intersections. A significant number of these crashes were rear ends, with 329 (59%) during the study period, followed by 71 (13%) sideswipes, 31 (6%) left turns, 30 (5%) angle, and 14 (3%) single vehicle crashes. Of the total crashes, 365 (65%) resulted in personal injury. Also, 168 (30%) occurred during wet road conditions and 99 (18%) occurred at night. There were three fatalities within this time period.

In addition, there were a total of 55 crashes involving pedestrians and bicyclists within the study limits with bicycle crashes being the prominent type. The distribution of the crash locations was relatively equal with 16 (29%) occurring at a signalized intersection, 14 (25%) occurring at a stop controlled side street, 13 (24%) occurring at a driveway and 12 (22%) occurring at midblock locations. Only five crashes did not result in an injury, and each of these crashes involved a bicyclist. Of the 50 total crashes that involved an injury, 41 (82%) crashes involved a bicyclist and 9 (18%) involved a pedestrian. In 2013, there was one fatality involving a bicyclist. Also, two (4%) crashes occurred during wet road conditions whereas 13 (24%) crashes occurred at night.

The average crash rate at the intersection was calculated to be 4.11 crashes/MVM, which is lower than the statewide average of 5.840 crashes/MVM for similar locations. However, it should be noted that the total number of crashes has increased every year since 2011 with the total number of crashes in 2015 being approximately 3.5 times those in 2011. Specifically, 22 crashes were identified (with four crashes involving a bicyclist) at the intersection of Shadowlawn Drive/Bayshore Drive, which occurred within the limits of the free flow right turn lane. The section of S.R. 90 (U.S. 41/Tamiami Trail) between Andrew Drive and Palm Lake Mobile Home Park had the highest concentration of pedestrian and bicycle crashes with 14, which accounts for 26% of the total pedestrian and bicycle crashes for this time period. Similarly, the section of S.R. 90 (U.S. 41/Tamiami Trail) between Spruce Street and Pine Street had 10 pedestrian and bicycle crashes for this same time period, representing an additional 18% of the total pedestrian and bicycle related crashes. The crash data is summarized in **Appendix D** of this report.



TABLE 1 – CRASH SUMMARY
S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET
TO GUILFORD ROAD
JANUARY 2011 – DECEMBER 2015

COLLISION TYPE	2011	2012	2013	2014	2015	TOTAL
Rear End	23	40	88	86	92	329
Left Turn	2	0	5	10	14	31
Angle	3	5	5	6	11	30
Sideswipe	0	7	18	22	24	71
Right Turn	1	2	3	2	1	9
Head On	1	0	0	0	1	2
Run Off Road	0	0	1	1	1	3
Median Crossover	0	1	0	0	0	1
Overturned	0	0	3	1	0	4
Backed Into	0	0	1	0	0	1
Collision w/ Tree	2	1	3	0	0	6
Collision w/ Pole	2	0	0	0	0	2
Collision w/ Sign	0	0	0	0	1	1
Collision w/ Object	0	0	0	2	0	2
Fell From Vehicle	0	1	0	0	0	1
Pedestrian/Bicycle	13	11	11	10	10	55
Other	0	2	0	2	8	12
Total	47	70	138	142	163	560
Fatal	0	0	1	0	2	3
Injury	32	31	40	45	44	192
Property Damage Only	15	39	97	97	117	365
Day	32	53	119	123	134	461
Night	15	17	19	19	29	99
Wet	5	9	123	17	14	168
Dry	42	61	15	125	149	392
Segment Crash Rate	1.72	2.57	5.06	5.21	5.98	4.11
Statewide Avg Crash Rate	4.538	4.857	6.004	6.267	7.536	5.840



QUALITATIVE ASSESSMENT

The segment of S.R. 90 (U.S. 41/Tamiami Trail E) from Commercial Drive/Palm Street to Guilford Road was observed by a qualified engineer during a typical weekday to assess existing operating conditions. Refer to the Condition Diagrams (**Appendix A**), which illustrates the existing features along the study corridor.

Conflicts were observed along S.R. 90 (U.S. 41/Tamiami Trail E) when vehicles failed to yield to pedestrians and bicyclists in the crosswalks and at driveways. This type of conflict is especially a concern along this corridor because of its high level of pedestrian and bicycle activity, which appeared to be comprised of local residents utilizing these modes of travel for transportation instead of recreational purposes. The majority of the pedestrians and bicyclists were utilizing the sidewalk and paved shoulder, respectively. However, some bicyclists were observed traveling against the direction of traffic. Pedestrians and bicyclists were also observed crossing S.R. 90 (U.S. 41/Tamiami Trail E) at various locations throughout the study corridor typically at undesigned, mid-block crossings, especially at the directional median openings. Additional findings are illustrated in the pictures and described in the captions below.

- Vehicles failing to stop at the stop bar and blocking the crosswalk, and crosswalks not properly aligned with pedestrian curb ramps.





- A pedestrian crossing S.R. 90 (U.S. 41/Tamiami Trail E) at a directional median opening.



- Signal heads missing retro-reflective backplates.





- Yellow skip, guide stripe was documented at the intersection of Commercial Drive/Palm Street.



- Worn pavement markings were documented at Pineland Street.





- Substandard pedestrian curb ramp was identified at Espinal Boulevard/Courthouse Shadows.



- During the field review, flooded sidewalk was observed on the north side of the roadway between Espinal Boulevard/Courthouse Shadows and the Wal-Mart driveway.





- At Osceola Avenue, detectable warning surfaces and crosswalk pavement markings were observed missing.



- Right turn lanes missing pavement arrows were observed on the north side of the roadway between east of Palm Drive to Guilford Road.





OPERATIONAL ANALYSIS

Traffic operations for existing conditions were determined using the peak hour volumes along with Synchro (Version 8.0). The peak hour volumes and the intersection geometry were input into the software. Existing signal phasing and timing sheets obtained from Collier County were also entered into the Synchro software.

Intersection operational analyses were conducted for all intersections in the study area under existing and build conditions. The build condition reflects the geometry in the conceptual plans located in Appendix F. The signalized intersection analysis was conducted using the Synchro software (version 8.0) applying the procedures from the HCM.

Existing Conditions

Tables 2 and 3 summarize the results of the signalized intersection analyses for AM and PM peak hours under existing conditions. The results include approach delay, approach LOS, intersection delay and overall LOS for signalized intersections.

In addition, S.R. 90 (U.S. 41/Tamiami Trail E) corridor operational analysis were conducted using Synchro to identify the total travel time, arterial speed and arterial LOS for each of the segments between the intersections for the entire study area.

Tables 4 and 5 summarize the arterial LOS for S.R. 90 (U.S. 41/Tamiami Trail E) along the northbound and southbound directions for the AM and PM peak hours under existing conditions.

The following segments are operating at LOS E or F during the AM and PM peak hours:

- Between Espinal Boulevard and Airport Pulling Road (AM & PM)
- Between Guilford Road and Palm Drive (PM)

Based on the queuing analysis, queues from the through lanes extend past the left-turn storage lengths currently available along US 41 at the intersection Guilford Road causing starvation and storage blockage for the left-turn lanes.

Detailed Synchro output for the intersections analyses and arterial analyses are provided in **Appendix E**.



Table 2 – Existing Conditions Intersection Analysis (AM Peak)

Existing (AM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	47.8	D	46.7	D	18.8	B	14.6	B	21.5	C
	Bayshore Drive	60.3	E	62.8	E	28.0	C	30.6	C	36.1	C
	Airport Pulling Road	70.1	E	58.0	E	8.7	A	27.5	C	23.1	C
	Espinal Boulevard	57.3	E	55.7	E	6.2	A	9.3	A	8.7	A
	Palm Drive	51.4	D	52.2	D	8.3	A	9.8	A	9.8	A
	Guilford Road	69.9	E	66.3	E	7.5	A	5.6	A	8.1	A

Table 3 – Existing Condition Intersection Analysis (PM Peak)

Existing (PM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	75.4	E	82.9	F	15.0	B	15.5	B	22.8	C
	Bayshore Drive	63.6	E	74.7	E	31.8	C	32.7	C	39.8	D
	Airport Pulling Road	67.2	E	54.9	D	24.6	C	24.8	C	31.9	C
	Espinal Boulevard	54.3	D	62.5	E	7.3	A	7.1	A	11.4	B
	Palm Drive	37.8	D	39.1	D	40.2	D	14.7	B	24.7	C
	Guilford Road	52.5	D	69.8	E	14.9	B	4.4	A	11.6	B

Table 4 - Existing Conditions Arterial Operational Analyses (AM Peak)

Existing (AM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	59.1	22/7	C
	Espinal Boulevard	32.9	25.8	C
	Airport Pulling Road	32.6	23.2	C
	Bayshore Drive	53.3	21.7	D
	Commercial Drive	66.7	33.3	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	77.4	28.7	B
	Airport Pulling Road	45.1	25.7	C
	Espinal Boulevard	31.9	23.7	C
	Palm Drive	29.4	28.9	B
	Guilford Road	40.5	33.1	B

**Table 5 - Existing Conditions Arterial Operational Analyses (PM Peak)**

Existing (PM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	70.9	18.9	D
	Espinal Boulevard	32.3	26.3	C
	Airport Pulling Road	40.9	18.5	D
	Bayshore Drive	62.1	18.6	D
	Commercial Drive	63.9	34.8	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	82.4	27.0	C
	Airport Pulling Road	44.5	26.0	C
	Espinal Boulevard	30.4	24.9	C
	Palm Drive	34.1	24.9	C
	Guilford Road	39.0	34.4	B

Build Conditions

Tables 6 and 7 summarize the results of the signalized intersection analyses for AM and PM peak hours under build conditions. The results include approach delay, approach LOS, intersection delay and overall LOS for signalized intersections.

In addition, S.R. 90 (U.S. 41/Tamiami Trail E) corridor operational analysis were conducted using Synchro to identify the total travel time, arterial speed and arterial LOS for each of the segments between the intersections for the entire study area.

Tables 8 and 9 summarize the arterial LOS for S.R. 90 (U.S. 41/Tamiami Trail E) along the northbound and southbound directions for the AM and PM peak hours under build conditions.

Based on the queuing analysis, queues from the through lanes extend past the left-turn storage lengths currently available along US 41 at the intersection Guilford Road causing starvation and storage blockage for the left-turn lanes.

Detailed Synchro output for the intersections analyses and arterial analyses are provided in **Appendix E**.



Table 6 – Build Conditions Intersection Analysis (AM Peak)

Build (AM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	47.8	D	46.7	D	18.8	B	14.6	B	21.5	C
	Bayshore Drive	60.3	E	62.8	E	28.4	C	30.6	C	36.3	D
	Airport Pulling Road	70.1	E	58.0	E	12.9	B	27.5	C	25.4	C
	Espinal Boulevard	57.3	E	55.7	E	9.6	A	9.3	A	11.0	B
	Palm Drive	63.2	E	65.1	E	13.9	B	7.5	A	13.1	B
	Guilford Road	69.9	E	66.3	E	7.5	A	2.9	A	7.4	A

Table 7 – Build Condition Intersection Analysis (PM Peak)

Build (PM)											
Corridor	Intersection	EB		WB		NB (US 41)		SB (US 41)		Overall Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
S.R. 90 (U.S. 41/ Tamiami Trail E)	Commercial Drive	75.4	E	82.9	F	15.0	B	15.5	B	22.8	C
	Bayshore Drive	63.6	E	74.7	E	31.8	C	32.7	C	39.8	D
	Airport Pulling Road	67.2	E	54.9	D	24.6	C	24.8	C	31.9	C
	Espinal Boulevard	54.3	D	62.5	E	7.3	A	7.1	A	11.4	B
	Palm Drive	37.8	D	39.1	D	40.2	D	14.7	B	24.7	C
	Guilford Road	52.5	D	69.8	E	14.9	B	4.4	A	11.6	B

Table 8 - Build Conditions Arterial Operational Analyses (AM Peak)

Build (AM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	50.4	26.6	C
	Espinal Boulevard	37.4	22.7	C
	Airport Pulling Road	34.7	21.8	D
	Bayshore Drive	54.6	21.2	D
	Commercial Drive	66.7	33.3	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	77.4	28.7	B
	Airport Pulling Road	45.1	25.7	C
	Espinal Boulevard	31.9	23.7	C
	Palm Drive	27.7	30.6	B
	Guilford Road	37.7	35.6	A


Table 9 - Build Conditions Arterial Operational Analyses (PM Peak)

Build (PM)				
Corridor (Direction)	Cross Street	Travel Time (sec)	Arterial Speed (mph)	Arterial LOS
S.R. 90 (U.S. 41/ Tamiami Trail E) (NB)	Palm Drive	70.9	18.9	D
	Espinal Boulevard	32.3	26.3	C
	Airport Pulling Road	40.9	18.5	D
	Bayshore Drive	62.1	18.6	D
	Commercial Drive	63.9	34.8	B
S.R. 90 (U.S. 41/ Tamiami Trail E) (SB)	Bayshore Drive	82.4	27.0	C
	Airport Pulling Road	44.5	26.0	C
	Espinal Boulevard	30.4	24.9	C
	Palm Drive	34.1	24.9	C
	Guilford Road	39.0	34.4	B

The operational analysis of the existing and build conditions demonstrates that the changes in LOS, delay, and arterial speeds are negligible between each condition. Additionally, the build condition results in acceptable LOS for all intersections and roadway segment links.

NET PRESENT VALUE ANALYSIS

A net present value (NPV) analysis was performed for the recommended improvements of installing three pedestrian hybrid beacons, removing a slip ramp, adding reflective back plates to all signal heads at each of the signalized intersections within the study limits, and adding signing and pavement markings as shown in the recommendations. The procedures outlined in the Department's *Highway Safety Improvement Program Guide* were used to determine the net present value. The average cost per crash of \$117,867 was used, as reported in the FDOT Plans Preparation Manual, Volume 1, Table 23.6.1, for a 6+ lane urban divided roadway and 6+ lane suburban divided roadway. A crash reduction factor of 15% was applied to all crashes that occurred at the intersections for the improvement of adding reflective back plates. A crash reduction factor of 59% was applied to all crashes that occurred at Bayshore Drive for the improvement of removing the slip ramp. A crash reduction factor of 29% was applied to all crashes that occurred at the intersections for the improvement of installing a pedestrian hybrid beacon for a midblock crosswalk at Pelton Street, Bamboo Drive and near Spruce Street.

The cost for the proposed upgrades is \$2,211,194.74 or \$162,743.93 annually. This estimate also includes contingency, design, construction support, maintenance of traffic, and mobilization costs.



The proposed improvements provide the following net present value results:

- Number of crashes potentially reduced: total 560 over 5 years (152.18 annually)
- Annual Monetary Value of Benefits: \$9,934,689
- Annual Monetary Value of Cost: \$162,743.93
- **Benefit/Cost Ratio: 61.04**
- **Net Present Value: \$132,808,861.97**

The *Highway Safety Improvement Program Guide* states that a project can qualify for HSP funds provided that it addresses a key highway safety problem area from the Florida Strategic Highway Safety Plan and a net present value (NPV) greater than zero. The benefit/cost analysis and net present values are summarized in **Appendix H** of this report.



RECOMMENDATIONS

Based on the results of the data collection, crash analysis, qualitative assessment, operational assessment and engineering judgment, the following recommendations were developed:

Roadway

- Consider eliminating the free-flow right turn lane and reconstructing the return radius on the southeast corner of Shadowlawn Drive/Bayshore Drive.
- Consider eliminating the “slip ramp” associated with Peters Avenue and reconstructing the return radius on the southwest corner of the intersection. The “slip ramp” will be replaced with an 8-foot sidewalk.
- Consider reconstructing the return radius on the northwest (to eliminate the merge lane) and southeast corners of Espinal Boulevard/Courthouse Shadows.
- Consider installing a 7-foot buffered bicycle lane with 11-foot through lanes in accordance with Design Bulletin 14-17 where it can be accommodated or a 5-foot bicycle lane.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median, west of Spruce Street.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median on east side of Pelton Avenue.
- Consider constructing a HAWK beacon and two-stage pedestrian crossing with pedestrian detector assemblies in the median on west side of Bamboo Drive.
- Consider reconstructing pedestrian curb ramps to meet ADA standards at Commercial Drive/Palm Street, Shadowlawn Drive/Bayshore Drive, Airport Pulling Road/Peters Avenue, Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road along with the traffic separators where impacted to realign the crosswalks. Additional consideration for reconstructing the pedestrian curb ramps at Commercial Drive/Palm Street is to eliminate water ponding during heavy rain and to properly align with the crosswalks.
- Consider reconstructing sidewalk on the north side of the roadway from Espinal Boulevard/Courthouse Shadows to the Wal-Mart driveway where the sidewalk is flooded during a heavy rain.
- Consider placing or replacing all detectable warning surfaces at the pedestrian curb ramps within the study corridor.
- Consider constructing a concrete pad at the back of the sidewalk at each of the transit stops that do not have shelters to accommodate an accessible bench.



Signing and Pavement Marking

- Consider installing “RIGHT TURN ONLY” (R3-5R) signs on the following side streets where they are currently not provided: Spruce Street, Pine Street, Pelton Avenue, Andrew Drive, Bamboo Drive and Seminole Avenue.
- Consider installing “SCHOOL CROSSING” (S1-1) and “AHEAD” (W16-9) sign assembly, west of Bayside Street in the median and on the north side of the roadway.
- Consider installing “SCHOOL CROSSING” (S1-1), “AHEAD” (W16-9) and “ARROW SYMBOL” (W16-7P) sign assembly, west and east of Shadowlawn Drive/Bayshore Drive in the median and on the north side (westbound) and south side (eastbound) of the S.R. 90 (U.S. 41/Tamiami Trail E) as well as on the west (southbound) and east (northbound) sides Shadowlawn Drive/Bayshore Drive.
- Consider installing the traffic signal sign, “STOP HERE ON RED” (R10-6) at the following locations: Commercial Drive/Palm Street (north and south legs), Shadowlawn Drive/Bayshore Drive (north and south legs), Airport Pulling Road/Peters Avenue (north and south legs), Espinal Boulevard/Courthouse Shadows, Palm Drive (north leg) and Guilford Road (north and south legs).
- Consider installing the “KEEP RIGHT” (R4-7) and “OBJECT MARKER” (OM1-1) sign assembly within the median of S.R. 90 (U.S. 41/Tamiami Trail E) at all six of the signalized intersections.
- “RIDE WITH TRAFFIC” (R9-3CP) and “BIKE LANE” (R3-17) sign assembly with “BICYCLE WRONG WAY” (R5-1b) sign on the opposite side of the sign post (opposite direction of travel) at five intermediate locations on both the north and south side of the roadway within the study corridor, between signalized intersections.
- Consider installing the pedestrian warning signs, “TURNING VEHICLES YIELD TO PEDESTRIANS” (R10-15), on all approaches to the six signalized intersections with the exception of the east leg of Airport Pulling Road/Peters Avenue (where this sign is already provided).
- Consider replacing the yellow skip guide stripe with the white skip guide stripe at Commercial Drive/Palm Street.
- Consider replacing worn pavement markings at Spruce Street, Pelton Avenue, Pineland Street, and Bayside Street.
- Consider providing crosswalk markings at Osceola Avenue, where they are currently not provided.
- Consider replacing all standard crosswalks at the signalized intersections within the study corridor with high emphasis crosswalks per *FDOT Memo 01-12 for High Emphasis Crosswalk Markings*.
- Consider installing pavement markings for the right turn lanes between Palm Drive and Enchanting Boulevard (eastbound) as well as between east of Palm Drive to Guilford Road (westbound).



- Consider installing pavement markings (arrows) for the left turn lane at Seminole Avenue.
- Consider installing bicycle lane pavement markings per FDOT's *Standard Index 17347*.

Signal

- Consider removing the mast arm signal poles on the NE and SW corners of Shadowlawn Drive/Bayshore Drive, and replacing it with a new longer mast arm signal pole on the SW corner.
- Consider implementing a Leading Pedestrian Interval (LPI) at all six signalized intersections.
- Implement Rest in Walk and Pedestrian Recall on minor side street pedestrian phases (concurrent with major street traffic).
- Consider adjusting the signal timings (as necessary) to account for the modified intersection configurations.
- Consider separating pedestrian signals at the six signalized intersections where they are currently on shared poles.
- Consider switching the orientation of the pedestrian pushbuttons and signs so that they are properly oriented to the corresponding crosswalk as specified in FDOT's *Standard Index 17784*.
- Consider adding one signal head for every lane at the intersections of Commercial Drive/Palm Street, Airport Pulling Road/Peters Avenue, Palm Drive and Guilford Road.
- Consider installing retro-reflective backplates for each of the signal heads where they are currently not provided at the following signalized intersections: Commercial Drive/Palm Street, Airport Pulling Road/Peters Avenue, Espinal Boulevard/Courthouse Shadows, Palm Drive and Guilford Road.

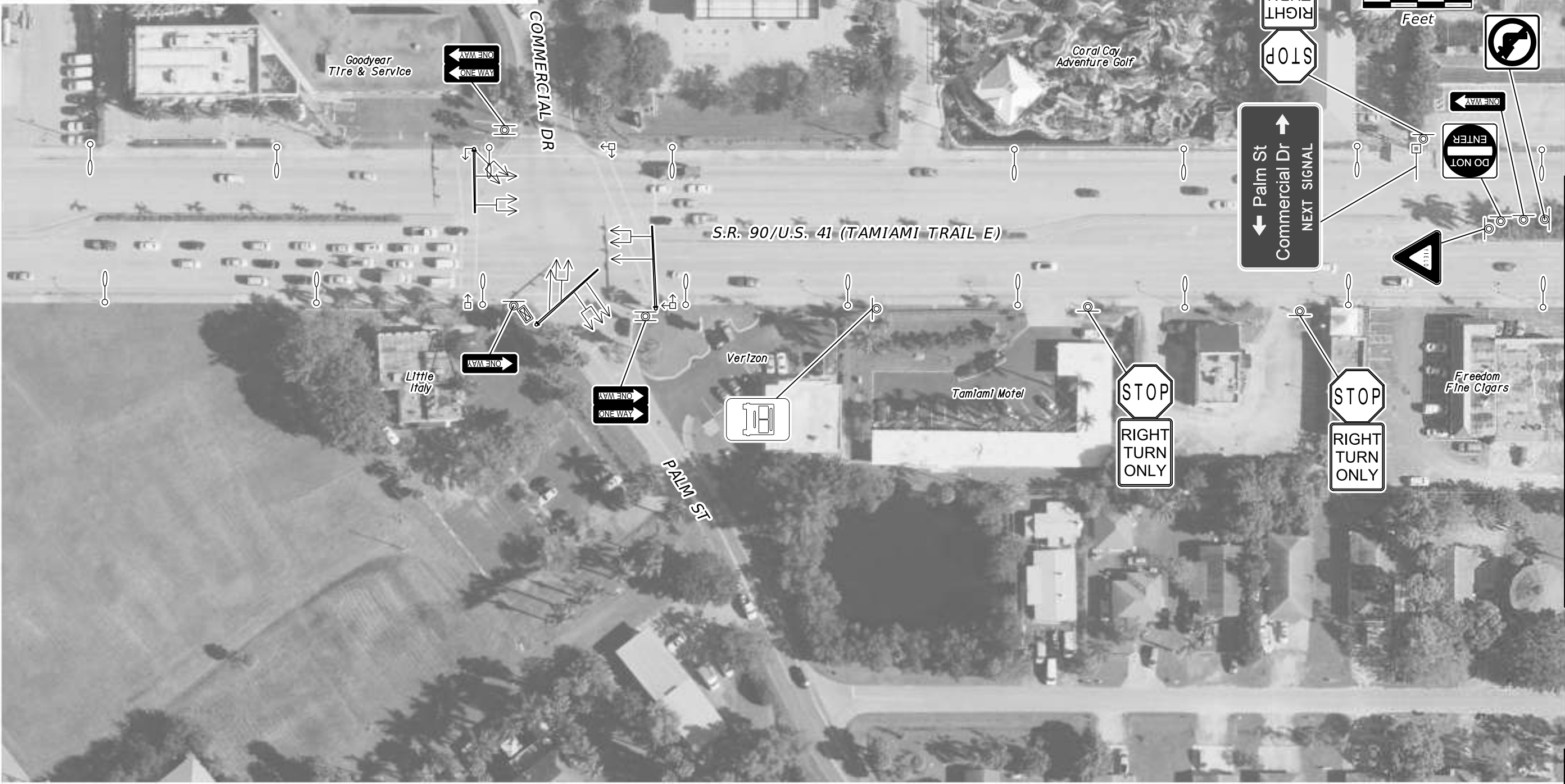


APPENDIX A

CONDITION DIAGRAM

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

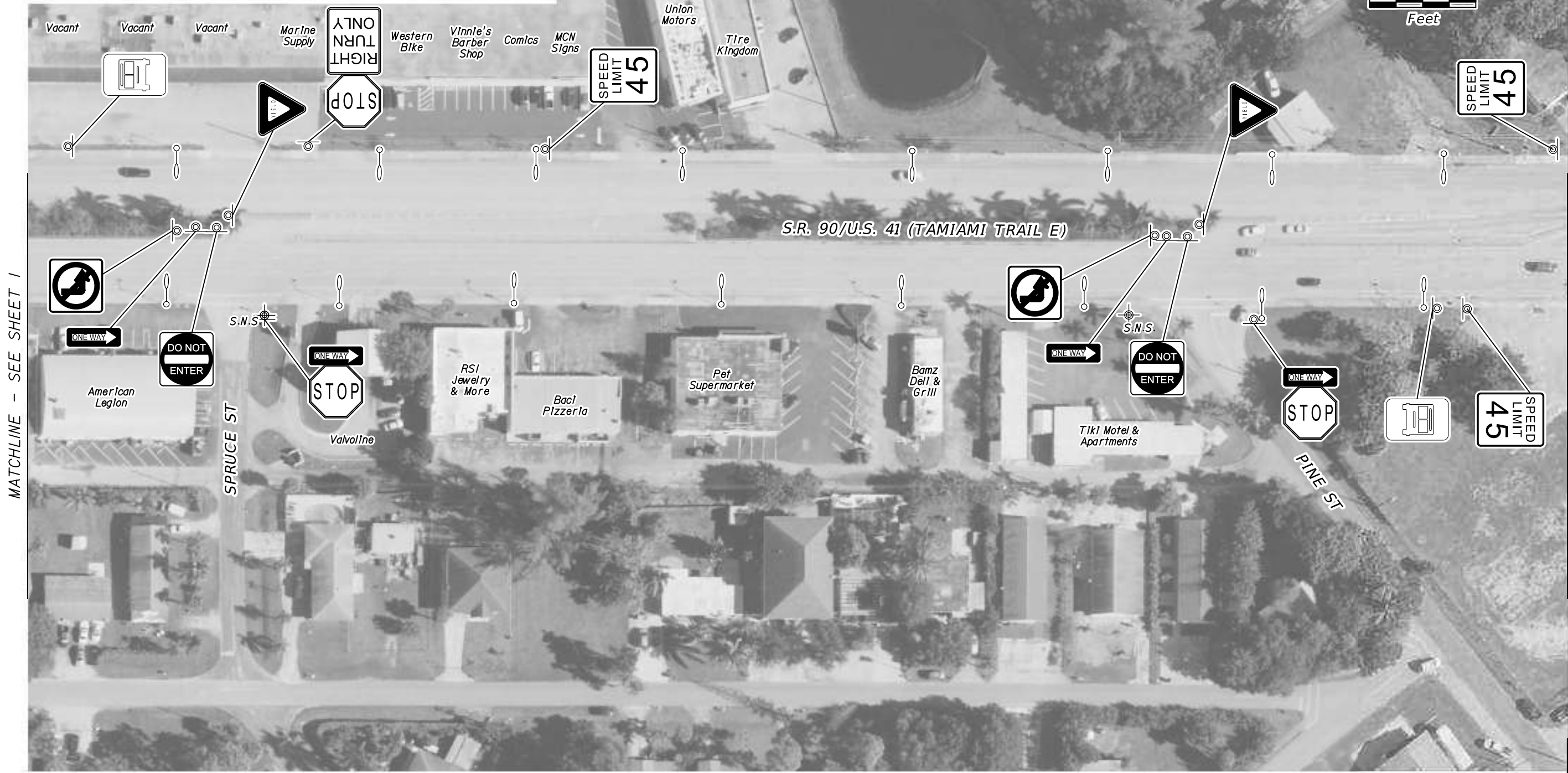
SHEET
1

SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB



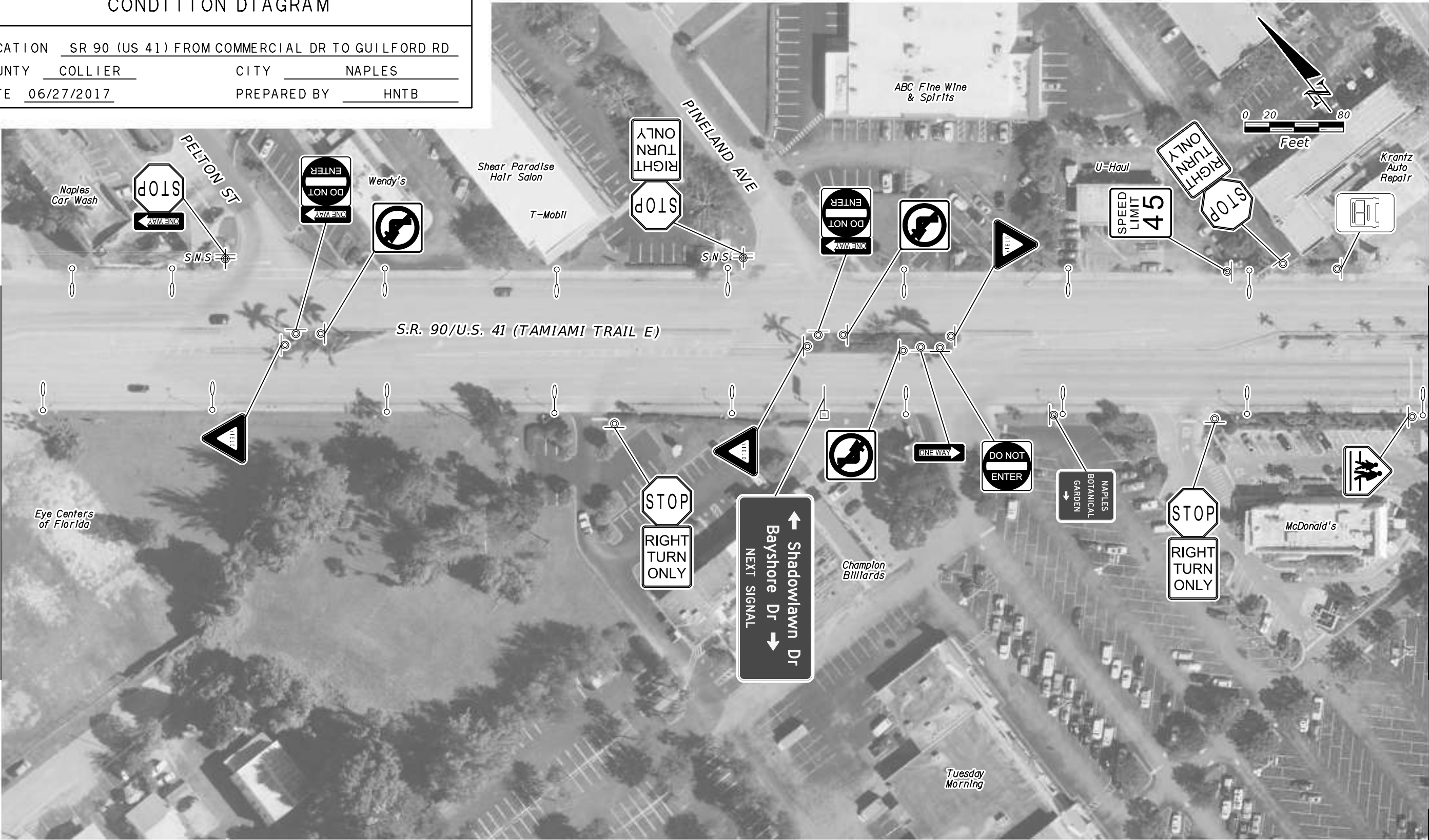
SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB

MATCHLINE - SEE SHEET 2



MATCHLINE - SEE SHEET 4

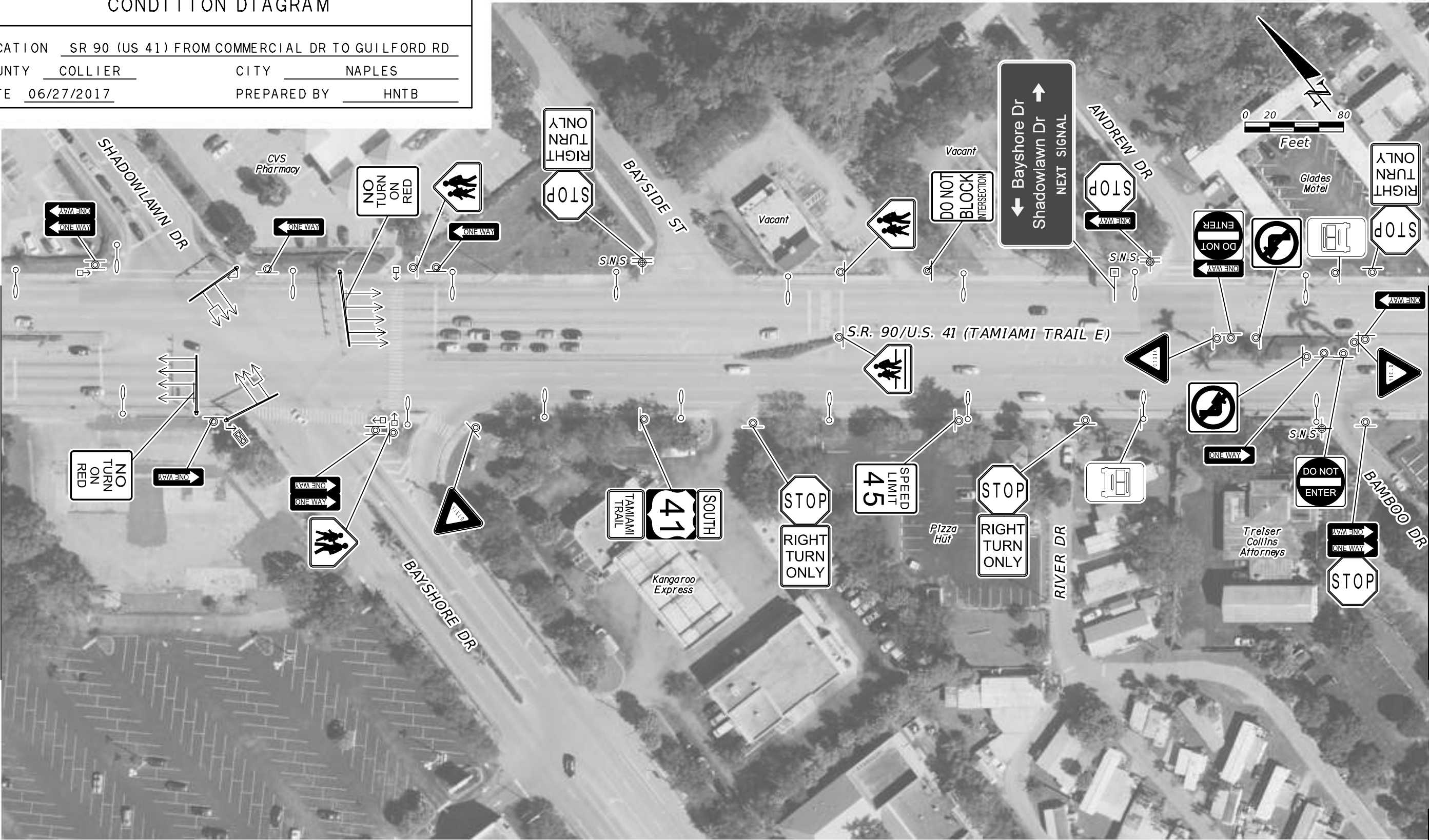
SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB

MATCHLINE - SEE SHEET 3



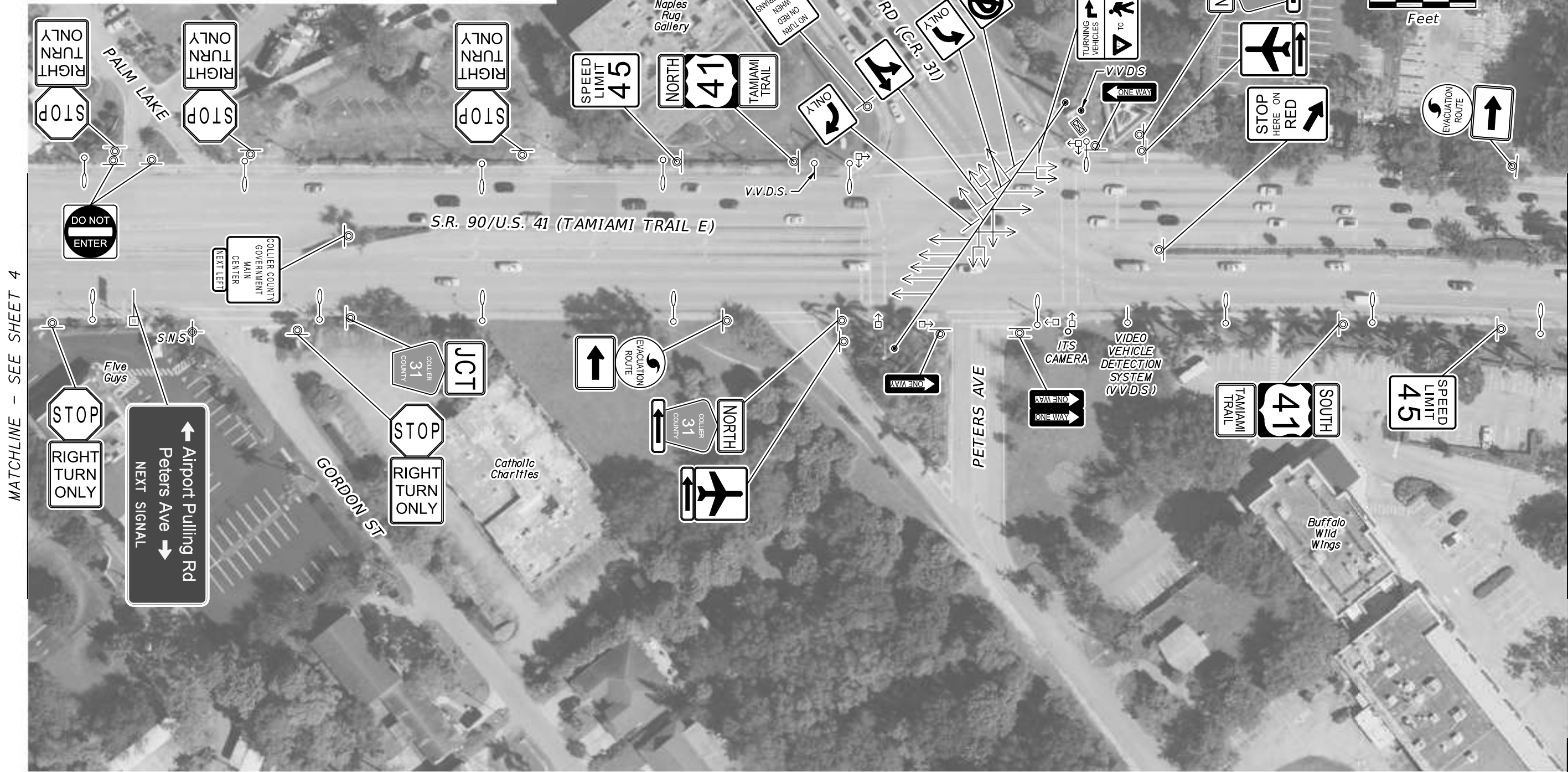
MATCHLINE - SEE SHEET 5

SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB

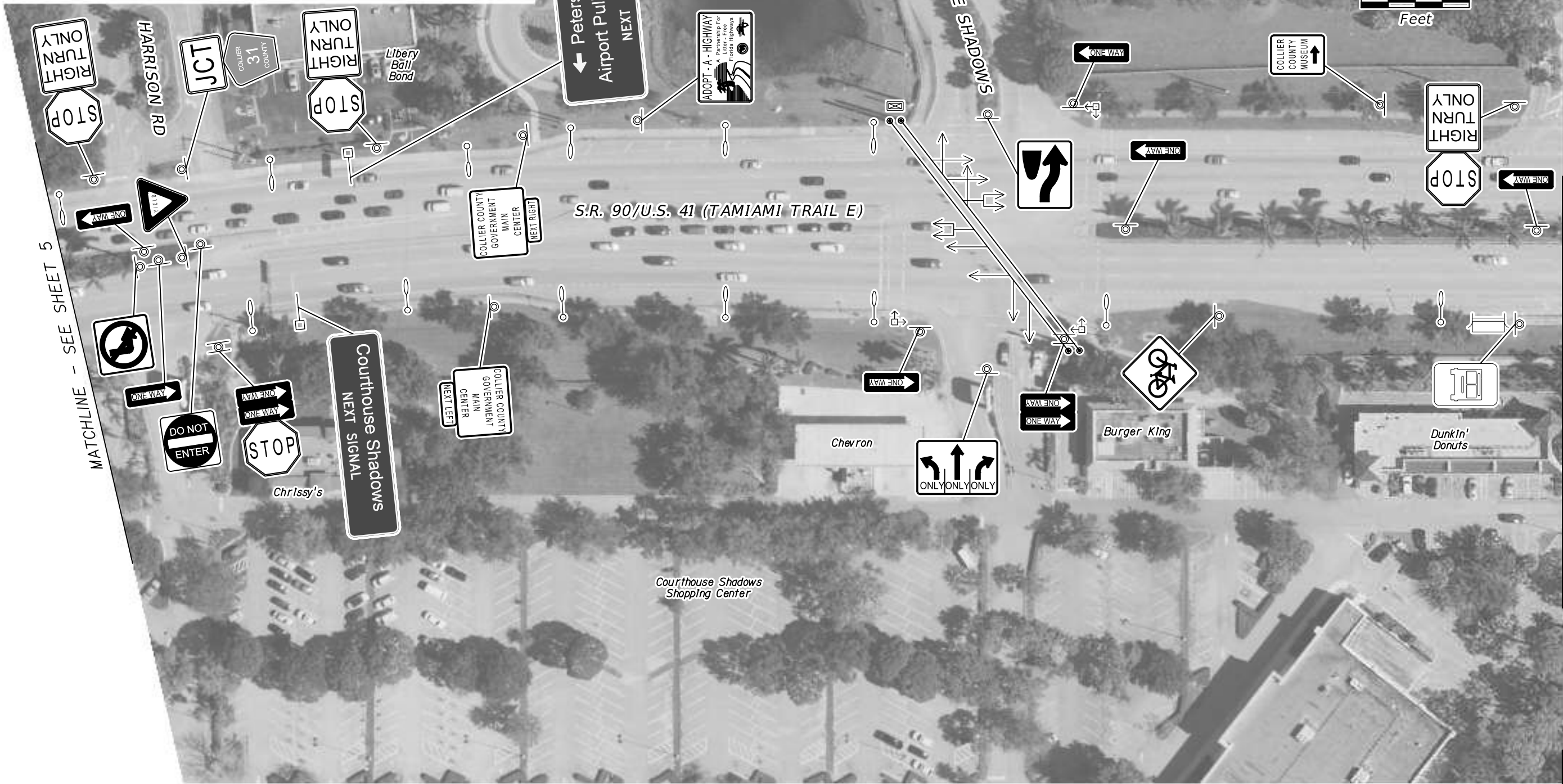


SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB



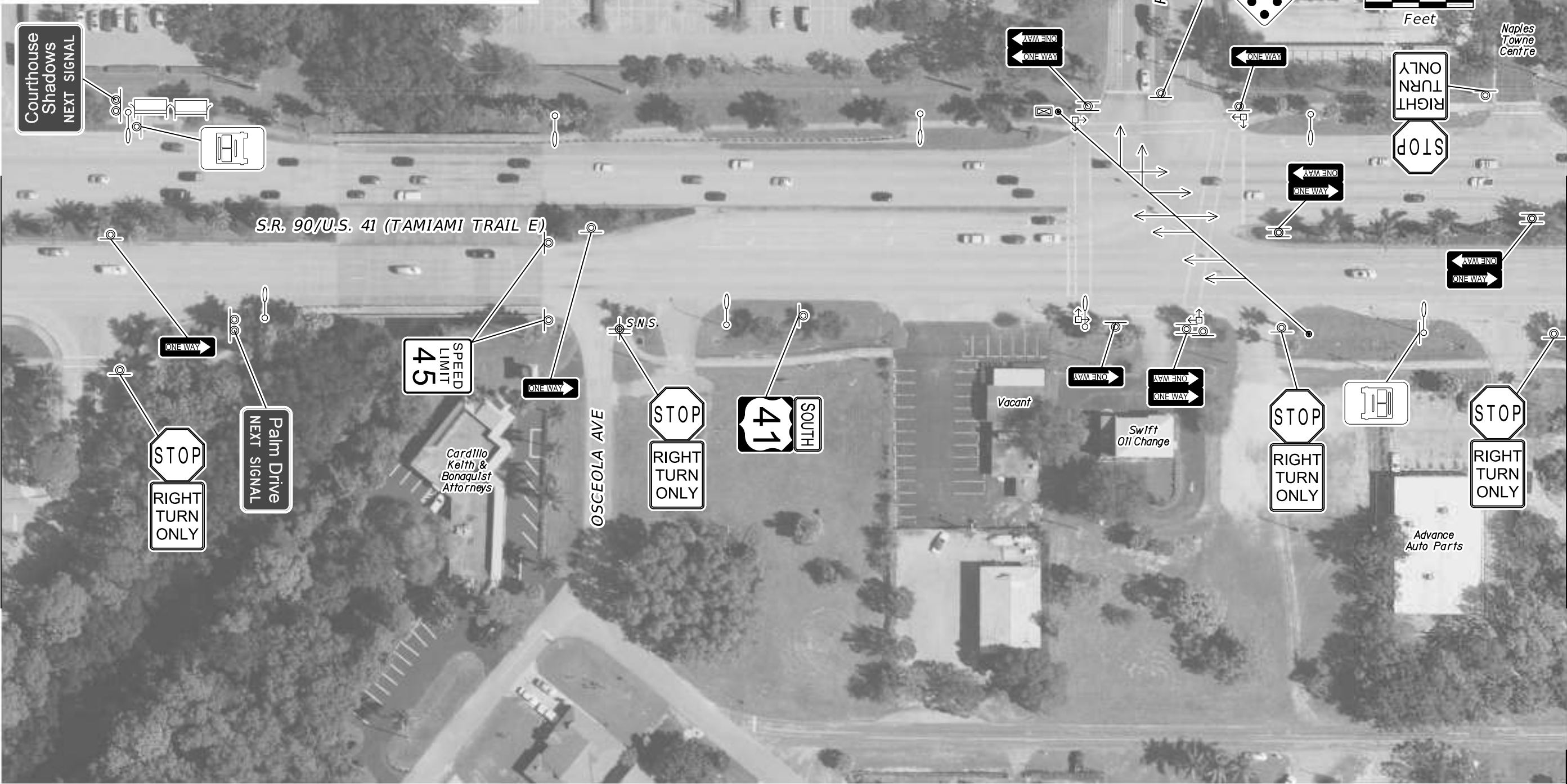
SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB

MATCHLINE - SEE SHEET 6



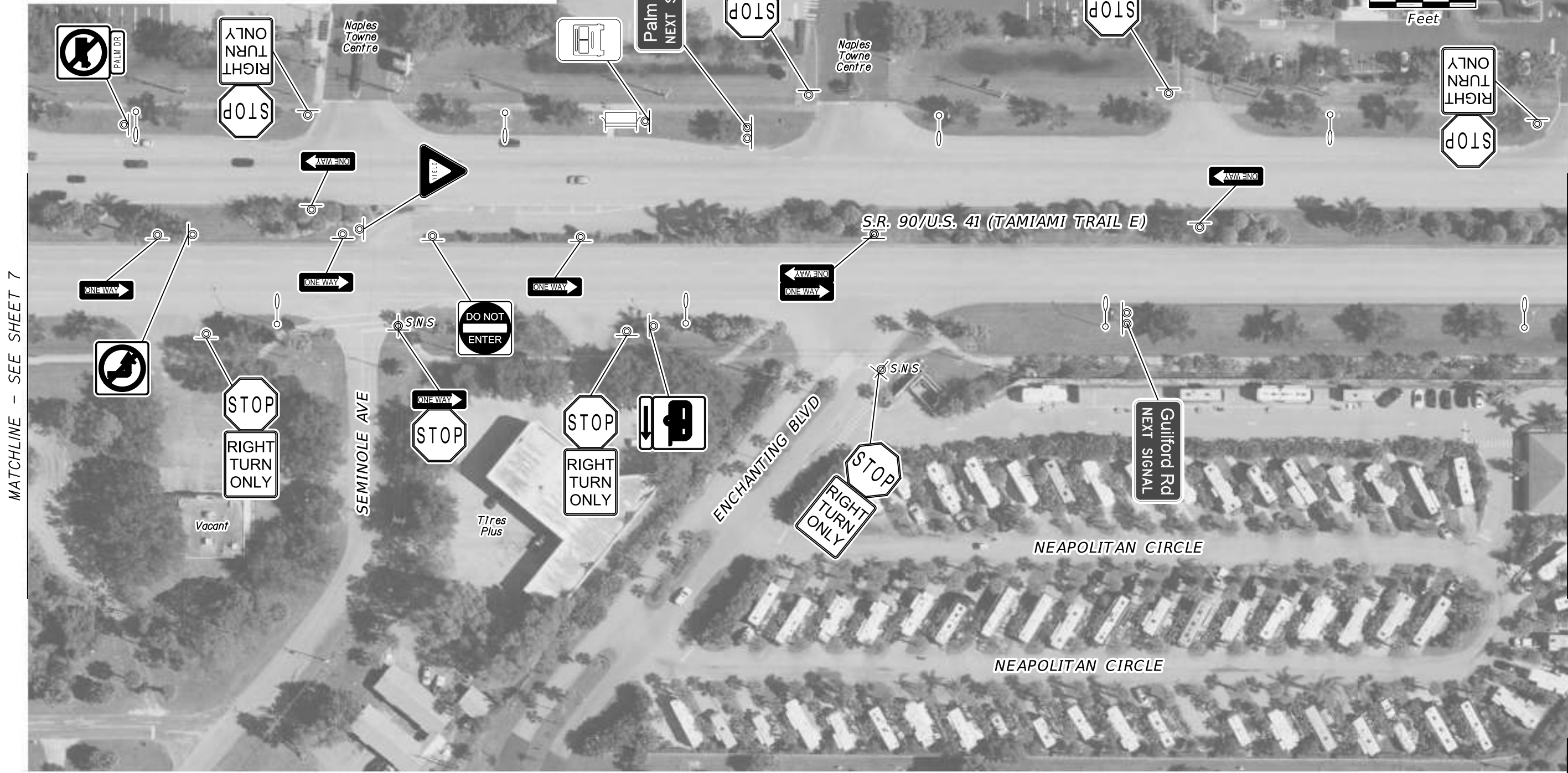
MATCHLINE - SEE SHEET 8

SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB



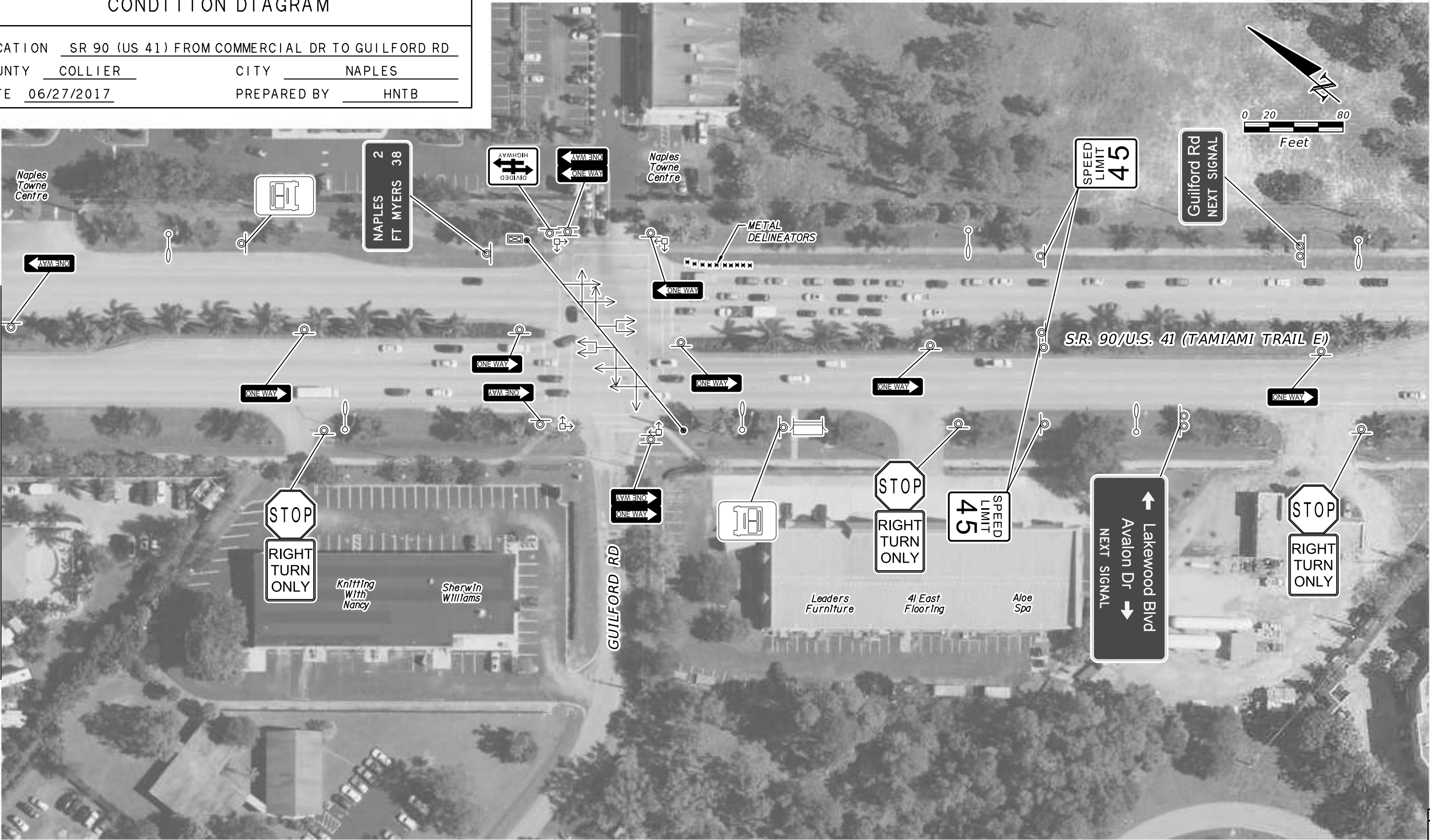
SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN

CONDITION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
COUNTY COLLIER CITY NAPLES
DATE 06/27/2017 PREPARED BY HNTB

MATCHLINE - SEE SHEET 8



SYMBOLS

	FENCE		BUS STOP BENCH		CONTROLLER CABINET		SIGNAL STRAIN POLE		POWER POLE		SINGLE POST SIGN
	GUARDRAIL		HYDRANT		PED. SIGNAL PEDESTAL		SIGNAL MAST ARM		COMBINATION POLE		MULTI-POST SIGN
	BUILDING		STREET NAME SIGN		TRAFFIC SIGNAL PEDESTAL		SIGNAL HEAD		LIGHT POLE		OVERHEAD SIGN



APPENDIX B

TRAFFIC COUNT DATA

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Jason A.
Weather:Rain
Day of the Week:Wednesday

File Name : US 41 @ Commercial Dr TMC jay
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US41 Southbound					Commercial Dr Westbound					US41 Northbound					Palm st Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	1	55	1	4	61	18	6	6	0	30	7	193	3	0	203	4	7	5	0	16	310
07:15 AM	0	99	9	1	109	25	7	2	0	34	2	248	2	0	252	3	7	7	0	17	412
07:30 AM	2	96	7	0	105	20	3	11	0	34	5	288	2	0	295	5	9	8	0	22	456
07:45 AM	0	109	6	0	115	26	14	8	0	48	8	277	5	0	290	1	11	11	0	23	476
Total	3	359	23	5	390	89	30	27	0	146	22	1006	12	0	1040	13	34	31	0	78	1654
08:00 AM	2	130	7	1	140	25	9	12	0	46	6	284	6	1	297	5	6	4	0	15	498
08:15 AM	0	104	7	3	114	24	11	9	0	44	9	285	2	0	296	0	12	7	0	19	473
08:30 AM	2	136	11	0	149	22	6	7	0	35	13	271	2	0	286	6	18	7	0	31	501
08:45 AM	2	127	6	3	138	24	10	12	0	46	13	257	4	0	274	4	10	7	0	21	479
Total	6	497	31	7	541	95	36	40	0	171	41	1097	14	1	1153	15	46	25	0	86	1951
09:00 AM	0	148	5	2	155	15	9	12	0	36	11	210	2	3	226	4	9	10	0	23	440
09:15 AM	4	124	5	1	134	16	9	15	0	40	9	214	4	2	229	5	6	7	0	18	421
09:30 AM	0	159	8	4	171	11	8	13	0	32	7	224	4	3	238	5	11	5	0	21	462
09:45 AM	6	178	6	4	194	15	10	13	0	38	4	237	6	2	249	5	10	13	0	28	509
Total	10	609	24	11	654	57	36	53	0	146	31	885	16	10	942	19	36	35	0	90	1832
11:00 AM	8	196	5	0	209	10	12	21	0	43	14	204	9	2	229	8	13	9	0	30	511
11:15 AM	2	199	7	1	209	17	5	18	0	40	8	239	7	1	255	8	14	2	0	24	528
11:30 AM	6	229	9	0	244	15	17	23	0	55	9	243	4	0	256	8	10	6	0	24	579
11:45 AM	4	223	11	2	240	24	12	27	0	63	10	239	8	6	263	9	11	14	0	34	600
Total	20	847	32	3	902	66	46	89	0	201	41	925	28	9	1003	33	48	31	0	112	2218
12:00 PM	4	245	12	4	265	19	11	19	0	49	11	263	7	3	284	14	10	9	0	33	631
12:15 PM	3	247	17	0	267	23	17	22	0	62	20	240	8	2	270	9	10	7	0	26	625
12:30 PM	4	219	15	2	240	16	12	19	0	47	17	262	7	6	292	7	6	7	0	20	599
12:45 PM	4	243	9	1	257	25	18	19	0	62	18	219	8	6	251	8	6	8	0	22	592
Total	15	954	53	7	1029	83	58	79	0	220	66	984	30	17	1097	38	32	31	0	101	2447
03:00 PM	5	365	19	2	391	17	16	19	0	52	8	163	8	3	182	5	9	7	0	21	646
03:15 PM	5	370	19	0	394	25	10	27	0	62	5	183	2	1	191	2	7	8	0	17	664
03:30 PM	4	274	15	1	294	13	11	9	0	33	9	211	3	3	226	6	14	3	0	23	576
03:45 PM	6	307	11	0	324	16	7	16	0	39	14	200	3	6	223	2	11	4	0	17	603
Total	20	1316	64	3	1403	71	44	71	0	186	36	757	16	13	822	15	41	22	0	78	2489
04:00 PM	5	290	15	0	310	13	9	15	0	37	11	173	3	0	187	4	9	6	0	19	553
04:15 PM	6	328	15	1	350	28	12	14	0	54	6	151	4	4	165	3	7	8	0	18	587
04:30 PM	6	289	21	2	318	12	11	16	0	39	6	190	4	6	206	3	3	2	0	8	571
04:45 PM	3	253	18	1	275	21	15	18	0	54	5	285	0	4	294	11	6	7	0	24	647
Total	20	1160	69	4	1253	74	47	63	0	184	28	799	11	14	852	21	25	23	0	69	2358
05:00 PM	5	277	15	0	297	16	11	24	0	51	8	153	3	1	165	5	9	11	0	25	538
05:15 PM	8	329	7	0	344	19	15	19	0	53	8	161	8	1	178	6	4	3	0	13	588
05:30 PM	3	242	6	1	252	14	17	13	0	44	4	159	5	0	168	4	10	6	0	20	484
05:45 PM	1	201	6	1	209	8	5	14	0	27	8	172	5	1	186	8	5	4	0	17	439
Total	17	1049	34	2	1102	57	48	70	0	175	28	645	21	3	697	23	28	24	0	75	2049
Grand Total	111	6791	330	42	7274	592	345	492	0	1429	293	7098	148	67	7606	177	290	222	0	689	16998
Apprch %	1.5	93.4	4.5	0.6		41.4	24.1	34.4	0		3.9	93.3	1.9	0.9		25.7	42.1	32.2	0		
Total %	0.7	40	1.9	0.2	42.8	3.5	2	2.9	0	8.4	1.7	41.8	0.9	0.4	44.7	1	1.7	1.3	0	4.1	
CARS	110	6742	327	42	7221	585	338	483	0	1406	292	7055	146	66	7559	176	288	221	0	685	16871
% CARS	99.1	99.3	99.1	100	99.3	98.8	98	98.2	0	98.4	99.7	99.4	98.6	98.5	99.4	99.4	99.3	99.5	0	99.4	99.3
TRUCKS	1	49	3	0	53	7	7	9	0	23	1	43	2	1	47	1	2	1	0	4	127
% TRUCKS	0.9	0.7	0.9	0	0.7	1.2	2	1.8	0	1.6	0.3	0.6	1.4	1.5	0.6	0.6	0.7	0.5	0	0.6	0.7

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Jason A.
Weather:Rain
Day of the Week:Wednesday

File Name : US 41 @ Commercial Dr TMC jay
Site Code : 00000000
Start Date : 6/7/2017
Page No : 2

	US41 Southbound					Commercial Dr Westbound					US41 Northbound					Palm st Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					11:30 AM					07:30 AM					11:30 AM					
+0 mins.	5	365	19	2	391	15	17	23	0	55	5	288	2	0	295	8	10	6	0	24	
+15 mins.	5	370	19	0	394	24	12	27	0	63	8	277	5	0	290	9	11	14	0	34	
+30 mins.	4	274	15	1	294	19	11	19	0	49	6	284	6	1	297	14	10	9	0	33	
+45 mins.	6	307	11	0	324	23	17	22	0	62	9	285	2	0	296	9	10	7	0	26	
Total Volume	20	1316	64	3	1403	81	57	91	0	229	28	1134	15	1	1178	40	41	36	0	117	
% App. Total	1.4	93.8	4.6	0.2		35.4	24.9	39.7	0		2.4	96.3	1.3	0.1		34.2	35	30.8	0		
PHF	.833	.889	.842	.375	.890	.844	.838	.843	.000	.909	.778	.984	.625	.250	.992	.714	.932	.643	.000	.860	

Cars

Street Name	SB (US 41)				WB (Commercial Dr)				NB (US 41)				EB (Palm St)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	1	54	1	4	6	6	17	0	3	193	7	0	5	7	4	0
7:15	9	98	0	1	2	7	25	0	2	248	2	0	7	7	3	0
7:30	7	96	2	0	11	3	20	0	2	286	5	0	8	9	5	0
7:45	6	106	0	0	8	12	26	0	5	277	8	0	11	11	1	0
8:00	6	129	2	1	11	8	23	0	6	282	6	1	4	6	5	0
8:15	7	104	0	3	9	11	24	0	2	283	9	0	7	12	0	0
8:30	11	132	2	0	7	6	22	0	2	269	13	0	7	18	6	0
8:45	6	124	1	3	10	9	24	0	4	256	13	0	7	10	4	0
9:00	5	146	0	2	12	9	15	0	2	207	11	3	10	9	4	0
9:15	5	123	4	1	15	9	16	0	4	214	9	2	6	6	4	0
9:30	8	155	0	4	12	8	11	0	4	224	7	3	5	11	5	0
9:45	6	177	6	4	13	10	15	0	6	233	4	2	13	10	5	0
11:00	5	193	8	0	21	12	10	0	8	203	14	2	9	13	8	0
11:15	6	198	2	1	17	5	17	0	7	237	8	1	2	14	8	0
11:30	8	227	6	0	23	16	15	0	4	242	9	0	6	10	8	0
11:45	11	220	4	2	26	12	23	0	8	237	10	6	14	11	9	0
12:00	12	245	4	4	18	11	19	0	7	259	11	3	9	10	14	0
12:15	17	246	3	0	22	17	23	0	8	237	20	2	7	10	9	0
12:30	15	214	4	2	19	11	16	0	7	262	17	5	7	6	7	0
12:45	9	242	4	1	19	18	25	0	8	216	18	6	8	6	8	0
15:00	19	361	5	2	18	16	16	0	8	161	7	3	7	9	5	0
15:15	19	368	5	0	26	9	24	0	2	180	5	1	8	7	2	0
15:30	15	273	4	1	9	11	13	0	2	210	9	3	3	12	6	0
15:45	11	307	6	0	16	7	16	0	3	199	14	6	4	11	2	0
16:00	15	290	5	0	15	9	13	0	3	173	11	0	6	9	4	0
16:15	15	328	6	1	14	12	28	0	4	151	6	4	8	7	3	0
16:30	21	287	6	2	16	11	12	0	4	189	6	6	2	3	3	0
16:45	18	252	3	1	18	15	20	0	0	285	5	4	7	6	11	0
17:00	15	277	5	0	24	11	16	0	3	153	8	1	11	9	5	0
17:15	7	329	8	0	19	15	19	0	8	161	8	1	3	4	6	0
17:30	6	241	3	1	13	17	14	0	5	159	4	0	6	10	4	0
17:45	6	200	1	1	14	5	8	0	5	169	8	1	4	5	8	0

Trucks

Street Name	SB (US 41)				WB (Commercial Dr)				NB (US 41)				EB (Palm St)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
7:45	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0
8:00	1	1	0	0	1	1	2	0	0	2	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:30	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0
8:45	0	3	1	0	2	1	0	0	0	1	0	0	0	0	0	0
9:00	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9:15	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0
9:30	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0
9:45	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0
11:00	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11:15	1	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0
11:30	1	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0
11:45	0	3	0	0	1	0	1	0	0	2	0	0	0	0	0	0
12:00	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0
12:15	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:30	0	5	0	0	0	1	0	0	0	0	0	1	0	0	0	0
12:45	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0
15:00	0	4	0	0	1	0	1	0	0	2	1	0	0	0	0	0
15:15	0	2	0	0	1	1	1	0	0	3	0	0	0	0	0	0
15:30	0	1	0	0	0	0	0	0	1	1	0	0	0	2	0	0
15:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
16:45	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0

TURNING MOVEMENT COUNT:US 41 @ Commercial Dr
EAST/WEST ST:Commercial Dr / Palm st

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Jason + Sierra

ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	3	193	7	0	203	1	55	1	4	61	264	5	7	4	0	16	6	6	18	0	30	46	310
7:15	2	248	2	0	252	9	99	0	1	109	361	7	7	3	0	17	2	7	25	0	34	51	412
7:30	2	288	5	0	295	7	96	2	0	105	400	8	9	5	0	22	11	3	20	0	34	56	456
7:45	5	277	8	0	290	6	109	0	0	115	405	11	11	1	0	23	8	14	26	0	48	71	476
Total	12	1,006	22	0	1,040	23	359	3	5	390	1,430	31	34	13	0	78	27	30	89	0	146	224	1,654
8:00	6	284	6	1	297	7	130	2	1	140	437	4	6	5	0	15	12	9	25	0	46	61	498
8:15	2	285	9	0	296	7	104	0	3	114	410	7	12	0	0	19	9	11	24	0	44	63	473
8:30	2	271	13	0	286	11	136	2	0	149	435	7	18	6	0	31	7	6	22	0	35	66	501
8:45	4	257	13	0	274	6	127	2	3	138	412	7	10	4	0	21	12	10	24	0	46	67	479
Total	14	1,097	41	1	1,153	31	497	6	7	541	1,694	25	46	15	0	86	40	36	95	0	171	257	1,951
9:00	2	210	11	3	226	5	148	0	2	155	381	10	9	4	0	23	12	9	15	0	36	59	440
9:15	4	214	9	2	229	5	124	4	1	134	363	7	6	5	0	18	15	9	16	0	40	58	421
9:30	4	224	7	3	238	8	159	0	4	171	409	5	11	5	0	21	13	8	11	0	32	53	462
9:45	6	237	4	2	249	6	178	6	4	194	443	13	10	5	0	28	13	10	15	0	38	66	509
Total	16	885	31	10	942	24	609	10	11	654	1,596	35	36	19	0	90	53	36	57	0	146	236	1,832
11:00	9	204	14	2	229	5	196	8	0	209	438	9	13	8	0	30	21	12	10	0	43	73	511
11:15	7	239	8	1	255	7	199	2	1	209	464	2	14	8	0	24	18	5	17	0	40	64	528
11:30	4	243	9	0	256	9	229	6	0	244	500	6	10	8	0	24	23	17	15	0	55	79	579
11:45	8	239	10	6	263	11	223	4	2	240	503	14	11	9	0	34	27	12	24	0	63	97	600
Total	28	925	41	9	1,003	32	847	20	3	902	1,905	31	48	33	0	112	89	46	66	0	201	313	2,218
12:00	7	263	11	3	284	12	245	4	4	265	549	9	10	14	0	33	19	11	19	0	49	82	631
12:15	8	240	20	2	270	17	247	3	0	267	537	7	10	9	0	26	22	17	23	0	62	88	625
12:30	7	262	17	6	292	15	219	4	2	240	532	7	6	7	0	20	19	12	16	0	47	67	599
12:45	8	219	18	6	251	9	243	4	1	257	508	8	6	8	0	22	19	18	25	0	62	84	592
Total	30	984	66	17	1,097	53	954	15	7	1,029	2,126	31	32	38	0	101	79	58	83	0	220	321	2,447
15:00	8	163	8	3	182	19	365	5	2	391	573	7	9	5	0	21	19	16	17	0	52	73	646
15:15	2	183	5	1	191	19	370	5	0	394	585	8	7	2	0	17	27	10	25	0	62	79	664
15:30	3	211	9	3	226	15	274	4	1	294	520	3	14	6	0	23	9	11	13	0	33	56	576
15:45	3	200	14	6	223	11	307	6	0	324	547	4	11	2	0	17	16	7	16	0	39	56	603
Total	16	757	36	13	822	64	1,316	20	3	1,403	2,225	22	41	15	0	78	71	44	71	0	186	264	2,489
16:00	3	173	11	0	187	15	290	5	0	310	497	6	9	4	0	19	15	9	13	0	37	56	553
16:15	4	151	6	4	165	15	328	6	1	350	515	8	7	3	0	18	14	12	28	0	54	72	587
16:30	4	190	6	6	206	21	289	6	2	318	524	2	3	3	0	8	16	11	12	0	39	47	571
16:45	0	285	5	4	294	18	253	3	1	275	569	7	6	11	0	24	18	15	21	0	54	78	647
Total	11	799	28	14	852	69	1,160	20	4	1,253	2,105	23	25	21	0	69	63	47	74	0	184	253	2,358
17:00	3	153	8	1	165	15	277	5	0	297	462	11	9	5	0	25	24	11	16	0	51	76	538
17:15	8	161	8	1	178	7	329	8	0	344	522	3	4	6	0	13	19	15	19	0	53	66	588
17:30	5	159	4	0	168	6	242	3	1	252	420	6	10	4	0	20	13	17	14	0	44	64	484
17:45	5	172	8	1	186	6	201	1	1	209	395	4	5	8	0	17	14	5	8	0	27	44	439
Total	21	645	28	3	697	34	1,049	17	2	1,102	1,799	24	28	23	0	75	70	48	57	0	175	250	2,049

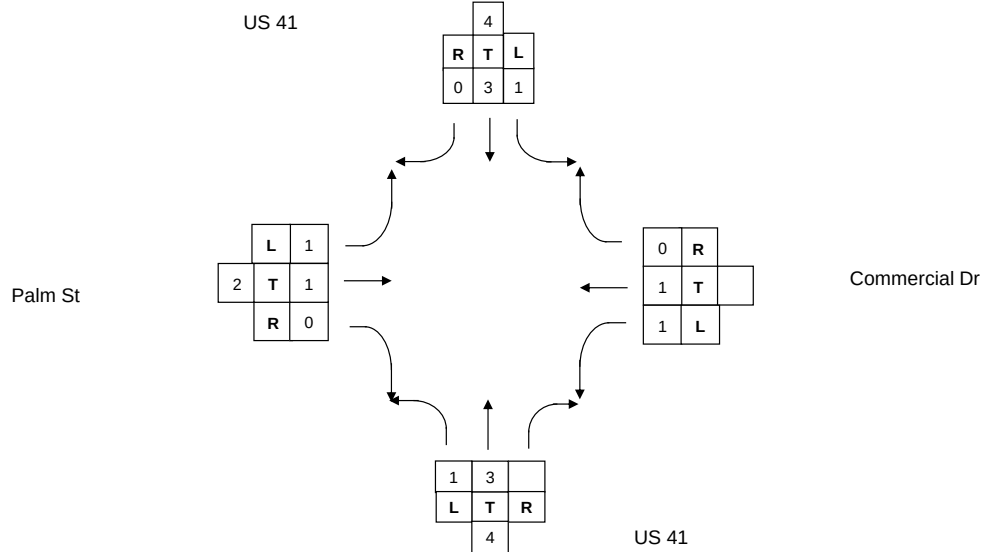
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Commercial Dr / Palm St STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet
 REMARKS:

FORM COMPLETED BY: TM

DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	12	1,006	22	0	1,040	23	359	3	5	390	1,430	31	34	13	0	78	27	30	89	0	146	224
8 - 9	14	1,097	41	1	1,153	31	497	6	7	541	1,694	25	46	15	0	86	40	36	95	0	171	257
9 - 10	16	885	31	10	942	24	609	10	11	654	1,596	35	36	19	0	90	53	36	57	0	146	236
11 - 12	28	925	41	9	1,003	32	847	20	3	902	1,905	31	48	33	0	112	89	46	66	0	201	313
12 - 1	30	984	66	17	1,097	53	954	15	7	1,029	2,126	31	32	38	0	101	79	58	83	0	220	321
3 - 4	16	757	36	13	822	64	1,316	20	3	1,403	2,225	22	41	15	0	78	71	44	71	0	186	264
4 - 5	11	799	28	14	852	69	1,160	20	4	1,253	2,105	23	25	21	0	69	63	47	74	0	184	253
5 - 6	21	645	28	3	697	34	1,049	17	2	1,102	1,799	24	28	23	0	75	70	48	57	0	175	250
TOTAL	148	7,098	293	67	7,606	330	6,791	111	42	7,274	14,880	222	290	177	0	689	492	345	592	0	1,429	2,118

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
 INTER. ROUTE: Commercial Dr / Palm St
 OBSERVER: Jason + Sierra

CITY: Naples
 STATE ROUTE: US 41
 DATE: 06/07/17

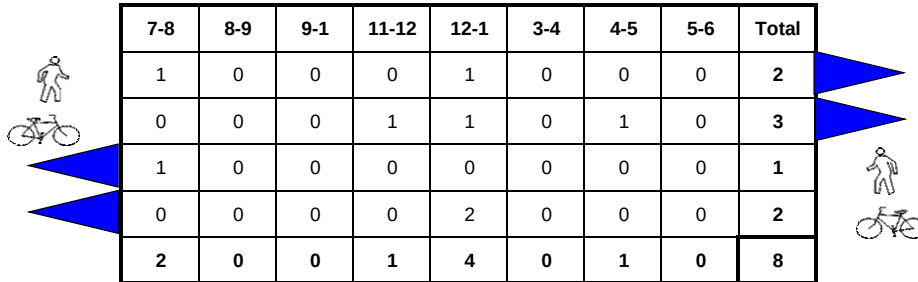
COUNTY: Collier

REMARKS: _____

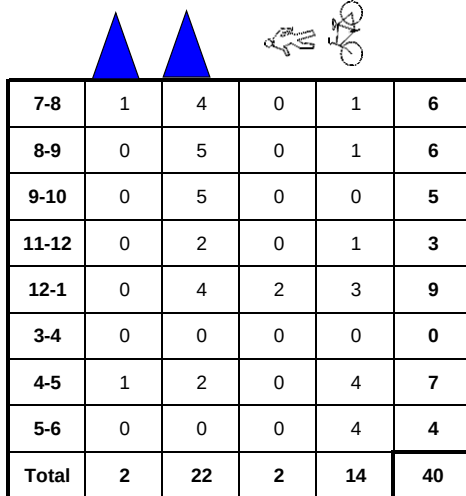
FORM COMPLETED BY: TM

DATE: 06/19/17

US 41

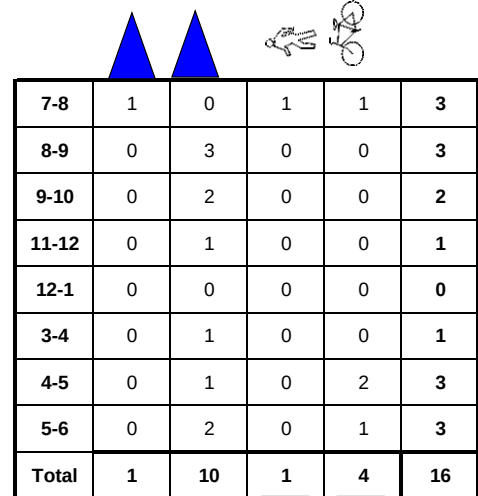


7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
1	0	0	0	1	0	0	0	2
0	0	0	1	1	0	1	0	3
1	0	0	0	0	0	0	0	1
0	0	0	0	2	0	0	0	2
2	0	0	1	4	0	1	0	8

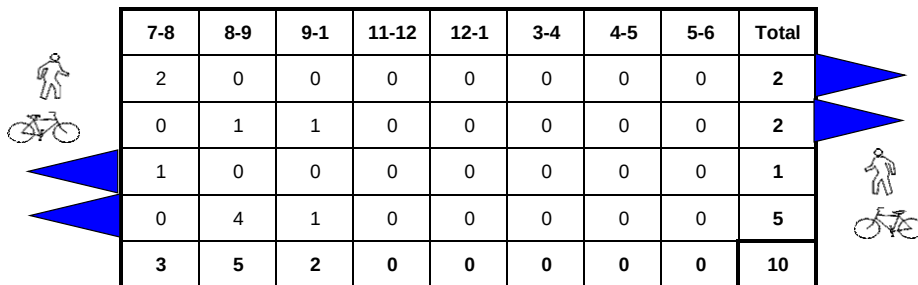


7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	4	0	1	6				
0	5	0	1	6				
0	5	0	0	5				
0	2	0	1	3				
0	4	2	3	9				
0	0	0	0	0				
1	2	0	4	7				
0	0	0	4	4				
2	22	2	14	40				

Commercial Dr / Palm St



7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	0	1	1	3				
0	3	0	0	3				
0	2	0	0	2				
0	1	0	0	1				
0	0	0	0	0				
0	1	0	0	1				
0	1	0	2	3				
0	2	0	1	3				
1	10	1	4	16				



7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
2	0	0	0	0	0	0	0	2
0	1	1	0	0	0	0	0	2
1	0	0	0	0	0	0	0	1
0	4	1	0	0	0	0	0	5
3	5	2	0	0	0	0	0	10

US 41

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Rain
Day of the Week: Wednesday

File Name : US 41 @ Bayshore Dr TMC tm
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US41 Southbound					SHADOWLAWN DR Westbound					US41 Northbound					BAYSHORE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	8	69	0	2	79	3	8	5	0	16	10	178	17	3	208	40	8	33	0	81	384
07:15 AM	17	87	1	2	107	2	10	1	0	13	7	220	24	1	252	37	9	41	0	87	459
07:30 AM	16	120	1	6	143	2	9	8	0	19	6	244	42	1	293	37	15	43	0	95	550
07:45 AM	20	119	3	4	146	4	14	5	0	23	13	295	53	0	361	59	8	62	0	129	659
Total	61	395	5	14	475	11	41	19	0	71	36	937	136	5	1114	173	40	179	0	392	2052
08:00 AM	14	128	0	2	144	5	12	8	0	25	15	258	37	2	312	45	14	58	0	117	598
08:15 AM	17	109	5	5	136	5	22	3	0	30	15	267	46	2	330	48	14	53	0	115	611
08:30 AM	23	136	2	5	166	6	12	10	0	28	13	299	32	1	345	33	12	44	0	89	628
08:45 AM	16	125	2	8	151	4	25	5	0	34	9	203	54	0	266	54	8	41	0	103	554
Total	70	498	9	20	597	20	71	26	0	117	52	1027	169	5	1253	180	48	196	0	424	2391
09:00 AM	16	152	5	3	176	4	10	7	0	21	18	236	38	0	292	26	5	20	1	52	541
09:15 AM	23	107	4	7	141	8	17	5	0	30	9	188	52	0	249	26	11	41	0	78	498
09:30 AM	25	153	6	6	190	2	13	8	0	23	5	208	52	0	265	30	15	31	0	76	554
09:45 AM	23	155	7	4	189	5	19	11	0	35	9	251	28	2	290	37	16	55	0	108	622
Total	87	567	22	20	696	19	59	31	0	109	41	883	170	2	1096	119	47	147	1	314	2215
11:00 AM	24	198	6	6	234	10	17	8	0	35	13	221	40	2	276	50	10	32	0	92	637
11:15 AM	24	211	9	8	252	8	14	5	0	27	19	242	40	2	303	47	16	29	1	93	675
11:30 AM	21	238	9	1	269	5	27	13	0	45	9	256	69	1	335	43	15	54	1	113	762
11:45 AM	16	239	5	2	262	6	15	9	0	30	12	244	62	4	322	40	18	58	0	116	730
Total	85	886	29	17	1017	29	73	35	0	137	53	963	211	9	1236	180	59	173	2	414	2804
12:00 PM	30	235	4	3	272	7	22	17	0	46	6	255	72	2	335	30	9	43	0	82	735
12:15 PM	20	260	5	7	292	8	21	8	0	37	13	237	82	0	332	58	17	47	1	123	784
12:30 PM	15	209	4	7	235	12	13	5	0	30	14	248	59	1	322	28	10	51	0	89	676
12:45 PM	25	263	5	4	297	3	9	6	0	18	12	281	72	0	365	39	22	48	0	109	789
Total	90	967	18	21	1096	30	65	36	0	131	45	1021	285	3	1354	155	58	189	1	403	2984
03:00 PM	38	261	9	3	311	8	15	11	0	34	16	170	49	3	238	51	19	20	0	90	673
03:15 PM	36	316	10	1	363	0	23	11	0	34	6	189	49	2	246	37	11	29	0	77	720
03:30 PM	28	252	5	7	292	9	10	15	0	34	6	193	51	2	252	40	7	22	0	69	647
03:45 PM	35	232	3	2	272	7	23	7	0	37	16	216	60	4	296	44	23	35	2	104	709
Total	137	1061	27	13	1238	24	71	44	0	139	44	768	209	11	1032	172	60	106	2	340	2749
04:00 PM	29	249	4	6	288	4	21	6	0	31	7	166	62	2	237	43	7	24	0	74	630
04:15 PM	24	271	7	2	304	10	26	6	0	42	13	177	62	3	255	44	9	20	0	73	674
04:30 PM	33	265	2	4	304	4	19	9	0	32	16	181	50	1	248	48	17	30	0	95	679
04:45 PM	31	233	8	2	274	4	22	20	0	46	16	173	75	5	269	40	13	32	0	85	674
Total	117	1018	21	14	1170	22	88	41	0	151	52	697	249	11	1009	175	46	106	0	327	2657
05:00 PM	28	251	5	3	287	14	19	21	0	54	12	198	51	2	263	59	14	29	0	102	706
05:15 PM	39	275	2	1	317	5	32	7	0	44	8	149	64	6	227	54	19	31	0	104	692
05:30 PM	44	197	7	2	250	5	12	10	0	27	11	171	59	1	242	44	9	24	1	78	597
05:45 PM	27	196	5	2	230	4	17	12	0	33	4	192	51	2	249	51	12	23	0	86	598
Total	138	919	19	8	1084	28	80	50	0	158	35	710	225	11	981	208	54	107	1	370	2593
Grand Total	785	6311	150	127	7373	183	548	282	0	1013	358	7006	1654	57	9075	1362	412	1203	7	2984	20445
Apprch %	10.6	85.6	2	1.7		18.1	54.1	27.8	0		3.9	77.2	18.2	0.6		45.6	13.8	40.3	0.2		
Total %	3.8	30.9	0.7	0.6	36.1	0.9	2.7	1.4	0	5	1.8	34.3	8.1	0.3	44.4	6.7	2	5.9	0	14.6	
CARS	743	6193	145	127	7208	181	520	273	0	974	346	6866	1602	51	8865	1311	402	1155	7	2875	19922
% CARS	94.6	98.1	96.7	100	97.8	98.9	94.9	96.8	0	96.2	96.6	98	96.9	89.5	97.7	96.3	97.6	96	100	96.3	97.4
TRUCKS	42	118	5	0	165	2	28	9	0	39	12	140	52	6	210	51	10	48	0	109	523
% TRUCKS	5.4	1.9	3.3	0	2.2	1.1	5.1	3.2	0	3.8	3.4	2	3.1	10.5	2.3	3.7	2.4	4	0	3.7	2.6

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Rain
Day of the Week: Wednesday

File Name : US 41 @ Bayshore Dr TMC tm
Site Code : 00000000
Start Date : 6/7/2017
Page No : 2

	US41 Southbound					SHADOWLAWN DR Westbound					US41 Northbound					BAYSHORE DR Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					04:30 PM					12:00 PM					07:30 AM					
+0 mins.	38	261	9	3	311	4	19	9	0	32	6	255	72	2	335	37	15	43	0	95	
+15 mins.	36	316	10	1	363	4	22	20	0	46	13	237	82	0	332	59	8	62	0	129	
+30 mins.	28	252	5	7	292	14	19	21	0	54	14	248	59	1	322	45	14	58	0	117	
+45 mins.	35	232	3	2	272	5	32	7	0	44	12	281	72	0	365	48	14	53	0	115	
Total Volume	137	1061	27	13	1238	27	92	57	0	176	45	1021	285	3	1354	189	51	216	0	456	
% App. Total	11.1	85.7	2.2	1.1		15.3	52.3	32.4	0		3.3	75.4	21	0.2		41.4	11.2	47.4	0		
PHF	.901	.839	.675	.464	.853	.482	.719	.679	.000	.815	.804	.908	.869	.375	.927	.801	.850	.871	.000	.884	

Cars

Street Name	SB (US 41)				WB (Bayshore Dr)				NB (US 41)				EB (Shadowlawn Dr)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	0	67	8	2	5	8	3	0	16	172	10	1	31	8	37	0
7:15	1	84	16	2	1	9	2	0	21	217	7	1	38	8	36	0
7:30	1	117	13	6	7	9	2	0	39	238	6	1	43	14	36	0
7:45	3	115	19	4	2	14	4	0	50	288	12	0	60	8	58	0
8:00	0	124	13	2	7	12	4	0	32	249	13	2	57	14	44	0
8:15	4	105	16	5	3	20	5	0	46	260	15	1	50	14	47	0
8:30	2	133	21	5	10	10	6	0	29	290	13	1	44	12	31	0
8:45	2	118	14	8	5	23	4	0	51	201	8	0	39	8	48	0
9:00	5	150	14	3	7	10	4	0	36	227	18	0	20	5	26	1
9:15	3	105	22	7	5	17	7	0	50	186	9	0	39	11	24	0
9:30	6	147	24	6	8	13	2	0	51	206	5	0	30	14	25	0
9:45	7	153	22	4	11	19	5	0	26	243	9	2	50	16	34	0
11:00	5	186	23	6	8	17	10	0	39	219	13	2	31	10	47	0
11:15	8	207	21	8	5	12	8	0	38	233	19	2	28	16	46	1
11:30	9	226	18	1	12	26	5	0	69	247	8	1	52	15	42	1
11:45	5	228	13	2	8	15	6	0	62	240	11	3	54	18	38	0
12:00	4	234	30	3	17	22	7	0	70	247	6	2	40	9	30	0
12:15	5	255	20	7	8	18	8	0	80	230	13	0	46	17	56	1
12:30	4	208	14	7	5	13	12	0	58	247	12	1	51	10	26	0
12:45	5	259	23	4	6	7	3	0	69	275	11	0	46	21	37	0
15:00	8	260	38	3	11	15	8	0	47	167	16	3	20	18	51	0
15:15	10	313	32	1	10	19	0	0	47	186	6	2	27	11	36	0
15:30	5	248	26	7	15	8	9	0	49	192	6	2	21	6	38	0
15:45	3	230	34	2	7	21	7	0	60	210	14	3	33	23	43	2
16:00	4	246	28	6	6	20	4	0	62	165	7	2	23	6	41	0
16:15	7	267	23	2	6	25	10	0	61	175	13	3	20	7	43	0
16:30	2	263	31	4	9	18	4	0	50	176	16	1	28	17	47	0
16:45	8	232	30	2	20	22	4	0	72	173	16	5	31	13	38	0
17:00	5	248	28	3	21	19	14	0	49	197	12	2	28	14	58	0
17:15	2	274	39	1	7	31	5	0	64	149	8	5	31	19	53	0
17:30	7	197	43	2	9	12	5	0	59	170	10	1	23	9	44	1
17:45	5	194	27	2	12	16	4	0	50	191	4	2	21	11	51	0

Trucks

Street Name	SB (US 41)				WB (Bayshore Dr)				NB (US 41)				EB (Shadowlawn Dr)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	0	2	0	0	0	0	0	0	1	6	0	2	2	0	3	0
7:15	0	3	1	0	0	1	0	0	3	3	0	0	3	1	1	0
7:30	0	3	3	0	1	0	0	0	3	6	0	0	0	1	1	0
7:45	0	4	1	0	3	0	0	0	3	7	1	0	2	0	1	0
8:00	0	4	1	0	1	0	1	0	5	9	2	0	1	0	1	0
8:15	1	4	1	0	0	2	0	0	0	7	0	1	3	0	1	0
8:30	0	3	2	0	0	2	0	0	3	9	0	0	0	0	2	0
8:45	0	7	2	0	0	2	0	0	3	2	1	0	2	0	6	0
9:00	0	2	2	0	0	0	0	0	2	9	0	0	0	0	0	0
9:15	1	2	1	0	0	0	1	0	2	2	0	0	2	0	2	0
9:30	0	6	1	0	0	0	0	0	1	2	0	0	1	1	5	0
9:45	0	2	1	0	0	0	0	0	2	8	0	0	5	0	3	0
11:00	1	12	1	0	0	0	0	0	1	2	0	0	1	0	3	0
11:15	1	4	3	0	0	2	0	0	2	9	0	0	1	0	1	0
11:30	0	12	3	0	1	1	0	0	0	9	1	0	2	0	1	0
11:45	0	11	3	0	1	0	0	0	0	4	1	1	4	0	2	0
12:00	0	1	0	0	0	0	0	0	2	8	0	0	3	0	0	0
12:15	0	5	0	0	0	3	0	0	2	7	0	0	1	0	2	0
12:30	0	1	1	0	0	0	0	0	1	1	2	0	0	0	2	0
12:45	0	4	2	0	0	2	0	0	3	6	1	0	2	1	2	0
15:00	1	1	0	0	0	0	0	0	2	3	0	0	0	1	0	0
15:15	0	3	4	0	1	4	0	0	2	3	0	0	2	0	1	0
15:30	0	4	2	0	0	2	0	0	2	1	0	0	1	1	2	0
15:45	0	2	1	0	0	2	0	0	0	6	2	1	2	0	1	0
16:00	0	3	1	0	0	1	0	0	0	1	0	0	1	1	2	0
16:15	0	4	1	0	0	1	0	0	1	2	0	0	0	2	1	0
16:30	0	2	2	0	0	1	0	0	0	5	0	0	2	0	1	0
16:45	0	1	1	0	0	0	0	0	3	0	0	0	1	0	2	0
17:00	0	3	0	0	0	0	0	0	2	1	0	0	1	0	1	0
17:15	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0
17:30	0	0	1	0	1	0	0	0	0	1	1	0	1	0	0	0
17:45	0	2	0	0	0	1	0	0	1	1	0	0	2	1	0	0

TURNING MOVEMENT COUNT: US 41 @ Bayshore Dr
EAST/WEST ST: Bayshore Dr / Shadowlawn Dr

TIME: 7am-6pm
NORTH/SOUTH ST: US 41
COUNTED BY: TM

ALL VEHICLES

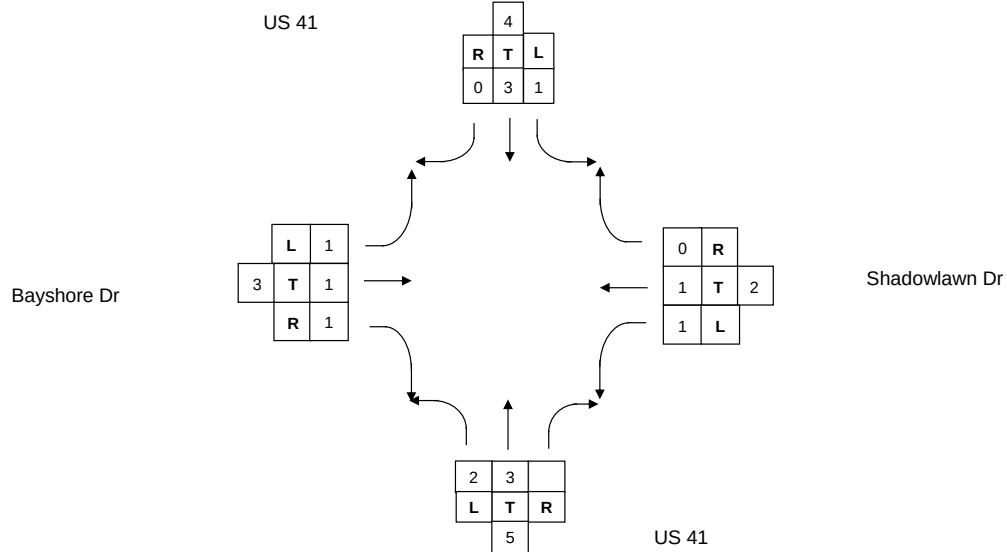
START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	17	178	10	3	208	0	69	8	2	79	287	33	8	40	0	81	5	8	3	0	16	97	384
7:15	24	220	7	1	252	1	87	17	2	107	359	41	9	37	0	87	1	10	2	0	13	100	459
7:30	42	244	6	1	293	1	120	16	6	143	436	43	15	37	0	95	8	9	2	0	19	114	550
7:45	53	295	13	0	361	3	119	20	4	146	507	62	8	59	0	129	5	14	4	0	23	152	659
Total	136	937	36	5	1,114	5	395	61	14	475	1,589	179	40	173	0	392	19	41	11	0	71	463	2,052
8:00	37	258	15	2	312	0	128	14	2	144	456	58	14	45	0	117	8	12	5	0	25	142	598
8:15	46	267	15	2	330	5	109	17	5	136	466	53	14	48	0	115	3	22	5	0	30	145	611
8:30	32	299	13	1	345	2	136	23	5	166	511	44	12	33	0	89	10	12	6	0	28	117	628
8:45	54	203	9	0	266	2	125	16	8	151	417	41	8	54	0	103	5	25	4	0	34	137	554
Total	169	1,027	52	5	1,253	9	498	70	20	597	1,850	196	48	180	0	424	26	71	20	0	117	541	2,391
9:00	38	236	18	0	292	5	152	16	3	176	468	20	5	26	1	52	7	10	4	0	21	73	541
9:15	52	188	9	0	249	4	107	23	7	141	390	41	11	26	0	78	5	17	8	0	30	108	498
9:30	52	208	5	0	265	6	153	25	6	190	455	31	15	30	0	76	8	13	2	0	23	99	554
9:45	28	251	9	2	290	7	155	23	4	189	479	55	16	37	0	108	11	19	5	0	35	143	622
Total	170	883	41	2	1,096	22	567	87	20	696	1,792	147	47	119	1	314	31	59	19	0	109	423	2,215
11:00	40	221	13	2	276	6	198	24	6	234	510	32	10	50	0	92	8	17	10	0	35	127	637
11:15	40	242	19	2	303	9	211	24	8	252	555	29	16	47	1	93	5	14	8	0	27	120	675
11:30	69	256	9	1	335	9	238	21	1	269	604	54	15	43	1	113	13	27	5	0	45	158	762
11:45	62	244	12	4	322	5	239	16	2	262	584	58	18	40	0	116	9	15	6	0	30	146	730
Total	211	963	53	9	1,236	29	886	85	17	1,017	2,253	173	59	180	2	414	35	73	29	0	137	551	2,804
12:00	72	255	6	2	335	4	235	30	3	272	607	43	9	30	0	82	17	22	7	0	46	128	735
12:15	82	237	13	0	332	5	260	20	7	292	624	47	17	58	1	123	8	21	8	0	37	160	784
12:30	59	248	14	1	322	4	209	15	7	235	557	51	10	28	0	89	5	13	12	0	30	119	676
12:45	72	281	12	0	365	5	263	25	4	297	662	48	22	39	0	109	6	9	3	0	18	127	789
Total	285	1,021	45	3	1,354	18	967	90	21	1,096	2,450	189	58	155	1	403	36	65	30	0	131	534	2,984
15:00	49	170	16	3	238	9	261	38	3	311	549	20	19	51	0	90	11	15	8	0	34	124	673
15:15	49	189	6	2	246	10	316	36	1	363	609	29	11	37	0	77	11	23	0	0	34	111	720
15:30	51	193	6	2	252	5	252	28	7	292	544	22	7	40	0	69	15	10	9	0	34	103	647
15:45	60	216	16	4	296	3	232	35	2	272	568	35	23	44	2	104	7	23	7	0	37	141	709
Total	209	768	44	11	1,032	27	1,061	137	13	1,238	2,270	106	60	172	2	340	44	71	24	0	139	479	2,749
16:00	62	166	7	2	237	4	249	29	6	288	525	24	7	43	0	74	6	21	4	0	31	105	630
16:15	62	177	13	3	255	7	271	24	2	304	559	20	9	44	0	73	6	26	10	0	42	115	674
16:30	50	181	16	1	248	2	265	33	4	304	552	30	17	48	0	95	9	19	4	0	32	127	679
16:45	75	173	16	5	269	8	233	31	2	274	543	32	13	40	0	85	20	22	4	0	46	131	674
Total	249	697	52	11	1,009	21	1,018	117	14	1,170	2,179	106	46	175	0	327	41	88	22	0	151	478	2,657
17:00	51	198	12	2	263	5	251	28	3	287	550	29	14	59	0	102	21	19	14	0	54	156	706
17:15	64	149	8	6	227	2	275	39	1	317	544	31	19	54	0	104	7	32	5	0	44	148	692
17:30	59	171	11	1	242	7	197	44	2	250	492	24	9	44	1	78	10	12	5	0	27	105	597
17:45	51	192	4	2	249	5	196	27	2	230	479	23	12	51	0	86	12	17	4	0	33	119	598
Total	225	710	35	11	981	19	919	138	8	1,084	2,065	107	54	208	1	370	50	80	28	0	158	528	2,593

FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Bayshore Dr / Shadowlawn Dr STATE ROUTE: US 41
 OBSERVER: TM DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet
 REMARKS:

FORM COMPLETED BY: TM DATE: 6/9/2017



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	136	937	36	5	1,114	5	395	61	14	475	1,589	179	40	173	0	392	19	41	11	0	71	463
8 - 9	169	1,027	52	5	1,253	9	498	70	20	597	1,850	196	48	180	0	424	26	71	20	0	117	541
9 - 10	170	883	41	2	1,096	22	567	87	20	696	1,792	147	47	119	1	314	31	59	19	0	109	423
11 - 12	211	963	53	9	1,236	29	886	85	17	1,017	2,253	173	59	180	2	414	35	73	29	0	137	551
12 - 1	285	1,021	45	3	1,354	18	967	90	21	1,096	2,450	189	58	155	1	403	36	65	30	0	131	534
3 - 4	209	768	44	11	1,032	27	1,061	137	13	1,238	2,270	106	60	172	2	340	44	71	24	0	139	479
4 - 5	249	697	52	11	1,009	21	1,018	117	14	1,170	2,179	106	46	175	0	327	41	88	22	0	151	478
5 - 6	225	710	35	11	981	19	919	138	8	1,084	2,065	107	54	208	1	370	50	80	28	0	158	528
TOTAL	1,654	7,006	358	57	9,075	150	6,311	785	127	7,373	16,448	1,203	412	1,362	7	2,984	282	548	183	0	1,013	3,997

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A

CITY: Naples

COUNTY: Collier

INTER. ROUTE: Bayshore Dr / Shadowlawn Dr

STATE ROUTE: US 41

OBSERVER: Sam A.

DATE: 06/07/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/09/17

US 41

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	1	0	0	0	0	1
1	2	0	0	0	0	0	1	4
0	0	0	0	0	0	1	0	1
1	1	0	2	1	0	0	0	5
2	3	0	3	1	0	1	1	11

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	4	0	1	5				
1	2	0	0	3				
1	7	0	0	8				
3	2	0	0	5				
1	2	0	0	3				
0	0	0	0	0				
3	2	0	0	5				
0	2	0	0	2				
9	21	0	1	31				

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	3	0	1	5				
0	5	0	0	5				
2	2	0	1	5				
0	2	0	1	3				
2	5	1	1	9				
0	1	0	1	2				
0	0	2	5	7				
1	2	2	2	7				
6	20	5	12	43				

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	1	0	0	3	1	0	0	5
1	0	2	2	2	2	0	1	10
3	0	1	1	4	0	1	0	10
0	1	1	3	3	0	1	1	10
4	2	4	6	12	3	2	2	35

US 41

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Airport Pulling TMC tm
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US41 Southbound					AIRPORT PULLING Westbound					US41 Northbound					Peters Ave Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	76	50	1	127	27	1	55	0	83	97	186	0	0	283	0	0	0	0	0	493
07:15 AM	0	99	57	0	156	34	0	85	0	119	101	252	0	0	353	0	0	1	0	1	629
07:30 AM	0	108	75	0	183	37	1	91	0	129	107	324	0	0	431	0	0	0	0	0	743
07:45 AM	0	105	72	0	177	49	0	89	0	138	115	291	0	0	406	0	0	0	0	0	721
Total	0	388	254	1	643	147	2	320	0	469	420	1053	0	0	1473	0	0	1	0	1	2586
08:00 AM	0	139	71	0	210	51	1	125	0	177	120	277	0	0	397	0	0	1	0	1	785
08:15 AM	0	142	59	1	202	32	0	94	0	126	137	240	0	0	377	0	0	0	0	0	705
08:30 AM	0	132	60	3	195	53	1	131	0	185	154	298	0	1	453	0	2	1	0	3	836
08:45 AM	0	132	93	1	226	47	0	96	0	143	158	208	1	2	369	1	3	0	0	4	742
Total	0	545	283	5	833	183	2	446	0	631	569	1023	1	3	1596	1	5	2	0	8	3068
09:00 AM	0	168	50	1	219	51	1	105	1	158	93	252	0	0	345	1	0	1	0	2	724
09:15 AM	1	114	83	2	200	55	0	66	0	121	114	245	0	2	361	0	1	1	0	2	684
09:30 AM	0	135	63	0	198	43	2	95	0	140	115	250	0	0	365	0	1	3	0	4	707
09:45 AM	0	197	56	0	253	30	1	98	0	129	98	245	0	0	343	1	0	3	0	4	729
Total	1	614	252	3	870	179	4	364	1	548	420	992	0	2	1414	2	2	8	0	12	2844
11:00 AM	0	173	70	1	244	54	1	99	0	154	153	222	0	2	377	0	0	1	0	1	776
11:15 AM	4	231	64	1	300	59	0	143	0	202	97	230	0	2	329	0	1	1	0	2	833
11:30 AM	0	199	77	2	278	72	1	137	0	210	124	242	0	1	367	0	0	1	0	1	856
11:45 AM	0	201	88	1	290	55	0	140	0	195	136	222	0	1	359	1	2	1	0	4	848
Total	4	804	299	5	1112	240	2	519	0	761	510	916	0	6	1432	1	3	4	0	8	3313
12:00 PM	0	250	84	0	334	71	2	161	0	234	130	242	0	0	372	0	0	1	0	1	941
12:15 PM	0	279	72	0	351	53	1	174	0	228	156	182	0	1	339	1	3	3	0	7	925
12:30 PM	0	245	69	2	316	35	1	155	0	191	111	292	0	1	404	0	2	6	0	8	919
12:45 PM	2	257	67	2	328	41	2	138	0	181	162	236	0	1	399	0	0	2	0	2	910
Total	2	1031	292	4	1329	200	6	628	0	834	559	952	0	3	1514	1	5	12	0	18	3695
03:00 PM	0	261	92	5	358	52	0	166	0	218	123	259	0	1	383	2	1	5	0	8	967
03:15 PM	0	298	67	5	370	51	1	140	0	192	124	219	0	3	346	1	2	1	0	4	912
03:30 PM	0	269	84	3	356	55	1	151	0	207	85	252	0	1	338	1	2	2	0	5	906
03:45 PM	0	297	73	4	374	47	2	187	0	236	79	240	0	0	319	0	2	0	0	2	931
Total	0	1125	316	17	1458	205	4	644	0	853	411	970	0	5	1386	4	7	8	0	19	3716
04:00 PM	0	294	66	4	364	56	1	138	0	195	123	211	1	2	337	1	1	4	0	6	902
04:15 PM	0	303	66	2	371	72	2	195	1	270	120	230	0	1	351	2	0	4	0	6	998
04:30 PM	0	301	98	6	405	60	1	134	1	196	152	280	0	1	433	1	1	1	0	3	1037
04:45 PM	0	295	49	1	345	58	7	123	1	189	97	228	0	0	325	1	2	0	0	3	862
Total	0	1193	279	13	1485	246	11	590	3	850	492	949	1	4	1446	5	4	9	0	18	3799
05:00 PM	0	288	66	6	360	46	3	205	0	254	151	274	0	0	425	0	0	1	0	1	1040
05:15 PM	0	335	82	2	419	78	1	231	0	310	150	203	0	1	354	1	1	0	0	2	1085
05:30 PM	0	290	80	3	373	47	1	138	0	186	113	199	0	0	312	1	3	1	0	5	876
05:45 PM	0	240	59	1	300	60	1	144	0	205	69	196	0	0	265	1	1	0	0	2	772
Total	0	1153	287	12	1452	231	6	718	0	955	483	872	0	1	1356	3	5	2	0	10	3773
Grand Total	7	6853	2262	60	9182	1631	37	4229	4	5901	3864	7727	2	24	11617	17	31	46	0	94	26794
Apprch %	0.1	74.6	24.6	0.7		27.6	0.6	71.7	0.1		33.3	66.5	0	0.2		18.1	33	48.9	0		
Total %	0	25.6	8.4	0.2	34.3	6.1	0.1	15.8	0	22	14.4	28.8	0	0.1	43.4	0.1	0.1	0.2	0	0.4	
CARS	7	6736	2177	58	8978	1567	35	4043	4	5649	3716	7626	2	24	11368	16	31	44	0	91	26086
% CARS	100	98.3	96.2	96.7	97.8	96.1	94.6	95.6	100	95.7	96.2	98.7	100	100	97.9	94.1	100	95.7	0	96.8	97.4
TRUCKS	0	117	85	2	204	64	2	186	0	252	148	101	0	0	249	1	0	2	0	3	708
% TRUCKS	0	1.7	3.8	3.3	2.2	3.9	5.4	4.4	0	4.3	3.8	1.3	0	0	2.1	5.9	0	4.3	0	3.2	2.6

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Tony M
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Airport Pulling TMC tm
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

	US41 Southbound					AIRPORT PULLING Westbound					US41 Northbound					Peters Ave Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					05:00 PM					07:45 AM					11:45 AM					
+0 mins.	0	301	98	6	405	46	3	205	0	254	115	291	0	0	406	1	2	1	0	4	
+15 mins.	0	295	49	1	345	78	1	231	0	310	120	277	0	0	397	0	0	1	0	1	
+30 mins.	0	288	66	6	360	47	1	138	0	186	137	240	0	0	377	1	3	3	0	7	
+45 mins.	0	335	82	2	419	60	1	144	0	205	154	298	0	1	453	0	2	6	0	8	
Total Volume	0	1219	295	15	1529	231	6	718	0	955	526	1106	0	1	1633	2	7	11	0	20	
% App. Total	0	79.7	19.3	1		24.2	0.6	75.2	0		32.2	67.7	0	0.1		10	35	55	0		
PHF	.000	.910	.753	.625	.912	.740	.500	.777	.000	.770	.854	.928	.000	.250	.901	.500	.583	.458	.000	.625	

Cars

Street Name	SB (US 41)				WB (Airport Pulling)				NB (US 41)				EB (Peters Ave)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	46	75	0	1	48	1	27	0	0	186	97	0	0	0	0	0
7:15	56	95	0	0	74	0	30	0	0	252	101	0	1	0	0	0
7:30	73	104	0	0	87	1	35	0	0	324	107	0	0	0	0	0
7:45	69	101	0	0	84	0	45	0	0	291	115	0	0	0	0	0
8:00	68	135	0	0	117	1	48	0	0	277	120	0	1	0	0	0
8:15	58	139	0	1	84	0	32	0	0	240	137	0	0	0	0	0
8:30	57	128	0	3	118	1	50	0	0	292	153	1	1	2	0	0
8:45	87	123	0	1	89	0	44	0	1	202	152	2	0	3	1	0
9:00	49	163	0	1	98	1	48	1	0	246	89	0	1	0	1	0
9:15	77	110	1	2	58	0	50	0	0	234	107	2	1	1	0	0
9:30	59	130	0	0	88	1	40	0	0	246	108	0	3	1	0	0
9:45	56	189	0	0	91	1	25	0	0	242	92	0	3	0	1	0
11:00	63	169	0	1	89	1	52	0	0	217	139	2	1	0	0	0
11:15	60	224	4	1	136	0	58	0	0	221	95	2	1	1	0	0
11:30	72	196	0	2	131	1	70	0	0	234	114	1	1	0	0	0
11:45	86	196	0	1	133	0	51	0	0	214	131	1	1	2	1	0
12:00	80	244	0	0	152	2	67	0	0	238	123	0	1	0	0	0
12:15	71	266	0	0	169	1	51	0	0	179	153	1	2	3	1	0
12:30	64	238	0	1	150	1	34	0	0	286	106	1	5	2	0	0
12:45	65	256	2	2	131	2	41	0	0	232	154	1	2	0	0	0
15:00	89	261	0	4	164	0	52	0	0	258	112	1	5	1	2	0
15:15	66	294	0	5	137	1	50	0	0	212	117	3	1	2	1	0
15:30	81	266	0	3	148	1	53	0	0	249	80	1	2	2	1	0
15:45	69	296	0	4	186	2	46	0	0	240	77	0	0	2	0	0
16:00	64	292	0	4	136	1	55	0	1	210	117	2	4	1	1	0
16:15	65	303	0	2	191	1	69	1	0	228	114	1	4	0	1	0
16:30	94	300	0	6	132	1	60	1	0	278	141	1	1	1	1	0
16:45	48	295	0	1	120	7	58	1	0	228	95	0	0	2	1	0
17:00	64	287	0	6	203	3	46	0	0	273	147	0	1	0	0	0
17:15	82	335	0	2	223	1	78	0	0	202	146	1	0	1	1	0
17:30	80	288	0	3	136	1	46	0	0	199	109	0	1	3	1	0
17:45	59	238	0	1	140	1	56	0	0	196	68	0	0	1	1	0

Trucks

Street Name	SB (US 41)				WB (Airport Pulling)				NB (US 41)				EB (Peters Ave)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	4	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0
7:15	1	4	0	0	11	0	0	0	0	0	0	0	0	0	0	0
7:30	2	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0
7:45	3	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0
8:00	3	4	0	0	8	0	0	0	0	0	0	0	0	0	0	0
8:15	1	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0
8:30	3	4	0	0	13	0	0	0	0	6	1	0	0	0	0	0
8:45	6	9	0	0	7	0	0	0	0	6	6	0	0	0	0	0
9:00	1	5	0	0	7	0	0	0	0	6	4	0	0	0	0	0
9:15	6	4	0	0	8	0	0	0	0	11	7	0	0	0	0	0
9:30	4	5	0	0	7	0	1	0	0	4	7	0	0	0	0	0
9:45	0	8	0	0	7	0	0	0	0	3	6	0	0	0	0	0
11:00	7	4	0	0	10	0	0	0	0	5	14	0	0	0	0	0
11:15	4	7	0	0	7	0	0	0	0	9	2	0	0	0	0	0
11:30	5	3	0	0	6	0	0	0	0	8	10	0	0	0	0	0
11:45	2	5	0	0	7	0	0	0	0	8	5	0	0	0	0	0
12:00	4	6	0	0	9	0	0	0	0	4	7	0	0	0	0	0
12:15	1	13	0	0	5	0	0	0	0	3	3	0	1	0	0	0
12:30	5	7	0	1	5	0	0	0	0	6	5	0	1	0	0	0
12:45	2	1	0	0	7	0	0	0	0	4	8	0	0	0	0	0
15:00	3	0	0	1	2	0	0	0	0	1	11	0	0	0	0	0
15:15	1	4	0	0	3	0	0	0	0	7	7	0	0	0	0	0
15:30	3	3	0	0	3	0	0	0	0	3	5	0	0	0	0	0
15:45	4	1	0	0	1	0	0	0	0	0	2	0	0	0	0	0
16:00	2	2	0	0	2	0	0	0	0	1	6	0	0	0	0	0
16:15	1	0	0	0	4	0	1	0	0	2	6	0	0	0	1	0
16:30	4	1	0	0	2	0	0	0	0	2	11	0	0	0	0	0
16:45	1	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0
17:00	2	1	0	0	2	0	0	0	0	1	4	0	0	0	0	0
17:15	0	0	0	0	8	0	0	0	0	1	4	0	0	0	0	0
17:30	0	2	0	0	2	0	0	0	0	0	4	0	0	0	0	0
17:45	0	2	0	0	4	0	0	0	0	0	1	0	0	0	0	0

TURNING MOVEMENT COUNT: US 41 @ Airport Pulling Rd
EAST/WEST ST:Airport Pulling Rd

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: TM

ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	186	97	0	283	50	76	0	1	127	410	0	0	0	0	0	55	1	27	0	83	83	493
7:15	0	252	101	0	353	57	99	0	0	156	509	1	0	0	0	1	85	0	30	0	115	116	625
7:30	0	324	107	0	431	75	108	0	0	183	614	0	0	0	0	0	91	1	35	0	127	127	741
7:45	0	291	115	0	406	72	105	0	0	177	583	0	0	0	0	0	89	0	45	0	134	134	717
Total	0	1,053	420	0	1,473	254	388	0	1	643	2,116	1	0	0	0	1	320	2	137	0	459	460	2,576
8:00	0	277	120	0	397	71	139	0	0	210	607	1	0	0	0	1	125	1	48	0	174	175	782
8:15	0	240	137	0	377	59	142	0	1	202	579	0	0	0	0	0	94	0	32	0	126	126	705
8:30	0	298	154	1	453	60	132	0	3	195	648	1	2	0	0	3	131	1	50	0	182	185	833
8:45	1	208	158	2	369	93	132	0	1	226	595	0	3	1	0	4	96	0	44	0	140	144	739
Total	1	1,023	569	3	1,596	283	545	0	5	833	2,429	2	5	1	0	8	446	2	174	0	622	630	3,059
9:00	0	252	93	0	345	50	168	0	1	219	564	1	0	1	0	2	105	1	48	1	155	157	721
9:15	0	245	114	2	361	83	114	1	2	200	561	1	1	0	0	2	66	0	50	0	116	118	679
9:30	0	250	115	0	365	63	135	0	0	198	563	3	1	0	0	4	95	1	41	0	137	141	704
9:45	0	245	98	0	343	56	197	0	0	253	596	3	0	1	0	4	98	1	25	0	124	128	724
Total	0	992	420	2	1,414	252	614	1	3	870	2,284	8	2	2	0	12	364	3	164	1	532	544	2,828
11:00	0	222	153	2	377	70	173	0	1	244	621	1	0	0	0	1	99	1	52	0	152	153	774
11:15	0	230	97	2	329	64	231	4	1	300	629	1	1	0	0	2	143	0	58	0	201	203	832
11:30	0	242	124	1	367	77	199	0	2	278	645	1	0	0	0	1	137	1	70	0	208	209	854
11:45	0	222	136	1	359	88	201	0	1	290	649	1	2	1	0	4	140	0	51	0	191	195	844
Total	0	916	510	6	1,432	299	804	4	5	1,112	2,544	4	3	1	0	8	519	2	231	0	752	760	3,304
12:00	0	242	130	0	372	84	250	0	0	334	706	1	0	0	0	1	161	2	67	0	230	231	937
12:15	0	182	156	1	339	72	279	0	0	351	690	3	3	1	0	7	174	1	51	0	226	233	923
12:30	0	292	111	1	404	69	245	0	2	316	720	6	2	0	0	8	155	1	34	0	190	198	918
12:45	0	236	162	1	399	67	257	2	2	328	727	2	0	0	0	2	138	2	41	0	181	183	910
Total	0	952	559	3	1,514	292	1,031	2	4	1,329	2,843	12	5	1	0	18	628	6	193	0	827	845	3,688
15:00	0	259	123	1	383	92	261	0	5	358	741	5	1	2	0	8	166	0	52	0	218	226	967
15:15	0	219	124	3	346	67	298	0	5	370	716	1	2	1	0	4	140	1	50	0	191	195	911
15:30	0	252	85	1	338	84	269	0	3	356	694	2	2	1	0	5	151	1	53	0	205	210	904
15:45	0	240	79	0	319	73	297	0	4	374	693	0	2	0	0	2	187	2	46	0	235	237	930
Total	0	970	411	5	1,386	316	1,125	0	17	1,458	2,844	8	7	4	0	19	644	4	201	0	849	868	3,712
16:00	1	211	123	2	337	66	294	0	4	364	701	4	1	1	0	6	138	1	55	0	194	200	901
16:15	0	230	120	1	351	66	303	0	2	371	722	4	0	2	0	6	195	1	70	1	267	273	995
16:30	0	280	152	1	433	98	301	0	6	405	838	1	1	1	0	3	134	1	60	1	196	199	1,037
16:45	0	228	97	0	325	49	295	0	1	345	670	0	2	1	0	3	123	7	58	1	189	192	862
Total	1	949	492	4	1,446	279	1,193	0	13	1,485	2,931	9	4	5	0	18	590	10	243	3	846	864	3,795
17:00	0	274	151	0	425	66	288	0	6	360	785	1	0	0	0	1	205	3	46	0	254	255	1,040
17:15	0	203	150	1	354	82	335	0	2	419	773	0	1	1	0	2	231	1	78	0	310	312	1,085
17:30	0	199	113	0	312	80	290	0	3	373	685	1	3	1	0	5	138	1	46	0	185	190	875
17:45	0	196	69	0	265	59	240	0	1	300	565	0	1	1	0	2	144	1	56	0	201	203	768
Total	0	872	483	1	1,356	287	1,153	0	12	1,452	2,808	2	5	3	0	10	718	6	226	0	950	960	3,768

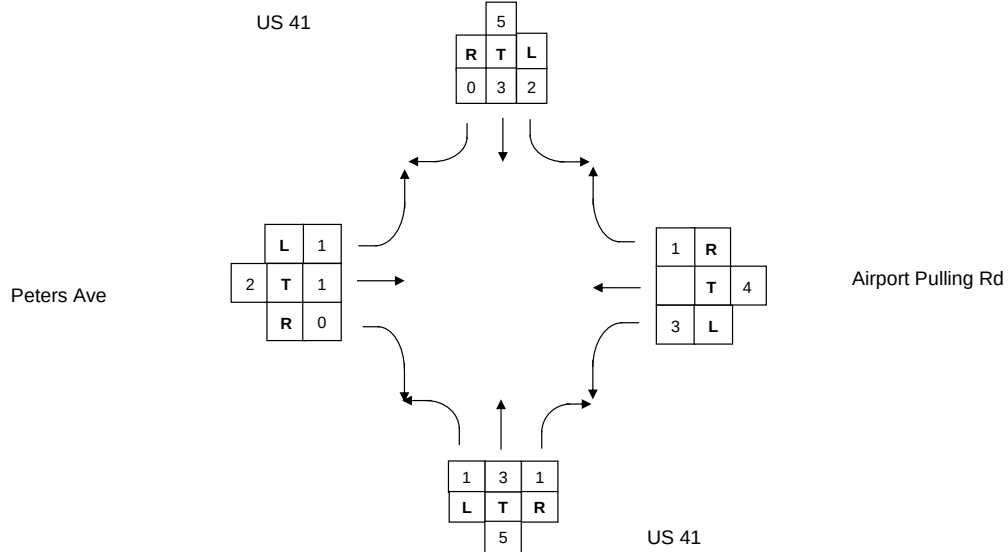
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Airport Pulling Rd / Peters Ave STATE ROUTE: US 41
 OBSERVER: TM DATE: 06/06/17 MILEPOST:
 WEATHER: Rainy ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM

DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	0	1,053	420	0	1,473	254	388	0	1	643	2,116	1	0	0	0	1	320	2	137	0	459	460
8 - 9	1	1,023	569	3	1,596	283	545	0	5	833	2,429	2	5	1	0	8	446	2	174	0	622	630
9 - 10	0	992	420	2	1,414	252	614	1	3	870	2,284	8	2	2	0	12	364	3	164	1	532	544
11 - 12	0	916	510	6	1,432	299	804	4	5	1,112	2,544	4	3	1	0	8	519	2	231	0	752	760
12 - 1	0	952	559	3	1,514	292	1,031	2	4	1,329	2,843	12	5	1	0	18	628	6	193	0	827	845
3 - 4	0	970	411	5	1,386	316	1,125	0	17	1,458	2,844	8	7	4	0	19	644	4	201	0	849	868
4 - 5	1	949	492	4	1,446	279	1,193	0	13	1,485	2,931	9	4	5	0	18	590	10	243	3	846	864
5 - 6	0	872	483	1	1,356	287	1,153	0	12	1,452	2,808	2	5	3	0	10	718	6	226	0	950	960
TOTAL	2	7,727	3,864	24	11,617	2,262	6,853	7	60	9,182	20,799	46	31	17	0	94	4,229	35	1,569	4	5,837	5,931

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A

CITY: Naples

COUNTY: Collier

INTER. ROUTE: Airport Pulling Rd / Peters Ave

STATE ROUTE: US 41

OBSERVER: TM

DATE: 06/06/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/19/17

US 41

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	1
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	1

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	2	0	0	0	1	0	3
0	1	3	2	3	3	1	1	14
2	3	0	6	2	1	0	0	4
0	2	0	6	2	1	0	1	25
0	3	1	6	2	1	0	1	25
0	3	1	6	2	1	0	1	25
1	1	0	2	4	0	1	0	14
0	1	0	1	2	0	1	0	4
0	1	0	1	2	0	1	0	4
3	14	4	25	4	5	4	2	46

Airport Pulling Rd / Peters Ave

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	2	0	1	3	0	1	0	6
1	0	0	0	0	1	0	1	10
0	1	3	0	4	0	2	1	8
0	1	2	1	4	0	0	0	7
3	2	0	0	5	0	1	3	31
0	2	0	1	3	0	1	0	7
0	1	2	3	6	0	1	5	31
2	1	1	1	5	2	1	1	10
2	1	1	1	5	2	1	1	10
6	10	8	7	31	3	6	5	31

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
1	0	0	2	0	2	0	0	5
2	0	0	0	0	0	2	0	4
0	0	0	0	0	1	0	2	3
3	0	0	2	0	3	2	2	12

US 41

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Jason A.
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Espinal Blvd TMC jason
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US41 Southbound					Espinal Blvd Westbound					US41 Northbound					Shopping Center Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	8	107	8	1	124	4	0	2	0	6	9	268	14	0	291	3	0	9	3	15	436
07:15 AM	9	146	14	1	170	0	0	3	0	3	14	331	10	0	355	2	0	11	2	15	543
07:30 AM	7	147	9	5	168	9	0	5	0	14	17	364	17	0	398	1	0	10	0	11	591
07:45 AM	9	147	10	6	172	1	0	2	0	3	33	414	10	0	457	3	0	9	3	15	647
Total	33	547	41	13	634	14	0	12	0	26	73	1377	51	0	1501	9	0	39	8	56	2217
08:00 AM	11	186	20	3	220	2	0	2	0	4	19	333	10	0	362	3	0	9	0	12	598
08:15 AM	12	187	16	8	223	1	1	3	0	5	16	392	13	1	422	3	1	10	1	15	665
08:30 AM	15	183	15	9	222	0	0	4	0	4	11	371	12	0	394	2	0	4	0	6	626
08:45 AM	6	222	14	8	250	5	0	6	0	11	11	310	11	1	333	6	0	18	1	25	619
Total	44	778	65	28	915	8	1	15	0	24	57	1406	46	2	1511	14	1	41	2	58	2508
09:00 AM	11	195	14	2	222	3	1	6	1	11	10	312	9	1	332	3	2	4	0	9	574
09:15 AM	9	183	9	1	202	7	0	9	0	16	8	261	6	1	276	3	1	12	0	16	510
09:30 AM	11	159	16	4	190	7	0	6	0	13	8	279	7	2	296	3	1	10	0	14	513
09:45 AM	7	230	12	0	249	3	0	4	0	7	9	294	6	0	309	1	0	11	3	15	580
Total	38	767	51	7	863	20	1	25	1	47	35	1146	28	4	1213	10	4	37	3	54	2177
11:00 AM	9	249	20	1	279	10	2	9	0	21	9	299	4	4	316	2	1	7	0	10	626
11:15 AM	7	305	19	2	333	7	1	10	0	18	11	294	6	1	312	4	1	6	0	11	674
11:30 AM	8	275	11	2	296	3	1	5	0	9	3	339	5	2	349	6	2	1	0	9	663
11:45 AM	8	278	20	0	306	0	3	22	1	26	13	317	3	2	335	2	1	7	0	10	677
Total	32	1107	70	5	1214	20	7	46	1	74	36	1249	18	9	1312	14	5	21	0	40	2640
12:00 PM	16	319	25	3	363	11	0	20	0	31	10	296	11	0	317	7	0	7	1	15	726
12:15 PM	15	318	27	5	365	5	0	14	0	19	20	300	6	0	326	3	0	11	2	16	726
12:30 PM	13	303	21	6	343	7	0	16	0	23	12	350	5	0	367	3	0	13	0	16	749
12:45 PM	12	263	26	6	307	9	0	11	0	20	17	314	7	0	338	0	0	12	4	16	681
Total	56	1203	99	20	1378	32	0	61	0	93	59	1260	29	0	1348	13	0	43	7	63	2882
03:00 PM	12	339	26	2	379	8	0	15	0	23	8	252	3	5	268	9	0	6	0	15	685
03:15 PM	12	318	27	1	358	8	1	7	1	17	9	245	3	0	257	6	1	2	0	9	641
03:30 PM	7	381	30	0	418	9	1	11	1	22	5	248	0	4	257	4	1	2	0	7	704
03:45 PM	7	389	29	2	427	7	3	9	0	19	12	245	6	5	268	4	2	4	0	10	724
Total	38	1427	112	5	1582	32	5	42	2	81	34	990	12	14	1050	23	4	14	0	41	2754
04:00 PM	3	412	29	3	447	7	2	21	0	30	5	213	9	5	232	3	0	7	0	10	719
04:15 PM	7	366	35	3	411	8	0	12	1	21	2	239	1	0	242	4	0	5	3	12	686
04:30 PM	8	394	17	1	420	14	4	23	0	41	3	214	3	0	220	5	0	1	1	7	688
04:45 PM	8	355	25	5	393	15	1	17	0	33	4	246	3	2	255	3	0	4	3	10	691
Total	26	1527	106	12	1671	44	7	73	1	125	14	912	16	7	949	15	0	17	7	39	2784
05:00 PM	5	397	30	6	438	22	0	61	0	83	4	213	6	0	223	4	0	6	1	11	755
05:15 PM	3	481	27	4	515	12	0	19	0	31	3	216	3	0	222	9	0	4	1	14	782
05:30 PM	4	374	21	2	401	6	0	10	0	16	4	196	5	7	212	5	1	2	0	8	637
05:45 PM	5	312	25	5	347	7	0	6	0	13	5	201	3	5	214	3	1	1	0	5	579
Total	17	1564	103	17	1701	47	0	96	0	143	16	826	17	12	871	21	2	13	2	38	2753
Grand Total	284	8920	647	107	9958	217	21	370	5	613	324	9166	217	48	9755	119	16	225	29	389	20715
Apprch %	2.9	89.6	6.5	1.1		35.4	3.4	60.4	0.8		3.3	94	2.2	0.5		30.6	4.1	57.8	7.5		
Total %	1.4	43.1	3.1	0.5	48.1	1	0.1	1.8	0	3	1.6	44.2	1	0.2	47.1	0.6	0.1	1.1	0.1	1.9	
CARS	282	8863	607	106	9858	181	21	345	5	552	295	9080	215	47	9637	117	16	223	29	385	20432
% CARS	99.3	99.4	93.8	99.1	99	83.4	100	93.2	100	90	91	99.1	99.1	97.9	98.8	98.3	100	99.1	100	99	98.6
TRUCKS	2	57	40	1	100	36	0	25	0	61	29	86	2	1	118	2	0	2	0	4	283
% TRUCKS	0.7	0.6	6.2	0.9	1	16.6	0	6.8	0	10	9	0.9	0.9	2.1	1.2	1.7	0	0.9	0	1	1.4

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter: TDC ULTRA
Counted By: Jason A.
Weather: Cloudy
Day of the Week: Tuesday

File Name : US 41 @ Espinal Blvd TMC jason
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

	US41 Southbound					Espinal Blvd Westbound					US41 Northbound					Shopping Center Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:30 PM					07:30 AM					08:45 AM					
+0 mins.	8	394	17	1	420	14	4	23	0	41	17	364	17	0	398	6	0	18	1	25	
+15 mins.	8	355	25	5	393	15	1	17	0	33	33	414	10	0	457	3	2	4	0	9	
+30 mins.	5	397	30	6	438	22	0	61	0	83	19	333	10	0	362	3	1	12	0	16	
+45 mins.	3	481	27	4	515	12	0	19	0	31	16	392	13	1	422	3	1	10	0	14	
Total Volume	24	1627	99	16	1766	63	5	120	0	188	85	1503	50	1	1639	15	4	44	1	64	
% App. Total	1.4	92.1	5.6	0.9		33.5	2.7	63.8	0		5.2	91.7	3.1	0.1		23.4	6.2	68.8	1.6		
PHF	.750	.846	.825	.667	.857	.716	.313	.492	.000	.566	.644	.908	.735	.250	.897	.625	.500	.611	.250	.640	

Cars

Street Name	SB (US 41)				WB (Espinal Blvd)				NB (US 41)				EB (Shopping Center)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	6	104	8	1	1	0	2	0	14	262	9	0	9	0	3	3
7:15	10	144	9	1	3	0	0	0	10	329	13	0	11	0	2	2
7:30	9	145	7	5	2	0	6	0	16	363	17	0	9	0	1	0
7:45	9	147	9	6	2	0	1	0	10	413	30	0	9	0	3	3
8:00	20	183	11	3	2	0	0	0	10	332	19	0	9	0	3	0
8:15	15	185	12	8	3	1	1	0	13	386	15	1	10	1	3	1
8:30	14	181	15	9	2	0	0	0	12	370	11	0	4	0	2	0
8:45	11	222	6	8	6	0	5	0	11	307	9	1	18	0	6	1
9:00	14	191	11	2	5	1	1	1	9	306	10	1	4	2	3	0
9:15	7	183	9	1	9	0	7	0	6	257	7	1	12	1	3	0
9:30	14	153	11	4	4	0	6	0	7	274	8	2	10	1	3	0
9:45	12	227	7	0	4	0	3	0	6	293	7	0	11	0	1	3
11:00	19	246	8	1	8	2	6	0	4	293	8	4	6	1	2	0
11:15	19	302	7	1	9	1	7	0	6	292	9	1	6	1	4	0
11:30	11	272	7	2	4	1	3	0	5	335	3	2	1	2	6	0
11:45	16	274	8	0	22	3	0	1	3	315	10	2	7	1	1	0
12:00	23	313	16	3	19	0	7	0	11	295	10	0	7	0	7	1
12:15	24	317	15	5	13	0	3	0	6	299	19	0	11	0	3	2
12:30	20	301	13	6	14	0	7	0	5	347	12	0	13	0	3	0
12:45	26	263	12	6	11	0	8	0	7	312	14	0	12	0	0	4
15:00	26	339	12	2	14	0	3	0	3	247	8	5	6	0	9	0
15:15	24	317	12	1	7	1	8	1	3	236	8	0	2	1	6	0
15:30	30	378	7	0	9	1	8	1	0	246	5	4	2	1	4	0
15:45	29	389	7	2	9	3	7	0	6	243	10	5	4	2	4	0
16:00	29	410	3	3	20	2	6	0	8	210	5	4	7	0	3	0
16:15	31	366	7	3	12	0	8	1	1	237	1	0	5	0	4	3
16:30	16	393	8	1	21	4	11	0	3	213	3	0	1	0	5	1
16:45	24	355	8	5	17	1	15	0	3	245	2	2	4	0	3	3
17:00	30	396	5	6	60	0	19	0	6	212	4	0	6	0	4	1
17:15	26	481	3	4	19	0	12	0	3	216	2	0	4	0	8	1
17:30	20	374	4	2	8	0	6	0	5	195	4	7	2	1	5	0
17:45	23	312	5	5	6	0	5	0	3	200	3	5	1	1	3	0

Trucks

Street Name	SB (US 41)				WB (Espinal Blvd)				NB (US 41)				EB (Shopping Center)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	2	3	0	0	1	0	2	0	0	6	0	0	0	0	0	0
7:15	4	2	0	0	0	0	0	0	0	2	1	0	0	0	0	0
7:30	0	2	0	0	3	0	3	0	1	1	0	0	1	0	0	0
7:45	1	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0
8:00	0	3	0	0	0	0	2	0	0	1	0	0	0	0	0	0
8:15	1	2	0	0	0	0	0	0	0	6	1	0	0	0	0	0
8:30	1	2	0	0	2	0	0	0	0	1	0	0	0	0	0	0
8:45	3	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0
9:00	0	4	0	0	1	0	2	0	0	6	0	0	0	0	0	0
9:15	2	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0
9:30	2	6	0	0	2	0	1	0	0	5	0	0	0	0	0	0
9:45	0	3	0	0	0	0	0	0	0	1	2	0	0	0	0	0
11:00	1	3	1	0	1	0	4	0	0	6	1	0	1	0	0	0
11:15	0	3	0	1	1	0	0	0	0	2	2	0	0	0	0	0
11:30	0	3	1	0	1	0	0	0	0	4	0	0	0	0	0	0
11:45	4	4	0	0	0	0	0	0	0	2	3	0	0	0	1	0
12:00	2	6	0	0	1	0	4	0	0	1	0	0	0	0	0	0
12:15	3	1	0	0	1	0	2	0	0	1	1	0	0	0	0	0
12:30	1	2	0	0	2	0	0	0	0	3	0	0	0	0	0	0
12:45	0	0	0	0	0	0	1	0	0	2	3	0	0	0	0	0
15:00	0	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0
15:15	3	1	0	0	0	0	0	0	0	9	1	0	0	0	0	0
15:30	0	3	0	0	2	0	1	0	0	2	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0
16:00	0	2	0	0	1	0	1	0	1	3	0	1	0	0	0	0
16:15	4	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
16:30	1	1	0	0	2	0	3	0	0	1	0	0	0	0	0	0
16:45	1	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
17:00	0	1	0	0	1	0	3	0	0	1	0	0	0	0	0	0
17:15	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
17:30	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0
17:45	2	0	0	0	0	0	2	0	0	1	2	0	0	0	0	0

TURNING MOVEMENT COUNT:U
EAST/WEST ST:Espinal Blvd / Shopping center

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Jason + Sierra

ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	14	268	9	0	291	8	107	8	1	124	415	9	0	3	3	15	2	0	4	0	6	21	436
7:15	10	331	14	0	355	14	146	9	1	170	525	11	0	2	2	15	3	0	0	0	3	18	543
7:30	17	364	17	0	398	9	147	7	5	168	566	10	0	1	0	11	5	0	9	0	14	25	591
7:45	10	414	33	0	457	10	147	9	6	172	629	9	0	3	3	15	2	0	1	0	3	18	647
Total	51	1,377	73	0	1,501	41	547	33	13	634	2,135	39	0	9	8	56	12	0	14	0	26	82	2,217
8:00	10	333	19	0	362	20	186	11	3	220	582	9	0	3	0	12	2	0	2	0	4	16	598
8:15	13	392	16	1	422	16	187	12	8	223	645	10	1	3	1	15	3	1	1	0	5	20	665
8:30	12	371	11	0	394	15	183	15	9	222	616	4	0	2	0	6	4	0	0	0	4	10	626
8:45	11	310	11	1	333	14	222	6	8	250	583	18	0	6	1	25	6	0	5	0	11	36	619
Total	46	1,406	57	2	1,511	65	778	44	28	915	2,426	41	1	14	2	58	15	1	8	0	24	82	2,508
9:00	9	312	10	1	332	14	195	11	2	222	554	4	2	3	0	9	6	1	3	1	11	20	574
9:15	6	261	8	1	276	9	183	9	1	202	478	12	1	3	0	16	9	0	7	0	16	32	510
9:30	7	279	8	2	296	16	159	11	4	190	486	10	1	3	0	14	6	0	7	0	13	27	513
9:45	6	294	9	0	309	12	230	7	0	249	558	11	0	1	3	15	4	0	3	0	7	22	580
Total	28	1,146	35	4	1,213	51	767	38	7	863	2,076	37	4	10	3	54	25	1	20	1	47	101	2,177
11:00	4	299	9	4	316	20	249	9	1	279	595	7	1	2	0	10	9	2	10	0	21	31	626
11:15	6	294	11	1	312	19	305	7	2	333	645	6	1	4	0	11	10	1	7	0	18	29	674
11:30	5	339	3	2	349	11	275	8	2	296	645	1	2	6	0	9	5	1	3	0	9	18	663
11:45	3	317	13	2	335	20	278	8	0	306	641	7	1	2	0	10	22	3	0	1	26	36	677
Total	18	1,249	36	9	1,312	70	1,107	32	5	1,214	2,526	21	5	14	0	40	46	7	20	1	74	114	2,640
12:00	11	296	10	0	317	25	319	16	3	363	680	7	0	7	1	15	20	0	11	0	31	46	726
12:15	6	300	20	0	326	27	318	15	5	365	691	11	0	3	2	16	14	0	5	0	19	35	726
12:30	5	350	12	0	367	21	303	13	6	343	710	13	0	3	0	16	16	0	7	0	23	39	749
12:45	7	314	17	0	338	26	263	12	6	307	645	12	0	0	4	16	11	0	9	0	20	36	681
Total	29	1,260	59	0	1,348	99	1,203	56	20	1,378	2,726	43	0	13	7	63	61	0	32	0	93	156	2,882
15:00	3	252	8	5	268	26	339	12	2	379	647	6	0	9	0	15	15	0	8	0	23	38	685
15:15	3	245	9	0	257	27	318	12	1	358	615	2	1	6	0	9	7	1	8	1	17	26	641
15:30	0	248	5	4	257	30	381	7	0	418	675	2	1	4	0	7	11	1	9	1	22	29	704
15:45	6	245	12	5	268	29	389	7	2	427	695	4	2	4	0	10	9	3	7	0	19	29	724
Total	12	990	34	14	1,050	112	1,427	38	5	1,582	2,632	14	4	23	0	41	42	5	32	2	81	122	2,754
16:00	9	213	5	5	232	29	412	3	3	447	679	7	0	3	0	10	21	2	7	0	30	40	719
16:15	1	239	2	0	242	35	366	7	3	411	653	5	0	4	3	12	12	0	8	1	21	33	686
16:30	3	214	3	0	220	17	394	8	1	420	640	1	0	5	1	7	23	4	14	0	41	48	688
16:45	3	246	4	2	255	25	355	8	5	393	648	4	0	3	3	10	17	1	15	0	33	43	691
Total	16	912	14	7	949	106	1,527	26	12	1,671	2,620	17	0	15	7	39	73	7	44	1	125	164	2,784
17:00	6	213	4	0	223	30	397	5	6	438	661	6	0	4	1	11	61	0	22	0	83	94	755
17:15	3	216	3	0	222	27	481	3	4	515	737	4	0	9	1	14	19	0	12	0	31	45	782
17:30	5	196	4	7	212	21	374	4	2	401	613	2	1	5	0	8	10	0	6	0	16	24	637
17:45	3	201	5	5	214	25	312	5	5	347	561	1	1	3	0	5	6	0	7	0	13	18	579
Total	17	826	16	12	871	103	1,564	17	17	1,701	2,572	13	2	21	2	38	96	0	47	0	143	181	2,753

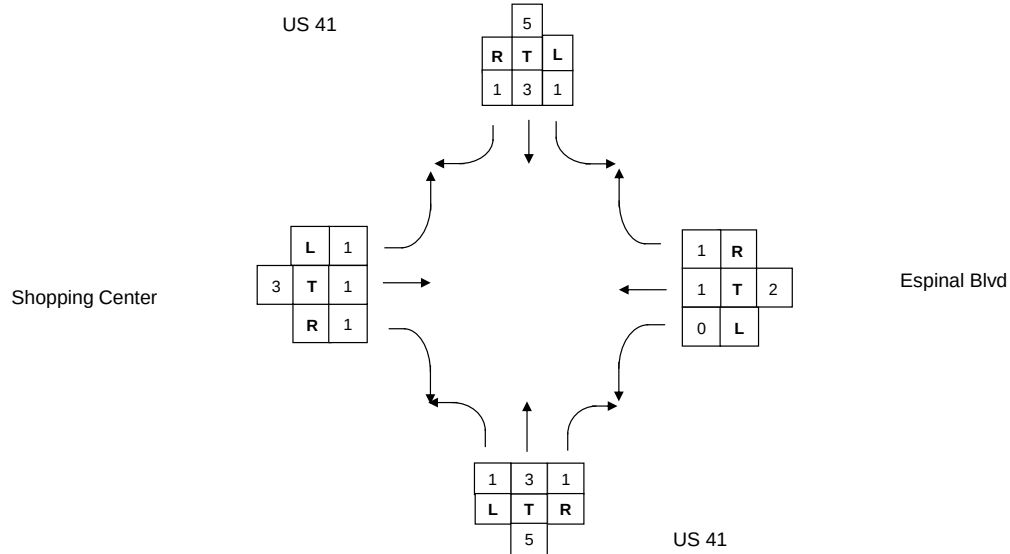
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Espinal Blvd STATE ROUTE: US 41
 OBSERVER: Jason + Sierra DATE: 06/06/17 MILEPOST:
 WEATHER: Cloudy / Rain ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM

DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	51	1,377	73	0	1,501	41	547	33	13	634	2,135	39	0	9	8	56	12	0	14	0	26	82
8 - 9	46	1,406	57	2	1,511	65	778	44	28	915	2,426	41	1	14	2	58	15	1	8	0	24	82
9 - 10	28	1,146	35	4	1,213	51	767	38	7	863	2,076	37	4	10	3	54	25	1	20	1	47	101
11 - 12	18	1,249	36	9	1,312	70	1,107	32	5	1,214	2,526	21	5	14	0	40	46	7	20	1	74	114
12 - 1	29	1,260	59	0	1,348	99	1,203	56	20	1,378	2,726	43	0	13	7	63	61	0	32	0	93	156
3 - 4	12	990	34	14	1,050	112	1,427	38	5	1,582	2,632	14	4	23	0	41	42	5	32	2	81	122
4 - 5	16	912	14	7	949	106	1,527	26	12	1,671	2,620	17	0	15	7	39	73	7	44	1	125	164
5 - 6	17	826	16	12	871	103	1,564	17	17	1,701	2,572	13	2	21	2	38	96	0	47	0	143	181
TOTAL	217	9,166	324	48	9,755	647	8,920	284	107	9,958	19,713	225	16	119	29	389	370	21	217	5	613	1,002

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
 INTER. ROUTE: Espinal Blvd
 OBSERVER: Jason + Sierra

CITY: Naples
 STATE ROUTE: US 41
 DATE: 06/06/17

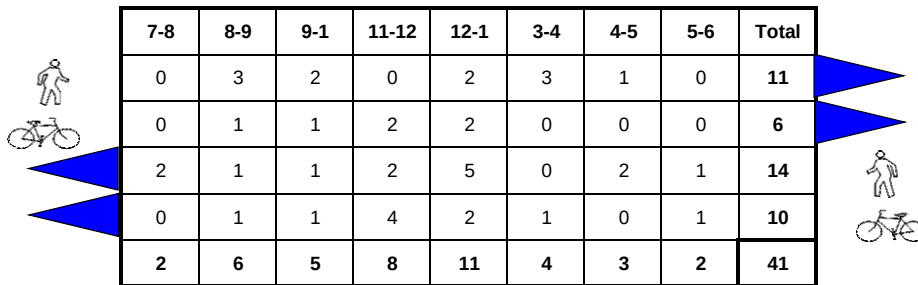
COUNTY: Collier

REMARKS: _____

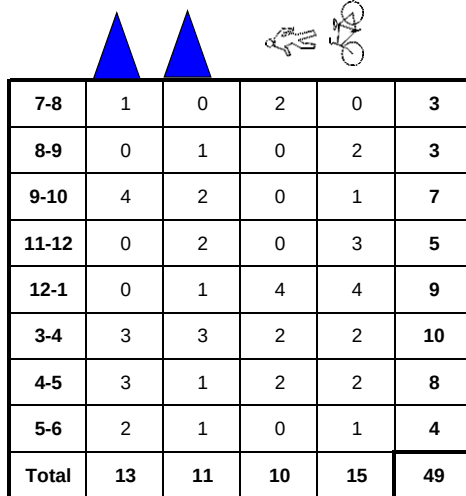
FORM COMPLETED BY: TM

DATE: 06/19/17

US 41

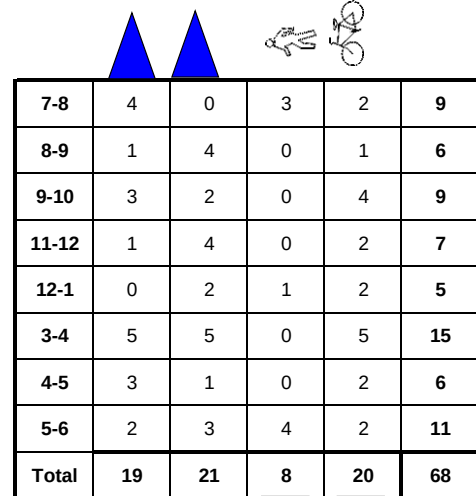


7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	3	2	0	2	3	1	0	11
0	1	1	2	2	0	0	0	6
2	1	1	2	5	0	2	1	14
0	1	1	4	2	1	0	1	10
2	6	5	8	11	4	3	2	41

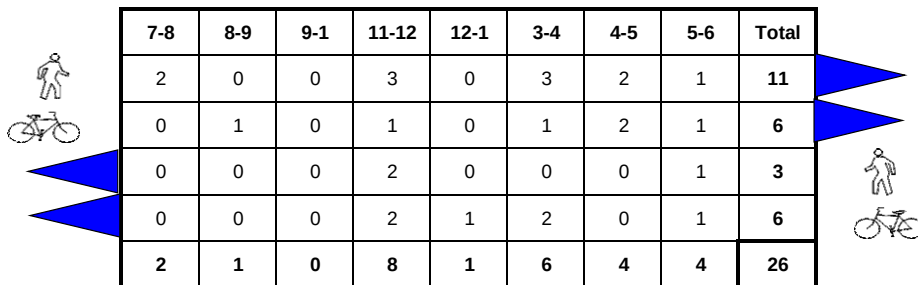


7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	0	2	0	3				
0	1	0	2	3				
4	2	0	1	7				
0	2	0	3	5				
0	1	4	4	9				
3	3	2	2	10				
3	1	2	2	8				
2	1	0	1	4				
Total	13	11	10	15	49			

Espinal Blvd / Shopping Center



7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
4	0	3	2	9				
1	4	0	1	6				
3	2	0	4	9				
1	4	0	2	7				
0	2	1	2	5				
5	5	0	5	15				
3	1	0	2	6				
2	3	4	2	11				
Total	19	21	8	20	68			



7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
2	0	0	3	0	3	2	1	11
0	1	0	1	0	1	2	1	6
0	0	0	2	0	0	0	1	3
0	0	0	2	1	2	0	1	6
2	1	0	8	1	6	4	4	26

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By: Travis S
Weather: Rain
Day of the Week:Wednesday

File Name : US 41 @ Palm Dr TMC travis
Site Code : 00000000
Start Date : 6/7/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US 41 Southbound					PALM DRIVE Westbound					US 41 Northbound					PALM DRIVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	136	3	5	144	5	0	3	0	8	9	289	0	1	299	1	0	0	0	1	452
07:15 AM	0	157	4	5	166	5	0	3	0	8	5	358	1	0	364	0	0	0	0	0	538
07:30 AM	0	203	8	5	216	6	1	7	0	14	6	403	0	0	409	0	0	0	0	0	639
07:45 AM	0	187	8	11	206	10	0	4	0	14	6	460	1	0	467	0	0	0	0	0	687
Total	0	683	23	26	732	26	1	17	0	44	26	1510	2	1	1539	1	0	0	0	1	2316
08:00 AM	0	172	6	2	180	9	0	4	0	13	5	368	0	1	374	2	0	0	0	2	569
08:15 AM	0	184	8	2	194	7	1	9	0	17	6	421	0	1	428	1	0	0	0	1	640
08:30 AM	1	188	9	4	202	10	0	12	0	22	10	399	0	1	410	0	0	1	0	1	635
08:45 AM	0	213	10	9	232	11	0	10	0	21	5	337	0	1	343	0	0	0	0	0	596
Total	1	757	33	17	808	37	1	35	0	73	26	1525	0	4	1555	3	0	1	0	4	2440
09:00 AM	0	194	5	3	202	7	0	11	0	18	6	332	0	1	339	1	0	1	0	2	561
09:15 AM	0	191	11	3	205	6	0	17	0	23	9	277	0	0	286	0	0	0	0	0	514
09:30 AM	0	235	16	3	254	15	0	18	0	33	13	300	1	1	315	0	1	0	0	1	603
09:45 AM	0	238	19	3	260	19	0	12	0	31	11	315	0	0	326	2	0	1	0	3	620
Total	0	858	51	12	921	47	0	58	0	105	39	1224	1	2	1266	3	1	2	0	6	2298
11:00 AM	0	291	22	2	315	9	0	21	0	30	13	314	1	0	328	1	0	0	0	1	674
11:15 AM	0	287	23	4	314	9	0	22	0	31	11	318	0	1	330	2	0	0	0	2	677
11:30 AM	0	296	31	4	331	11	0	17	0	28	12	349	1	4	366	1	0	0	0	1	726
11:45 AM	1	321	22	9	353	14	0	26	0	40	17	339	1	3	360	2	0	0	0	2	755
Total	1	1195	98	19	1313	43	0	86	0	129	53	1320	3	8	1384	6	0	0	0	6	2832
12:00 PM	2	371	28	6	407	17	0	20	0	37	12	319	0	1	332	0	0	0	0	0	776
12:15 PM	0	340	23	4	367	18	0	27	0	45	14	328	2	3	347	1	2	0	0	3	762
12:30 PM	0	318	29	8	355	17	0	15	0	32	15	366	0	0	381	0	0	0	0	0	768
12:45 PM	0	334	26	2	362	15	0	46	0	61	18	342	0	0	360	0	0	1	0	1	784
Total	2	1363	106	20	1491	67	0	108	0	175	59	1355	2	4	1420	1	2	1	0	4	3090
03:00 PM	0	433	10	0	443	6	0	18	0	24	13	266	0	0	279	0	0	0	0	0	746
03:15 PM	0	430	18	3	451	11	0	20	0	31	10	249	0	1	260	2	0	0	0	2	744
03:30 PM	0	419	9	2	430	10	0	21	0	31	7	261	0	5	273	0	0	0	0	0	734
03:45 PM	0	368	17	3	388	12	1	17	0	30	6	272	0	0	278	1	0	0	0	1	697
Total	0	1650	54	8	1712	39	1	76	0	116	36	1048	0	6	1090	3	0	0	0	3	2921
04:00 PM	0	407	16	4	427	9	0	21	1	31	7	230	0	0	237	0	0	0	0	0	695
04:15 PM	0	370	22	5	397	7	0	19	0	26	13	245	0	2	260	0	0	0	0	0	683
04:30 PM	0	349	29	4	382	6	0	15	0	21	6	222	0	1	229	0	0	0	0	0	632
04:45 PM	0	349	20	1	370	9	0	11	0	20	16	257	0	0	273	1	0	0	0	1	664
Total	0	1475	87	14	1576	31	0	66	1	98	42	954	0	3	999	1	0	0	0	1	2674
05:00 PM	0	447	8	5	460	6	0	14	0	20	12	224	0	1	237	1	0	0	0	1	718
05:15 PM	0	433	17	1	451	11	0	11	0	22	16	224	1	4	245	0	0	0	0	0	718
05:30 PM	0	332	21	4	357	6	0	10	0	16	7	212	0	0	219	0	0	0	0	0	592
05:45 PM	0	292	16	4	312	8	0	24	0	32	7	218	0	0	225	0	0	0	0	0	569
Total	0	1504	62	14	1580	31	0	59	0	90	42	878	1	5	926	1	0	0	0	1	2597
Grand Total	4	9485	514	130	10133	321	3	505	1	830	323	9814	9	33	10179	19	3	4	0	26	21168
Apprch %	0	93.6	5.1	1.3		38.7	0.4	60.8	0.1		3.2	96.4	0.1	0.3		73.1	11.5	15.4	0		
Total %	0	44.8	2.4	0.6	47.9	1.5	0	2.4	0	3.9	1.5	46.4	0	0.2	48.1	0.1	0	0	0	0.1	
CARS	4	9357	504	127	9992	313	2	494	1	810	319	9669	9	33	10030	17	3	4	0	24	20856
% CARS	100	98.7	98.1	97.7	98.6	97.5	66.7	97.8	100	97.6	98.8	98.5	100	100	98.5	89.5	100	100	0	92.3	98.5
TRUCKS	0	128	10	3	141	8	1	11	0	20	4	145	0	0	149	2	0	0	0	2	312
% TRUCKS	0	1.3	1.9	2.3	1.4	2.5	33.3	2.2	0	2.4	1.2	1.5	0	0	1.5	10.5	0	0	0	7.7	1.5

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By: Travis S
Weather: Rain
Day of the Week:Wednesday

File Name : US 41 @ Palm Dr TMC travis
Site Code : 00000000
Start Date : 6/7/2017
Page No : 2

	US 41 Southbound					PALM DRIVE Westbound					US 41 Northbound					PALM DRIVE Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					12:00 PM					07:45 AM					09:00 AM					
+0 mins.	0	433	10	0	443	17	0	20	0	37	6	460	1	0	467	1	0	1	0	2	
+15 mins.	0	430	18	3	451	18	0	27	0	45	5	368	0	1	374	0	0	0	0	0	
+30 mins.	0	419	9	2	430	17	0	15	0	32	6	421	0	1	428	0	1	0	0	1	
+45 mins.	0	368	17	3	388	15	0	46	0	61	10	399	0	1	410	2	0	1	0	3	
Total Volume	0	1650	54	8	1712	67	0	108	0	175	27	1648	1	3	1679	3	1	2	0	6	
% App. Total	0	96.4	3.2	0.5		38.3	0	61.7	0		1.6	98.2	0.1	0.2		50	16.7	33.3	0		
PHF	.000	.953	.750	.667	.949	.931	.000	.587	.000	.717	.675	.896	.250	.750	.899	.375	.250	.500	.000	.500	

Cars

Street Name	SB (US 41)				WB (Palm Dr)				NB (US 41)				EB (Palm Dr)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	3	131	0	4	3	0	5	0	0	285	8	1	0	0	1	0
7:15	4	147	0	5	3	0	4	0	1	353	5	0	0	0	0	0
7:30	8	196	0	5	7	1	6	0	0	397	5	0	0	0	0	0
7:45	8	183	0	11	4	0	10	0	1	456	6	0	0	0	0	0
8:00	6	170	0	2	4	0	9	0	0	361	5	1	0	0	2	0
8:15	6	181	0	2	9	1	7	0	0	416	6	1	0	0	1	0
8:30	8	182	1	4	11	0	9	0	0	393	10	1	1	0	0	0
8:45	10	207	0	8	10	0	11	0	0	330	5	1	0	0	0	0
9:00	5	190	0	3	11	0	6	0	0	326	6	1	1	0	1	0
9:15	11	186	0	3	17	0	6	0	0	272	9	0	0	0	0	0
9:30	15	227	0	3	18	0	15	0	1	291	13	1	0	1	0	0
9:45	19	233	0	2	10	0	17	0	0	308	11	0	1	0	1	0
11:00	22	285	0	2	20	0	8	0	1	310	13	0	0	0	1	0
11:15	22	285	0	4	22	0	9	0	0	310	11	1	0	0	2	0
11:30	30	290	0	4	17	0	10	0	1	345	12	4	0	0	1	0
11:45	21	318	1	9	25	0	14	0	1	333	17	3	0	0	2	0
12:00	28	368	2	6	19	0	16	0	0	316	12	1	0	0	0	0
12:15	23	334	0	4	27	0	18	0	2	325	13	3	0	2	1	0
12:30	28	312	0	8	15	0	17	0	0	364	15	0	0	0	0	0
12:45	25	331	0	2	45	0	15	0	0	336	18	0	1	0	0	0
15:00	10	428	0	0	18	0	6	0	0	263	13	0	0	0	0	0
15:15	17	427	0	3	19	0	11	0	0	248	10	1	0	0	2	0
15:30	9	412	0	2	21	0	10	0	0	255	7	5	0	0	0	0
15:45	17	365	0	3	16	0	12	0	0	266	6	0	0	0	0	0
16:00	16	405	0	4	20	0	9	1	0	229	7	0	0	0	0	0
16:15	22	370	0	5	19	0	7	0	0	240	13	2	0	0	0	0
16:30	29	347	0	4	15	0	6	0	0	219	6	1	0	0	0	0
16:45	20	348	0	1	10	0	9	0	0	254	16	0	0	0	1	0
17:00	8	447	0	5	14	0	6	0	0	222	11	1	0	0	1	0
17:15	17	431	0	1	11	0	11	0	1	222	16	4	0	0	0	0
17:30	21	329	0	4	10	0	6	0	0	211	7	0	0	0	0	0
17:45	16	292	0	4	24	0	8	0	0	213	7	0	0	0	0	0

Trucks

Street Name	SB (US 41)				WB (Palm Dr)				NB (US 41)				EB (Palm Dr)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	0	5	0	1	0	0	0	0	0	4	1	0	0	0	0	0
7:15	0	10	0	0	0	0	1	0	0	5	0	0	0	0	0	0
7:30	0	7	0	0	0	0	0	0	0	6	1	0	0	0	0	0
7:45	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0
8:00	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0
8:15	2	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0
8:30	1	6	0	0	1	0	1	0	0	6	0	0	0	0	0	0
8:45	0	6	0	1	0	0	0	0	0	7	0	0	0	0	0	0
9:00	0	4	0	0	0	0	1	0	0	6	0	0	0	0	0	0
9:15	0	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:30	1	8	0	0	0	0	0	0	0	9	0	0	0	0	0	0
9:45	0	5	0	1	2	0	2	0	0	7	0	0	0	0	1	0
11:00	0	6	0	0	1	0	1	0	0	4	0	0	0	0	0	0
11:15	1	2	0	0	0	0	0	0	0	8	0	0	0	0	0	0
11:30	1	6	0	0	0	0	1	0	0	4	0	0	0	0	0	0
11:45	1	3	0	0	1	0	0	0	0	6	0	0	0	0	0	0
12:00	0	3	0	0	1	0	1	0	0	3	0	0	0	0	0	0
12:15	0	6	0	0	0	0	0	0	0	3	1	0	0	0	0	0
12:30	1	6	0	0	0	0	0	0	0	2	0	0	0	0	0	0
12:45	1	3	0	0	1	0	0	0	0	6	0	0	0	0	0	0
15:00	0	5	0	0	0	0	0	0	0	3	0	0	0	0	0	0
15:15	1	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0
15:30	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0
15:45	0	3	0	0	1	1	0	0	0	6	0	0	0	0	1	0
16:00	0	2	0	0	1	0	0	0	0	1	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0
16:30	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
16:45	0	1	0	0	1	0	0	0	0	3	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
17:15	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0
17:30	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0

TURNING MOVEMENT COUNT: US 41 @ Palm Dr
EAST/WEST ST:Palm Dr

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Travis

ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	289	9	1	299	3	136	0	5	144	443	0	0	1	0	1	3	0	5	0	8	9	452
7:15	1	358	5	0	364	4	157	0	5	166	530	0	0	0	0	0	3	0	5	0	8	8	538
7:30	0	403	6	0	409	8	203	0	5	216	625	0	0	0	0	0	7	1	6	0	14	14	639
7:45	1	460	6	0	467	8	187	0	11	206	673	0	0	0	0	0	4	0	10	0	14	14	687
Total	2	1,510	26	1	1,539	23	683	0	26	732	2,271	0	0	1	0	1	17	1	26	0	44	45	2,316
8:00	0	368	5	1	374	6	172	0	2	180	554	0	0	2	0	2	4	0	9	0	13	15	569
8:15	0	421	6	1	428	8	184	0	2	194	622	0	0	1	0	1	9	1	7	0	17	18	640
8:30	0	399	10	1	410	9	188	1	4	202	612	1	0	0	0	1	12	0	10	0	22	23	635
8:45	0	337	5	1	343	10	213	0	9	232	575	0	0	0	0	0	10	0	11	0	21	21	596
Total	0	1,525	26	4	1,555	33	757	1	17	808	2,363	1	0	3	0	4	35	1	37	0	73	77	2,440
9:00	0	332	6	1	339	5	194	0	3	202	541	1	0	1	0	2	11	0	7	0	18	20	561
9:15	0	277	9	0	286	11	191	0	3	205	491	0	0	0	0	0	17	0	6	0	23	23	514
9:30	1	300	13	1	315	16	235	0	3	254	569	0	1	0	0	1	18	0	15	0	33	34	603
9:45	0	315	11	0	326	19	238	0	3	260	586	1	0	2	0	3	12	0	19	0	31	34	620
Total	1	1,224	39	2	1,266	51	858	0	12	921	2,187	2	1	3	0	6	58	0	47	0	105	111	2,298
11:00	1	314	13	0	328	22	291	0	2	315	643	0	0	1	0	1	21	0	9	0	30	31	674
11:15	0	318	11	1	330	23	287	0	4	314	644	0	0	2	0	2	22	0	9	0	31	33	677
11:30	1	349	12	4	366	31	296	0	4	331	697	0	0	1	0	1	17	0	11	0	28	29	726
11:45	1	339	17	3	360	22	321	1	9	353	713	0	0	2	0	2	26	0	14	0	40	42	755
Total	3	1,320	53	8	1,384	98	1,195	1	19	1,313	2,697	0	0	6	0	6	86	0	43	0	129	135	2,832
12:00	0	319	12	1	332	28	371	2	6	407	739	0	0	0	0	0	20	0	17	0	37	37	776
12:15	2	328	14	3	347	23	340	0	4	367	714	0	2	1	0	3	27	0	18	0	45	48	762
12:30	0	366	15	0	381	29	318	0	8	355	736	0	0	0	0	0	15	0	17	0	32	32	768
12:45	0	342	18	0	360	26	334	0	2	362	722	1	0	0	0	1	46	0	15	0	61	62	784
Total	2	1,355	59	4	1,420	106	1,363	2	20	1,491	2,911	1	2	1	0	4	108	0	67	0	175	179	3,090
15:00	0	266	13	0	279	10	433	0	0	443	722	0	0	0	0	0	18	0	6	0	24	24	746
15:15	0	249	10	1	260	18	430	0	3	451	711	0	0	2	0	2	20	0	11	0	31	33	744
15:30	0	261	7	5	273	9	419	0	2	430	703	0	0	0	0	0	21	0	10	0	31	31	734
15:45	0	272	6	0	278	17	368	0	3	388	666	0	0	1	0	1	17	1	12	0	30	31	697
Total	0	1,048	36	6	1,090	54	1,650	0	8	1,712	2,802	0	0	3	0	3	76	1	39	0	116	119	2,921
16:00	0	230	7	0	237	16	407	0	4	427	664	0	0	0	0	0	21	0	9	1	31	31	695
16:15	0	245	13	2	260	22	370	0	5	397	657	0	0	0	0	0	19	0	7	0	26	26	683
16:30	0	222	6	1	229	29	349	0	4	382	611	0	0	0	0	0	15	0	6	0	21	21	632
16:45	0	257	16	0	273	20	349	0	1	370	643	0	0	1	0	1	11	0	9	0	20	21	664
Total	0	954	42	3	999	87	1,475	0	14	1,576	2,575	0	0	1	0	1	66	0	31	1	98	99	2,674
17:00	0	224	12	1	237	8	447	0	5	460	697	0	0	1	0	1	14	0	6	0	20	21	718
17:15	1	224	16	4	245	17	433	0	1	451	696	0	0	0	0	0	11	0	11	0	22	22	718
17:30	0	212	7	0	219	21	332	0	4	357	576	0	0	0	0	0	10	0	6	0	16	16	592
17:45	0	218	7	0	225	16	292	0	4	312	537	0	0	0	0	0	24	0	8	0	32	32	569
Total	1	878	42	5	926	62	1,504	0	14	1,580	2,506	0	0	1	0	1	59	0	31	0	90	91	2,597

FLORIDA DEPARTMENT OF TRANSPORTATION

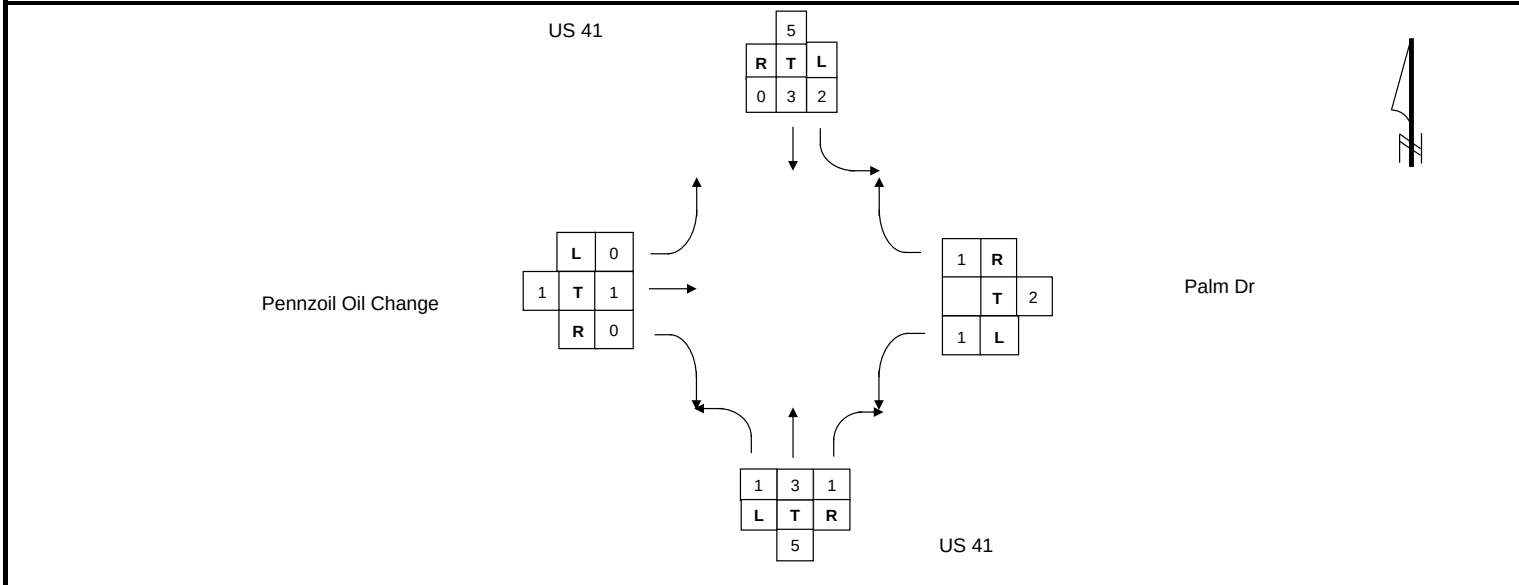
SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Palm Dr STATE ROUTE: US 41
 OBSERVER: Travis DATE: 06/07/17 MILEPOST:
 WEATHER: Rain ROAD CONDITION: Wet

REMARKS:

FORM COMPLETED BY: TM

Date 06/23/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	2	1,510	26	1	1,539	23	683	0	26	732	2,271	0	0	1	0	1	17	1	26	0	44	45
8 - 9	0	1,525	26	4	1,555	33	757	1	17	808	2,363	1	0	3	0	4	35	1	37	0	73	77
9 - 10	1	1,224	39	2	1,266	51	858	0	12	921	2,187	2	1	3	0	6	58	0	47	0	105	111
11 - 12	3	1,320	53	8	1,384	98	1,195	1	19	1,313	2,697	0	0	6	0	6	86	0	43	0	129	135
12 - 1	2	1,355	59	4	1,420	106	1,363	2	20	1,491	2,911	1	2	1	0	4	108	0	67	0	175	179
3 - 4	0	1,048	36	6	1,090	54	1,650	0	8	1,712	2,802	0	0	3	0	3	76	1	39	0	116	119
4 - 5	0	954	42	3	999	87	1,475	0	14	1,576	2,575	0	0	1	0	1	66	0	31	1	98	99
5 - 6	1	878	42	5	926	62	1,504	0	14	1,580	2,506	0	0	1	0	1	59	0	31	0	90	91
TOTAL	9	9,814	323	33	10,179	514	9,485	4	130	10,133	20,312	4	3	19	0	26	505	3	321	1	830	856

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A
INTER. ROUTE: Palm Dr
OBSERVER: Travis

CITY: Naples
STATE ROUTE: US 41
DATE: 06/07/17

COUNTY: Collier

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/23/17

US 41



7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	2
0	0	0	0	0	0	0	0	0
0	1	0	0	2	0	1	0	4
1	1	0	0	3	0	1	0	6

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	3	0	1	4				
0	1	0	1	2				
1	3	1	1	6				
1	3	0	1	5				
0	1	0	5	6				
0	0	0	0	0				
0	1	0	1	2				
0	0	0	1	1				
2	12	1	11	26				

Pennzoil Oil change / Palm Dr

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	5	0	4	10				
3	3	4	0	10				
0	3	0	6	9				
1	5	1	5	12				
1	0	1	3	5				
0	0	0	0	0				
0	2	1	3	6				
0	3	0	2	5				
6	21	7	23	57				

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	0	2
0	0	1	1	1	0	0	0	3

US 41

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Travis S
Weather:Cloudy
Day of the Week:Tuesday

File Name : US 41 @ Guilford Rd TMC travis
Site Code : 00000000
Start Date : 6/6/2017
Page No : 1

Groups Printed- CARS - TRUCKS

	US 41 Southbound					Shopping Plaza Westbound					US 41 Northbound					GUILFORD ROAD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	2	99	1	3	105	0	0	1	0	1	7	314	0	0	321	2	0	5	0	7	434
07:15 AM	1	161	1	4	167	0	0	0	0	0	4	427	3	1	435	1	0	4	0	5	607
07:30 AM	0	177	4	2	183	1	0	3	0	4	8	494	2	0	504	0	0	6	0	6	697
07:45 AM	0	175	4	2	181	2	0	3	0	5	8	568	2	4	582	2	0	7	0	9	777
Total	3	612	10	11	636	3	0	7	0	10	27	1803	7	5	1842	5	0	22	0	27	2515
08:00 AM	1	198	2	3	204	3	0	2	0	5	6	462	1	3	472	3	0	7	0	10	691
08:15 AM	1	210	2	1	214	2	0	5	0	7	5	512	3	0	520	2	0	3	0	5	746
08:30 AM	2	206	2	1	211	1	1	6	0	8	7	502	5	0	514	3	0	5	0	8	741
08:45 AM	3	221	7	9	240	1	0	8	0	9	8	437	11	2	458	5	0	7	0	12	719
Total	7	835	13	14	869	7	1	21	0	29	26	1913	20	5	1964	13	0	22	0	35	2897
09:00 AM	5	235	10	4	254	4	1	5	0	10	6	423	4	1	434	7	1	2	0	10	708
09:15 AM	9	174	12	8	203	3	0	8	0	11	9	398	6	2	415	5	0	6	0	11	640
09:30 AM	5	213	8	5	231	6	0	16	0	22	8	417	9	1	435	1	0	5	0	6	694
09:45 AM	4	221	6	4	235	0	0	6	0	6	4	377	7	1	389	8	0	5	0	13	643
Total	23	843	36	21	923	13	1	35	0	49	27	1615	26	5	1673	21	1	18	0	40	2685
11:00 AM	4	271	12	5	292	2	0	16	0	18	14	417	3	0	434	2	0	4	0	6	750
11:15 AM	5	305	14	7	331	1	0	19	0	20	15	419	2	3	439	2	1	6	0	9	799
11:30 AM	3	295	12	15	325	4	0	15	0	19	13	372	3	0	388	3	0	5	0	8	740
11:45 AM	2	315	18	10	345	3	1	30	0	34	14	386	2	1	403	3	0	5	0	8	790
Total	14	1186	56	37	1293	10	1	80	0	91	56	1594	10	4	1664	10	1	20	0	31	3079
12:00 PM	7	338	9	14	368	3	0	27	0	30	16	360	2	0	378	3	1	4	0	8	784
12:15 PM	1	349	17	11	378	2	0	24	0	26	11	410	2	2	425	4	0	6	0	10	839
12:30 PM	7	312	16	16	351	3	0	23	0	26	13	407	3	1	424	2	0	1	0	3	804
12:45 PM	3	288	17	13	321	2	0	19	0	21	15	388	3	0	406	1	0	4	0	5	753
Total	18	1287	59	54	1418	10	0	93	0	103	55	1565	10	3	1633	10	1	15	0	26	3180
03:00 PM	3	330	8	6	347	5	0	35	0	40	10	432	2	0	444	3	0	2	0	5	836
03:15 PM	2	375	14	4	395	3	0	34	0	37	8	483	2	2	495	0	1	1	0	2	929
03:30 PM	1	411	8	8	428	6	0	34	1	41	14	416	1	4	435	2	0	4	0	6	910
03:45 PM	5	416	13	10	444	5	0	24	0	29	17	425	3	0	445	3	0	2	0	5	923
Total	11	1532	43	28	1614	19	0	127	1	147	49	1756	8	6	1819	8	1	9	0	18	3598
04:00 PM	0	417	12	7	436	3	0	31	0	34	11	398	3	2	414	2	0	4	0	6	890
04:15 PM	4	426	15	6	451	5	0	30	0	35	7	384	3	0	394	1	2	3	0	6	886
04:30 PM	0	383	14	5	402	1	0	30	0	31	12	382	2	1	397	3	0	5	0	8	838
04:45 PM	6	370	9	11	396	3	0	31	0	34	13	399	2	4	418	0	1	4	0	5	853
Total	10	1596	50	29	1685	12	0	122	0	134	43	1563	10	7	1623	6	3	16	0	25	3467
05:00 PM	5	431	5	6	447	1	0	25	0	26	8	375	3	0	386	1	0	3	0	4	863
05:15 PM	5	515	11	12	543	3	1	23	0	27	12	396	4	0	412	5	0	2	0	7	989
05:30 PM	2	391	8	9	410	1	0	24	0	25	10	358	6	2	376	3	0	2	0	5	816
05:45 PM	4	308	8	4	324	1	1	32	0	34	14	352	2	0	368	0	3	3	0	6	732
Total	16	1645	32	31	1724	6	2	104	0	112	44	1481	15	2	1542	9	3	10	0	22	3400
Grand Total	102	9536	299	225	10162	80	5	589	1	675	327	13290	106	37	13760	82	10	132	0	224	24821
Apprch %	1	93.8	2.9	2.2		11.9	0.7	87.3	0.1		2.4	96.6	0.8	0.3		36.6	4.5	58.9	0		
Total %	0.4	38.4	1.2	0.9	40.9	0.3	0	2.4	0	2.7	1.3	53.5	0.4	0.1	55.4	0.3	0	0.5	0	0.9	
CARS	101	9399	288	216	10004	75	5	584	1	665	319	13154	105	37	13615	81	10	132	0	223	24507
% CARS	99	98.6	96.3	96	98.4	93.8	100	99.2	100	98.5	97.6	99	99.1	100	98.9	98.8	100	100	0	99.6	98.7
TRUCKS	1	137	11	9	158	5	0	5	0	10	8	136	1	0	145	1	0	0	0	1	314
% TRUCKS	1	1.4	3.7	4	1.6	6.2	0	0.8	0	1.5	2.4	1	0.9	0	1.1	1.2	0	0	0	0.4	1.3

HNTB

201 Franklin St
Suite #1200
Tampa FL 33602

Counter:TDC ULTRA
Counted By:Travis S
Weather:Cloudy
Day of the Week:Tuesday

File Name : US 41 @ Guilford Rd TMC travis
Site Code : 00000000
Start Date : 6/6/2017
Page No : 2

	US 41 Southbound					Shopping Plaza Westbound					US 41 Northbound					GUILFORD ROAD Eastbound					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					03:00 PM					07:45 AM					08:30 AM					
+0 mins.	6	370	9	11	396	5	0	35	0	40	8	568	2	4	582	3	0	5	0	8	
+15 mins.	5	431	5	6	447	3	0	34	0	37	6	462	1	3	472	5	0	7	0	12	
+30 mins.	5	515	11	12	543	6	0	34	1	41	5	512	3	0	520	7	1	2	0	10	
+45 mins.	2	391	8	9	410	5	0	24	0	29	7	502	5	0	514	5	0	6	0	11	
Total Volume	18	1707	33	38	1796	19	0	127	1	147	26	2044	11	7	2088	20	1	20	0	41	
% App. Total	1	95	1.8	2.1		12.9	0	86.4	0.7		1.2	97.9	0.5	0.3		48.8	2.4	48.8	0		
PHF	.750	.829	.750	.792	.827	.792	.000	.907	.250	.896	.813	.900	.550	.438	.897	.714	.250	.714	.000	.854	

Cars

Street Name	SB (US 41)				WB (Shopping Plaza)				NB (US 41)				EB (Guilford Rd)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	1	99	2	3	1	0	0	0	0	314	7	0	5	0	2	0
7:15	1	156	1	3	0	0	0	0	3	421	4	1	4	0	1	0
7:30	3	170	0	2	2	0	1	0	2	492	8	0	6	0	0	0
7:45	4	172	0	2	3	0	2	0	2	560	8	4	7	0	2	0
8:00	2	190	1	2	2	0	2	0	1	458	5	3	7	0	3	0
8:15	2	206	1	1	5	0	2	0	3	503	5	0	3	0	2	0
8:30	2	200	2	1	5	1	1	0	5	496	6	0	5	0	3	0
8:45	7	214	3	9	8	0	1	0	11	432	8	2	7	0	5	0
9:00	9	230	5	4	5	1	4	0	4	418	6	1	2	1	7	0
9:15	12	171	9	6	8	0	2	0	6	392	9	2	6	0	5	0
9:30	8	200	4	5	16	0	5	0	9	409	8	1	5	0	1	0
9:45	3	216	4	4	5	0	0	0	7	372	4	1	5	0	7	0
11:00	11	268	4	4	16	0	2	0	3	407	14	0	4	0	2	0
11:15	12	300	5	7	19	0	1	0	2	417	13	3	6	1	2	0
11:30	12	287	3	14	15	0	3	0	2	370	13	0	5	0	3	0
11:45	18	310	2	10	30	1	3	0	2	382	14	1	5	0	3	0
12:00	9	333	7	13	27	0	3	0	2	357	15	0	4	1	3	0
12:15	17	340	1	11	24	0	2	0	2	407	11	2	6	0	4	0
12:30	14	306	7	15	23	0	3	0	3	403	11	1	1	0	2	0
12:45	16	285	3	13	19	0	2	0	3	380	15	0	4	0	1	0
15:00	8	327	3	6	35	0	5	0	2	430	10	0	2	0	3	0
15:15	14	374	2	4	32	0	3	0	2	471	8	2	1	1	0	0
15:30	8	405	1	8	34	0	5	1	1	415	13	4	4	0	2	0
15:45	13	416	5	10	24	0	5	0	3	422	17	0	2	0	3	0
16:00	12	415	0	6	31	0	3	0	3	396	11	2	4	0	2	0
16:15	15	425	4	6	30	0	5	0	3	382	7	0	3	2	1	0
16:30	14	380	0	5	30	0	1	0	2	380	12	1	5	0	3	0
16:45	9	368	6	11	31	0	3	0	2	395	13	4	4	1	0	0
17:00	5	427	5	6	25	0	1	0	3	374	8	0	3	0	1	0
17:15	11	513	5	12	23	1	3	0	4	393	12	0	2	0	5	0
17:30	8	389	2	9	24	0	1	0	6	357	10	2	2	0	3	0
17:45	8	307	4	4	32	1	1	0	2	349	14	0	3	3	0	0

Trucks

Street Name	SB (US 41)				WB (Shopping Plaza)				NB (US 41)				EB (Guilford Rd)			
Start Time	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn	Left	Thru	Right	U Turn
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	5	0	1	0	0	0	0	0	6	0	0	0	0	0	0
7:30	1	7	0	0	1	0	0	0	0	2	0	0	0	0	0	0
7:45	0	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0
8:00	0	8	0	1	0	0	1	0	0	4	1	0	0	0	0	0
8:15	0	4	0	0	0	0	0	0	0	9	0	0	0	0	0	0
8:30	0	6	0	0	1	0	0	0	0	6	1	0	0	0	0	0
8:45	0	7	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:00	1	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0
9:15	0	3	0	2	0	0	1	0	0	6	0	0	0	0	0	0
9:30	0	13	1	0	0	0	1	0	0	8	0	0	0	0	0	0
9:45	3	5	0	0	1	0	0	0	0	5	0	0	0	0	1	0
11:00	1	3	0	1	0	0	0	0	0	10	0	0	0	0	0	0
11:15	2	5	0	0	0	0	0	0	0	2	2	0	0	0	0	0
11:30	0	8	0	1	0	0	1	0	1	2	0	0	0	0	0	0
11:45	0	5	0	0	0	0	0	0	0	4	0	0	0	0	0	0
12:00	0	5	0	1	0	0	0	0	0	3	1	0	0	0	0	0
12:15	0	9	0	0	0	0	0	0	0	3	0	0	0	0	0	0
12:30	2	6	0	1	0	0	0	0	0	4	2	0	0	0	0	0
12:45	1	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0
15:00	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
15:15	0	1	0	0	2	0	0	0	0	12	0	0	0	0	0	0
15:30	0	6	0	0	0	0	1	0	0	1	1	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
16:00	0	2	0	1	0	0	0	0	0	2	0	0	0	0	0	0
16:15	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
16:30	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0
16:45	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0
17:00	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:15	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0
17:30	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0
17:45	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0

TURNING MOVEMENT COUNT:US 41 @ Guilford Rd
EAST/WEST ST:Guilford Rd

TIME: 7am-6pm
NORTH/SOUTH ST:US 41
COUNTED BY: Travis S

ALL VEHICLES

START TIME	NORTHBOUND					SOUTHBOUND					NS TOTAL	EASTBOUND					WESTBOUND					EW TOTAL	GRAND TOTAL
	LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		LEFT	THRU	RIGHT	U-TURN	TOTAL	LEFT	THRU	RIGHT	U-TURN	TOTAL		
7:00	0	314	7	0	321	1	99	2	3	105	426	5	0	2	0	7	1	0	0	0	1	8	434
7:15	3	427	4	1	435	1	161	1	4	167	602	4	0	1	0	5	0	0	0	0	0	5	607
7:30	2	494	8	0	504	4	177	0	2	183	687	6	0	0	0	6	3	0	1	0	4	10	697
7:45	2	568	8	4	582	4	175	0	2	181	763	7	0	2	0	9	3	0	2	0	5	14	777
Total	7	1,803	27	5	1,842	10	612	3	11	636	2,478	22	0	5	0	27	7	0	3	0	10	37	2,515
8:00	1	462	6	3	472	2	198	1	3	204	676	7	0	3	0	10	2	0	3	0	5	15	691
8:15	3	512	5	0	520	2	210	1	1	214	734	3	0	2	0	5	5	0	2	0	7	12	746
8:30	5	502	7	0	514	2	206	2	1	211	725	5	0	3	0	8	6	1	1	0	8	16	741
8:45	11	437	8	2	458	7	221	3	9	240	698	7	0	5	0	12	8	0	1	0	9	21	719
Total	20	1,913	26	5	1,964	13	835	7	14	869	2,833	22	0	13	0	35	21	1	7	0	29	64	2,897
9:00	4	423	6	1	434	10	235	5	4	254	688	2	1	7	0	10	5	1	4	0	10	20	708
9:15	6	398	9	2	415	12	174	9	8	203	618	6	0	5	0	11	8	0	3	0	11	22	640
9:30	9	417	8	1	435	8	213	5	5	231	666	5	0	1	0	6	16	0	6	0	22	28	694
9:45	7	377	4	1	389	6	221	4	4	235	624	5	0	8	0	13	6	0	0	0	6	19	643
Total	26	1,615	27	5	1,673	36	843	23	21	923	2,596	18	1	21	0	40	35	1	13	0	49	89	2,685
11:00	3	417	14	0	434	12	271	4	5	292	726	4	0	2	0	6	16	0	2	0	18	24	750
11:15	2	419	15	3	439	14	305	5	7	331	770	6	1	2	0	9	19	0	1	0	20	29	799
11:30	3	372	13	0	388	12	295	3	15	325	713	5	0	3	0	8	15	0	4	0	19	27	740
11:45	2	386	14	1	403	18	315	2	10	345	748	5	0	3	0	8	30	1	3	0	34	42	790
Total	10	1,594	56	4	1,664	56	1,186	14	37	1,293	2,957	20	1	10	0	31	80	1	10	0	91	122	3,079
12:00	2	360	16	0	378	9	338	7	14	368	746	4	1	3	0	8	27	0	3	0	30	38	784
12:15	2	410	11	2	425	17	349	1	11	378	803	6	0	4	0	10	24	0	2	0	26	36	839
12:30	3	407	13	1	424	16	312	7	16	351	775	1	0	2	0	3	23	0	3	0	26	29	804
12:45	3	388	15	0	406	17	288	3	13	321	727	4	0	1	0	5	19	0	2	0	21	26	753
Total	10	1,565	55	3	1,633	59	1,287	18	54	1,418	3,051	15	1	10	0	26	93	0	10	0	103	129	3,180
15:00	2	432	10	0	444	8	330	3	6	347	791	2	0	3	0	5	35	0	5	0	40	45	836
15:15	2	483	8	2	495	14	375	2	4	395	890	1	1	0	0	2	34	0	3	0	37	39	929
15:30	1	416	14	4	435	8	411	1	8	428	863	4	0	2	0	6	34	0	6	1	41	47	910
15:45	3	425	17	0	445	13	416	5	10	444	889	2	0	3	0	5	24	0	5	0	29	34	923
Total	8	1,756	49	6	1,819	43	1,532	11	28	1,614	3,433	9	1	8	0	18	127	0	19	1	147	165	3,598
16:00	3	398	11	2	414	12	417	0	7	436	850	4	0	2	0	6	31	0	3	0	34	40	890
16:15	3	384	7	0	394	15	426	4	6	451	845	3	2	1	0	6	30	0	5	0	35	41	886
16:30	2	382	12	1	397	14	383	0	5	402	799	5	0	3	0	8	30	0	1	0	31	39	838
16:45	2	399	13	4	418	9	370	6	11	396	814	4	1	0	0	5	31	0	3	0	34	39	853
Total	10	1,563	43	7	1,623	50	1,596	10	29	1,685	3,308	16	3	6	0	25	122	0	12	0	134	159	3,467
17:00	3	375	8	0	386	5	431	5	6	447	833	3	0	1	0	4	25	0	1	0	26	30	863
17:15	4	396	12	0	412	11	515	5	12	543	955	2	0	5	0	7	23	1	3	0	27	34	989
17:30	6	358	10	2	376	8	391	2	9	410	786	2	0	3	0	5	24	0	1	0	25	30	816
17:45	2	352	14	0	368	8	308	4	4	324	692	3	3	0	0	6	32	1	1	0	34	40	732
Total	15	1,481	44	2	1,542	32	1,645	16	31	1,724	3,266	10	3	9	0	22	104	2	6	0	112	134	3,400

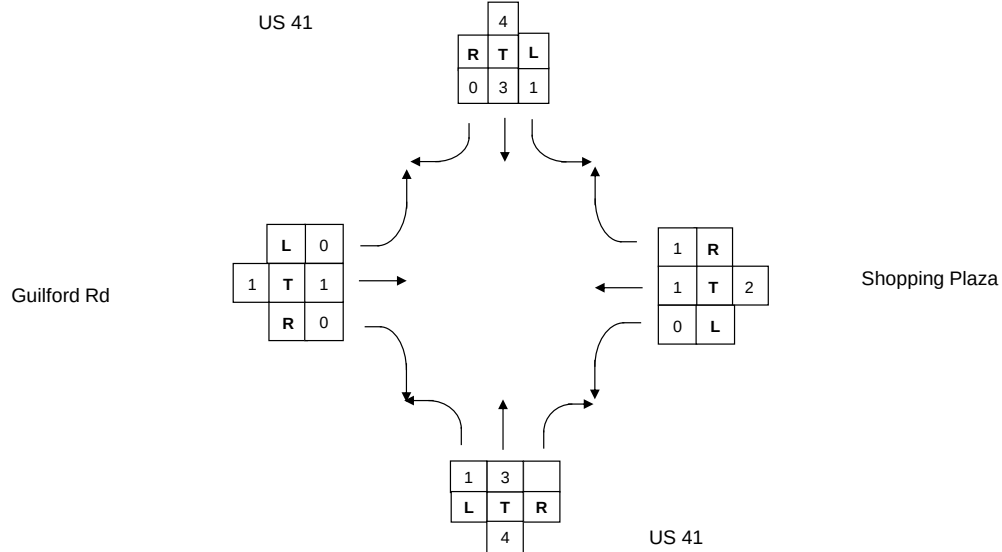
FLORIDA DEPARTMENT OF TRANSPORTATION

SUMMARY OF VEHICLE MOVEMENTS

SECTION: N/A CITY: Naples COUNTY: Collier
 INTR ROUTE: Guilford Rd STATE ROUTE: US 41
 OBSERVER: Travis S. DATE: 06/06/17 MILEPOST:
 WEATHER: Cloudy ROAD CONDITION: Good / Wet
 REMARKS:

FORM COMPLETED BY: TM

DATE: 06/19/17



TIME	NORTHBOUND					SOUTHBOUND					TOTAL	EASTBOUND					WESTBOUND					TOTAL
BEGIN/END	L	T	R	U	TOT	L	T	R	U	TOT	N/S	L	T	R	U	TOT	L	T	R	U	TOT	E/W
7 - 8	7	1,803	27	5	1,842	10	612	3	11	636	2,478	22	0	5	0	27	7	0	3	0	10	37
8 - 9	20	1,913	26	5	1,964	13	835	7	14	869	2,833	22	0	13	0	35	21	1	7	0	29	64
9 - 10	26	1,615	27	5	1,673	36	843	23	21	923	2,596	18	1	21	0	40	35	1	13	0	49	89
11 - 12	10	1,594	56	4	1,664	56	1,186	14	37	1,293	2,957	20	1	10	0	31	80	1	10	0	91	122
12 - 1	10	1,565	55	3	1,633	59	1,287	18	54	1,418	3,051	15	1	10	0	26	93	0	10	0	103	129
3 - 4	8	1,756	49	6	1,819	43	1,532	11	28	1,614	3,433	9	1	8	0	18	127	0	19	1	147	165
4 - 5	10	1,563	43	7	1,623	50	1,596	10	29	1,685	3,308	16	3	6	0	25	122	0	12	0	134	159
5 - 6	15	1,481	44	2	1,542	32	1,645	16	31	1,724	3,266	10	3	9	0	22	104	2	6	0	112	134
TOTAL	106	13,290	327	37	13,760	299	9,536	102	225	10,162	23,922	132	10	82	0	224	589	5	80	1	675	899

FLORIDA DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOVEMENT SUMMARY

SECTION: N/A

CITY: Naples

COUNTY: Collier

INTER. ROUTE: Guilford Rd

STATE ROUTE: US 41

OBSERVER: Travis S.

DATE: 06/06/17

REMARKS: _____

FORM COMPLETED BY: TM

DATE: 06/19/17

US 41

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	1	0	0	0	1
1	0	0	0	1	2	1	0	5
0	0	0	0	1	3	0	0	4
0	0	0	0	0	0	0	0	0
1	0	0	0	3	5	1	0	10

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
1	0	0	0	1	1	1	0	5
0	2	0	1	2	1	2	0	8
2	2	0	1	0	1	1	0	7
1	1	0	3	2	0	2	0	9
1	2	0	2	5	1	3	0	14
1	2	1	3	7	0	5	0	18
1	0	2	0	3	1	2	0	9
8	10	3	15	36				

7-8	8-9	9-10	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	1	1	0	0	0	2
1	3	0	2	6	0	0	0	12
1	2	0	1	4	0	0	0	8
0	2	0	0	2	0	0	0	4
1	0	0	1	2	0	0	0	3
0	4	1	5	10	0	0	0	20
2	3	0	4	9	0	0	0	18
2	2	1	2	7	0	0	0	12
7	16	2	16	41				

7-8	8-9	9-1	11-12	12-1	3-4	4-5	5-6	Total
0	0	0	0	1	0	0	0	1
1	0	0	0	0	0	1	3	5
1	0	1	1	0	0	1	0	4
0	0	0	0	0	0	0	0	0
2	0	1	1	1	0	2	3	10



APPENDIX C

PEDESTRIAN/BICYCLIST SAFETY AUDIT



APPENDIX D

CRASH DATA

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2011 to 12/31/2011
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/6/2011	Thu.	14:40	Rear End			x	Day	Wet	Careless Driving	
2	1/8/2011	Sat.	22:24	Collision w/ Pole			x	Night	Dry	DUI	
3	1/16/2011	Sun.	0:02	Collision w/ Pole		x		Night	Dry	Careless Driving	
4	2/1/2011	Tue.	23:20	Rear End			x	Night	Dry	DUI	
5	2/3/2011	Thu.	8:55	Rear End		x		Day	Dry	Careless Driving	
6	2/11/2011	Fri.	10:35	Collision w/ Tree		x		Day	Dry	Other	Swerved or avoided right turning vehicle
7	2/28/2011	Mon.	13:05	Rear End		x		Day	Dry	Careless Driving	
8	3/3/2011	Thu.	11:20	Collision w/ Bike		x		Day	Dry	FTYRW	
9	3/7/2011	Mon.	11:59	Rear End		x		Day	Dry	Careless Driving	Stopped for pedestrian crossing
10	3/9/2011	Wed.	15:43	Rear End		x		Day	Dry	Careless Driving	
11	4/5/2011	Tue.	17:22	Rear End		x		Day	Dry	Careless Driving	
12	4/6/2011	Wed.	12:00	Rear End			x	Day	Dry	Careless Driving	
13	4/10/2011	Sun.	12:03	Angle		x		Day	Dry	FTYRW	
14	4/12/2011	Tue.	10:25	Collision w/ Bike		x		Day	Dry	Other	Fled scene
15	4/30/2011	Sat.	16:59	Angle		x		Day	Wet	Exceeded Speed Limit	
16	5/3/2011	Tue.	15:03	Rear End			x	Day	Dry	Other	Fled scene
17	6/15/2011	Wed.	9:56	Collision w/ Bike		x		Day	Dry	Careless Driving	
18	8/10/2011	Wed.	17:55	Rear End			x	Day	Wet	Followed Too Closely	
19	8/16/2011	Tue.	15:49	Collision w/ Bike		x		Day	Dry	FTYRW	
20	8/17/2011	Wed.	14:43	Rear End			x	Day	Dry	Careless Driving	
21	8/27/2011	Sat.	19:38	Collision w/ Bike		x		Night	Dry	FTYRW	
22	8/31/2011	Wed.	10:09	Rear End			x	Day	Wet	Careless Driving	
23	9/16/2011	Fri.	17:45	Rear End		x		Day	Dry	No Improper Driving	
24	9/19/2011	Mon.	19:21	Left Turn			x	Night	Wet	FTYRW	Attempted to make a u-turn
25	10/4/2011	Tue.	14:10	Right Turn		x		Day	Dry	Careless Driving	
26	10/7/2011	Fri.	20:00	Left Turn		x		Night	Dry	FTYRW	Attempted to make a u-turn
27	10/9/2011	Sun.	20:10	Rear End		x		Night	Dry	Other	
28	10/11/2011	Tue.	14:50	Rear End			x	Day	Dry	Careless Driving	
29	10/23/2011	Sun.	20:35	Rear End			x	Night	Dry	Followed Too Closely	
30	10/27/2011	Thu.	21:06	Head On		x		Night	Dry	Other	Failed to keep in proper lane
31	10/31/2011	Mon.	11:29	Rear End		x		Day	Dry	Exceeded Speed Limit	
32	11/3/2011	Thu.	14:30	Collision w/ Bike			x	Day	Dry	No Improper Driving	
33	11/3/2011	Thu.	13:42	Rear End		x		Day	Dry	Careless Driving	
34	11/3/2011	Thu.	19:44	Collision w/ Ped		x		Night	Dry	Other	
35	11/5/2011	Sat.	15:32	Angle		x		Day	Dry	Other	Fled scene
36	11/7/2011	Mon.	16:10	Collision w/ Bike		x		Day	Dry	FTYRW	
37	11/14/2011	Mon.	17:30	Collision w/ Bike		x		Night	Dry	No Improper Driving	Non motorist charged with DUI
38	11/16/2011	Wed.	21:45	Collision w/ Bike			x	Night	Dry	Other	Fled scene
39	11/19/2011	Sat.	18:40	Collision w/ Ped		x		Night	Dry	FTYRW	
40	11/21/2011	Mon.	10:15	Collision w/ Bike		x		Day	Dry	Other	Fled scene
41	11/22/2011	Tue.	12:00	Rear End		x		Day	Dry	Careless Driving	
42	11/25/2011	Fri.	9:03	Collision w/ Bike		x		Day	Dry	Careless Driving	
43	11/29/2011	Tue.	23:10	Collision w/ Tree		x		Night	Dry	DUI	
44	12/2/2011	Fri.	11:05	Rear End		x		Day	Dry	Followed Too Closely	
45	12/5/2011	Mon.	15:55	Rear End			x	Day	Dry	Followed Too Closely	
46	12/18/2011	Sun.	17:07	Rear End		x		Day	Dry	DUI	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2011 to 12/31/2011
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	12/23/2011	Fri.	18:15	Rear End			x	Night	Dry	Careless Driving	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Tree	Overtaken	Collision w/ Pole	Right Turn	Run Off Road	Other
47	0	32	15	3	2	1	0	23	0	2	0	2	1	0	0
%	0	68	32	6	4	2	0	49	0	4	0	4	2	0	0
One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Followed Too Closely	Exceeded Speed Limit	Improper Load	No Improper Driving	Other
4	13	32	15	42	5	17	8	0	4	0	4	2	0	3	9
9	28	68	32	89	11	36	17	0	9	0	9	4	0	6	19

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB

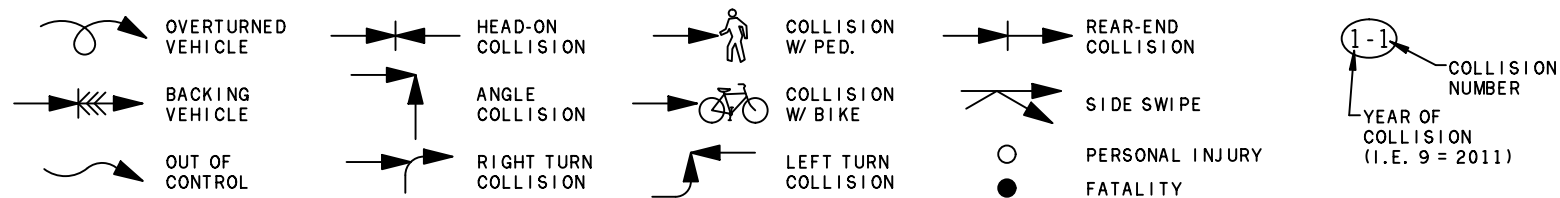


MATCHLINE - SEE SHEET 2

SHEET

1

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



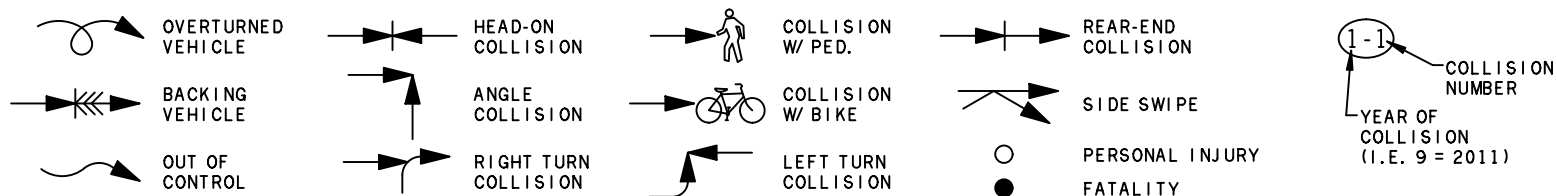
MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SHEET

2

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB

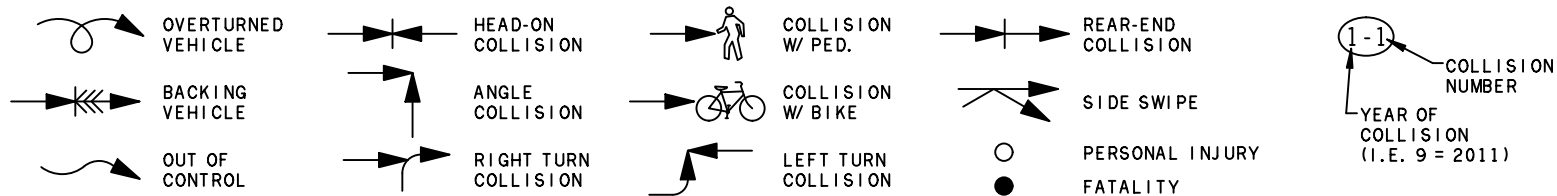


MATCHLINE - SEE SHEET 2

MATCHLINE - SEE SHEET 4

SHEET
3

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



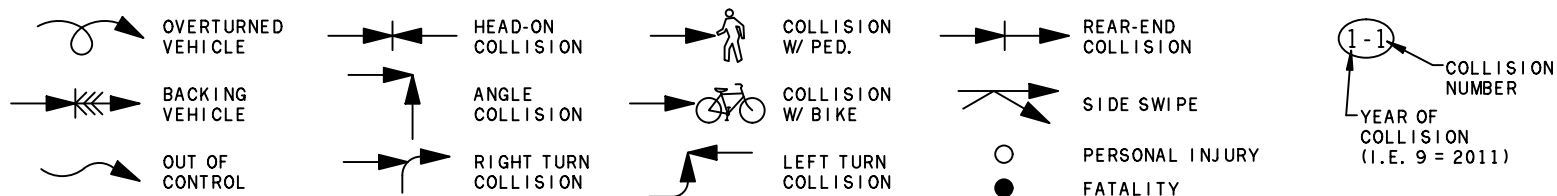
MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SHEET

4

SYMBOLS



CRASH SUMMARY

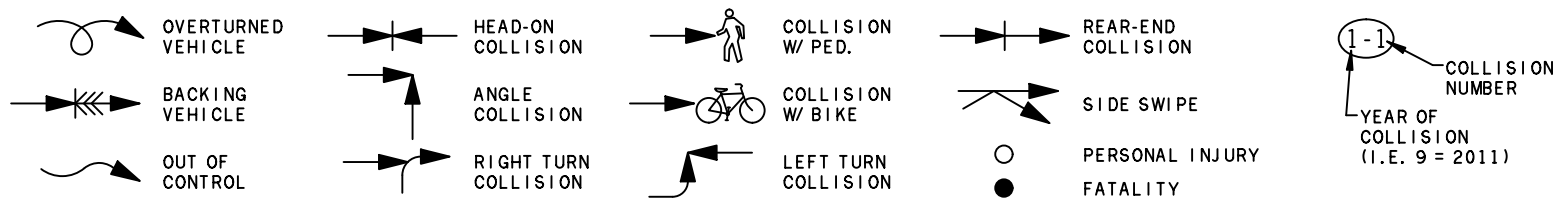
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



SYMBOLS

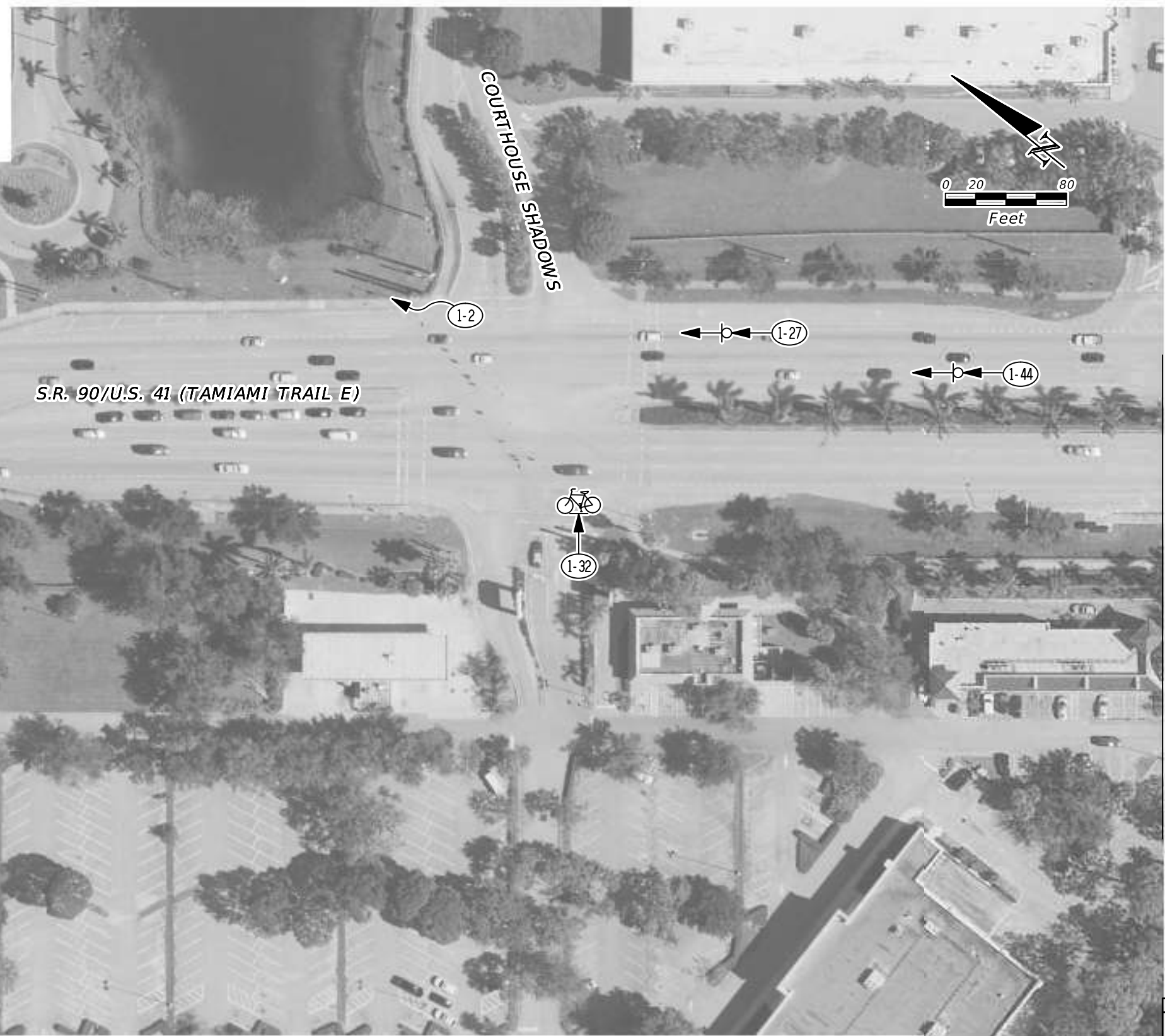


CRASH SUMMARY

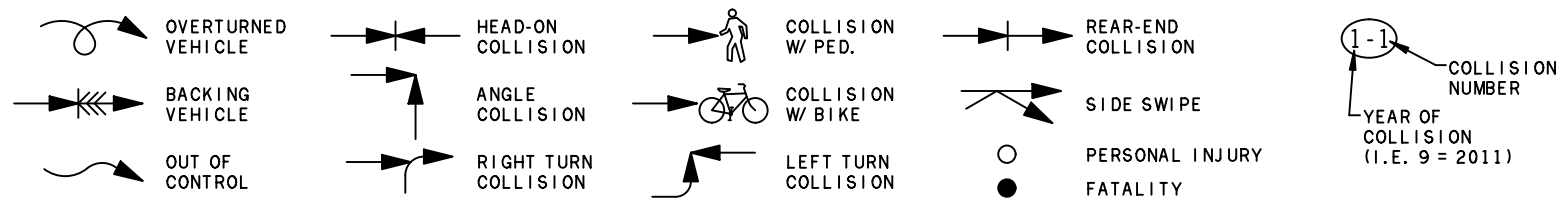
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



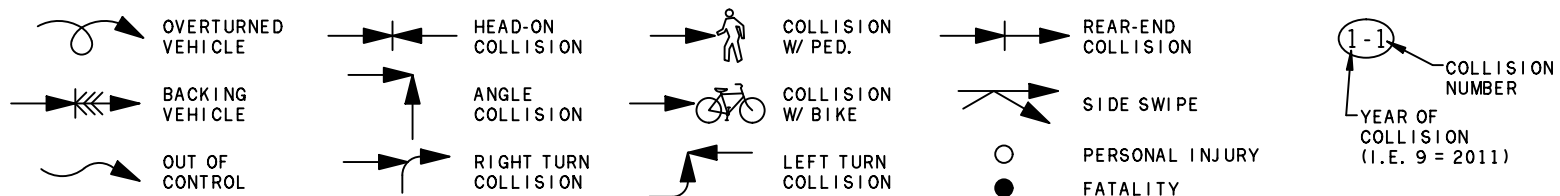
MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET

7

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



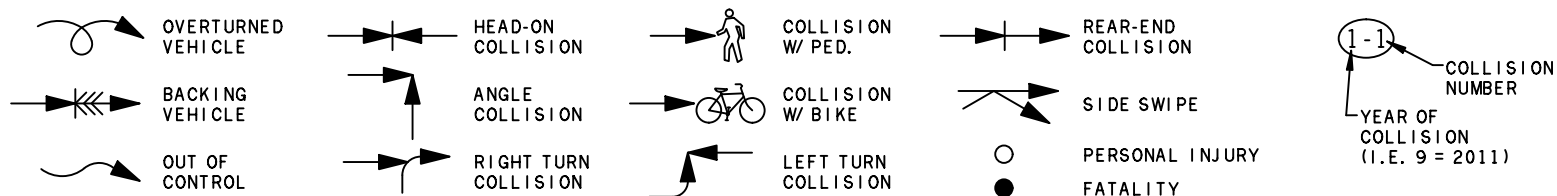
MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SHEET

8

SYMBOLS

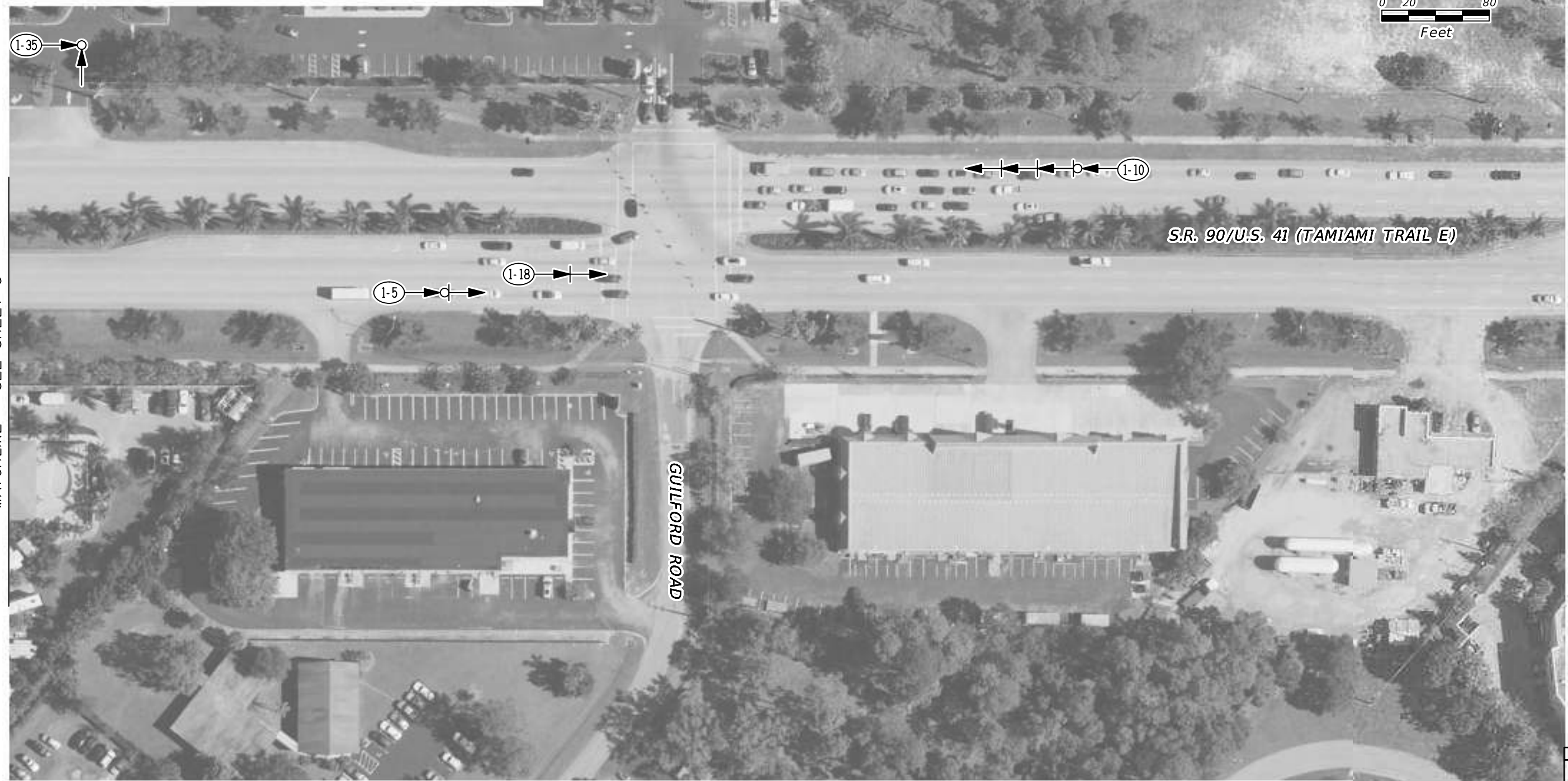


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

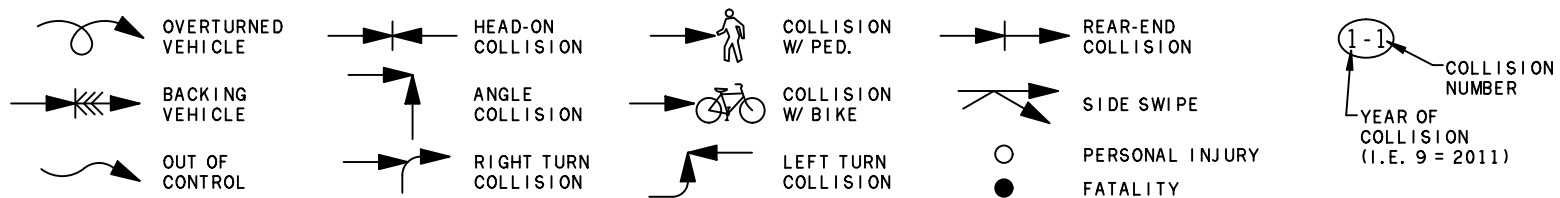
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2011 TO 12/31/2011 PREPARED BY HNTB



SHEET
9

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	9	23	0	32
NIGHTTIME	6	9	0	15
TOTAL	15	32	0	47

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2012 to 12/31/2012
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/7/2012	Sat.	14:54	Rear End		x		Day	Dry	Careless Driving	
2	1/10/2012	Tue.	12:38	Collision w/ Bike		x		Day	Dry	No Improper Driving	
3	1/13/2012	Fri.	19:54	Other			x	Night	Dry	Improper Turn	
4	1/22/2012	Sun.	11:35	Fell From Vehicle		x		Day	Dry	Other	
5	1/27/2012	Fri.	15:36	Collision w/ Bike		x		Day	Wet	Careless Driving	
6	2/8/2012	Wed.	23:48	Collision w/ Tree			x	Night	Dry	DUI	
7	2/18/2012	Sat.	11:50	Collision w/ Bike		x		Day	Dry	No Improper Driving	
8	2/20/2012	Mon.	16:20	Rear End		x		Day	Dry	Careless Driving	
9	2/23/2012	Thu.	17:08	Collision w/ Bike		x		Day	Dry	FTYRW	
10	2/27/2012	Mon.	22:20	Rear End		x		Night	Wet	Careless Driving	
11	2/28/2012	Tue.	14:03	Collision w/ Bike		x		Day	Dry	FTYRW	
12	3/6/2012	Tue.	11:01	Rear End			x	Day	Dry	Followed Too Closely	
13	3/26/2012	Mon.	23:18	Collision w/ Bike		x		Night	Dry	DUI	
14	4/11/2012	Wed.	6:34	Rear End			x	Night	Dry	Other	Fled scene
15	5/4/2012	Fri.	21:52	Rear End		x		Night	Dry	Careless Driving	
16	5/14/2012	Mon.	17:33	Angle		x		Day	Dry	Other	
17	5/15/2012	Tue.	6:15	Rear End			x	Night	Dry	Followed Too Closely	
18	5/17/2012	Thu.	14:54	Rear End		x		Day	Dry	Careless Driving	
19	5/22/2012	Tue.	8:25	Rear End		x		Day	Dry	Followed Too Closely	
20	5/27/2012	Sun.	22:20	Right Turn		x		Night	Dry	DUI	
21	6/7/2012	Thu.	12:12	Rear End		x		Day	Dry	Careless Driving	
22	6/11/2012	Mon.	16:45	Rear End			x	Day	Dry	FTYRW	
23	6/26/2012	Tue.	7:25	Angle		x		Day	Wet	Other	Conflicting statements
24	6/30/2012	Sat.	17:28	Collision w/ Bike		x		Day	Dry	No Improper Driving	Non-motorist charged with DUI
25	7/6/2012	Fri.	10:54	Sideswipe		x		Day	Dry	Careless Driving	
26	7/22/2012	Sun.	17:25	Rear End		x		Day	Dry	Followed Too Closely	
27	8/3/2012	Fri.	12:30	Rear End		x		Day	Dry	Careless Driving	
28	8/5/2012	Sun.	13:20	Collision w/ Bike		x		Day	Dry	FTYRW	
29	8/9/2012	Thu.	17:17	Other		x		Day	Wet	Careless Driving	
30	8/9/2012	Thu.	18:15	Rear End		x		Day	Wet	Careless Driving	
31	8/28/2012	Tue.	22:53	Rear End			x	Night	Dry	Followed Too Closely	
32	9/10/2012	Mon.	8:12	Rear End			x	Day	Wet	Careless Driving	
33	9/12/2012	Wed.	3:58	Rear End			x	Day	Dry	Careless Driving	
34	9/15/2012	Sat.	9:40	Angle			x	Day	Dry	Disregarded Traffic Signal	
35	9/18/2012	Tue.	10:10	Rear End			x	Day	Dry	Other	Failure to maintain speed to avoid striking vehicle
36	9/22/2012	Sat.	22:16	Sideswipe			x	Night	Dry	FTYRW	
37	9/24/2012	Mon.	16:30	Rear End			x	Day	Dry	Careless Driving	
38	9/29/2012	Sat.	17:25	Rear End			x	Day	Dry	Followed Too Closely	
39	10/6/2012	Sat.	11:06	Sideswipe			x	Day	Dry	Careless Driving	
40	10/10/2012	Wed.	16:01	Rear End			x	Day	Dry	Followed Too Closely	
41	10/15/2012	Mon.	15:10	Rear End		x		Day	Dry	Careless Driving	
42	10/16/2012	Tue.	16:00	Rear End			x	Day	Dry	Careless Driving	
43	10/16/2012	Tue.	16:00	Rear End		x		Day	Dry	Careless Driving	
44	10/25/2012	Thu.	17:45	Rear End			x	Night	Wet	Followed Too Closely	
45	10/25/2012	Thu.	15:14	Rear End			x	Day	Wet	Followed Too Closely	
46	10/27/2012	Sat.	9:01	Angle		x		Day	Dry	Disregarded Traffic Signal	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2012 to 12/31/2012
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	10/28/2012	Sun.	7:08	Sideswipe			x	Night	Dry	Careless Driving	Driver operated vehicle without headlights illuminated
48	11/5/2012	Mon.	12:50	Rear End			x	Day	Dry	Followed Too Closely	
49	11/5/2012	Mon.	10:10	Angle			x	Day	Dry	Disregarded Traffic Signal	
50	11/6/2012	Tue.	14:09	Rear End			x	Day	Dry	Careless Driving	
51	11/10/2012	Sat.	4:00	Rear End			x	Day	Dry	Careless Driving	
52	11/12/2012	Mon.	18:00	Rear End		x		Night	Dry	Careless Driving	
53	11/13/2012	Tue.	14:30	Rear End			x	Day	Dry	Careless Driving	
54	11/15/2012	Thu.	0:30	Rear End			x	Day	Dry	Followed Too Closely	
55	11/27/2012	Tue.	11:05	Sideswipe			x	Day	Dry	Careless Driving	
56	11/28/2012	Wed.	12:35	Sideswipe			x	Day	Dry	Other	Failure to paintain proper lane
57	11/29/2012	Thu.	15:42	Collision w/ Bike		x		Day	Dry	No Improper Driving	
58	11/29/2012	Thu.	14:32	Collision w/ Bike		x		Day	Dry	No Improper Driving	
59	12/3/2012	Mon.	12:19	Rear End			x	Day	Dry	Careless Driving	
60	12/5/2012	Wed.	14:34	Median Crossover			x	Day	Dry	Careless Driving	Attempted to make a u-turn and completed 360° circle
61	12/6/2012	Thu.	14:14	Right Turn			x	Day	Dry	Careless Driving	
62	12/8/2012	Sat.	14:10	Rear End			x	Day	Wet	Followed Too Closely	
63	12/12/2012	Wed.	19:08	Sideswipe			x	Night	Dry	Improper Lane Change	
64	12/12/2012	Wed.	15:05	Rear End			x	Day	Dry	Followed Too Closely	
65	12/17/2012	Mon.	12:41	Rear End			x	Day	Dry	Other	
66	12/18/2012	Tue.	12:37	Collision w/ Bike		x		Day	Dry	No Improper Driving	
67	12/23/2012	Sun.	1:23	Rear End			x	Night	Dry	DUI	
68	12/29/2012	Sat.	9:50	Rear End			x	Day	Dry	Followed Too Closely	
69	12/29/2012	Sat.	19:20	Rear End			x	Night	Dry	Careless Driving	
70	12/29/2012	Sat.	21:57	Rear End			x	Night	Dry	Followed Too Closely	

Total No.	Fatal	Injury	Property Damage	Angle	Left Turn	Head On	Ran Into Ditch	Rear End	Side Swipe	Collision w/ Tree	Fell From Vehicle	Collision w/ Pole	Right Turn	Median Crossover	Other
70	0	31	39	5	0	0	0	40	7	1	1	0	2	1	2
%	0	44	56	7	0	0	0	57	10	1	1	0	3	1	3
One Vehicle	Ped/ Bike	Day	Night	Dry	Wet	Careless Driving	FTYRW	Improper Turn	DUI	Improper Lane Change	Disregarded Traffic Signal	Followed Too Closely	Improper Load	No Improper Driving	Other
2	11	53	17	61	9	28	5	1	4	1	3	15	0	6	7
3	16	76	24	87	13	40	7	1	6	1	4	21	0	9	10

COLLISION DIAGRAM

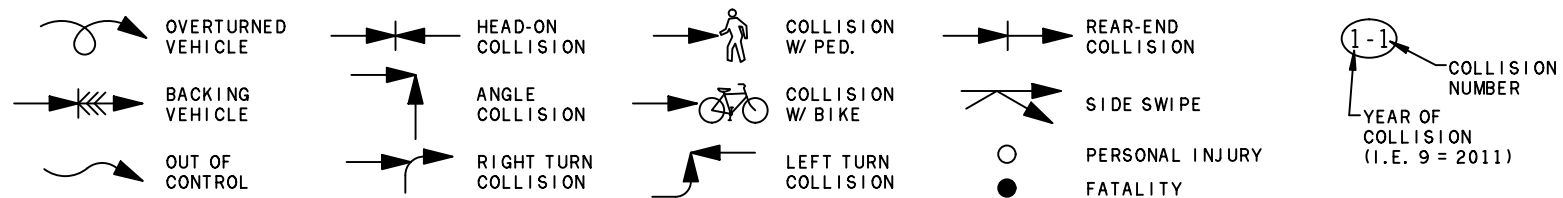
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SHEET
1

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



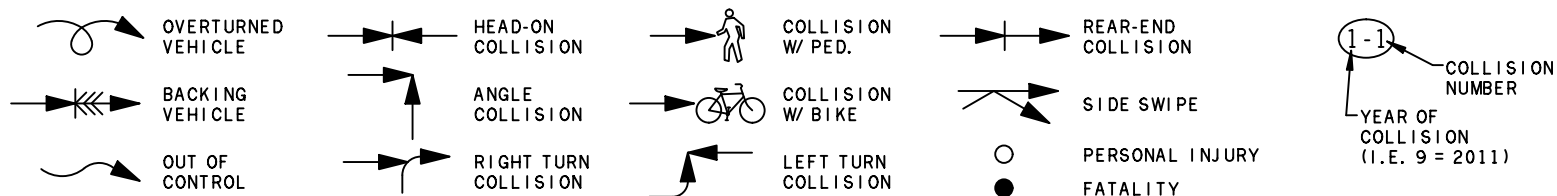
MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SHEET

2

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

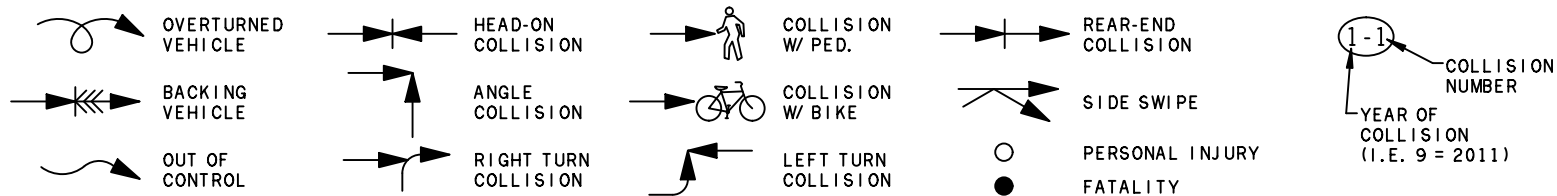
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



SHEET
3

SYMBOLS

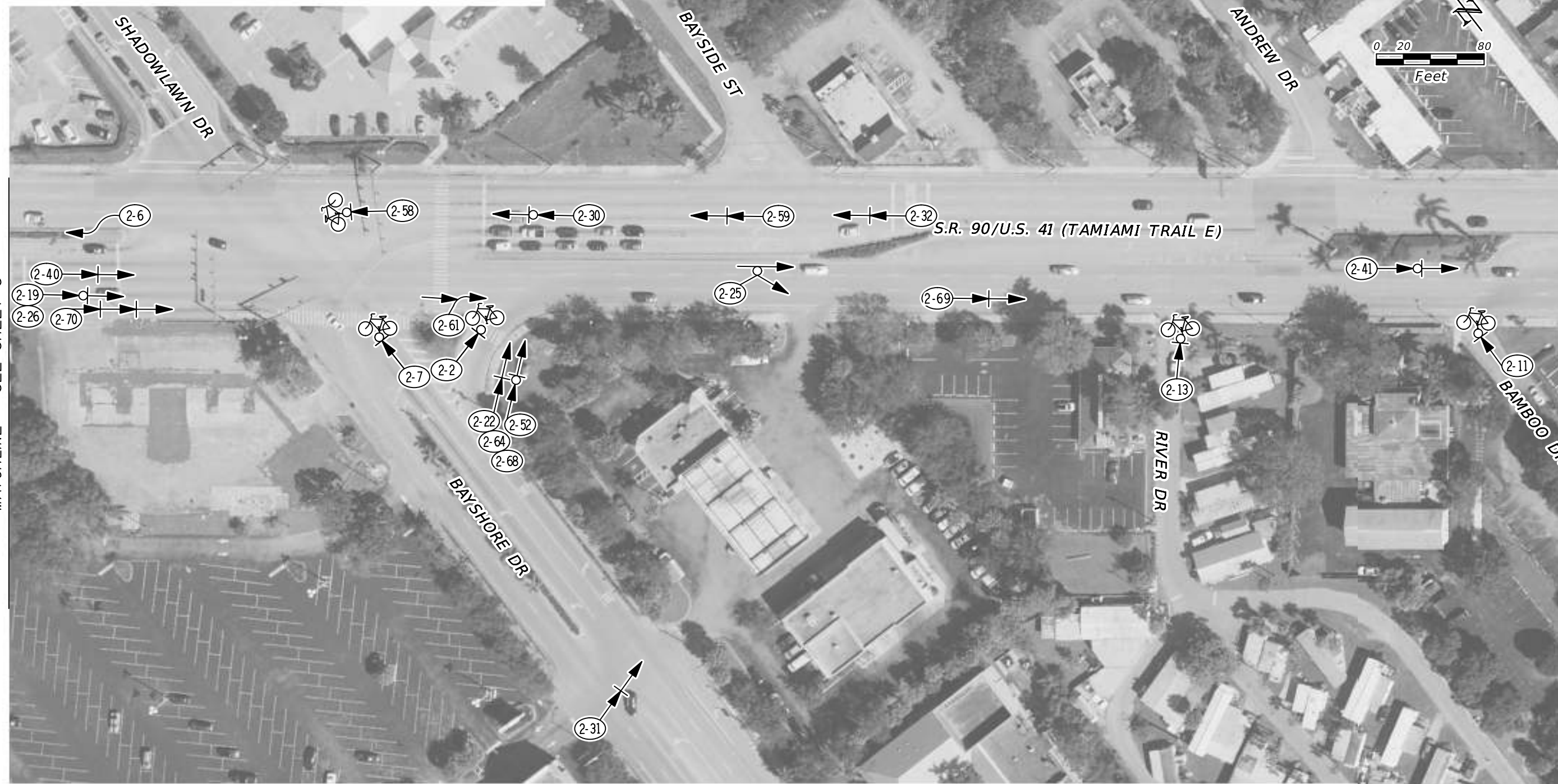


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



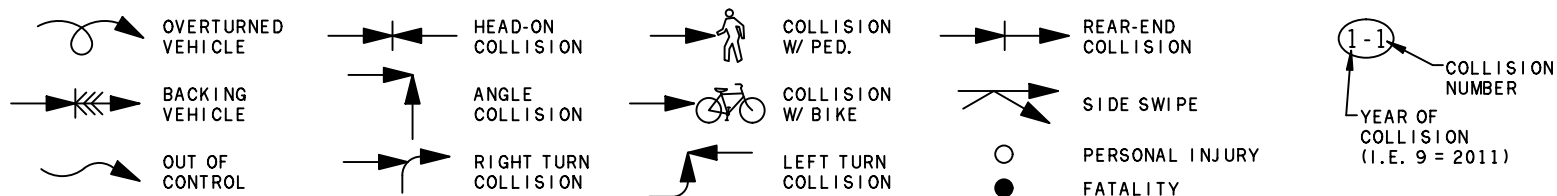
MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SHEET

4

SYMBOLS



CRASH SUMMARY

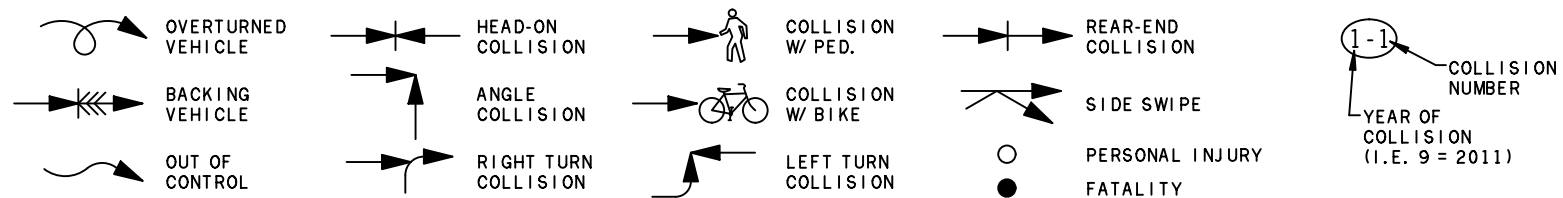
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



SYMBOLS

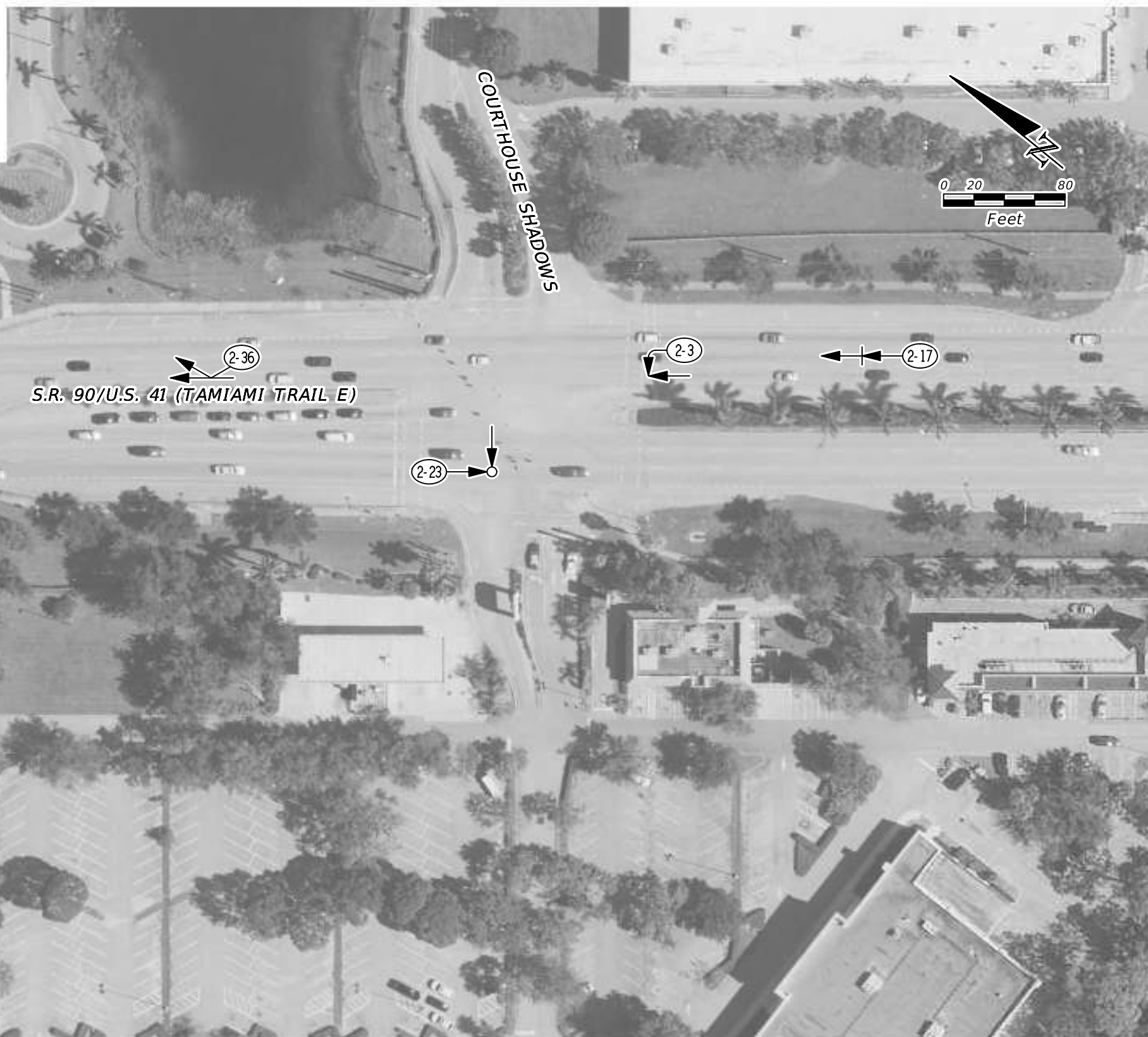


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

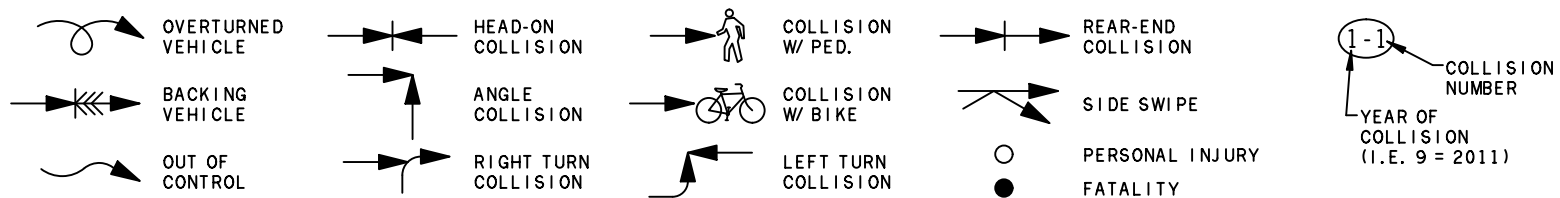
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

SHEET
6

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB

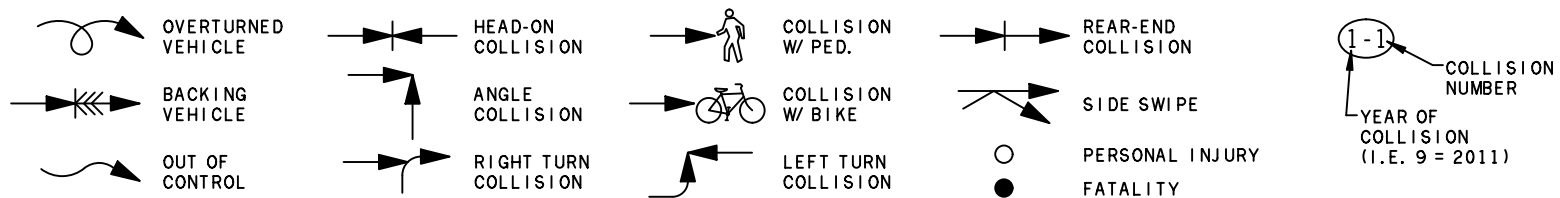


MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET
7

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



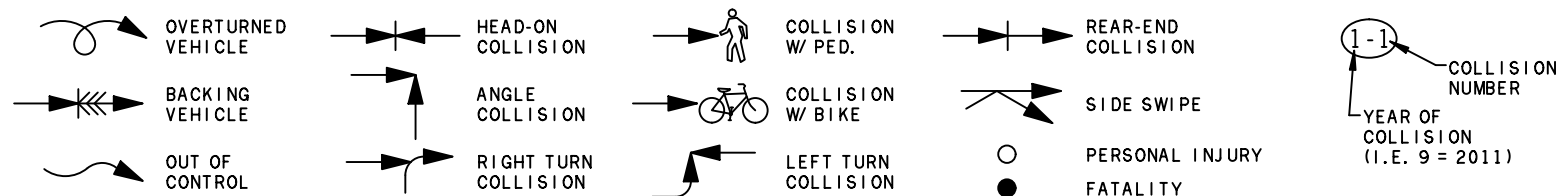
MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SHEET

8

SYMBOLS

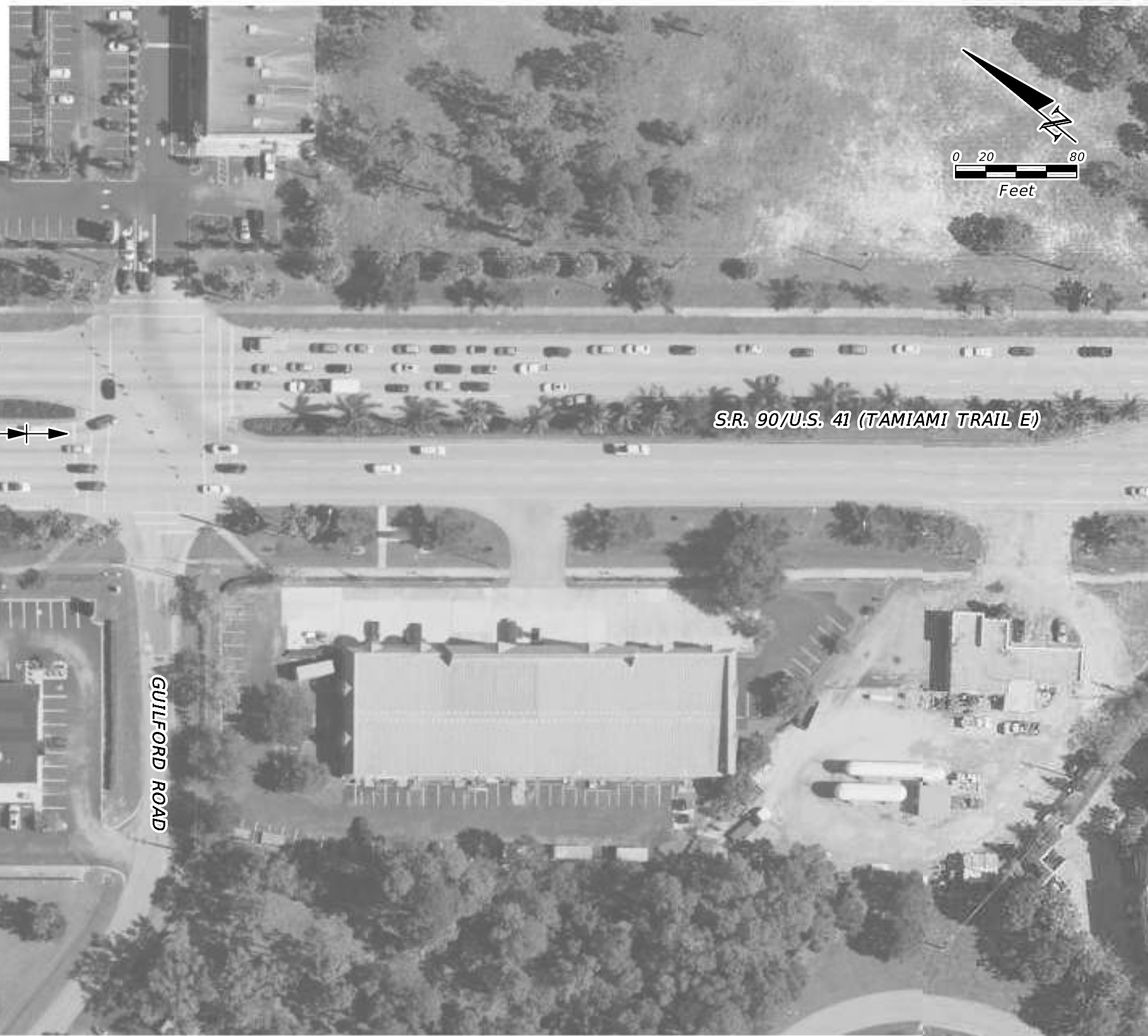


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION DIAGRAM

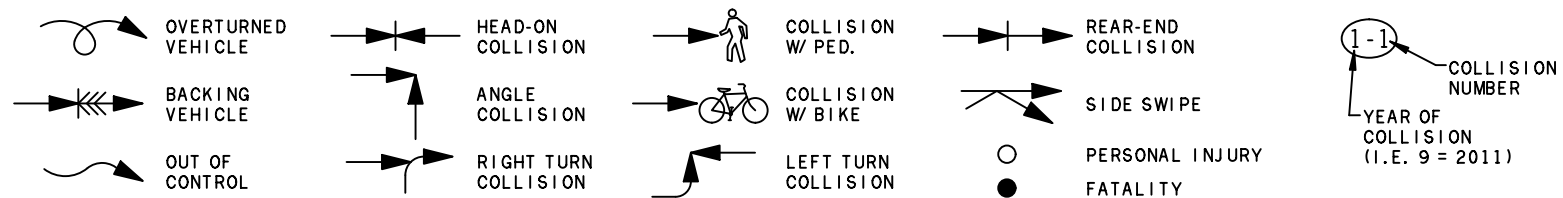
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2012 TO 12/31/2012 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SHEET
9

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	27	26	0	53
NIGHTTIME	12	5	0	17
TOTAL	39	51	0	70

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/2/2013	Wed.	15:09	Sideswipe			x	Day	Dry	Careless Driving	
2	1/4/2013	Fri.	0:20	Left Turn			x	Night	Dry	FTYRW	
3	1/10/2013	Thu.	13:38	Rear End			x	Day	Dry	Careless Driving	
4	1/14/2013	Mon.	16:40	Rear End			x	Day	Dry	Followed Too Closely	
5	1/15/2013	Tue.	9:15	Sideswipe			x	Day	Dry	Careless Driving	
6	1/19/2013	Sat.	15:36	Collision w/ Bike		x		Day	Dry	FTYRW	
7	1/23/2013	Wed.	8:35	Rear End			x	Day	Dry	Followed Too Closely	
8	1/24/2013	Thu.	12:30	Rear End			x	Day	Dry	Followed Too Closely	
9	1/27/2013	Sun.	13:31	Rear End		x		Day	Dry	Careless Driving	
10	1/28/2013	Mon.	2:15	Rear End		x		Night	Dry	DUI	
11	1/28/2013	Mon.	15:10	Sideswipe			x	Day	Dry	Other	
12	1/29/2013	Tue.	9:10	Rear End			x	Day	Dry	Followed Too Closely	
13	1/31/2013	Thu.	13:21	Rear End			x	Day	Dry	Careless Driving	
14	1/31/2013	Thu.	10:52	Sideswipe			x	Day	Dry	Careless Driving	
15	2/1/2013	Fri.	12:10	Sideswipe			x	Day	Dry	Followed Too Closely	
16	2/1/2013	Fri.	9:00	Rear End			x	Day	Dry	Followed Too Closely	
17	2/1/2013	Fri.	16:15	Rear End			x	Day	Dry	Followed Too Closely	
18	2/5/2013	Tue.	10:50	Right Turn			x	Day	Dry	FTYRW	
19	2/6/2013	Wed.	13:40	Rear End			x	Day	Dry	Followed Too Closely	
20	2/8/2013	Fri.	14:15	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
21	2/10/2013	Sun.	21:54	Angle			x	Night	Dry	Disregarded Traffic Signal	
22	2/11/2013	Mon.	11:22	Rear End		x		Day	Dry	Followed Too Closely	
23	2/14/2013	Thu.	13:10	Rear End		x		Day	Dry	Followed Too Closely	
24	2/15/2013	Fri.	8:55	Rear End			x	Day	Wet	Careless Driving	
25	2/15/2013	Fri.	18:00	Collision w/ Bike		x		Day	Dry	FTYRW	
26	2/16/2013	Sat.	11:40	Rear End		x		Day	Dry	Careless Driving	
27	2/16/2013	Sat.	16:06	Rear End			x	Day	Dry	Careless Driving	
28	2/18/2013	Mon.	20:46	Rear End			x	Night	Dry	Careless Driving	
29	2/19/2013	Tue.	18:46	Rear End			x	Night	Dry	Followed Too Closely	
30	2/20/2013	Wed.	15:57	Rear End		x		Day	Dry	Careless Driving	
31	2/20/2013	Wed.	12:54	Rear End			x	Day	Dry	Careless Driving	
32	2/23/2013	Sat.	10:20	Right Turn			x	Day	Dry	Other	Conflicting statements
33	2/24/2013	Sun.	18:50	Collision w/ Bike			x	Night	Dry	FTYRW	
34	2/25/2013	Mon.	18:00	Rear End			x	Day	Dry	Careless Driving	
35	2/26/2013	Tue.	8:07	Rear End			x	Day	Dry	Careless Driving	
36	2/27/2013	Wed.	15:07	Rear End			x	Day	Wet	Followed Too Closely	
37	2/27/2013	Wed.	14:42	Rear End			x	Day	Wet	Followed Too Closely	
38	2/28/2013	Thu.	14:40	Collision w/ Tree		x		Day	Dry	Careless Driving	
39	3/1/2013	Fri.	16:46	Rear End		x		Day	Dry	Careless Driving	
40	3/2/2013	Sat.	10:35	Rear End		x		Day	Dry	Other	
41	3/4/2013	Mon.	11:55	Rear End		x		Day	Dry	Careless Driving	
42	3/6/2013	Wed.	15:50	Rear End		x		Day	Dry	Careless Driving	
43	3/6/2013	Wed.	16:26	Rear End			x	Day	Dry	Careless Driving	
44	3/7/2013	Thu.	1:50	Rear End		x		Night	Dry	Careless Driving	
45	3/10/2013	Sun.	15:43	Collision w/ Bike		x		Day	Dry	No Improper Driving	Non-motorist failed to yield right of way
46	3/19/2013	Tue.	13:05	Rear End		x		Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	3/21/2013	Thu.	1:37	Collision w/ Tree			x	Night	Wet	Careless Driving	
48	3/21/2013	Thu.	9:00	Overtuned			x	Day	Dry	Careless Driving	
49	3/24/2013	Sun.	19:40	Sideswipe			x	Night	Wet	Improper Lane Change	
50	3/26/2013	Tue.	13:15	Rear End			x	Day	Dry	Careless Driving	
51	3/28/2013	Thu.	16:15	Rear End		x		Day	Dry	Careless Driving	
52	3/30/2013	Sat.	12:35	Sideswipe			x	Day	Dry	Improper Lane Change	
53	3/30/2013	Sat.	17:49	Rear End		x		Day	Dry	Careless Driving	
54	4/1/2013	Mon.	13:30	Rear End			x	Day	Dry	Followed Too Closely	
55	4/3/2013	Wed.	12:45	Rear End			x	Day	Dry	Followed Too Closely	
56	4/3/2013	Wed.	11:24	Overtuned			x	Day	Dry	Improper Load	
57	4/3/2013	Wed.	16:53	Rear End			x	Day	Dry	Careless Driving	
58	4/3/2013	Wed.	17:25	Right Turn			x	Day	Dry	FTYRW	
59	4/5/2013	Fri.	7:45	Sideswipe			x	Day	Wet	Improper Lane Change	
60	4/16/2013	Tue.	13:30	Rear End			x	Day	Dry	Careless Driving	
61	4/17/2013	Wed.	21:07	Rear End			x	Night	Wet	Careless Driving	
62	5/2/2013	Thu.	20:25	Rear End			x	Night	Wet	Followed Too Closely	
63	5/10/2013	Fri.	10:22	Sideswipe			x	Day	Dry	Improper Lane Change	
64	5/13/2013	Mon.	17:20	Rear End		x		Day	Dry	Other	
65	5/17/2013	Fri.	17:15	Angle			x	Day	Dry	FTYRW	
66	5/19/2013	Sun.	20:10	Rear End			x	Night	Dry	Followed Too Closely	
67	5/24/2013	Fri.	11:47	Rear End			x	Day	Dry	Careless Driving	
68	5/28/2013	Tue.	13:06	Rear End			x	Day	Dry	Followed Too Closely	
69	5/31/2013	Fri.	9:56	Rear End			x	Day	Dry	Followed Too Closely	
70	6/4/2013	Tue.	14:15	Rear End			x	Day	Dry	Followed Too Closely	
71	6/5/2013	Wed.	13:09	Rear End			x	Day	Wet	Other	
72	6/6/2013	Thu.	19:09	Rear End			x	Day	Wet	Careless Driving	
73	6/11/2013	Tue.	9:25	Sideswipe			x	Day	Dry	Improper Lane Change	
74	6/20/2013	Thu.	18:31	Rear End			x	Day	Wet	Followed Too Closely	
75	6/24/2013	Mon.	14:07	Rear End		x		Day	Dry	Careless Driving	
76	6/24/2013	Mon.	17:08	Rear End			x	Day	Wet	Followed Too Closely	
77	6/28/2013	Fri.	20:17	Rear End			x	Day	Dry	Other	Fled scene
78	7/12/2013	Fri.	21:22	Rear End		x		Night	Dry	Careless Driving	
79	7/13/2013	Sat.	15:37	Collision w/ Bike		x		Day	Dry	Improper Turn	
80	7/21/2013	Sun.	16:38	Left Turn			x	Day	Dry	Careless Driving	
81	7/27/2013	Sat.	10:55	Sideswipe			x	Day	Dry	Careless Driving	
82	8/6/2013	Tue.	11:03	Rear End			x	Day	Dry	Other	Stopped in intersection for northbound vehicle
83	8/12/2013	Mon.	13:27	Sideswipe			x	Day	Dry	Improper Lane Change	
84	8/12/2013	Mon.	17:32	Left Turn		x		Day	Dry	FTYRW	
85	8/14/2013	Wed.	14:53	Rear End			x	Day	Dry	Followed Too Closely	Stopped at crosswalk for pedestrian
86	8/16/2013	Fri.	13:01	Rear End			x	Day	Dry	Careless Driving	
87	8/18/2013	Sun.	18:35	Rear End			x	Day	Wet	Other	Vehicle preformed u-turn and violated right of way of westbou
88	8/21/2013	Wed.	15:15	Rear End			x	Day	Dry	Followed Too Closely	
89	8/21/2013	Wed.	10:00	Rear End			x	Day	Dry	Followed Too Closely	
90	8/23/2013	Fri.	12:51	Sideswipe			x	Day	Dry	Improper Passing	
91	8/27/2013	Tue.	15:30	Rear End			x	Day	Wet	Followed Too Closely	
92	8/30/2013	Fri.	16:46	Rear End			x	Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2013 to 12/31/2013
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
93	9/3/2013	Tue.	14:36	Sideswipe			x	Day	Dry	Improper Lane Change	
94	9/4/2013	Wed.	12:06	Backed Into			x	Day	Dry	Careless Driving	
95	9/9/2013	Mon.	8:55	Sideswipe			x	Day	Dry	Careless Driving	
96	9/14/2013	Sat.	9:35	Collision w/ Bike	x			Day	Dry	No Improper Driving	
97	9/18/2013	Wed.	12:18	Collision w/ Bike		x		Day	Dry	No Improper Driving	
98	9/18/2013	Wed.	12:30	Angle		x		Day	Dry	Disregarded Traffic Signal	
99	9/21/2013	Sat.	18:18	Rear End			x	Day	Dry	Other	Collision with vehicle stopped waiting to turn left onto private
100	9/21/2013	Sat.	16:37	Rear End			x	Day	Dry	Careless Driving	
101	9/22/2013	Sun.	0:40	Collision w/ Tree			x	Night	Dry	Exceeded Speed Limit	
102	9/27/2013	Fri.	14:07	Rear End			x	Day	Dry	Careless Driving	
103	9/29/2013	Sun.	11:30	Collision w/ Bike		x		Day	Dry	FTYRW	
104	10/3/2013	Thu.	9:15	Rear End		x		Day	Dry	Careless Driving	
105	10/5/2013	Sat.	23:27	Collision w/ Ped		x		Night	Dry	No Improper Driving	Non-motorist had a BAC of .280
106	10/9/2013	Wed.	16:30	Sideswipe			x	Day	Dry	Other	Conflicting statements
107	10/9/2013	Wed.	18:15	Rear End			x	Day	Dry	Exceeded Speed Limit	
108	10/11/2013	Fri.	18:08	Off Road			x	Day	Dry	Other	In violation of learners permit restrictions
109	10/12/2013	Sat.	12:34	Rear End			x	Day	Dry	Careless Driving	
110	10/13/2013	Sun.	19:35	Rear End			x	Night	Dry	Followed Too Closely	
111	10/14/2013	Mon.	17:32	Rear End			x	Day	Dry	Other	
112	10/17/2013	Thu.	7:50	Sideswipe			x	Day	Dry	Other	Fled scene
113	10/24/2013	Thu.	14:20	Rear End			x	Day	Dry	Followed Too Closely	
114	10/28/2013	Mon.	7:01	Rear End			x	Night	Dry	Followed Too Closely	
115	11/1/2013	Fri.	16:25	Rear End			x	Day	Dry	Followed Too Closely	Vision obstructed by the glare of the sun
116	11/3/2013	Sun.	12:50	Rear End		x		Day	Dry	Careless Driving	
117	11/10/2013	Sun.	12:22	Rear End			x	Day	Dry	Followed Too Closely	
118	11/20/2013	Wed.	11:47	Sideswipe		x		Day	Dry	FTYRW	
119	11/25/2013	Mon.	2:14	Collision w/ Bike		x		Day	Dry	No Improper Driving	
120	11/27/2013	Wed.	13:45	Rear End			x	Day	Dry	Followed Too Closely	
121	11/30/2013	Sat.	17:25	Rear End			x	Day	Dry	Followed Too Closely	
122	12/3/2013	Tue.	7:00	Rear End			x	Day	Dry	Improper Lane Change	
123	12/5/2013	Thu.	15:04	Rear End			x	Day	Dry	Followed Too Closely	
124	12/6/2013	Fri.	16:57	Rear End			x	Day	Dry	Followed Too Closely	
125	12/6/2013	Fri.	17:38	Rear End		x		Night	Dry	Improper Turn	
126	12/10/2013	Tue.	11:25	Rear End		x		Day	Dry	Followed Too Closely	
127	12/10/2013	Tue.	16:11	Rear End		x		Day	Dry	Careless Driving	
128	12/11/2013	Wed.	17:38	Rear End		x		Night	Dry	Careless Driving	
129	12/16/2013	Mon.	16:45	Overtuned			x	Day	Dry	Other	Attempted to avoid collision with vehicle making a u-turn
130	12/19/2013	Thu.	9:25	Rear End		x		Day	Dry	Followed Too Closely	
131	12/20/2013	Fri.	1:33	Collision w/ Bike		x		Day	Dry	FTYRW	
132	12/25/2013	Wed.	13:54	Rear End		x		Day	Dry	Followed Too Closely	
133	12/26/2013	Thu.	14:12	Angle		x		Day	Dry	Disregarded Traffic Signal	
134	12/29/2013	Sun.	11:00	Rear End			x	Day	Wet	Other	
135	12/29/2013	Sun.	14:28	Rear End			x	Day	Dry	Careless Driving	
136	12/31/2013	Tue.	12:09	Rear End			x	Day	Dry	Careless Driving	
137	12/31/2013	Tue.	12:00	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
138	12/31/2013	Tue.	16:10	Angle		x		Day	Dry	Other	

COLLISION SUMMARY

Section:	03010000
Location:	From Commercial Dr to Guilford Rd
Study Period:	1/1/2013 to 12/31/2013
No. of Years:	1

State Route: 90
M.P.: 13.158 - 15.024
County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
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[illegible]

COLLISION DIAGRAM

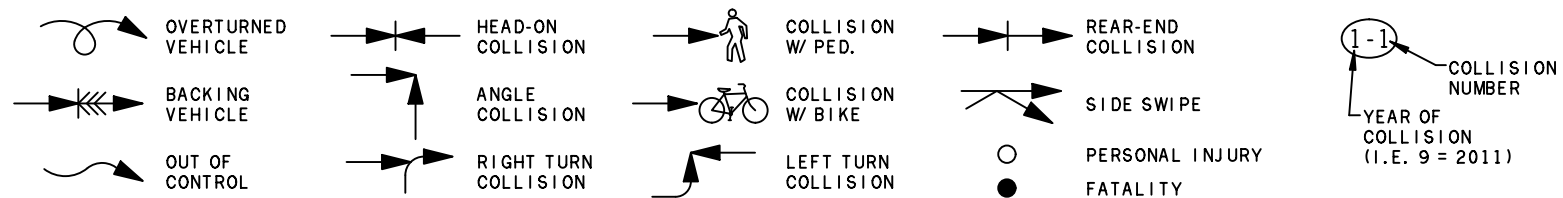
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SHEET
1

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB

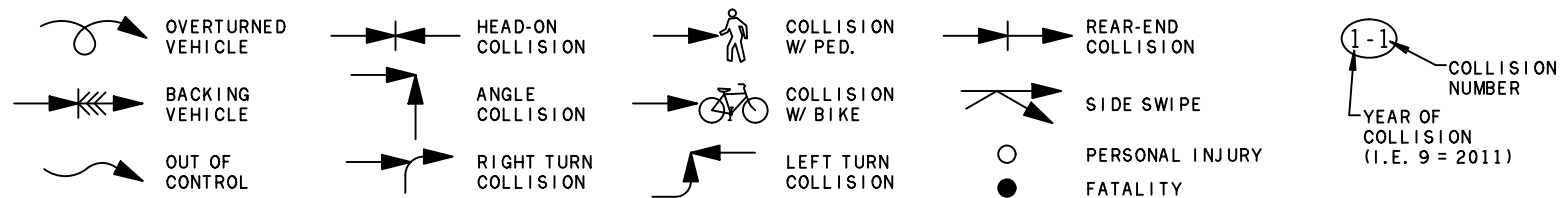


MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SHEET
2

SYMBOLS



CRASH SUMMARY

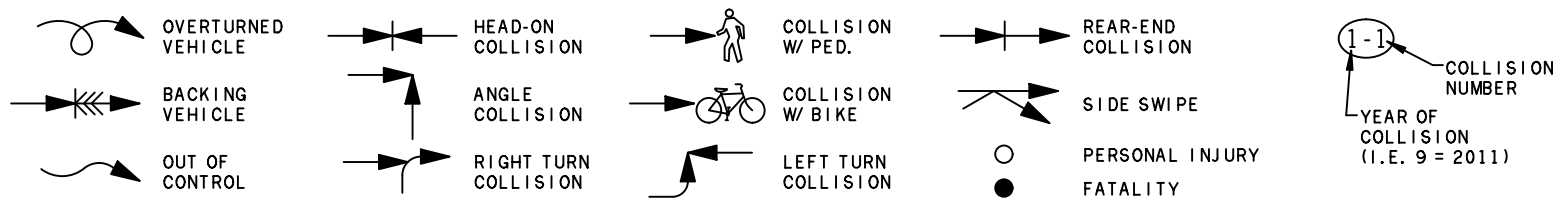
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

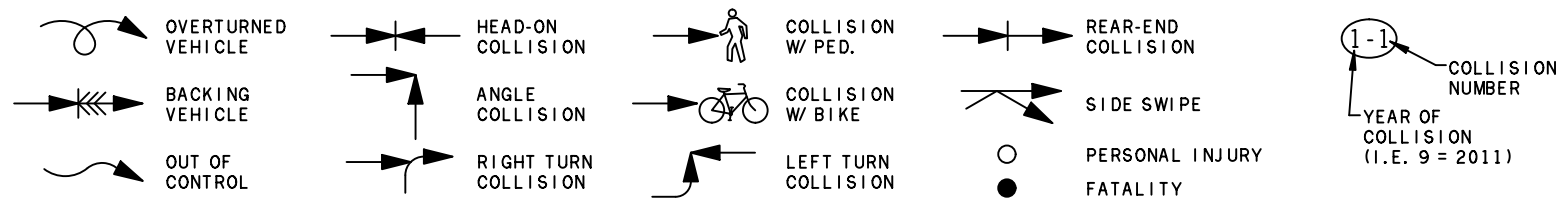
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB

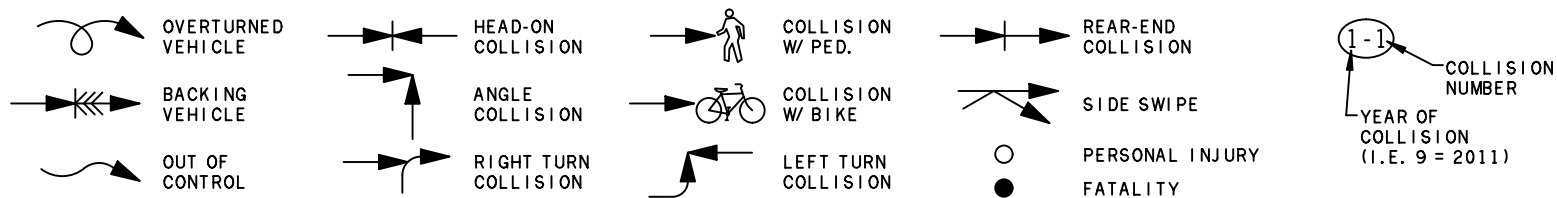


MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SHEET
5

SYMBOLS



CRASH SUMMARY

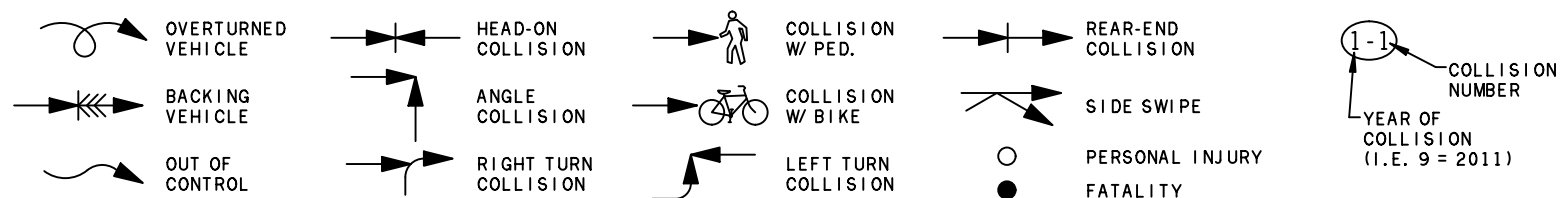
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SYMBOLS

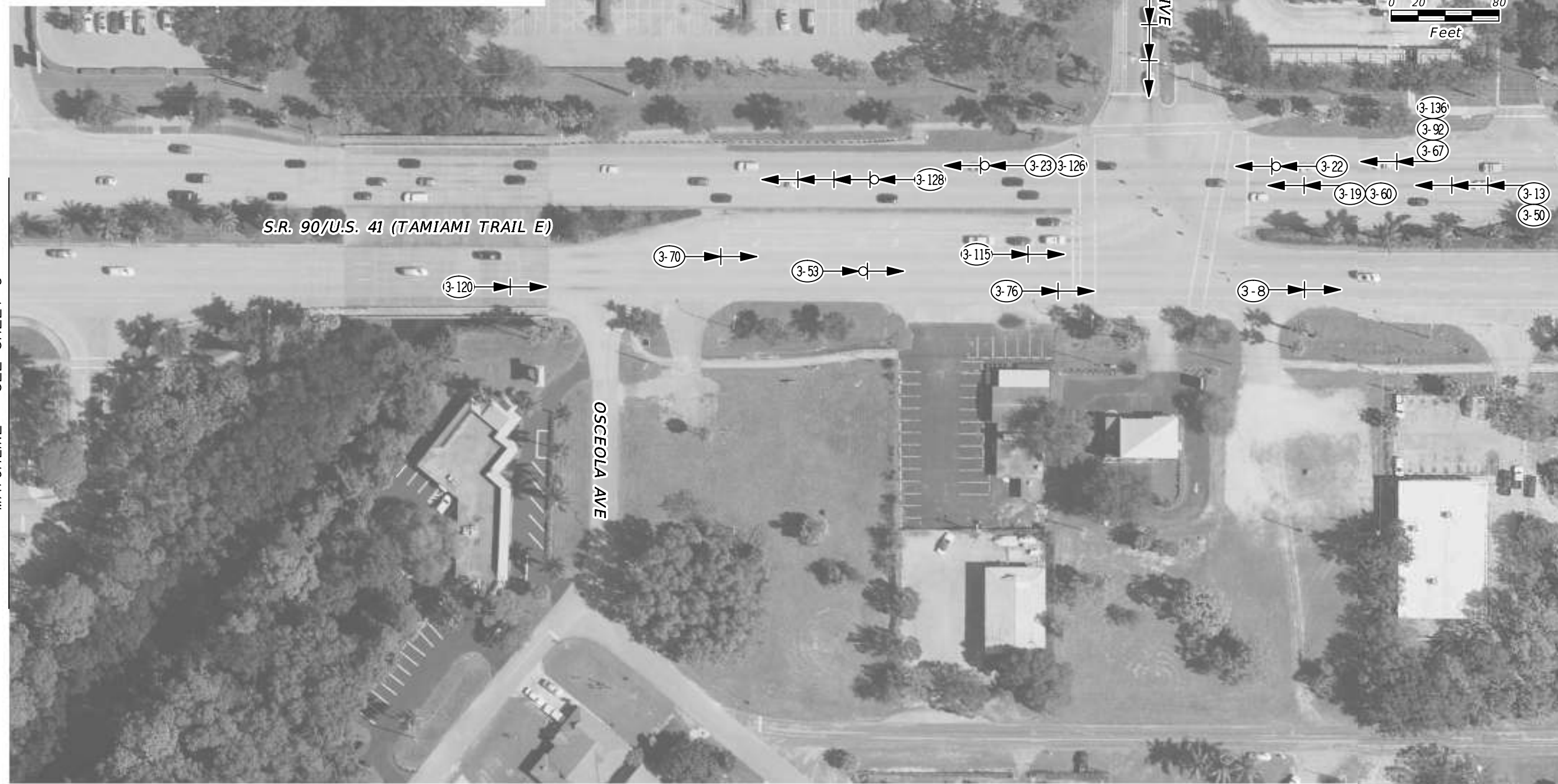


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



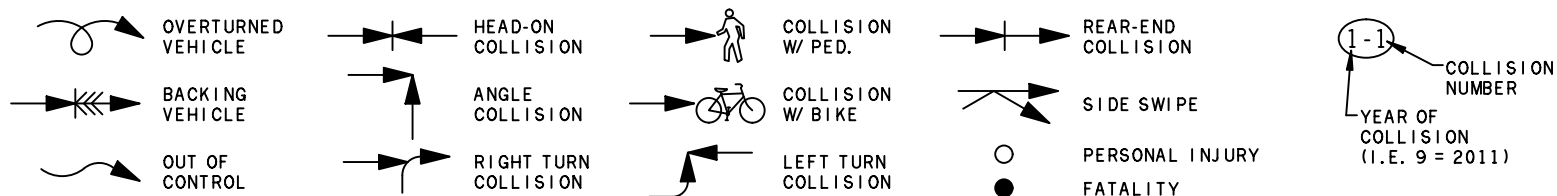
MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET

7

SYMBOLS



CRASH SUMMARY

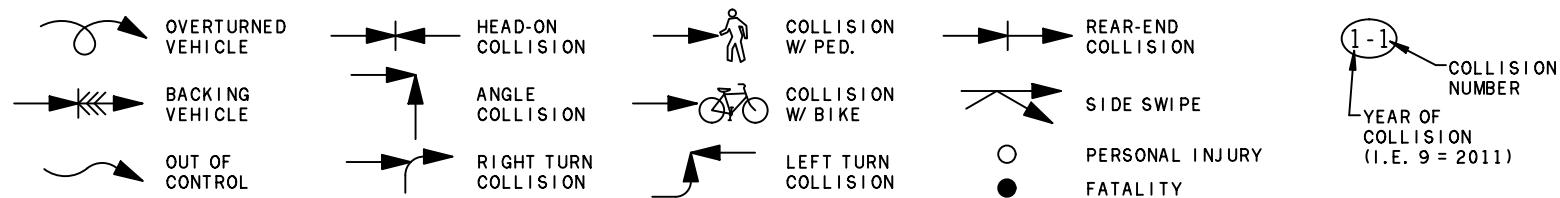
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SYMBOLS

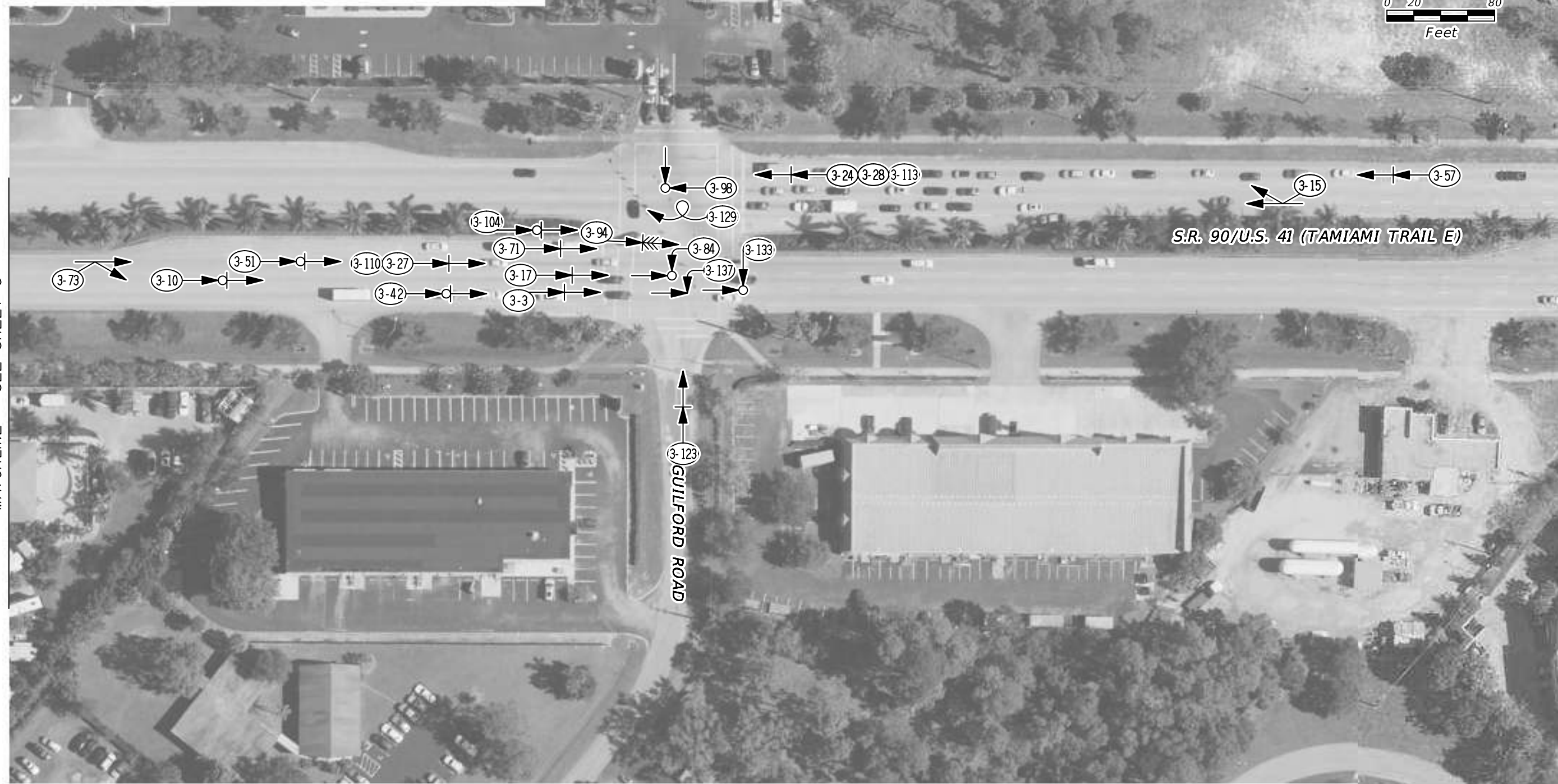


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

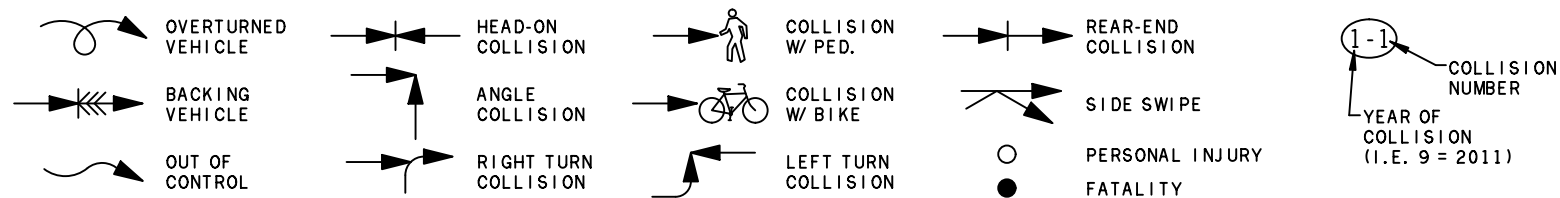
COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2013 TO 12/31/2013 PREPARED BY HNTB



SHEET
9

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	84	34	1	119
NIGHTTIME	13	6	0	19
TOTAL	97	40	1	138

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/3/2014	Fri.	1:50	Rear End		x		Day	Dry	Careless Driving	
2	1/4/2014	Sat.	10:19	Sideswipe			x	Day	Wet	FTYRW	
3	1/5/2014	Sun.	12:18	Rear End			x	Day	Dry	Followed Too Closely	
4	1/7/2014	Tue.	13:22	Rear End			x	Day	Dry	Careless Driving	
5	1/7/2014	Tue.	15:05	Sideswipe		x		Day	Dry	Improper Lane Change	
6	1/14/2014	Tue.	17:15	Sideswipe			x	Day	Dry	Improper Lane Change	
7	1/16/2014	Thu.	12:18	Left Turn			x	Day	Dry	FTYRW	
8	1/21/2014	Tue.	3:55	Rear End			x	Day	Wet	Followed Too Closely	
9	1/24/2014	Fri.	13:32	Sideswipe			x	Day	Dry	FTYRW	
10	1/24/2014	Fri.	14:45	Rear End			x	Day	Dry	Followed Too Closely	
11	1/24/2014	Fri.	22:35	Left Turn			x	Night	Dry	No Improper Driving	
12	1/29/2014	Wed.	12:30	Rear End			x	Day	Wet	Followed Too Closely	
13	2/5/2014	Wed.	9:09	Collision w/ Bike		x		Day	Dry	FTYRW	
14	2/5/2014	Wed.	13:55	Left Turn			x	Day	Dry	FTYRW	
15	2/6/2014	Thu.	13:56	Rear End			x	Day	Dry	Careless Driving	
16	2/11/2014	Tue.	20:15	Rear End		x		Night	Dry	Other	
17	2/13/2014	Thu.	22:50	Rear End			x	Night	Dry	Followed Too Closely	
18	2/14/2014	Fri.	17:30	Rear End		x		Day	Dry	Careless Driving	
19	2/18/2014	Tue.	13:00	Sideswipe		x		Day	Dry	Improper Turn	
20	2/18/2014	Tue.	15:50	Rear End			x	Day	Dry	Careless Driving	
21	2/19/2014	Wed.	10:12	Rear End			x	Day	Dry	Careless Driving	
22	2/21/2014	Fri.	15:05	Rear End			x	Day	Dry	Followed Too Closely	
23	2/21/2014	Fri.	16:33	Angle			x	Day	Dry	No Improper Driving	
24	2/28/2014	Fri.	15:20	Rear End			x	Day	Dry	Careless Driving	
25	3/1/2014	Sat.	9:20	Rear End			x	Day	Dry	Careless Driving	
26	3/1/2014	Sat.	21:45	Rear End			x	Night	Dry	Careless Driving	
27	3/2/2014	Sun.	16:23	Sideswipe			x	Day	Dry	Improper Turn	
28	3/14/2014	Fri.	17:10	Left Turn		x		Day	Dry	FTYRW	
29	3/17/2014	Mon.	18:02	Rear End		x		Day	Dry	Other	Collision w/ Pole
30	3/17/2014	Mon.	13:49	Rear End			x	Day	Dry	Careless Driving	
31	3/17/2014	Mon.	9:00	Rear End			x	Day	Dry	Followed Too Closely	
32	3/23/2014	Sun.	20:13	Angle		x		Night	Dry	FTYRW	
33	3/26/2014	Wed.	12:10	Rear End			x	Day	Dry	Careless Driving	
34	3/26/2014	Wed.	11:13	Rear End			x	Day	Dry	Other	
35	3/28/2014	Fri.	13:48	Rear End		x		Day	Dry	Other	
36	3/31/2014	Mon.	21:44	Collision w/ Ped		x		Night	Dry	FTYRW	
37	3/31/2014	Mon.	13:35	Rear End			x	Day	Dry	Followed Too Closely	
38	4/2/2014	Wed.	20:25	Collision w/ Bike		x		Night	Dry	Other	
39	4/5/2014	Sat.	16:30	Rear End			x	Day	Dry	Followed Too Closely	
40	4/8/2014	Tue.	15:05	Rear End			x	Day	Wet	Careless Driving	
41	4/13/2014	Sun.	14:41	Rear End			x	Day	Dry	Careless Driving	
42	4/19/2014	Sat.	18:51	Sideswipe			x	Day	Dry	Improper Lane Change	
43	4/19/2014	Sat.	14:50	Rear End			x	Day	Dry	Followed Too Closely	
44	4/22/2014	Tue.	12:58	Rear End			x	Day	Dry	Other	
45	4/24/2014	Thu.	12:34	Angle			x	Day	Dry	FTYRW	
46	4/24/2014	Thu.	13:05	Rear End			x	Day	Dry	Followed Too Closely	

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No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	4/24/2014	Thu.	17:10	Left Turn			x	Day	Dry	Careless Driving	
48	4/28/2014	Mon.	22:24	Rear End			x	Night	Dry	Other	
49	4/30/2014	Wed.	13:57	Rear End		x		Day	Dry	Careless Driving	
50	5/7/2014	Wed.	10:11	Rear End			x	Day	Dry	Careless Driving	
51	5/8/2014	Thu.	17:01	Other			x	Day	Dry	Other	
52	5/9/2014	Fri.	17:50	Rear End			x	Day	Dry	Exceeded Speed Limit	
53	5/13/2014	Tue.	17:05	Rear End			x	Day	Dry	Careless Driving	
54	5/18/2014	Sun.	12:46	Rear End			x	Day	Dry	Careless Driving	
55	5/24/2014	Sat.	12:46	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
56	5/27/2014	Tue.	12:44	Rear End			x	Day	Dry	Other	
57	5/31/2014	Sat.	1:58	Rear End		x		Night	Dry	DUI	Collision w/ Object
58	6/6/2014	Fri.	16:15	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
59	6/7/2014	Sat.	2:13	Collision w/ Ped		x		Night	Dry	Other	
60	6/10/2014	Tue.	8:21	Rear End			x	Day	Dry	Followed Too Closely	
61	6/13/2014	Fri.	13:34	Rear End			x	Day	Dry	Followed Too Closely	
62	6/16/2014	Mon.	14:43	Collision w/ Ped		x		Day	Dry	Other	
63	6/20/2014	Fri.	19:20	Rear End			x	Day	Dry	Improper Lane Change	
64	6/23/2014	Mon.	12:00	Sideswipe			x	Day	Dry	DUI	
65	6/25/2014	Wed.	13:16	Rear End		x		Day	Dry	Careless Driving	
66	6/29/2014	Sun.	11:28	Sideswipe			x	Day	Dry	FTYRW	
67	6/29/2014	Sun.	19:33	Rear End			x	Day	Dry	Followed Too Closely	
68	6/30/2014	Mon.	7:05	Rear End		x		Day	Dry	Followed Too Closely	
69	7/3/2014	Thu.	21:26	Rear End			x	Night	Dry	Followed Too Closely	
70	7/4/2014	Fri.	13:37	Right Turn			x	Day	Dry	FTYRW	
71	7/5/2014	Sat.	8:53	Off Road		x		Day	Dry	No Improper Driving	
72	7/12/2014	Sat.	15:30	Rear End			x	Day	Wet	Careless Driving	
73	7/12/2014	Sat.	18:50	Rear End			x	Day	Wet	No Improper Driving	
74	7/15/2014	Tue.	11:50	Rear End			x	Day	Wet	Careless Driving	
75	7/16/2014	Wed.	16:20	Rear End			x	Day	Wet	Careless Driving	
76	7/16/2014	Wed.	15:52	Rear End		x		Day	Dry	Other	
77	7/18/2014	Fri.	14:40	Rear End		x		Day	Dry	Careless Driving	
78	7/20/2014	Sun.	10:25	Rear End		x		Day	Dry	Followed Too Closely	
79	7/31/2014	Thu.	13:37	Rear End			x	Day	Dry	Followed Too Closely	
80	8/1/2014	Fri.	17:52	Sideswipe			x	Day	Dry	Careless Driving	
81	8/2/2014	Sat.	1:35	Collision w/ Object			x	Night	Wet	Failed To Maintain Vehicle	
82	8/6/2014	Wed.	12:01	Sideswipe			x	Day	Dry	Improper Lane Change	
83	8/12/2014	Tue.	8:35	Sideswipe			x	Day	Dry	FTYRW	
84	8/14/2014	Thu.	17:45	Left Turn		x		Day	Dry	FTYRW	
85	8/18/2014	Mon.	11:55	Rear End			x	Day	Dry	Careless Driving	
86	8/19/2014	Tue.	12:37	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
87	8/19/2014	Tue.	16:05	Rear End			x	Day	Dry	Careless Driving	
88	8/21/2014	Thu.	9:55	Collision w/ Object		x		Day	Dry	Failed To Maintain Vehicle	
89	8/27/2014	Wed.	8:26	Sideswipe			x	Day	Dry	FTYRW	
90	8/30/2014	Sat.	12:13	Sideswipe			x	Day	Dry	FTYRW	
91	8/30/2014	Sat.	13:00	Sideswipe			x	Day	Dry	Other	
92	8/31/2014	Sun.	11:24	Sideswipe			x	Day	Dry	Other	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2014 to 12/31/2014
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
93	9/2/2014	Tue.	14:01	Rear End			x	Day	Wet	Careless Driving	
94	9/2/2014	Tue.	14:08	Other		x		Day	Wet	Improper Backing	
95	9/5/2014	Fri.	15:48	Rear End			x	Day	Dry	Followed Too Closely	
96	9/6/2014	Sat.	17:38	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
97	9/10/2014	Wed.	16:00	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
98	9/17/2014	Wed.	6:49	Rear End		x		Night	Dry	Exceeded Speed Limit	
99	9/19/2014	Fri.	9:28	Rear End			x	Day	Wet	Followed Too Closely	
100	9/20/2014	Sat.	10:40	Angle		x		Day	Dry	FTYRW	
101	9/25/2014	Thu.	10:34	Rear End		x		Day	Dry	Careless Driving	
102	9/25/2014	Thu.	13:00	Rear End			x	Day	Dry	Followed Too Closely	
103	9/26/2014	Fri.	16:15	Rear End			x	Day	Wet	Followed Too Closely	
104	9/26/2014	Fri.	12:38	Sideswipe			x	Day	Wet	Improper Lane Change	
105	10/8/2014	Wed.	13:15	Rear End			x	Day	Dry	Careless Driving	
106	10/14/2014	Tue.	12:20	Rear End			x	Day	Dry	Followed Too Closely	
107	10/14/2014	Tue.	13:33	Rear End			x	Day	Dry	Followed Too Closely	
108	10/14/2014	Tue.	16:27	Rear End			x	Day	Wet	Exceeded Speed Limit	
109	10/17/2014	Fri.	17:23	Rear End			x	Day	Dry	Improper Turn	
110	10/19/2014	Sun.	19:46	Overtaken			x	Night	Dry	Failed To Maintain Vehicle	
111	10/24/2014	Fri.	17:32	Angle		x		Day	Dry	Improper Turn	
112	10/24/2014	Fri.	15:45	Rear End			x	Day	Dry	Followed Too Closely	
113	10/25/2014	Sat.	9:07	Sideswipe			x	Day	Dry	FTYRW	
114	10/27/2014	Mon.	17:57	Rear End			x	Day	Dry	No Improper Driving	
115	10/29/2014	Wed.	15:59	Rear End			x	Day	Dry	Followed Too Closely	
116	10/30/2014	Thu.	8:50	Collision w/ Ped		x		Day	Dry	Disregarded Traffic Signal	
117	11/5/2014	Wed.	17:12	Rear End		x		Night	Dry	Careless Driving	
118	11/5/2014	Wed.	18:12	Rear End			x	Night	Dry	Careless Driving	
119	11/7/2014	Fri.	15:55	Collision w/ Bike		x		Day	Dry	FTYRW	
120	11/9/2014	Sun.	17:25	Rear End		x		Night	Wet	Careless Driving	
121	11/12/2014	Wed.	9:15	Sideswipe			x	Day	Dry	Improper Lane Change	
122	11/12/2014	Wed.	10:20	Sideswipe			x	Day	Dry	Other	
123	11/17/2014	Mon.	13:40	Rear End		x		Day	Dry	Careless Driving	
124	11/18/2014	Tue.	15:30	Left Turn			x	Day	Wet	FTYRW	
125	11/20/2014	Thu.	11:30	Rear End			x	Day	Dry	Followed Too Closely	
126	11/21/2014	Fri.	11:52	Right Turn			x	Day	Dry	FTYRW	
127	11/21/2014	Fri.	11:19	Sideswipe			x	Day	Dry	Improper Lane Change	
128	11/23/2014	Sun.	14:12	Rear End		x		Day	Dry	Followed Too Closely	
129	11/24/2014	Mon.	13:21	Rear End		x		Day	Dry	Followed Too Closely	
130	11/25/2014	Tue.	9:00	Rear End		x		Day	Dry	Careless Driving	
131	11/27/2014	Thu.	5:52	Angle		x		Night	Dry	FTYRW	
132	11/28/2014	Fri.	15:05	Rear End			x	Day	Dry	Careless Driving	
133	12/1/2014	Mon.	9:32	Rear End			x	Day	Dry	Followed Too Closely	
134	12/2/2014	Tue.	11:47	Rear End			x	Day	Dry	Followed Too Closely	
135	12/3/2014	Wed.	17:05	Left Turn			x	Day	Dry	Disregarded Traffic Signal	
136	12/6/2014	Sat.	13:40	Sideswipe			x	Day	Dry	Improper Lane Change	
137	12/12/2014	Fri.	11:50	Rear End			x	Day	Dry	Careless Driving	
138	12/17/2014	Wed.	6:54	Rear End		x		Day	Dry	Followed Too Closely	

COLLISION SUMMARY

Section:	03010000
Location:	From Commercial Dr to Guilford Rd
Study Period:	1/1/2014 to 12/31/2014
No. of Years:	1

State Route: 90
M.P.: 13.158 - 15.024
County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
139	12/17/2014	Wed.	13:45	Rear End			x	Day	Dry	Followed Too Closely	
140	12/22/2014	Mon.	13:46	Rear End			x	Day	Dry	Followed Too Closely	
141	12/28/2014	Sun.	12:20	Rear End		x		Day	Dry	Followed Too Closely	
142	12/31/2014	Wed.	23:14	Rear End			x	Night	Dry	Careless Driving	

[illegible]

COLLISION DIAGRAM

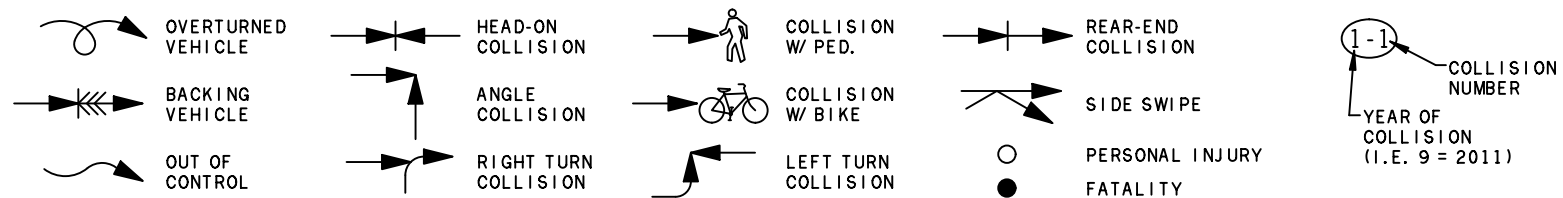
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SHEET
1

SYMBOLS

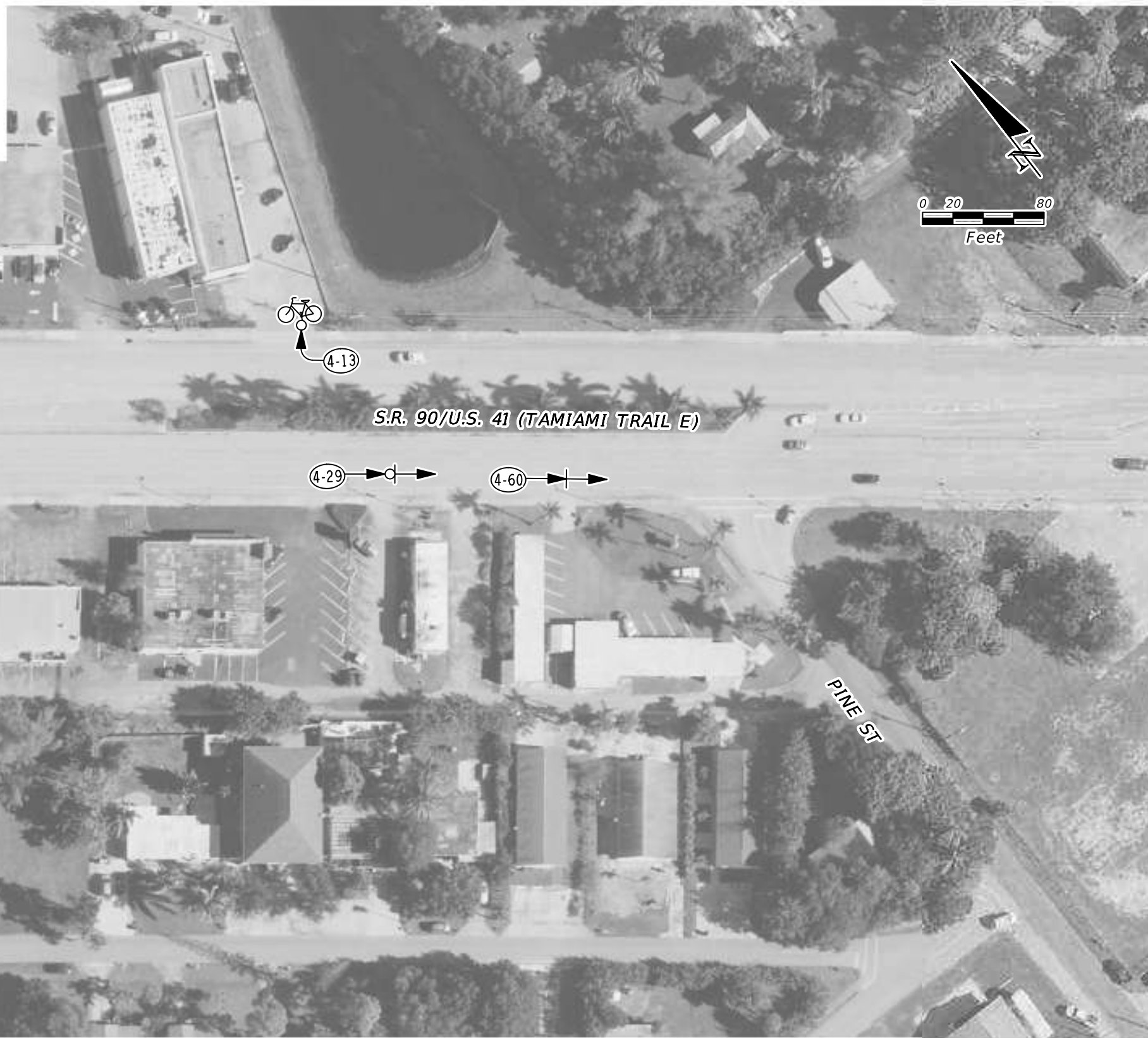


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB

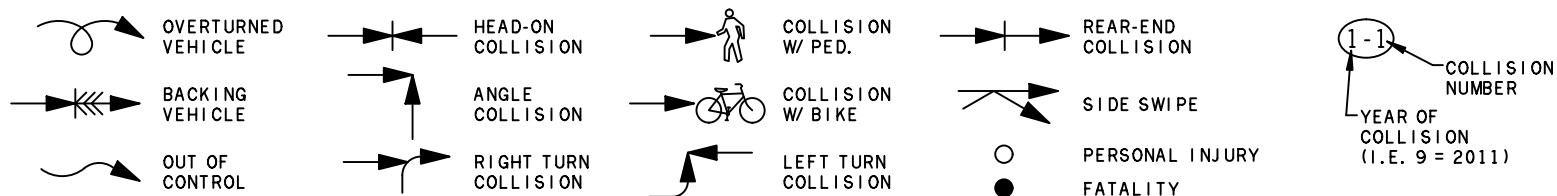


MATCHLINE - SEE SHEET 3

SHEET

2

SYMBOLS



CRASH SUMMARY

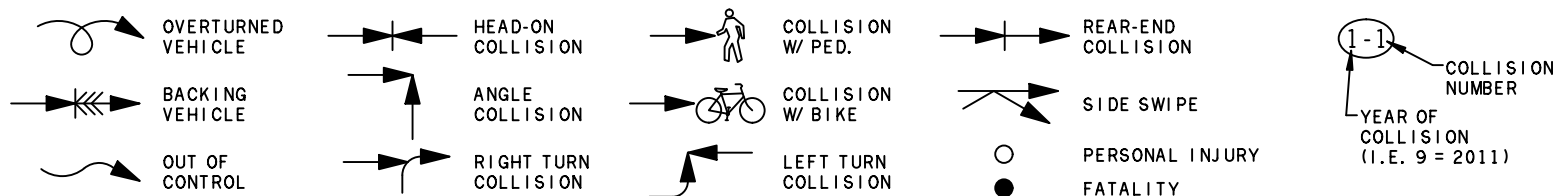
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



SYMBOLS

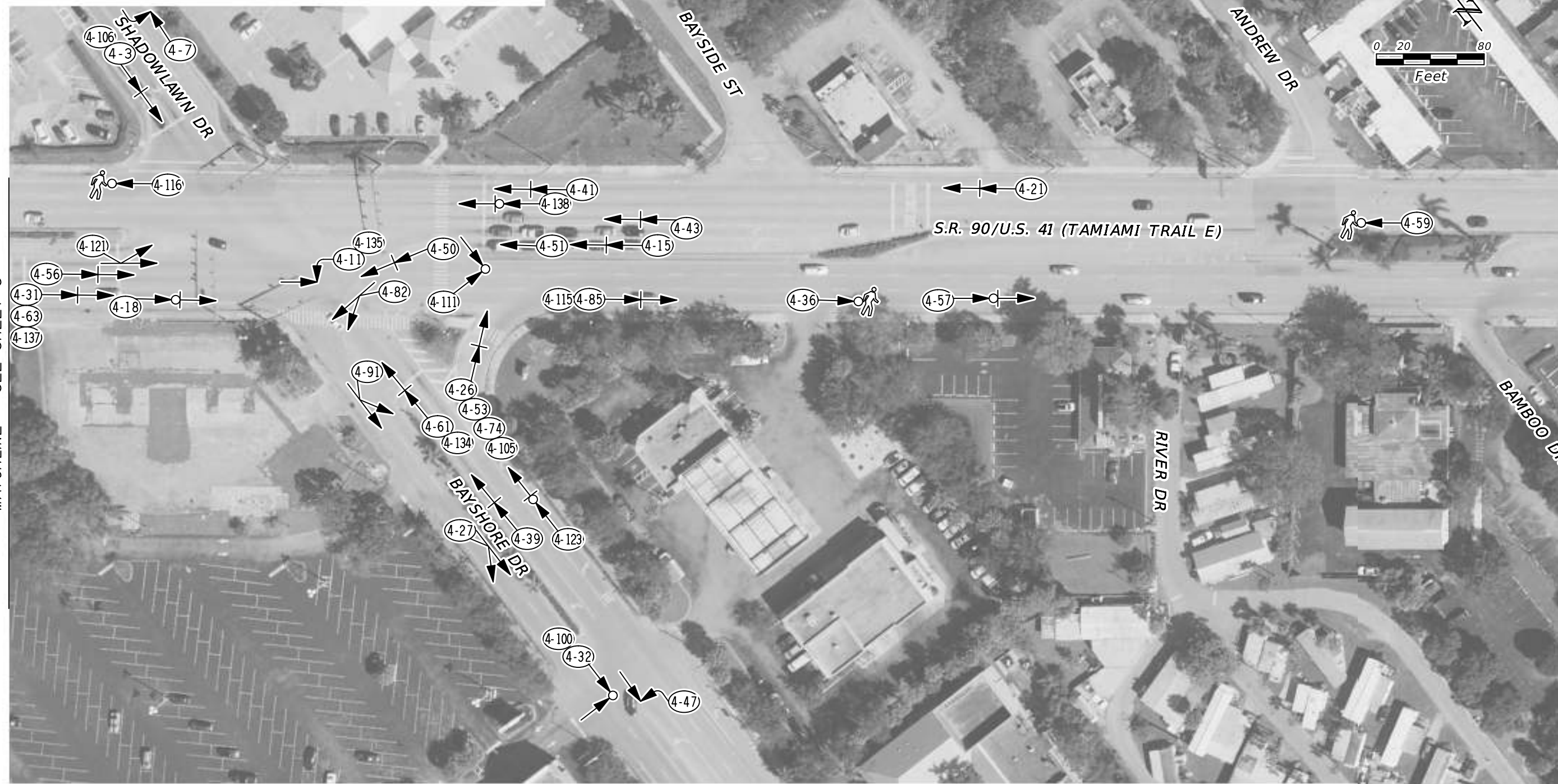


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



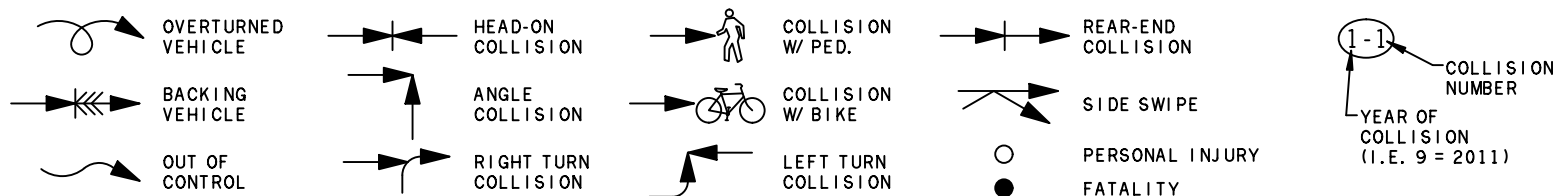
MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5

SHEET

4

SYMBOLS



CRASH SUMMARY

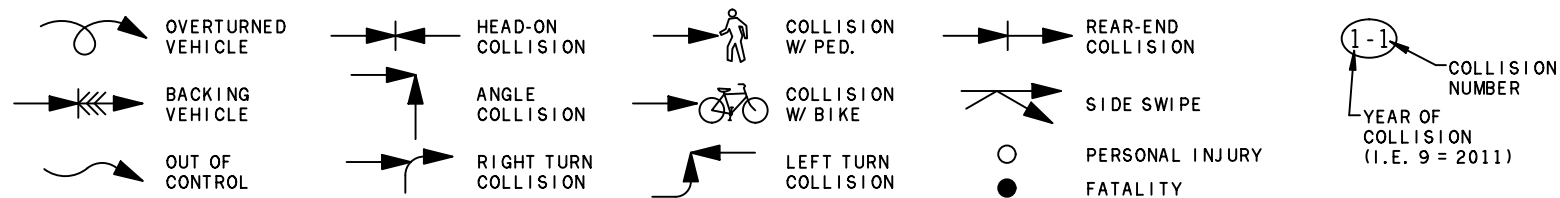
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

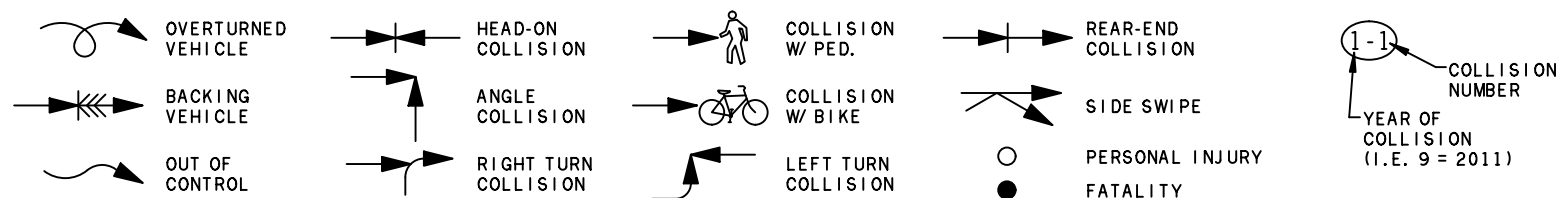
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 7

SHEET
6

SYMBOLS



CRASH SUMMARY

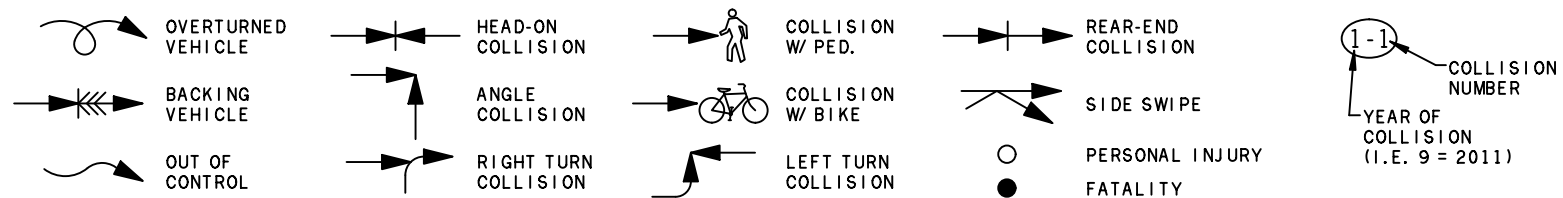
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

LOCATION	SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD		
COUNTY	COLLIER	CITY	NAPLES
DATE RANGE	01/01/2014	TO	12/31/2014
	PREPARED BY		HNTB

DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



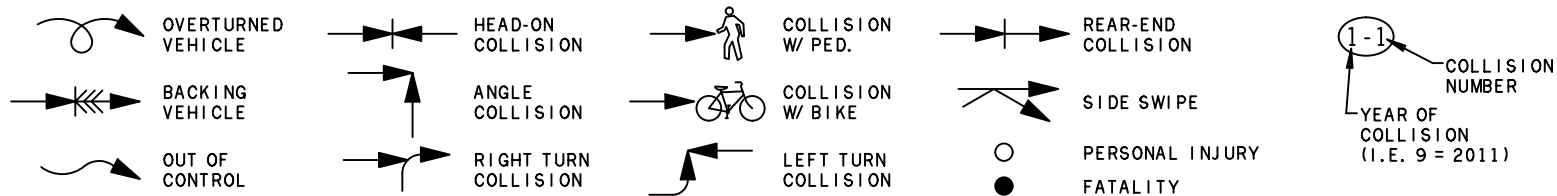
MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 0

SHE

100

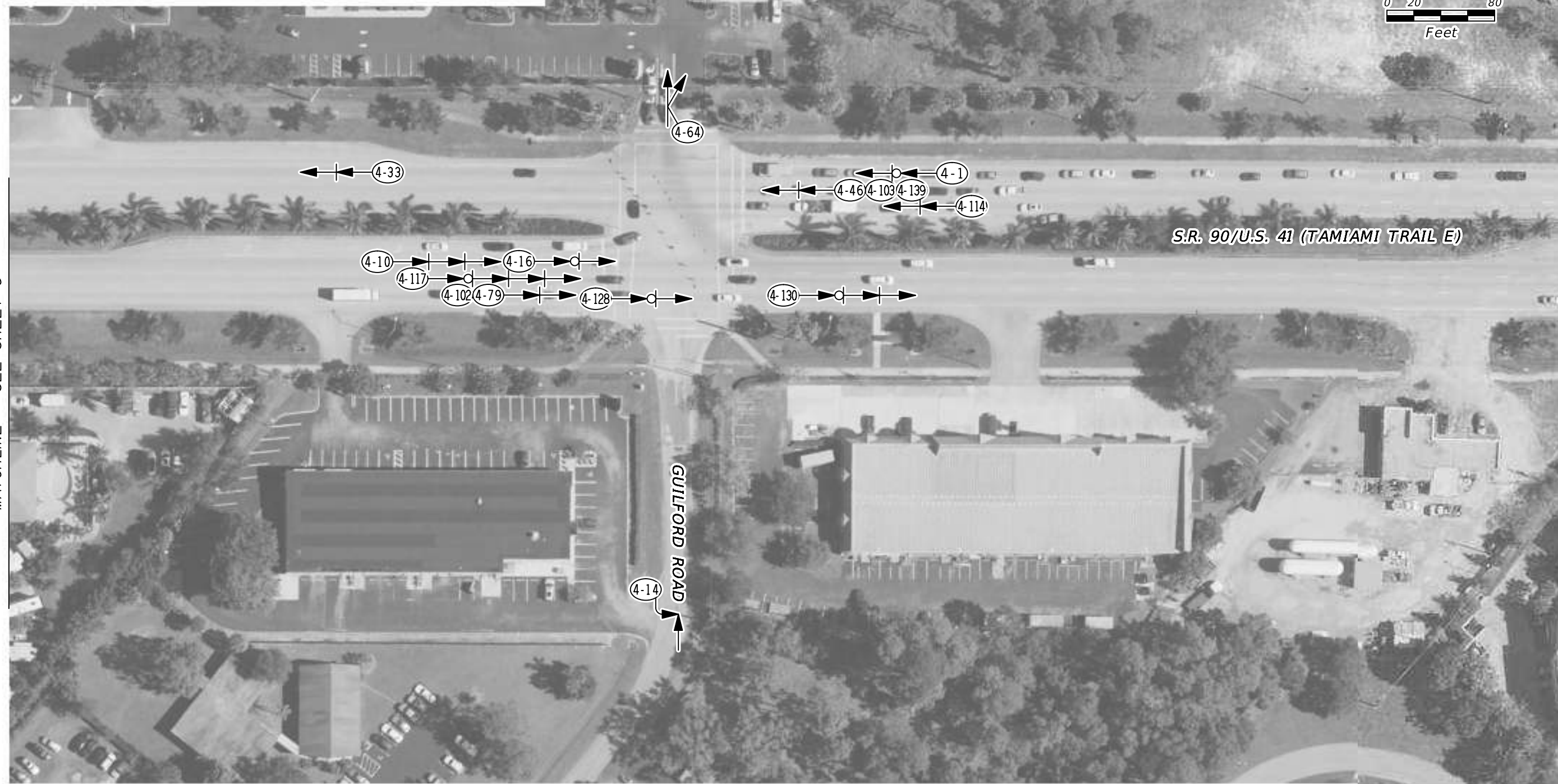
CRASH SUMMARY



	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION DIAGRAM

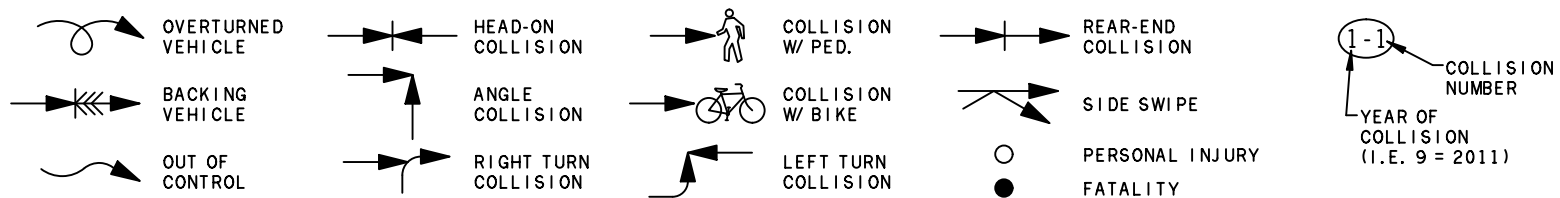
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2014 TO 12/31/2014 PREPARED BY HNTB



MATCHLINE - SEE SHEET 8

SHEET
9

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	88	35	0	123
NIGHTTIME	9	10	0	19
TOTAL	97	45	0	142

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
1	1/2/2015	Fri.	12:20	Rear End			x	Day	Dry	Followed Too Closely	
2	1/2/2015	Fri.	16:13	Left Turn			x	Day	Dry	FTYRW	
3	1/5/2015	Mon.	15:05	Rear End		x		Day	Dry	Careless Driving	
4	1/6/2015	Tue.	10:09	Rear End		x		Day	Dry	Careless Driving	
5	1/7/2015	Wed.	15:58	Rear End		x		Day	Dry	Careless Driving	
6	1/8/2015	Thu.	18:16	Left Turn		x		Night	Dry	Improper Turn	
7	1/14/2015	Wed.	19:33	Other			x	Night	Dry	Improper Backing	
8	1/18/2015	Sun.	12:17	Rear End		x		Day	Dry	Followed Too Closely	
9	1/19/2015	Mon.	10:15	Rear End			x	Day	Dry	Careless Driving	
10	1/21/2015	Wed.	9:37	Collision w/ Bike		x		Day	Dry	FTYRW	
11	1/21/2015	Wed.	18:45	Sideswipe			x	Night	Dry	Improper Lane Change	
12	1/27/2015	Tue.	10:52	Angle			x	Day	Dry	FTYRW	
13	1/28/2015	Wed.	12:10	Rear End			x	Day	Dry	Careless Driving	
14	1/28/2015	Wed.	20:45	Rear End			x	Night	Dry	Followed Too Closely	
15	1/30/2015	Fri.	21:27	Sideswipe			x	Night	Dry	Other	
16	2/1/2015	Sun.	14:55	Rear End		x		Day	Dry	Followed Too Closely	
17	2/2/2015	Mon.	10:20	Off Road			x	Day	Dry	Careless Driving	
18	2/3/2015	Tue.	14:05	Rear End			x	Day	Dry	Careless Driving	
19	2/3/2015	Tue.	20:30	Rear End			x	Night	Dry	Followed Too Closely	
20	2/4/2015	Wed.	19:20	Left Turn			x	Night	Dry	FTYRW	
21	2/5/2015	Thu.	15:32	Rear End			x	Day	Wet	Careless Driving	
22	2/6/2015	Fri.	12:07	Rear End			x	Day	Dry	FTYRW	
23	2/6/2015	Fri.	15:02	Rear End			x	Day	Dry	Followed Too Closely	
24	2/9/2015	Mon.	15:42	Rear End			x	Day	Wet	Careless Driving	
25	2/10/2015	Tue.	11:38	Collision w/ Bike		x		Day	Dry	FTYRW	
26	2/10/2015	Tue.	13:54	Rear End			x	Day	Dry	Careless Driving	
27	2/10/2015	Tue.	8:00	Collision w/ Bike			x	Day	Dry	No Improper Driving	
28	2/15/2015	Sun.	11:56	Angle		x		Day	Dry	Disregarded Traffic Signal	
29	2/18/2015	Wed.	9:52	Rear End			x	Day	Dry	Careless Driving	
30	2/20/2015	Fri.	14:14	Rear End			x	Day	Dry	Careless Driving	
31	2/23/2015	Mon.	16:37	Rear End		x		Day	Dry	Careless Driving	
32	3/1/2015	Sun.	16:10	Collision w/ Bike		x		Day	Dry	DUI	
33	3/1/2015	Sun.	17:54	Rear End			x	Day	Wet	Followed Too Closely	
34	3/2/2015	Mon.	11:47	Rear End		x		Day	Dry	Careless Driving	
35	3/2/2015	Mon.	11:50	Rear End		x		Day	Dry	Careless Driving	
36	3/3/2015	Tue.	10:00	Angle			x	Day	Dry	Careless Driving	
37	3/4/2015	Wed.	15:25	Rear End			x	Day	Dry	Followed Too Closely	
38	3/6/2015	Fri.	10:53	Sideswipe			x	Day	Dry	Improper Lane Change	
39	3/6/2015	Fri.	13:28	Other			x	Day	Dry	Improper Backing	
40	3/7/2015	Sat.	17:30	Left Turn		x		Day	Dry	Disregarded Traffic Signal	
41	3/11/2015	Wed.	15:52	Angle			x	Day	Wet	Careless Driving	
42	3/12/2015	Thu.	4:55	Collision w/ Ped		x		Night	Dry	FTYRW	
43	3/13/2015	Fri.	23:00	Left Turn			x	Night	Dry	No Improper Driving	
44	3/16/2015	Mon.	12:45	Sideswipe			x	Day	Dry	FTYRW	
45	3/17/2015	Tue.	15:01	Rear End			x	Day	Dry	Followed Too Closely	
46	3/17/2015	Tue.	17:15	Sideswipe		x		Day	Dry	FTYRW	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
47	3/18/2015	Wed.	6:48	Rear End			x	Night	Dry	Other	
48	3/19/2015	Thu.	12:07	Rear End		x		Day	Dry	Careless Driving	
49	3/21/2015	Sat.	11:45	Rear End			x	Day	Dry	Followed Too Closely	
50	3/22/2015	Sun.	2:52	Collision w/ Bike		x		Night	Dry	FTYRW	
51	3/22/2015	Sun.	13:08	Rear End			x	Day	Dry	Careless Driving	
52	3/28/2015	Sat.	17:50	Angle		x		Day	Dry	FTYRW	
53	3/30/2015	Mon.	14:33	Rear End			x	Day	Dry	Followed Too Closely	
54	4/1/2015	Wed.	11:26	Rear End		x		Day	Dry	Other	
55	4/3/2015	Fri.	17:00	Rear End			x	Day	Dry	No Improper Driving	
56	4/8/2015	Wed.	10:04	Rear End			x	Day	Dry	Followed Too Closely	
57	4/13/2015	Mon.	13:13	Rear End			x	Day	Dry	Followed Too Closely	
58	4/21/2015	Tue.	19:15	Collision w/ Bike		x		Day	Dry	Other	
59	4/23/2015	Thu.	17:05	Rear End		x		Day	Dry	Followed Too Closely	
60	4/26/2015	Sun.	11:13	Rear End			x	Day	Dry	Careless Driving	
61	4/26/2015	Sun.	13:26	Sideswipe			x	Day	Dry	FTYRW	
62	4/28/2015	Tue.	16:50	Sideswipe			x	Day	Dry	Improper Passing	
63	4/29/2015	Wed.	12:10	Right Turn			x	Day	Dry	No Improper Driving	
64	4/29/2015	Wed.	14:53	Sideswipe			x	Day	Wet	Other	
65	5/3/2015	Sun.	13:30	Rear End			x	Day	Dry	DUI	
66	5/5/2015	Tue.	19:35	Angle			x	Day	Dry	FTYRW	
67	5/6/2015	Wed.	16:58	Rear End		x		Day	Dry	No Improper Driving	
68	5/8/2015	Fri.	17:57	Angle		x		Day	Dry	Disregarded Traffic Signal	
69	5/9/2015	Sat.	18:29	Sideswipe			x	Day	Dry	No Improper Driving	
70	5/11/2015	Mon.	8:50	Rear End			x	Day	Dry	Careless Driving	
71	5/11/2015	Mon.	13:51	Angle			x	Day	Dry	Careless Driving	
72	5/15/2015	Fri.	15:21	Sideswipe			x	Day	Dry	Improper Lane Change	
73	5/15/2015	Fri.	20:42	Head On			x	Night	Wet	Careless Driving	
74	5/15/2015	Fri.	14:45	Other			x	Day	Dry	Improper Backing	
75	5/15/2015	Fri.	17:30	Rear End		x		Day	Dry	Disregarded Traffic Signal	
76	5/17/2015	Sun.	15:30	Rear End			x	Day	Wet	Followed Too Closely	
77	5/20/2015	Wed.	8:30	Sideswipe			x	Day	Dry	Careless Driving	
78	5/23/2015	Sat.	10:15	Rear End		x		Day	Dry	Careless Driving	
79	5/23/2015	Sat.	22:58	Rear End		x		Night	Dry	No Improper Driving	
80	6/2/2015	Tue.	18:50	Collision w/ Ped		x		Day	Wet	Disregarded Traffic Signal	
81	6/5/2015	Fri.	15:30	Rear End			x	Night	Wet	Followed Too Closely	
82	6/9/2015	Tue.	21:17	Left Turn		x		Night	Dry	FTYRW	
83	6/12/2015	Fri.	14:45	Rear End			x	Day	Wet	Followed Too Closely	
84	6/23/2015	Tue.	14:55	Rear End			x	Day	Dry	Careless Driving	
85	6/23/2015	Tue.	17:20	Rear End			x	Day	Dry	Careless Driving	
86	6/30/2015	Tue.	9:55	Angle			x	Day	Dry	FTYRW	
87	7/1/2015	Wed.	16:45	Rear End			x	Day	Dry	Other	
88	7/8/2015	Wed.	12:11	Rear End			x	Day	Dry	No Improper Driving	
89	7/11/2015	Sat.	15:25	Sideswipe			x	Day	Dry	No Improper Driving	
90	7/13/2015	Mon.	15:15	Collision w/ Sign			x	Day	Dry	Vehicle Modified	
91	7/15/2015	Wed.	14:45	Sideswipe			x	Day	Dry	Improper Passing	
92	7/18/2015	Sat.	19:14	Rear End			x	Day	Dry	Careless Driving	

COLLISION SUMMARY

Section: 03010000
 Location: From Commercial Dr to Guilford Rd
 Study Period: 1/1/2015 to 12/31/2015
 No. of Years: 1

State Route: 90
 M.P.: 13.158 - 15.024
 County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
93	7/19/2015	Sun.	11:00	Rear End			x	Day	Dry	Followed Too Closely	
94	7/21/2015	Tue.	19:34	Angle			x	Night	Dry	Other	
95	7/22/2015	Wed.	11:26	Collision w/ Bike		x		Day	Dry	Driving Wrong Side/Way	
96	7/27/2015	Mon.	14:05	Rear End			x	Day	Wet	Followed Too Closely	
97	7/29/2015	Wed.	17:05	Collision w/ Bike		x		Day	Dry	FTYRW	
98	7/30/2015	Thu.	21:01	Rear End		x		Night	Dry	Followed Too Closely	
99	7/31/2015	Fri.	17:27	Other			x	Day	Dry	Improper Backing	
100	8/2/2015	Sun.	10:27	Other			x	Day	Dry	Improper Backing	
101	8/7/2015	Fri.	19:17	Rear End			x	Day	Dry	Followed Too Closely	
102	8/17/2015	Mon.	12:24	Rear End			x	Day	Dry	Careless Driving	
103	8/17/2015	Mon.	14:58	Rear End			x	Day	Wet	Careless Driving	
104	8/22/2015	Sat.	16:45	Rear End			x	Day	Dry	Followed Too Closely	
105	8/22/2015	Sat.	19:37	Rear End		x		Night	Dry	Other	
106	8/24/2015	Mon.	11:45	Rear End			x	Day	Dry	Other	
107	8/24/2015	Mon.	21:15	Sideswipe			x	Night	Dry	Improper Turn	
108	8/26/2015	Wed.	13:18	Rear End			x	Day	Dry	Followed Too Closely	
109	9/4/2015	Fri.	21:00	Left Turn			x	Night	Dry	Careless Driving	
110	9/4/2015	Fri.	23:37	Left Turn			x	Night	Dry	FTYRW	
111	9/5/2015	Sat.	16:59	Sideswipe			x	Day	Dry	FTYRW	
112	9/7/2015	Mon.	11:51	Rear End			x	Day	Dry	Careless Driving	
113	9/10/2015	Thu.	15:12	Left Turn			x	Day	Dry	Careless Driving	
114	9/12/2015	Sat.	9:32	Rear End			x	Day	Wet	Followed Too Closely	
115	9/17/2015	Thu.	15:35	Rear End			x	Day	Dry	Followed Too Closely	
116	9/24/2015	Thu.	9:18	Rear End		x		Day	Dry	Followed Too Closely	
117	9/26/2015	Sat.	15:35	Rear End			x	Day	Dry	Followed Too Closely	
118	9/28/2015	Mon.	15:20	Rear End		x		Day	Dry	Careless Driving	
119	9/28/2015	Mon.	10:48	Rear End			x	Day	Dry	Followed Too Closely	
120	9/29/2015	Tue.	16:15	Rear End		x		Day	Dry	Careless Driving	
121	10/2/2015	Fri.	18:00	Rear End	x			Day	Dry	Other	
122	10/3/2015	Sat.	20:53	Left Turn	x			Night	Dry	FTYRW	
123	10/3/2015	Sat.	15:37	Rear End			x	Day	Dry	Disregarded Traffic Signal	
124	10/4/2015	Sun.	10:36	Rear End			x	Day	Dry	Careless Driving	
125	10/10/2015	Sat.	9:44	Sideswipe			x	Day	Dry	Improper Lane Change	
126	10/10/2015	Sat.	18:33	Rear End			x	Day	Dry	Careless Driving	
127	10/14/2015	Wed.	6:45	Sideswipe			x	Night	Dry	FTYRW	
128	10/14/2015	Wed.	14:38	Left Turn		x		Day	Dry	Careless Driving	
129	10/15/2015	Thu.	14:15	Rear End			x	Day	Dry	Followed Too Closely	
130	10/23/2015	Fri.	15:36	Sideswipe			x	Day	Dry	Improper Lane Change	
131	10/28/2015	Wed.	14:00	Rear End			x	Day	Wet	Followed Too Closely	
132	11/2/2015	Mon.	13:36	Sideswipe			x	Day	Dry	FTYRW	
133	11/3/2015	Tue.	16:15	Rear End		x		Day	Dry	Followed Too Closely	
134	11/3/2015	Tue.	15:00	Rear End			x	Day	Dry	Followed Too Closely	
135	11/4/2015	Wed.	14:02	Other			x	Day	Dry	Improper Backing	
136	11/5/2015	Thu.	21:30	Rear End			x	Night	Dry	Followed Too Closely	
137	11/6/2015	Fri.	12:49	Rear End			x	Day	Dry	Followed Too Closely	
138	11/12/2015	Thu.	11:56	Sideswipe			x	Day	Dry	Other	

COLLISION SUMMARY

Section:	03010000
Location:	From Commercial Dr to Guilford Rd
Study Period:	1/1/2015 to 12/31/2015
No. of Years:	1

State Route: 90
M.P.: 13.158 - 15.024
County: Collier

Engineer: HNTB

No.	Date	Day	Time	Type	Fatal	Injury	Prop. Damage	Day/ Night	Wet/ Dry	Contributing Cause	Comments
139	11/13/2015	Fri.	16:00	Rear End			x	Day	Dry	Careless Driving	
140	11/16/2015	Mon.	16:15	Left Turn		x		Day	Dry	Other	
141	11/19/2015	Thu.	10:47	Rear End		x		Day	Dry	Followed Too Closely	
142	11/20/2015	Fri.	13:09	Sideswipe		x		Day	Dry	Careless Driving	
143	11/21/2015	Sat.	12:30	Left Turn			x	Day	Dry	Other	
144	11/22/2015	Sun.	23:24	Rear End		x		Night	Dry	Careless Driving	
145	11/24/2015	Tue.	12:26	Rear End		x		Day	Dry	Careless Driving	
146	11/27/2015	Fri.	14:21	Rear End			x	Day	Dry	Followed Too Closely	
147	11/28/2015	Sat.	16:04	Sideswipe			x	Day	Dry	FTYRW	
148	11/28/2015	Sat.	20:50	Rear End			x	Night	Dry	Followed Too Closely	
149	11/29/2015	Sun.	19:35	Rear End			x	Night	Dry	DUI	
150	11/30/2015	Mon.	12:20	Other			x	Day	Dry	Improper Backing	
151	12/1/2015	Tue.	16:04	Rear End		x		Day	Dry	Followed Too Closely	
152	12/2/2015	Wed.	8:07	Rear End			x	Day	Dry	Careless Driving	
153	12/9/2015	Wed.	18:45	Sideswipe			x	Night	Dry	Disregarded Traffic Signal	
154	12/11/2015	Fri.	18:44	Left Turn			x	Night	Dry	Careless Driving	
155	12/12/2015	Sat.	12:09	Sideswipe			x	Day	Dry	Careless Driving	
156	12/15/2015	Tue.	15:12	Angle			x	Day	Dry	Careless Driving	
157	12/15/2015	Tue.	11:53	Rear End			x	Day	Dry	Followed Too Closely	
158	12/17/2015	Thu.	13:00	Rear End			x	Day	Dry	Careless Driving	
159	12/20/2015	Sun.	7:30	Other			x	Day	Dry	Improper Backing	
160	12/26/2015	Sat.	13:10	Rear End			x	Day	Dry	Careless Driving	
161	12/28/2015	Mon.	12:26	Rear End			x	Day	Dry	Careless Driving	
162	12/29/2015	Tue.	14:03	Rear End			x	Day	Dry	Followed Too Closely	
163	12/29/2015	Tue.	16:47	Rear End			x	Day	Dry	Followed Too Closely	

[illegible]

COLLISION DIAGRAM

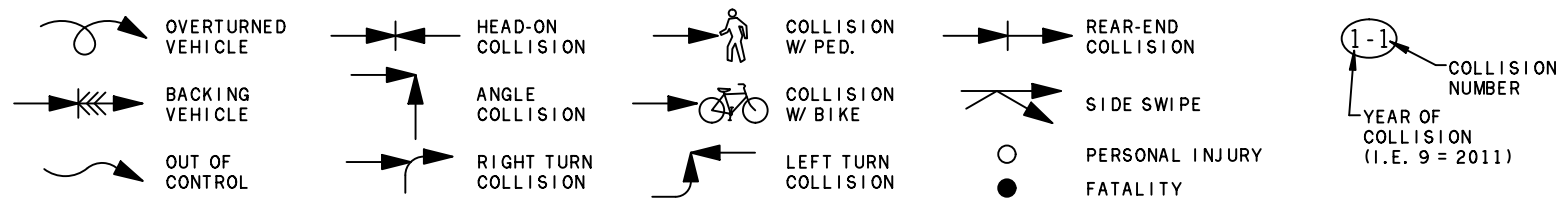
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 2

SHEET
1

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



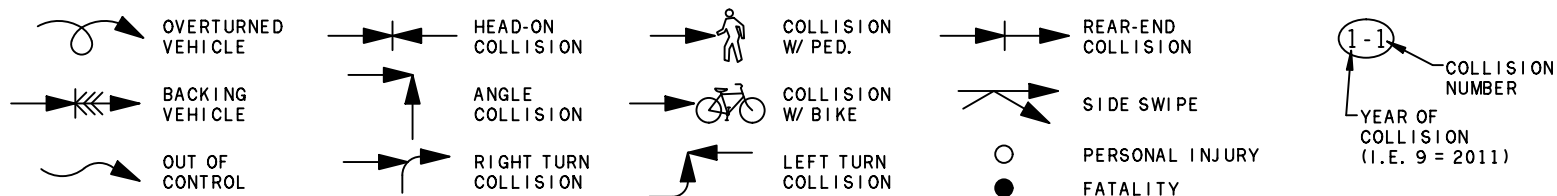
MATCHLINE - SEE SHEET 1

MATCHLINE - SEE SHEET 3

SHEET

2

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

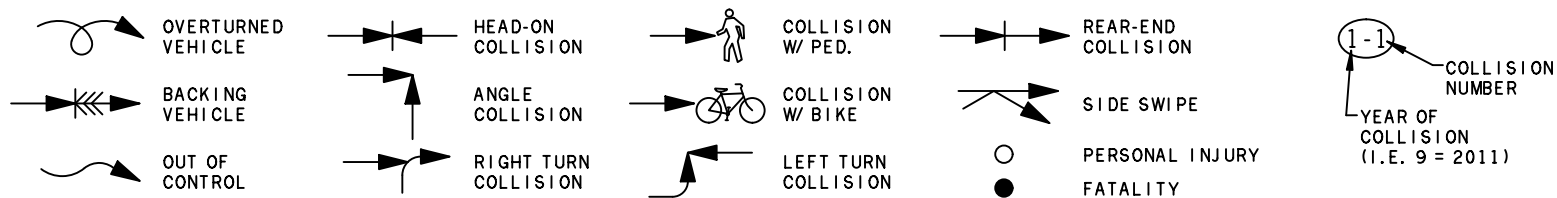
LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



MATCHLINE - SEE SHEET 4

SHEET
3

SYMBOLS

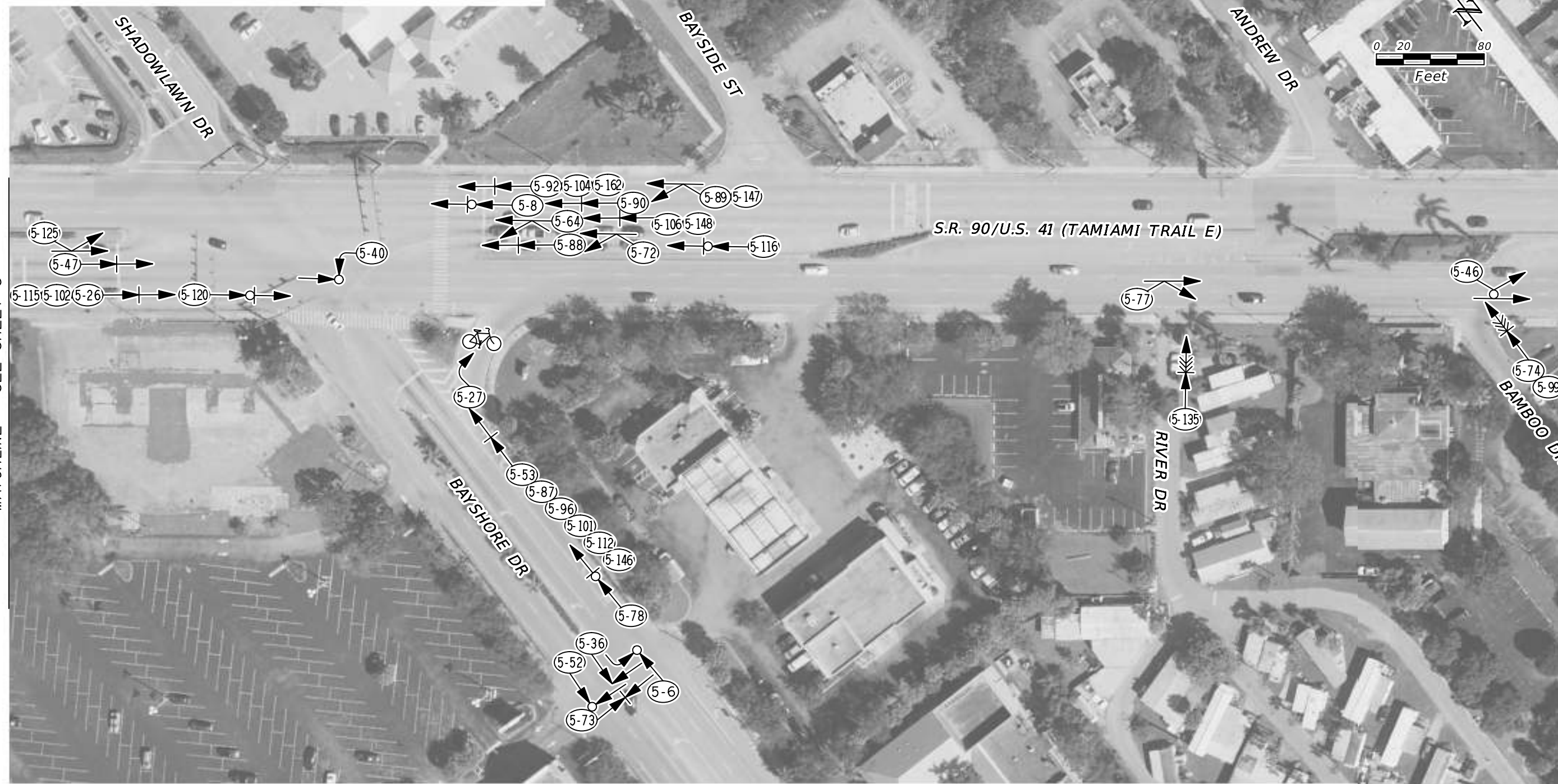


CRASH SUMMARY

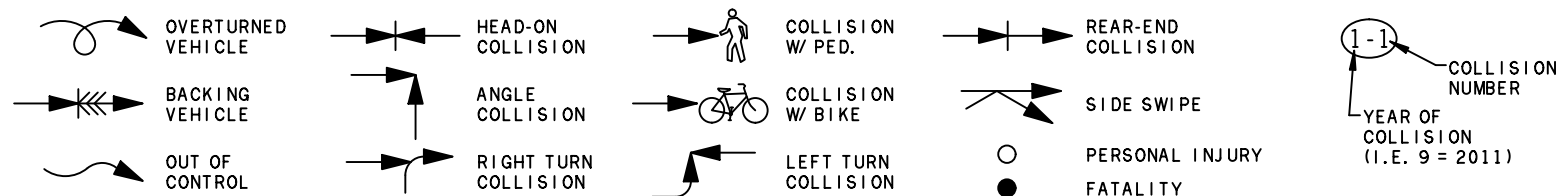
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB

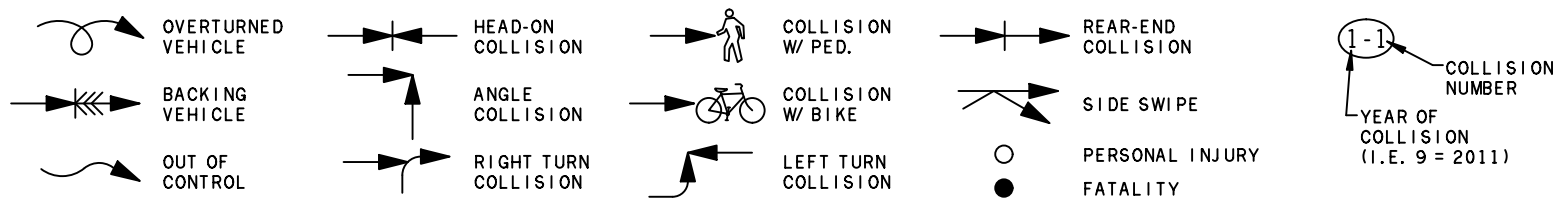


MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6

SHEET
5

SYMBOLS



CRASH SUMMARY

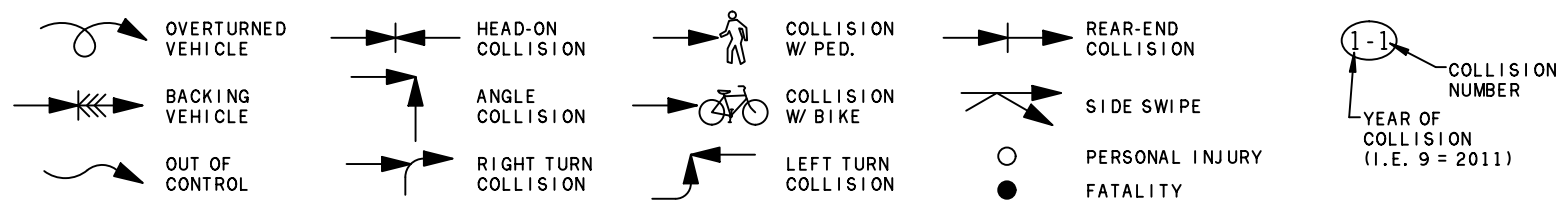
	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



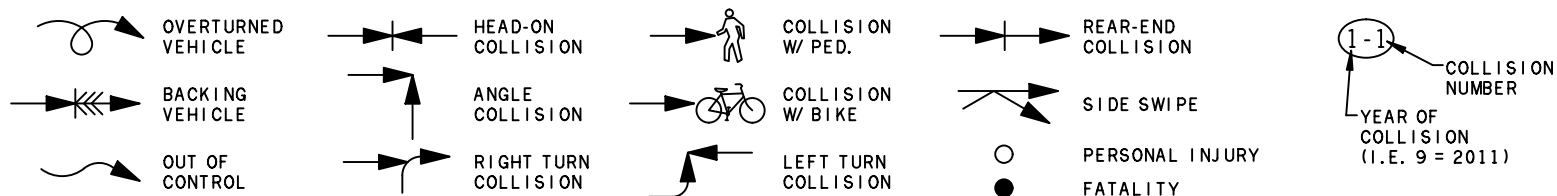
MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 8

SHEET

7

SYMBOLS



CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



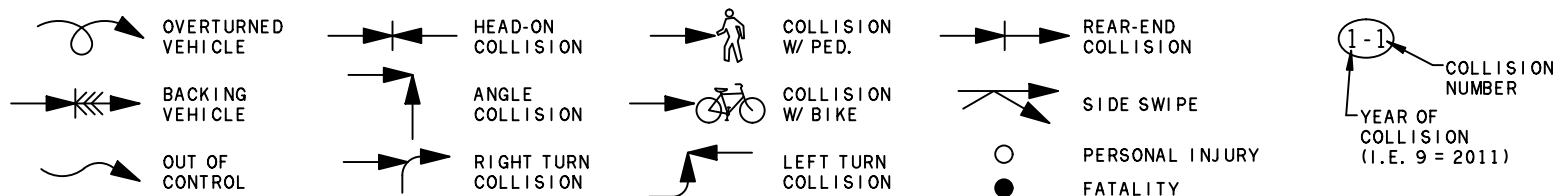
MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 9

SHEET

8

SYMBOLS

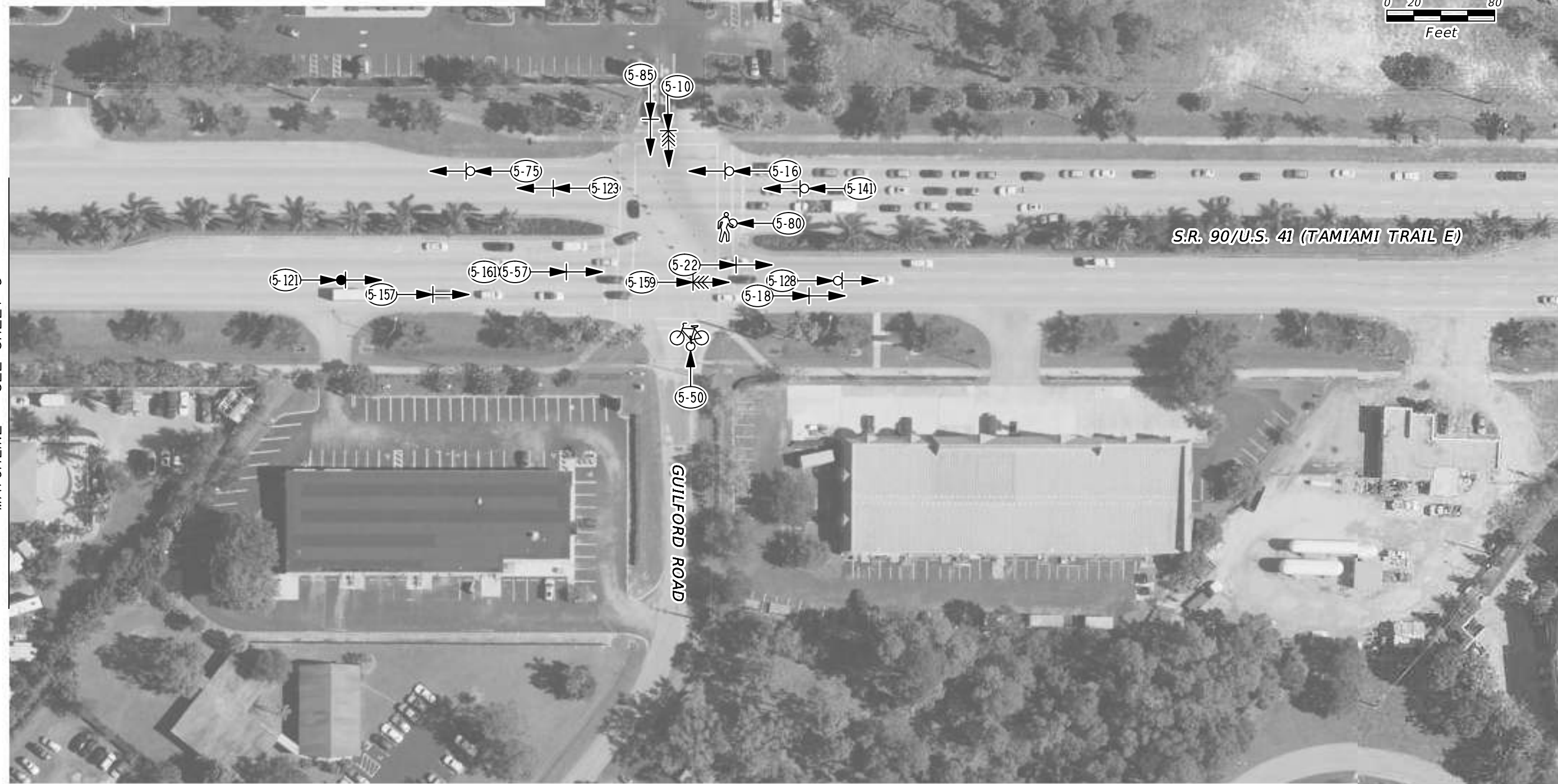


CRASH SUMMARY

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163

COLLISION DIAGRAM

LOCATION SR 90 (US 41) FROM COMMERCIAL DR TO GUILFORD RD
 COUNTY COLLIER CITY NAPLES
 DATE RANGE 01/01/2015 TO 12/31/2015 PREPARED BY HNTB



SHEET
9

SYMBOLS

CRASH SUMMARY

OVERTURNED VEHICLE	BACKING VEHICLE	OUT OF CONTROL	HEAD-ON COLLISION	ANGLE COLLISION	RIGHT TURN COLLISION	COLLISION W/ PED.	COLLISION W/ BIKE	LEFT TURN COLLISION	REAR-END COLLISION	SIDE SWIPE	PERSONAL INJURY	FATALITY	COLLISION NUMBER	YEAR OF COLLISION (I.E. 9 = 2011)

	PROPERTY DAMAGE ONLY	INJURY	FATAL	TOTAL
DAYTIME	97	36	1	134
NIGHTTIME	20	8	1	29
TOTAL	117	44	2	163



APPENDIX E

SYNCHRO REPORTS

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Existing AM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWL	NWT
Lane Configurations												
Traffic Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279
Future Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2
Lane Util. Factor	1.00			0.91	0.91	1.00		0.97	0.91			0.91
Frt	1.00			1.00	1.00	0.85		1.00	1.00			1.00
Flt Protected	0.95			0.95	0.95	1.00		0.95	1.00			1.00
Satd. Flow (prot)	1770			3221	1615	1583		3433	5085			5085
Flt Permitted	0.95			0.95	0.95	1.00		0.95	1.00			1.00
Satd. Flow (perm)	1770			3221	1615	1583		3433	5085			5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	0	0	490	2	197	1	340	607	0	0	1390
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	0	0	0	0
Lane Group Flow (vph)	1	0	0	328	164	30	0	341	607	0	0	1390
Turn Type	Split			Split	NA	Prot	Prot	Prot	NA		Prot	NA
Protected Phases	4	4		8	8	8	1	1	6		5	2
Permitted Phases												
Actuated Green, G (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5
Effective Green, g (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5
Actuated g/C Ratio	0.01			0.15	0.15	0.15		0.14	0.68			0.50
Clearance Time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2
Vehicle Extension (s)	3.0			3.0	3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)	17			490	245	240		465	3475			2524
v/s Ratio Prot	0.00			c0.10	0.10	0.02		c0.10	0.12			0.27
v/s Ratio Perm												
v/c Ratio	0.06			0.67	0.67	0.12		0.73	0.17			0.55
Uniform Delay, d1	68.6			56.0	56.0	51.3		58.1	8.0			24.4
Progression Factor	1.00			1.00	1.00	1.00		0.76	1.85			0.33
Incremental Delay, d2	1.5			3.5	6.8	0.2		5.7	0.1			0.8
Delay (s)	70.1			59.5	62.8	51.5		50.1	14.9			8.9
Level of Service	E			E	E	D		D	B			A
Approach Delay (s)		70.1			58.0				27.5			8.7
Approach LOS		E			E				C			A
Intersection Summary												
HCM 2000 Control Delay			23.1									
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			140.0									
Intersection Capacity Utilization			74.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Existing AM
11/02/2017



Movement	NWR
Lane Configurations	
Traffic Volume (vph)	541
Future Volume (vph)	541
Ideal Flow (vphpl)	1900
Total Lost time (s)	7.2
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	588
RTOR Reduction (vph)	0
Lane Group Flow (vph)	588
Turn Type	custom
Protected Phases	2
Permitted Phases	2 4
Actuated Green, G (s)	70.9
Effective Green, g (s)	70.9
Actuated g/C Ratio	0.51
Clearance Time (s)	7.2
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	883
v/s Ratio Prot	c0.33
v/s Ratio Perm	0.04
v/c Ratio	0.67
Uniform Delay, d1	25.7
Progression Factor	0.26
Incremental Delay, d2	1.7
Delay (s)	8.3
Level of Service	A
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Existing AM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Future Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5084			1770	5075			1770	1583	
Flt Permitted		0.04	1.00			0.29	1.00			0.75	1.00	
Satd. Flow (perm)		74	5084			546	5075			1392	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	15	934	2	9	10	2501	34	28	0	9	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	25	936	0	0	19	2535	0	0	28	0	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Effective Green, g (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Actuated g/C Ratio		0.81	0.79			0.81	0.78			0.04	0.04	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		111	3990			470	3958			58	66	
v/s Ratio Prot		c0.01	0.18			0.00	c0.50					
v/s Ratio Perm		0.18				0.03				c0.02	0.00	
v/c Ratio		0.23	0.23			0.04	0.64			0.48	0.01	
Uniform Delay, d1		5.9	4.0			2.7	6.8			65.6	64.2	
Progression Factor		5.82	1.17			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.0	0.1			0.0	0.8			6.2	0.0	
Delay (s)		35.1	4.8			2.7	7.6			71.8	64.3	
Level of Service		D	A			A	A			E	E	
Approach Delay (s)			5.6				7.5			69.9		
Approach LOS			A				A			E		
Intersection Summary												
HCM 2000 Control Delay			8.1				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			20.7		
Intersection Capacity Utilization			74.3%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Existing AM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	0	9
Future Volume (vph)	0	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.74	1.00
Satd. Flow (perm)	1377	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	0	10
RTOR Reduction (vph)	0	10
Lane Group Flow (vph)	16	0
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	5.9	5.9
Effective Green, g (s)	5.9	5.9
Actuated g/C Ratio	0.04	0.04
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	58	66
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.28	0.01
Uniform Delay, d1	65.0	64.2
Progression Factor	1.00	1.00
Incremental Delay, d2	2.6	0.0
Delay (s)	67.6	64.3
Level of Service	E	E
Approach Delay (s)	66.3	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

Existing AM
11/02/2017

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Future Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)	3433	5085		1770	5085	1583		1863			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)	3433	5085		1770	5085	1583		1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	916	0	2	2029	28	0	3	0	0	32	39
RTOR Reduction (vph)	0	0	0	0	0	9	0	0	0	0	0	33
Lane Group Flow (vph)	62	916	0	2	2029	19	0	3	0	0	32	6
Turn Type	Prot	NA		Prot	NA	Perm		NA			NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Actuated Green, G (s)	6.8	98.0		1.4	92.6	92.6		20.2			19.8	19.8
Effective Green, g (s)	6.8	98.0		1.4	92.6	92.6		20.2			19.8	19.8
Actuated g/C Ratio	0.05	0.70		0.01	0.66	0.66		0.14			0.14	0.14
Clearance Time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	166	3559		17	3363	1047		268			263	223
v/s Ratio Prot	c0.02	c0.18		0.00	c0.40			0.00			c0.02	
v/s Ratio Perm						0.01						0.00
v/c Ratio	0.37	0.26		0.12	0.60	0.02		0.01			0.12	0.02
Uniform Delay, d1	64.5	7.7		68.7	13.4	8.1		51.3			52.5	51.8
Progression Factor	1.01	0.76		1.54	0.59	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.4	0.2		1.2	0.3	0.0		0.1			0.2	0.0
Delay (s)	66.4	6.0		107.2	8.2	8.1		51.4			52.7	51.8
Level of Service	E	A		F	A	A		D			D	D
Approach Delay (s)		9.8			8.3			51.4			52.2	
Approach LOS		A			A			D			D	

Intersection Summary

HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Existing AM

11/02/2017

												
Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations						  					  	
Traffic Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Future Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.08	1.00	1.00		0.33	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		158	5085	1583		616	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	0	16	27	67	820	48	1	62	1846	104	52
RTOR Reduction (vph)	0	0	14	0	0	0	15	0	0	0	28	0
Lane Group Flow (vph)	16	0	2	0	94	820	33	0	63	1846	76	52
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Effective Green, g (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Actuated g/C Ratio	0.11		0.11		0.76	0.70	0.70		0.72	0.67	0.67	0.11
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206		175		227	3541	1102		493	3428	1067	195
v/s Ratio Prot					c0.03	0.16			0.01	c0.36		
v/s Ratio Perm	0.01		0.00		c0.29		0.02		0.09		0.05	c0.03
v/c Ratio	0.08		0.01		0.41	0.23	0.03		0.13	0.54	0.07	0.27
Uniform Delay, d1	55.8		55.4		7.8	7.7	6.6		5.7	11.7	7.8	57.0
Progression Factor	1.00		1.00		1.95	0.84	6.20		0.22	0.50	0.65	1.00
Incremental Delay, d2	0.2		0.0		1.2	0.1	0.0		0.1	0.5	0.1	0.7
Delay (s)	56.0		55.4		16.5	6.6	40.9		1.3	6.4	5.2	57.8
Level of Service	E		E		B	A	D		A	A	A	E
Approach Delay (s)	55.7					9.3				6.2		
Approach LOS	E					A				A		
Intersection Summary												
HCM 2000 Control Delay	8.7			HCM 2000 Level of Service			A					
HCM 2000 Volume to Capacity ratio	0.50											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)			20.8					
Intersection Capacity Utilization	73.6%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Existing AM
11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	1	11
Future Volume (vph)	1	11
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	12
RTOR Reduction (vph)	0	11
Lane Group Flow (vph)	1	1
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	15.5	15.5
Effective Green, g (s)	15.5	15.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	195	175
v/s Ratio Prot		
v/s Ratio Perm	0.00	0.00
v/c Ratio	0.01	0.01
Uniform Delay, d1	55.4	55.4
Progression Factor	1.00	1.00
Incremental Delay, d2	0.0	0.0
Delay (s)	55.4	55.4
Level of Service	E	E
Approach Delay (s)	57.3	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Existing AM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Future Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1801			1770	4991			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1801			1770	4991			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	63	233	29	70	20	21	11	585	83	7	218
RTOR Reduction (vph)	0	0	178	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	265	63	55	29	82	0	0	32	668	0	0	225
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									
Actuated Green, G (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Effective Green, g (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Actuated g/C Ratio	0.17	0.24	0.24	0.04	0.10			0.04	0.41			0.10
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	302	440	374	68	187			70	2039			355
v/s Ratio Prot	c0.15	0.03		0.02	c0.05			0.02	0.13			c0.07
v/s Ratio Perm			0.03									
v/c Ratio	0.88	0.14	0.15	0.43	0.44			0.46	0.33			0.63
Uniform Delay, d1	56.6	42.2	42.3	65.8	58.9			65.7	28.3			60.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.91
Incremental Delay, d2	23.7	0.2	0.2	4.3	1.6			4.7	0.4			3.3
Delay (s)	80.3	42.4	42.5	70.0	60.5			70.4	28.7			57.8
Level of Service	F	D	D	E	E			E	C			E
Approach Delay (s)		60.3			62.8				30.6			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			36.1			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			29.8			
Intersection Capacity Utilization			69.2%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Existing AM
11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	↑
Traffic Volume (vph)	1202	55
Future Volume (vph)	1202	55
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5052	
Flt Permitted	1.00	
Satd. Flow (perm)	5052	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1307	60
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1367	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	66.1	
Effective Green, g (s)	66.1	
Actuated g/C Ratio	0.47	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2385	
v/s Ratio Prot	c0.27	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	26.7	
Progression Factor	0.83	
Incremental Delay, d2	0.9	
Delay (s)	23.1	
Level of Service	C	
Approach Delay (s)	28.0	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41_1

Existing AM

11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Future Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	1.00		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5078			1770	5067		1770	1802		1770
Flt Permitted		0.13	1.00			0.44	1.00		0.95	1.00		0.95
Satd. Flow (perm)		242	5078			817	5067		1770	1802		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	34	539	5	1	35	1392	35	37	47	13	49
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	9	0	0
Lane Group Flow (vph)	0	39	544	0	0	36	1425	0	37	51	0	49
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Effective Green, g (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Actuated g/C Ratio		0.54	0.50			0.54	0.50		0.05	0.09		0.07
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		192	2553			479	2543		92	163		118
v/s Ratio Prot		c0.01	0.11			0.00	c0.28		0.02	c0.03		0.03
v/s Ratio Perm		0.10				0.04						
v/c Ratio		0.20	0.21			0.08	0.56		0.40	0.31		0.42
Uniform Delay, d1		12.2	14.5			11.3	18.1		48.2	44.7		47.0
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.5	0.2			0.1	0.9		2.9	1.1		2.4
Delay (s)		12.8	14.7			11.4	19.0		51.0	45.8		49.4
Level of Service		B	B			B	B		D	D		D
Approach Delay (s)			14.6				18.8			47.8		
Approach LOS			B				B			D		
Intersection Summary												
HCM 2000 Control Delay			21.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			105.0				Sum of lost time (s)			31.6		
Intersection Capacity Utilization			61.9%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41_1

Existing AM

11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	42	107
Future Volume (vph)	42	107
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.89	
Flt Protected	1.00	
Satd. Flow (prot)	1663	
Flt Permitted	1.00	
Satd. Flow (perm)	1663	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	46	116
RTOR Reduction (vph)	85	0
Lane Group Flow (vph)	77	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	11.0	
Effective Green, g (s)	11.0	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	174	
v/s Ratio Prot	c0.05	
v/s Ratio Perm		
v/c Ratio	0.44	
Uniform Delay, d1	44.1	
Progression Factor	1.00	
Incremental Delay, d2	1.8	
Delay (s)	45.9	
Level of Service	D	
Approach Delay (s)	46.7	
Approach LOS	D	
Intersection Summary		

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	7.5	26.3	0.17	23.6	C
Palm Drive	II	45	35.8	23.3	59.1	0.37	22.7	C
Espinal Blvd	II	45	24.5	8.4	32.9	0.24	25.8	C
Airport Pulling Road	II	45	22.9	9.7	32.6	0.21	23.2	C
Bayshore Drive	II	45	31.8	21.5	53.3	0.32	21.7	D
Commercial Drive	II	45	49.3	17.4	66.7	0.62	33.3	B
Total	II		183.1	87.8	270.9	1.93	25.6	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	28.1	77.4	0.62	28.7	B
Airport Pulling Road	II	45	31.8	13.3	45.1	0.32	25.7	C
Espinal Blvd	II	45	22.9	9.0	31.9	0.21	23.7	C
Palm Drive	II	45	24.5	4.9	29.4	0.24	28.9	B
Guilford Road	II	45	35.8	4.7	40.5	0.37	33.1	B
Total	II		164.3	60.0	224.3	1.76	28.2	B

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Existing PM
11/02/2017

												
Movement	NBL	NBT	NBR	SBU	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU
Lane Configurations												
Traffic Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Future Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00		0.97	0.91		
Frt	1.00	0.94			1.00	1.00	0.85		1.00	1.00		
Flt Protected	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1758			3221	1618	1583		3433	5085		
Flt Permitted	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1758			3221	1618	1583		3433	5085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	3	2	851	15	297	18	362	1497	0	2
RTOR Reduction (vph)	0	3	0	0	0	0	230	0	0	0	0	0
Lane Group Flow (vph)	2	5	0	0	581	287	67	0	380	1497	0	0
Turn Type	Split	NA		Split	Split	NA	Prot	Prot	Prot	NA		Prot
Protected Phases	4	4		8	8	8	8	1	1	6		5
Permitted Phases												
Actuated Green, G (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Effective Green, g (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Actuated g/C Ratio	0.03	0.03			0.23	0.23	0.23		0.13	0.53		
Clearance Time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	49	48			729	366	358		458	2695		
v/s Ratio Prot	0.00	0.00			c0.18	0.18	0.04		c0.11	0.29		
v/s Ratio Perm												
v/c Ratio	0.04	0.11			0.80	0.78	0.19		0.83	0.56		
Uniform Delay, d1	66.2	66.4			51.1	50.9	43.7		59.1	21.9		
Progression Factor	1.00	1.00			1.00	1.00	1.00		0.89	0.66		
Incremental Delay, d2	0.3	1.0			6.1	10.5	0.3		10.1	0.7		
Delay (s)	66.6	67.3			57.2	61.4	44.0		62.5	15.2		
Level of Service	E	E			E	E	D		E	B		
Approach Delay (s)		67.2				54.9				24.8		
Approach LOS		E				D				C		
Intersection Summary												
HCM 2000 Control Delay			31.9									
HCM 2000 Level of Service										C		
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			140.0							28.8		
Intersection Capacity Utilization			88.1%							E		
ICU Level of Service												
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Existing PM
11/02/2017



Movement	NWL	NWT	NWR
Lane Configurations			
Traffic Volume (vph)	0	1113	622
Future Volume (vph)	0	1113	622
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	7.2	7.2	7.2
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92
Adj. Flow (vph)	0	1210	676
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	2	1210	676
Turn Type	Prot	NA	custom
Protected Phases	5	2	2
Permitted Phases			2 4
Actuated Green, G (s)	1.4	56.9	60.8
Effective Green, g (s)	1.4	56.9	60.8
Actuated g/C Ratio	0.01	0.41	0.43
Clearance Time (s)	7.2	7.2	7.2
Vehicle Extension (s)	3.0	3.0	3.0
Lane Grp Cap (vph)	17	2066	768
v/s Ratio Prot	0.00	0.24	c0.36
v/s Ratio Perm			0.07
v/c Ratio	0.12	0.59	0.88
Uniform Delay, d1	68.7	32.4	36.3
Progression Factor	1.32	0.54	0.64
Incremental Delay, d2	3.1	1.2	11.4
Delay (s)	93.6	18.8	34.8
Level of Service	F	B	C
Approach Delay (s)		24.6	
Approach LOS		C	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Existing PM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Future Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5078			1770	5064			1779	1583	
Flt Permitted		0.07	1.00			0.06	1.00			0.70	1.00	
Satd. Flow (perm)		124	5078			121	5064			1299	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	48	2087	20	7	13	1907	55	17	1	11	134
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	89	2106	0	0	20	1960	0	0	18	2	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Effective Green, g (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Actuated g/C Ratio		0.75	0.69			0.68	0.65			0.14	0.14	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		198	3485			125	3284			180	220	
v/s Ratio Prot		c0.03	c0.41			0.00	0.39					
v/s Ratio Perm		0.31				0.10				0.01	0.00	
v/c Ratio		0.45	0.60			0.16	0.60			0.10	0.01	
Uniform Delay, d1		11.3	11.8			9.3	14.1			52.6	51.9	
Progression Factor		2.76	0.21			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.4	0.7			0.6	0.8			0.2	0.0	
Delay (s)		32.6	3.2			9.9	14.9			52.8	51.9	
Level of Service		C	A			A	B			D	D	
Approach Delay (s)			4.4				14.9			52.5		
Approach LOS			A				B			D		
Intersection Summary												
HCM 2000 Control Delay			11.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			20.7		
Intersection Capacity Utilization			77.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Existing PM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1	9
Future Volume (vph)	1	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1775	1583
Flt Permitted	0.71	1.00
Satd. Flow (perm)	1332	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	10
RTOR Reduction (vph)	0	9
Lane Group Flow (vph)	135	1
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	19.5	19.5
Effective Green, g (s)	19.5	19.5
Actuated g/C Ratio	0.14	0.14
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	185	220
v/s Ratio Prot		
v/s Ratio Perm	c0.10	0.00
v/c Ratio	0.73	0.01
Uniform Delay, d1	57.7	51.9
Progression Factor	1.00	1.00
Incremental Delay, d2	13.4	0.0
Delay (s)	71.2	51.9
Level of Service	E	D
Approach Delay (s)	69.8	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

Existing PM

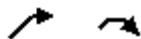
11/02/2017

												
Movement	WBL2	WBL	WBR	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL
Lane Configurations												
Traffic Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Future Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Lane Util. Factor		1.00	1.00		0.97	0.91			1.00	0.91	1.00	1.00
Frt		1.00	0.85		1.00	1.00			1.00	1.00	0.85	0.86
Flt Protected		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (prot)		1770	1583		3433	5085			1770	5085	1583	1611
Flt Permitted		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (perm)		1770	1583		3433	5085			1770	5085	1583	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	0	39	13	91	1938	0	8	1	1139	62	0
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	30	1
Lane Group Flow (vph)	0	63	10	0	104	1938	0	0	9	1139	32	1
Turn Type	Perm	Perm	Perm	Prot	Prot	NA		Prot	Prot	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8	8	8								2	4
Actuated Green, G (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Effective Green, g (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Actuated g/C Ratio		0.26	0.26		0.07	0.58			0.01	0.52	0.52	0.27
Clearance Time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		465	416		235	2938			18	2644	823	428
v/s Ratio Prot					c0.03	c0.38			0.01	0.22		
v/s Ratio Perm		c0.04	0.01								0.02	0.00
v/c Ratio		0.14	0.02		0.44	0.66			0.50	0.43	0.04	0.00
Uniform Delay, d1		39.4	38.3		62.6	20.2			68.9	20.8	16.5	37.8
Progression Factor		1.00	1.00		1.27	0.50			0.72	1.65	8.39	1.00
Incremental Delay, d2		0.1	0.0		1.2	1.0			16.7	0.4	0.1	0.0
Delay (s)		39.6	38.3		80.7	11.2			66.1	34.6	138.3	37.8
Level of Service		D	D		F	B			E	C	F	D
Approach Delay (s)		39.1				14.7				40.2		37.8
Approach LOS		D				B				D		D
Intersection Summary												
HCM 2000 Control Delay			24.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			20.8			
Intersection Capacity Utilization			80.9%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

Existing PM
11/02/2017



Movement	NER	NER2
Lane Configurations		
Traffic Volume (vph)	1	1
Future Volume (vph)	1	1
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	1
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	0	0
Turn Type		
Protected Phases		
Permitted Phases		
Actuated Green, G (s)		
Effective Green, g (s)		
Actuated g/C Ratio		
Clearance Time (s)		
Vehicle Extension (s)		
Lane Grp Cap (vph)		
v/s Ratio Prot		
v/s Ratio Perm		
v/c Ratio		
Uniform Delay, d1		
Progression Factor		
Incremental Delay, d2		
Delay (s)		
Level of Service		
Approach Delay (s)		
Approach LOS		
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Existing PM

11/02/2017

												
Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations												
Traffic Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Future Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.22	1.00	1.00		0.08	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		404	5085	1583		145	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	154	0	77	20	122	1999	29	2	18	1092	17	8
RTOR Reduction (vph)	0	0	68	0	0	0	9	0	0	0	6	0
Lane Group Flow (vph)	154	0	9	0	142	1999	20	0	20	1092	11	8
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Effective Green, g (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Actuated g/C Ratio	0.12		0.12		0.77	0.70	0.70		0.69	0.66	0.66	0.12
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227		193		408	3555	1106		148	3345	1041	216
v/s Ratio Prot					c0.02	c0.39			0.00	0.21		
v/s Ratio Perm	c0.08		0.01		0.24		0.01		0.09		0.01	0.00
v/c Ratio	0.68		0.05		0.35	0.56	0.02		0.14	0.33	0.01	0.04
Uniform Delay, d1	58.8		54.3		4.8	10.4	6.4		8.0	10.4	8.3	54.2
Progression Factor	1.00		1.00		0.38	0.66	1.00		1.10	0.67	1.00	1.00
Incremental Delay, d2	7.8		0.1		0.4	0.5	0.0		0.4	0.2	0.0	0.1
Delay (s)	66.6		54.4		2.2	7.4	6.4		9.1	7.2	8.3	54.3
Level of Service	E		D		A	A	A		A	A	A	D
Approach Delay (s)	62.5					7.1				7.3		
Approach LOS	E					A				A		
Intersection Summary												
HCM 2000 Control Delay	11.4			HCM 2000 Level of Service			B					
HCM 2000 Volume to Capacity ratio	0.58											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)			20.8					
Intersection Capacity Utilization	78.4%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Existing PM
11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	17	24
Future Volume (vph)	17	24
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	18	26
RTOR Reduction (vph)	0	23
Lane Group Flow (vph)	18	3
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	17.1	17.1
Effective Green, g (s)	17.1	17.1
Actuated g/C Ratio	0.12	0.12
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	216	193
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.08	0.02
Uniform Delay, d1	54.5	54.1
Progression Factor	1.00	1.00
Incremental Delay, d2	0.2	0.0
Delay (s)	54.7	54.1
Level of Service	D	D
Approach Delay (s)	54.3	
Approach LOS	D	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Existing PM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Future Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1798			1770	4999			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1798			1770	4999			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	77	301	70	113	34	12	21	1258	161	17	295
RTOR Reduction (vph)	0	0	126	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	150	77	175	70	139	0	0	33	1419	0	0	312
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									
Actuated Green, G (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Effective Green, g (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Actuated g/C Ratio	0.11	0.17	0.17	0.05	0.12			0.04	0.44			0.12
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	193	316	269	96	206			65	2213			411
v/s Ratio Prot	c0.08	0.04		0.04	0.08			0.02	c0.28			c0.09
v/s Ratio Perm			c0.11									
v/c Ratio	0.78	0.24	0.65	0.73	0.67			0.51	0.64			0.76
Uniform Delay, d1	60.7	50.3	54.2	65.2	59.4			66.1	30.3			59.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.52
Incremental Delay, d2	17.6	0.4	5.3	24.0	8.4			6.1	1.4			6.8
Delay (s)	78.3	50.7	59.5	89.1	67.9			72.3	31.8			37.9
Level of Service	E	D	E	F	E			E	C			D
Approach Delay (s)		63.6			74.7				32.7			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			39.8			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			29.8			
Intersection Capacity Utilization			81.7%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Existing PM
11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	↑
Traffic Volume (vph)	792	59
Future Volume (vph)	792	59
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5033	
Flt Permitted	1.00	
Satd. Flow (perm)	5033	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	861	64
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	925	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	73.6	
Effective Green, g (s)	73.6	
Actuated g/C Ratio	0.53	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2645	
v/s Ratio Prot	0.18	
v/s Ratio Perm		
v/c Ratio	0.35	
Uniform Delay, d1	19.3	
Progression Factor	1.53	
Incremental Delay, d2	0.3	
Delay (s)	29.7	
Level of Service	C	
Approach Delay (s)	31.8	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41-1

Existing PM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Future Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	0.99		1.00	0.92		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5071			1770	5059		1770	1716		1770
Flt Permitted		0.25	1.00			0.15	1.00		0.95	1.00		0.95
Satd. Flow (perm)		457	5071			275	5059		1770	1716		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	75	1410	27	15	18	970	34	28	27	30	95
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	25	0	0
Lane Group Flow (vph)	0	78	1436	0	0	33	1002	0	28	32	0	95
Turn Type	Prot	pm+pt	NA		Prot	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases		6				2						
Actuated Green, G (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Effective Green, g (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Actuated g/C Ratio		0.68	0.63			0.65	0.61		0.04	0.06		0.08
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		371	3188			227	3108		78	96		149
v/s Ratio Prot		c0.01	c0.28			0.00	0.20		0.02	c0.02		0.05
v/s Ratio Perm		0.13				0.09						
v/c Ratio		0.21	0.45			0.15	0.32		0.36	0.33		0.64
Uniform Delay, d1		9.2	15.4			10.9	14.8		74.2	72.6		70.9
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.3	0.5			0.3	0.3		2.8	2.0		8.6
Delay (s)		9.5	15.8			11.2	15.1		77.1	74.6		79.5
Level of Service		A	B			B	B		E	E		E
Approach Delay (s)			15.5				15.0			75.4		
Approach LOS			B				B			E		
Intersection Summary												
HCM 2000 Control Delay			22.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			160.0				Sum of lost time (s)			31.6		
Intersection Capacity Utilization			68.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41-1

Existing PM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	59	77
Future Volume (vph)	59	77
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.91	
Flt Protected	1.00	
Satd. Flow (prot)	1704	
Flt Permitted	1.00	
Satd. Flow (perm)	1704	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	64	84
RTOR Reduction (vph)	29	0
Lane Group Flow (vph)	119	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	15.4	
Effective Green, g (s)	15.4	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	164	
v/s Ratio Prot	c0.07	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	70.3	
Progression Factor	1.00	
Incremental Delay, d2	14.8	
Delay (s)	85.0	
Level of Service	F	
Approach Delay (s)	82.9	
Approach LOS	F	
Intersection Summary		

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	16.0	34.8	0.17	17.8	D
Palm Drive	II	45	35.8	35.1	70.9	0.37	18.9	D
Espinal Blvd	II	45	24.5	7.8	32.3	0.24	26.3	C
Airport Pulling Road	II	45	22.9	18.0	40.9	0.21	18.5	D
Bayshore Drive	II	45	31.8	30.3	62.1	0.32	18.6	D
Commercial Drive	II	45	49.3	14.6	63.9	0.62	34.8	B
Total	II		183.1	121.8	304.9	1.93	22.8	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	33.1	82.4	0.62	27.0	C
Airport Pulling Road	II	45	31.8	12.7	44.5	0.32	26.0	C
Espinal Blvd	II	45	22.9	7.5	30.4	0.21	24.9	C
Palm Drive	II	45	24.5	9.6	34.1	0.24	24.9	C
Guilford Road	II	45	35.8	3.2	39.0	0.37	34.4	B
Total	II		164.3	66.1	230.4	1.76	27.5	C

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Build AM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWL	NWT
Lane Configurations												
Traffic Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279
Future Volume (vph)	1	0	0	451	2	181	1	313	558	0	0	1279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2
Lane Util. Factor	1.00			0.91	0.91	1.00		0.97	0.91			0.91
Frt	1.00			1.00	1.00	0.85		1.00	1.00			1.00
Flt Protected	0.95			0.95	0.95	1.00		0.95	1.00			1.00
Satd. Flow (prot)	1770			3221	1615	1583		3433	5085			5085
Flt Permitted	0.95			0.95	0.95	1.00		0.95	1.00			1.00
Satd. Flow (perm)	1770			3221	1615	1583		3433	5085			5085
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	0	0	490	2	197	1	340	607	0	0	1390
RTOR Reduction (vph)	0	0	0	0	0	167	0	0	0	0	0	0
Lane Group Flow (vph)	1	0	0	328	164	30	0	341	607	0	0	1390
Turn Type	Split			Split	NA	Prot	Prot	Prot	NA		Prot	NA
Protected Phases	4	4		8	8	8	1	1	6		5	2
Permitted Phases												
Actuated Green, G (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5
Effective Green, g (s)	1.4			21.3	21.3	21.3		19.0	95.7			69.5
Actuated g/C Ratio	0.01			0.15	0.15	0.15		0.14	0.68			0.50
Clearance Time (s)	7.2			7.2	7.2	7.2		7.2	7.2			7.2
Vehicle Extension (s)	3.0			3.0	3.0	3.0		3.0	3.0			3.0
Lane Grp Cap (vph)	17			490	245	240		465	3475			2524
v/s Ratio Prot	0.00			c0.10	0.10	0.02		c0.10	0.12			0.27
v/s Ratio Perm												
v/c Ratio	0.06			0.67	0.67	0.12		0.73	0.17			0.55
Uniform Delay, d1	68.6			56.0	56.0	51.3		58.1	8.0			24.4
Progression Factor	1.00			1.00	1.00	1.00		0.76	1.85			0.49
Incremental Delay, d2	1.5			3.5	6.8	0.2		5.7	0.1			0.8
Delay (s)	70.1			59.5	62.8	51.5		50.1	14.9			12.7
Level of Service	E			E	E	D		D	B			B
Approach Delay (s)		70.1			58.0				27.5			12.9
Approach LOS		E			E				C			B
Intersection Summary												
HCM 2000 Control Delay			25.4									
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			140.0									
Intersection Capacity Utilization			74.7%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Build AM
11/02/2017



Movement	NWR
Lane Configurations	
Traffic Volume (vph)	541
Future Volume (vph)	541
Ideal Flow (vphpl)	1900
Total Lost time (s)	7.2
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1583
Flt Permitted	1.00
Satd. Flow (perm)	1583
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	588
RTOR Reduction (vph)	0
Lane Group Flow (vph)	588
Turn Type	custom
Protected Phases	2
Permitted Phases	2 4
Actuated Green, G (s)	70.9
Effective Green, g (s)	70.9
Actuated g/C Ratio	0.51
Clearance Time (s)	7.2
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	883
v/s Ratio Prot	c0.33
v/s Ratio Perm	0.04
v/c Ratio	0.67
Uniform Delay, d1	25.7
Progression Factor	0.46
Incremental Delay, d2	1.7
Delay (s)	13.5
Level of Service	B
Approach Delay (s)	
Approach LOS	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Build AM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Future Volume (vph)	9	14	859	2	8	9	2301	31	26	0	8	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5084			1770	5075			1770	1583	
Flt Permitted		0.04	1.00			0.29	1.00			0.75	1.00	
Satd. Flow (perm)		74	5084			546	5075			1392	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	15	934	2	9	10	2501	34	28	0	9	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	25	936	0	0	19	2535	0	0	28	0	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Effective Green, g (s)		114.1	109.9			112.7	109.2			5.9	5.9	
Actuated g/C Ratio		0.81	0.79			0.81	0.78			0.04	0.04	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		111	3990			470	3958			58	66	
v/s Ratio Prot		c0.01	0.18			0.00	c0.50					
v/s Ratio Perm		0.18				0.03				c0.02	0.00	
v/c Ratio		0.23	0.23			0.04	0.64			0.48	0.01	
Uniform Delay, d1		5.9	4.0			2.7	6.8			65.6	64.2	
Progression Factor		6.19	0.45			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.0	0.1			0.0	0.8			6.2	0.0	
Delay (s)		37.3	1.9			2.7	7.6			71.8	64.3	
Level of Service		D	A			A	A			E	E	
Approach Delay (s)			2.9				7.5			69.9		
Approach LOS			A				A			E		
Intersection Summary												
HCM 2000 Control Delay			7.4				HCM 2000 Level of Service			A		
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			20.7		
Intersection Capacity Utilization			74.3%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Build AM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	0	9
Future Volume (vph)	0	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.74	1.00
Satd. Flow (perm)	1377	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	0	10
RTOR Reduction (vph)	0	10
Lane Group Flow (vph)	16	0
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	5.9	5.9
Effective Green, g (s)	5.9	5.9
Actuated g/C Ratio	0.04	0.04
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	58	66
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.28	0.01
Uniform Delay, d1	65.0	64.2
Progression Factor	1.00	1.00
Incremental Delay, d2	2.6	0.0
Delay (s)	67.6	64.3
Level of Service	E	E
Approach Delay (s)	66.3	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

Build AM
11/02/2017

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Future Volume (vph)	57	843	0	2	1867	26	0	3	0	0	29	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)	3433	5085		1770	5085	1583		1863			1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)	3433	5085		1770	5085	1583		1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	916	0	2	2029	28	0	3	0	0	32	39
RTOR Reduction (vph)	0	0	0	0	0	7	0	0	0	0	0	37
Lane Group Flow (vph)	62	916	0	2	2029	21	0	3	0	0	32	2
Turn Type	Prot	NA		Prot	NA	Perm		NA			NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases						2	4			8		8
Actuated Green, G (s)	6.8	111.0		1.4	105.6	105.6		7.2			6.8	6.8
Effective Green, g (s)	6.8	111.0		1.4	105.6	105.6		7.2			6.8	6.8
Actuated g/C Ratio	0.05	0.79		0.01	0.75	0.75		0.05			0.05	0.05
Clearance Time (s)	6.8	6.8		6.8	6.8	6.8		6.8			7.2	7.2
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	166	4031		17	3835	1194		95			90	76
v/s Ratio Prot	c0.02	c0.18		0.00	c0.40			0.00			c0.02	
v/s Ratio Perm						0.01						0.00
v/c Ratio	0.37	0.23		0.12	0.53	0.02		0.03			0.36	0.02
Uniform Delay, d1	64.5	3.7		68.7	7.0	4.3		63.1			64.5	63.4
Progression Factor	0.88	1.08		1.22	1.92	1.00		1.00			1.00	1.00
Incremental Delay, d2	1.4	0.1		2.5	0.4	0.0		0.1			2.4	0.1
Delay (s)	58.2	4.1		86.2	14.0	4.3		63.2			66.9	63.6
Level of Service	E	A		F	B	A		E			E	E
Approach Delay (s)		7.5			13.9			63.2			65.1	
Approach LOS		A			B			E			E	

Intersection Summary

HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	20.8
Intersection Capacity Utilization	65.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Build AM

11/02/2017

												
Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations						  					  	
Traffic Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Future Volume (vph)	15	0	15	25	62	754	44	1	57	1698	96	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.08	1.00	1.00		0.33	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		158	5085	1583		616	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	0	16	27	67	820	48	1	62	1846	104	52
RTOR Reduction (vph)	0	0	14	0	0	0	15	0	0	0	28	0
Lane Group Flow (vph)	16	0	2	0	94	820	33	0	63	1846	76	52
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Effective Green, g (s)	15.5		15.5		106.8	97.5	97.5		100.6	94.4	94.4	15.5
Actuated g/C Ratio	0.11		0.11		0.76	0.70	0.70		0.72	0.67	0.67	0.11
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206		175		227	3541	1102		493	3428	1067	195
v/s Ratio Prot					c0.03	0.16			0.01	c0.36		
v/s Ratio Perm	0.01		0.00		c0.29		0.02		0.09		0.05	c0.03
v/c Ratio	0.08		0.01		0.41	0.23	0.03		0.13	0.54	0.07	0.27
Uniform Delay, d1	55.8		55.4		7.8	7.7	6.6		5.7	11.7	7.8	57.0
Progression Factor	1.00		1.00		1.95	0.84	6.20		0.44	0.80	1.06	1.00
Incremental Delay, d2	0.2		0.0		1.2	0.1	0.0		0.1	0.5	0.1	0.7
Delay (s)	56.0		55.4		16.5	6.6	40.9		2.7	9.9	8.4	57.8
Level of Service	E		E		B	A	D		A	A	A	E
Approach Delay (s)	55.7					9.3				9.6		
Approach LOS	E					A				A		
Intersection Summary												
HCM 2000 Control Delay	11.0				HCM 2000 Level of Service				B			
HCM 2000 Volume to Capacity ratio	0.50											
Actuated Cycle Length (s)	140.0				Sum of lost time (s)				20.8			
Intersection Capacity Utilization	73.6%				ICU Level of Service				D			
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Build AM
11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	1	11
Future Volume (vph)	1	11
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	12
RTOR Reduction (vph)	0	11
Lane Group Flow (vph)	1	1
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	15.5	15.5
Effective Green, g (s)	15.5	15.5
Actuated g/C Ratio	0.11	0.11
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	195	175
v/s Ratio Prot		
v/s Ratio Perm	0.00	0.00
v/c Ratio	0.01	0.01
Uniform Delay, d1	55.4	55.4
Progression Factor	1.00	1.00
Incremental Delay, d2	0.0	0.0
Delay (s)	55.4	55.4
Level of Service	E	E
Approach Delay (s)	57.3	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Build AM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Future Volume (vph)	244	58	214	27	64	18	19	10	538	76	6	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1801			1770	4991			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1801			1770	4991			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	63	233	29	70	20	21	11	585	83	7	218
RTOR Reduction (vph)	0	0	178	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	265	63	55	29	82	0	0	32	668	0	0	225
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									
Actuated Green, G (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Effective Green, g (s)	23.9	33.1	33.1	5.4	14.6			5.6	57.2			14.5
Actuated g/C Ratio	0.17	0.24	0.24	0.04	0.10			0.04	0.41			0.10
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	302	440	374	68	187			70	2039			355
v/s Ratio Prot	c0.15	0.03		0.02	c0.05			0.02	0.13			c0.07
v/s Ratio Perm			0.03									
v/c Ratio	0.88	0.14	0.15	0.43	0.44			0.46	0.33			0.63
Uniform Delay, d1	56.6	42.2	42.3	65.8	58.9			65.7	28.3			60.2
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.80
Incremental Delay, d2	23.7	0.2	0.2	4.3	1.6			4.7	0.4			3.3
Delay (s)	80.3	42.4	42.5	70.0	60.5			70.4	28.7			51.3
Level of Service	F	D	D	E	E			E	C			D
Approach Delay (s)		60.3			62.8				30.6			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			36.3			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			29.8			
Intersection Capacity Utilization			69.2%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Build AM
11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	↑
Traffic Volume (vph)	1202	55
Future Volume (vph)	1202	55
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5052	
Flt Permitted	1.00	
Satd. Flow (perm)	5052	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1307	60
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	1367	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	66.1	
Effective Green, g (s)	66.1	
Actuated g/C Ratio	0.47	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2385	
v/s Ratio Prot	c0.27	
v/s Ratio Perm		
v/c Ratio	0.57	
Uniform Delay, d1	26.7	
Progression Factor	0.89	
Incremental Delay, d2	0.9	
Delay (s)	24.6	
Level of Service	C	
Approach Delay (s)	28.4	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41_1

Build AM

11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Future Volume (vph)	5	31	496	5	1	32	1281	32	34	43	12	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	1.00		1.00	0.97		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5078			1770	5067		1770	1802		1770
Flt Permitted		0.13	1.00			0.44	1.00		0.95	1.00		0.95
Satd. Flow (perm)		242	5078			817	5067		1770	1802		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	34	539	5	1	35	1392	35	37	47	13	49
RTOR Reduction (vph)	0	0	0	0	0	0	2	0	0	9	0	0
Lane Group Flow (vph)	0	39	544	0	0	36	1425	0	37	51	0	49
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases	6	6			2	2						
Actuated Green, G (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Effective Green, g (s)		57.0	52.8			56.8	52.7		5.5	9.5		7.0
Actuated g/C Ratio		0.54	0.50			0.54	0.50		0.05	0.09		0.07
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		192	2553			479	2543		92	163		118
v/s Ratio Prot		c0.01	0.11			0.00	c0.28		0.02	c0.03		0.03
v/s Ratio Perm		0.10				0.04						
v/c Ratio		0.20	0.21			0.08	0.56		0.40	0.31		0.42
Uniform Delay, d1		12.2	14.5			11.3	18.1		48.2	44.7		47.0
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.5	0.2			0.1	0.9		2.9	1.1		2.4
Delay (s)		12.8	14.7			11.4	19.0		51.0	45.8		49.4
Level of Service		B	B			B	B		D	D		D
Approach Delay (s)			14.6				18.8			47.8		
Approach LOS			B				B			D		
Intersection Summary												
HCM 2000 Control Delay			21.5				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			105.0				Sum of lost time (s)			31.6		
Intersection Capacity Utilization			61.9%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41_1

Build AM

11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	42	107
Future Volume (vph)	42	107
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.89	
Flt Protected	1.00	
Satd. Flow (prot)	1663	
Flt Permitted	1.00	
Satd. Flow (perm)	1663	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	46	116
RTOR Reduction (vph)	85	0
Lane Group Flow (vph)	77	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	11.0	
Effective Green, g (s)	11.0	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	174	
v/s Ratio Prot	c0.05	
v/s Ratio Perm		
v/c Ratio	0.44	
Uniform Delay, d1	44.1	
Progression Factor	1.00	
Incremental Delay, d2	1.8	
Delay (s)	45.9	
Level of Service	D	
Approach Delay (s)	46.7	
Approach LOS	D	

Intersection Summary

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	7.5	26.3	0.17	23.6	C
Palm Drive	II	45	35.8	14.6	50.4	0.37	26.6	C
Espinal Blvd	II	45	24.5	12.9	37.4	0.24	22.7	C
Airport Pulling Road	II	45	22.9	11.8	34.7	0.21	21.8	D
Bayshore Drive	II	45	31.8	22.8	54.6	0.32	21.2	D
Commercial Drive	II	45	49.3	17.4	66.7	0.62	33.3	B
Total	II		183.1	87.0	270.1	1.93	25.7	C

Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	28.1	77.4	0.62	28.7	B
Airport Pulling Road	II	45	31.8	13.3	45.1	0.32	25.7	C
Espinal Blvd	II	45	22.9	9.0	31.9	0.21	23.7	C
Palm Drive	II	45	24.5	3.2	27.7	0.24	30.6	B
Guilford Road	II	45	35.8	1.9	37.7	0.37	35.6	A
Total	II		164.3	55.5	219.8	1.76	28.8	B

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Build PM
11/02/2017

												
Movement	NBL	NBT	NBR	SBU	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU
Lane Configurations												
Traffic Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Future Volume (vph)	2	5	3	2	783	14	273	17	333	1377	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00		0.97	0.91		
Frt	1.00	0.94			1.00	1.00	0.85		1.00	1.00		
Flt Protected	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1770	1758			3221	1618	1583		3433	5085		
Flt Permitted	0.95	1.00			0.95	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1770	1758			3221	1618	1583		3433	5085		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	5	3	2	851	15	297	18	362	1497	0	2
RTOR Reduction (vph)	0	3	0	0	0	0	230	0	0	0	0	0
Lane Group Flow (vph)	2	5	0	0	581	287	67	0	380	1497	0	0
Turn Type	Split	NA		Split	Split	NA	Prot	Prot	Prot	NA		Prot
Protected Phases	4	4		8	8	8	8	1	1	6		5
Permitted Phases												
Actuated Green, G (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Effective Green, g (s)	3.9	3.9			31.7	31.7	31.7		18.7	74.2		
Actuated g/C Ratio	0.03	0.03			0.23	0.23	0.23		0.13	0.53		
Clearance Time (s)	7.2	7.2			7.2	7.2	7.2		7.2	7.2		
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	49	48			729	366	358		458	2695		
v/s Ratio Prot	0.00	0.00			c0.18	0.18	0.04		c0.11	0.29		
v/s Ratio Perm												
v/c Ratio	0.04	0.11			0.80	0.78	0.19		0.83	0.56		
Uniform Delay, d1	66.2	66.4			51.1	50.9	43.7		59.1	21.9		
Progression Factor	1.00	1.00			1.00	1.00	1.00		0.89	0.66		
Incremental Delay, d2	0.3	1.0			6.1	10.5	0.3		10.1	0.7		
Delay (s)	66.6	67.3			57.2	61.4	44.0		62.5	15.2		
Level of Service	E	E			E	E	D		E	B		
Approach Delay (s)		67.2				54.9				24.8		
Approach LOS		E				D				C		
Intersection Summary												
HCM 2000 Control Delay			31.9									
HCM 2000 Level of Service										C		
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			140.0							28.8		
Intersection Capacity Utilization			88.1%							E		
ICU Level of Service												
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

5: Airport Pulling Road & US 41

Build PM
11/02/2017



Movement	NWL	NWT	NWR
Lane Configurations			
Traffic Volume (vph)	0	1113	622
Future Volume (vph)	0	1113	622
Ideal Flow (vphpl)	1900	1900	1900
Total Lost time (s)	7.2	7.2	7.2
Lane Util. Factor	1.00	0.91	1.00
Frt	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583
Flt Permitted	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583
Peak-hour factor, PHF	0.92	0.92	0.92
Adj. Flow (vph)	0	1210	676
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	2	1210	676
Turn Type	Prot	NA	custom
Protected Phases	5	2	2
Permitted Phases			2 4
Actuated Green, G (s)	1.4	56.9	60.8
Effective Green, g (s)	1.4	56.9	60.8
Actuated g/C Ratio	0.01	0.41	0.43
Clearance Time (s)	7.2	7.2	7.2
Vehicle Extension (s)	3.0	3.0	3.0
Lane Grp Cap (vph)	17	2066	768
v/s Ratio Prot	0.00	0.24	c0.36
v/s Ratio Perm			0.07
v/c Ratio	0.12	0.59	0.88
Uniform Delay, d1	68.7	32.4	36.3
Progression Factor	1.32	0.54	0.64
Incremental Delay, d2	3.1	1.2	11.4
Delay (s)	93.6	18.8	34.8
Level of Service	F	B	C
Approach Delay (s)		24.6	
Approach LOS		C	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Build PM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Future Volume (vph)	38	44	1920	18	6	12	1754	51	16	1	10	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Lane Util. Factor		1.00	0.91			1.00	0.91			1.00	1.00	
Frt		1.00	1.00			1.00	1.00			1.00	0.85	
Flt Protected		0.95	1.00			0.95	1.00			0.95	1.00	
Satd. Flow (prot)		1770	5078			1770	5064			1779	1583	
Flt Permitted		0.07	1.00			0.06	1.00			0.70	1.00	
Satd. Flow (perm)		124	5078			121	5064			1299	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	48	2087	20	7	13	1907	55	17	1	11	134
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	0	9	0
Lane Group Flow (vph)	0	89	2106	0	0	20	1960	0	0	18	2	0
Turn Type	pm+pt	pm+pt	NA		pm+pt	pm+pt	NA		Perm	NA	Perm	Perm
Protected Phases	1	1	6		5	5	2			4		
Permitted Phases	6	6			2	2			4		4	8
Actuated Green, G (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Effective Green, g (s)		105.1	96.1			94.5	90.8			19.5	19.5	
Actuated g/C Ratio		0.75	0.69			0.68	0.65			0.14	0.14	
Clearance Time (s)		6.8	6.8			6.8	6.8			7.1	7.1	
Vehicle Extension (s)		3.0	3.0			3.0	3.0			3.0	3.0	
Lane Grp Cap (vph)		198	3485			125	3284			180	220	
v/s Ratio Prot		c0.03	c0.41			0.00	0.39					
v/s Ratio Perm		0.31				0.10				0.01	0.00	
v/c Ratio		0.45	0.60			0.16	0.60			0.10	0.01	
Uniform Delay, d1		11.3	11.8			9.3	14.1			52.6	51.9	
Progression Factor		2.76	0.21			1.00	1.00			1.00	1.00	
Incremental Delay, d2		1.4	0.7			0.6	0.8			0.2	0.0	
Delay (s)		32.6	3.2			9.9	14.9			52.8	51.9	
Level of Service		C	A			A	B			D	D	
Approach Delay (s)			4.4				14.9			52.5		
Approach LOS			A				B			D		
Intersection Summary												
HCM 2000 Control Delay			11.6				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			140.0				Sum of lost time (s)			20.7		
Intersection Capacity Utilization			77.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

9: Guilford Road & US 41

Build PM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	1	9
Future Volume (vph)	1	9
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.1	7.1
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1775	1583
Flt Permitted	0.71	1.00
Satd. Flow (perm)	1332	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	10
RTOR Reduction (vph)	0	9
Lane Group Flow (vph)	135	1
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8
Actuated Green, G (s)	19.5	19.5
Effective Green, g (s)	19.5	19.5
Actuated g/C Ratio	0.14	0.14
Clearance Time (s)	7.1	7.1
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	185	220
v/s Ratio Prot		
v/s Ratio Perm	c0.10	0.00
v/c Ratio	0.73	0.01
Uniform Delay, d1	57.7	51.9
Progression Factor	1.00	1.00
Incremental Delay, d2	13.4	0.0
Delay (s)	71.2	51.9
Level of Service	E	D
Approach Delay (s)	69.8	
Approach LOS	E	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

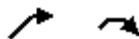
Build PM
11/02/2017

												
Movement	WBL2	WBL	WBR	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL
Lane Configurations												
Traffic Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Future Volume (vph)	58	0	36	12	84	1783	0	7	1	1048	57	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Lane Util. Factor		1.00	1.00		0.97	0.91			1.00	0.91	1.00	1.00
Frt		1.00	0.85		1.00	1.00			1.00	1.00	0.85	0.86
Flt Protected		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (prot)		1770	1583		3433	5085			1770	5085	1583	1611
Flt Permitted		0.95	1.00		0.95	1.00			0.95	1.00	1.00	1.00
Satd. Flow (perm)		1770	1583		3433	5085			1770	5085	1583	1611
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	0	39	13	91	1938	0	8	1	1139	62	0
RTOR Reduction (vph)	0	0	29	0	0	0	0	0	0	0	30	1
Lane Group Flow (vph)	0	63	10	0	104	1938	0	0	9	1139	32	1
Turn Type	Perm	Perm	Perm	Prot	Prot	NA		Prot	Prot	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8	8	8								2	4
Actuated Green, G (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Effective Green, g (s)		36.8	36.8		9.6	80.9			1.5	72.8	72.8	37.2
Actuated g/C Ratio		0.26	0.26		0.07	0.58			0.01	0.52	0.52	0.27
Clearance Time (s)		7.2	7.2		6.8	6.8			6.8	6.8	6.8	6.8
Vehicle Extension (s)		3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		465	416		235	2938			18	2644	823	428
v/s Ratio Prot					c0.03	c0.38			0.01	0.22		
v/s Ratio Perm		c0.04	0.01								0.02	0.00
v/c Ratio		0.14	0.02		0.44	0.66			0.50	0.43	0.04	0.00
Uniform Delay, d1		39.4	38.3		62.6	20.2			68.9	20.8	16.5	37.8
Progression Factor		1.00	1.00		1.27	0.50			0.72	1.65	8.39	1.00
Incremental Delay, d2		0.1	0.0		1.2	1.0			16.7	0.4	0.1	0.0
Delay (s)		39.6	38.3		80.7	11.2			66.1	34.6	138.3	37.8
Level of Service		D	D		F	B			E	C	F	D
Approach Delay (s)		39.1				14.7				40.2		37.8
Approach LOS		D				B				D		D
Intersection Summary												
HCM 2000 Control Delay			24.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				20.8		
Intersection Capacity Utilization			80.9%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

12: Palm Drive & US 41

Build PM
11/02/2017



Movement	NER	NER2
Lane Configurations		
Traffic Volume (vph)	1	1
Future Volume (vph)	1	1
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	1	1
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	0	0
Turn Type		
Protected Phases		
Permitted Phases		
Actuated Green, G (s)		
Effective Green, g (s)		
Actuated g/C Ratio		
Clearance Time (s)		
Vehicle Extension (s)		
Lane Grp Cap (vph)		
v/s Ratio Prot		
v/s Ratio Perm		
v/c Ratio		
Uniform Delay, d1		
Progression Factor		
Incremental Delay, d2		
Delay (s)		
Level of Service		
Approach Delay (s)		
Approach LOS		
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Build PM
11/02/2017

												
Movement	SBL	SBR	SBR2	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL2
Lane Configurations						  					  	
Traffic Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Future Volume (vph)	142	0	71	18	112	1839	27	2	17	1005	16	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Lane Util. Factor	1.00		1.00		1.00	0.91	1.00		1.00	0.91	1.00	1.00
Frt	1.00		0.85		1.00	1.00	0.85		1.00	1.00	0.85	1.00
Flt Protected	0.95		1.00		0.95	1.00	1.00		0.95	1.00	1.00	0.95
Satd. Flow (prot)	1770		1583		1770	5085	1583		1770	5085	1583	1770
Flt Permitted	1.00		1.00		0.22	1.00	1.00		0.08	1.00	1.00	0.95
Satd. Flow (perm)	1863		1583		404	5085	1583		145	5085	1583	1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	154	0	77	20	122	1999	29	2	18	1092	17	8
RTOR Reduction (vph)	0	0	68	0	0	0	9	0	0	0	6	0
Lane Group Flow (vph)	154	0	9	0	142	1999	20	0	20	1092	11	8
Turn Type	Perm		Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA	Perm	Perm
Protected Phases				1	1	6		5	5	2		
Permitted Phases	8		8	6	6		6	2	2		2	4
Actuated Green, G (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Effective Green, g (s)	17.1		17.1		107.9	97.9	97.9		96.3	92.1	92.1	17.1
Actuated g/C Ratio	0.12		0.12		0.77	0.70	0.70		0.69	0.66	0.66	0.12
Clearance Time (s)	7.2		7.2		6.8	6.8	6.8		6.8	6.8	6.8	7.2
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	227		193		408	3555	1106		148	3345	1041	216
v/s Ratio Prot					c0.02	c0.39			0.00	0.21		
v/s Ratio Perm	c0.08		0.01		0.24		0.01		0.09		0.01	0.00
v/c Ratio	0.68		0.05		0.35	0.56	0.02		0.14	0.33	0.01	0.04
Uniform Delay, d1	58.8		54.3		4.8	10.4	6.4		8.0	10.4	8.3	54.2
Progression Factor	1.00		1.00		0.38	0.66	1.00		1.10	0.67	1.00	1.00
Incremental Delay, d2	7.8		0.1		0.4	0.5	0.0		0.4	0.2	0.0	0.1
Delay (s)	66.6		54.4		2.2	7.4	6.4		9.1	7.2	8.3	54.3
Level of Service	E		D		A	A	A		A	A	A	D
Approach Delay (s)	62.5					7.1				7.3		
Approach LOS	E					A				A		
Intersection Summary												
HCM 2000 Control Delay	11.4			HCM 2000 Level of Service			B					
HCM 2000 Volume to Capacity ratio	0.58											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)			20.8					
Intersection Capacity Utilization	78.4%			ICU Level of Service			D					
Analysis Period (min)	15											
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

15: Espinal Blvd & US 41

Build PM
11/02/2017



Movement	NEL	NER
Lane Configurations		
Traffic Volume (vph)	17	24
Future Volume (vph)	17	24
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.2	7.2
Lane Util. Factor	1.00	1.00
Frt	1.00	0.85
Flt Protected	0.95	1.00
Satd. Flow (prot)	1770	1583
Flt Permitted	0.95	1.00
Satd. Flow (perm)	1770	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	18	26
RTOR Reduction (vph)	0	23
Lane Group Flow (vph)	18	3
Turn Type	Perm	Perm
Protected Phases		
Permitted Phases	4	4
Actuated Green, G (s)	17.1	17.1
Effective Green, g (s)	17.1	17.1
Actuated g/C Ratio	0.12	0.12
Clearance Time (s)	7.2	7.2
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	216	193
v/s Ratio Prot		
v/s Ratio Perm	0.01	0.00
v/c Ratio	0.08	0.02
Uniform Delay, d1	54.5	54.1
Progression Factor	1.00	1.00
Incremental Delay, d2	0.2	0.0
Delay (s)	54.7	54.1
Level of Service	D	D
Approach Delay (s)	54.3	
Approach LOS	D	

Intersection Summary

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Build PM
11/02/2017

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEU	SEL	SET	SER	NWU	NWL
Lane Configurations												
Traffic Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Future Volume (vph)	138	71	277	64	104	31	11	19	1157	148	16	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	0.91			0.97
Frt	1.00	1.00	0.85	1.00	0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (prot)	1770	1863	1583	1770	1798			1770	4999			3433
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00			0.95
Satd. Flow (perm)	1770	1863	1583	1770	1798			1770	4999			3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	77	301	70	113	34	12	21	1258	161	17	295
RTOR Reduction (vph)	0	0	126	0	8	0	0	0	0	0	0	0
Lane Group Flow (vph)	150	77	175	70	139	0	0	33	1419	0	0	312
Turn Type	Prot	NA	Perm	Prot	NA			Prot	Prot	NA		Prot
Protected Phases	7	4		3	8			1	1	6		5
Permitted Phases			4									
Actuated Green, G (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Effective Green, g (s)	15.3	23.8	23.8	7.6	16.1			5.2	62.0			16.8
Actuated g/C Ratio	0.11	0.17	0.17	0.05	0.12			0.04	0.44			0.12
Clearance Time (s)	7.3	7.3	7.3	7.3	7.3			7.6	7.6			7.6
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	193	316	269	96	206			65	2213			411
v/s Ratio Prot	c0.08	0.04		0.04	0.08			0.02	c0.28			c0.09
v/s Ratio Perm			c0.11									
v/c Ratio	0.78	0.24	0.65	0.73	0.67			0.51	0.64			0.76
Uniform Delay, d1	60.7	50.3	54.2	65.2	59.4			66.1	30.3			59.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00			0.52
Incremental Delay, d2	17.6	0.4	5.3	24.0	8.4			6.1	1.4			6.8
Delay (s)	78.3	50.7	59.5	89.1	67.9			72.3	31.8			37.9
Level of Service	E	D	E	F	E			E	C			D
Approach Delay (s)		63.6			74.7				32.7			
Approach LOS		E			E				C			
Intersection Summary												
HCM 2000 Control Delay			39.8			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			29.8			
Intersection Capacity Utilization			81.7%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

20: Bayshore Drive & US 41

Build PM
11/02/2017



Movement	NWT	NWR
Lane Configurations	↑↑↑	↑
Traffic Volume (vph)	792	59
Future Volume (vph)	792	59
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	7.6	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	5033	
Flt Permitted	1.00	
Satd. Flow (perm)	5033	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	861	64
RTOR Reduction (vph)	0	0
Lane Group Flow (vph)	925	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	73.6	
Effective Green, g (s)	73.6	
Actuated g/C Ratio	0.53	
Clearance Time (s)	7.6	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	2645	
v/s Ratio Prot	0.18	
v/s Ratio Perm		
v/c Ratio	0.35	
Uniform Delay, d1	19.3	
Progression Factor	1.53	
Incremental Delay, d2	0.3	
Delay (s)	29.7	
Level of Service	C	
Approach Delay (s)	31.8	
Approach LOS	C	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41-1

Build PM
11/02/2017

												
Movement	SEU	SEL	SET	SER	NWU	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Traffic Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Future Volume (vph)	3	69	1297	25	14	17	892	31	26	25	28	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Lane Util. Factor		1.00	0.91			1.00	0.91		1.00	1.00		1.00
Frt		1.00	1.00			1.00	0.99		1.00	0.92		1.00
Flt Protected		0.95	1.00			0.95	1.00		0.95	1.00		0.95
Satd. Flow (prot)		1770	5071			1770	5059		1770	1716		1770
Flt Permitted		0.25	1.00			0.15	1.00		0.95	1.00		0.95
Satd. Flow (perm)		457	5071			275	5059		1770	1716		1770
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	75	1410	27	15	18	970	34	28	27	30	95
RTOR Reduction (vph)	0	0	1	0	0	0	2	0	0	25	0	0
Lane Group Flow (vph)	0	78	1436	0	0	33	1002	0	28	32	0	95
Turn Type	Prot	pm+pt	NA		Prot	pm+pt	NA		Prot	NA		Prot
Protected Phases	1	1	6		5	5	2		7	4		3
Permitted Phases		6				2						
Actuated Green, G (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Effective Green, g (s)		108.2	100.6			103.6	98.3		7.1	9.0		13.5
Actuated g/C Ratio		0.68	0.63			0.65	0.61		0.04	0.06		0.08
Clearance Time (s)		7.8	7.8			7.8	7.8		8.0	8.0		8.0
Vehicle Extension (s)		3.0	3.0			3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)		371	3188			227	3108		78	96		149
v/s Ratio Prot		c0.01	c0.28			0.00	0.20		0.02	c0.02		0.05
v/s Ratio Perm		0.13				0.09						
v/c Ratio		0.21	0.45			0.15	0.32		0.36	0.33		0.64
Uniform Delay, d1		9.2	15.4			10.9	14.8		74.2	72.6		70.9
Progression Factor		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Incremental Delay, d2		0.3	0.5			0.3	0.3		2.8	2.0		8.6
Delay (s)		9.5	15.8			11.2	15.1		77.1	74.6		79.5
Level of Service		A	B			B	B		E	E		E
Approach Delay (s)			15.5				15.0			75.4		
Approach LOS			B				B			E		
Intersection Summary												
HCM 2000 Control Delay			22.8				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			160.0				Sum of lost time (s)			31.6		
Intersection Capacity Utilization			68.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

23: Commercial Drive & US 41/US 41-1

Build PM
11/02/2017



Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	59	77
Future Volume (vph)	59	77
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	8.0	
Lane Util. Factor	1.00	
Frt	0.91	
Flt Protected	1.00	
Satd. Flow (prot)	1704	
Flt Permitted	1.00	
Satd. Flow (perm)	1704	
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	64	84
RTOR Reduction (vph)	29	0
Lane Group Flow (vph)	119	0
Turn Type	NA	
Protected Phases	8	
Permitted Phases		
Actuated Green, G (s)	15.4	
Effective Green, g (s)	15.4	
Actuated g/C Ratio	0.10	
Clearance Time (s)	8.0	
Vehicle Extension (s)	3.0	
Lane Grp Cap (vph)	164	
v/s Ratio Prot	c0.07	
v/s Ratio Perm		
v/c Ratio	0.73	
Uniform Delay, d1	70.3	
Progression Factor	1.00	
Incremental Delay, d2	14.8	
Delay (s)	85.0	
Level of Service	F	
Approach Delay (s)	82.9	
Approach LOS	F	
Intersection Summary		

Arterial Level of Service: NW US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Guilford Road	II	45	18.8	16.0	34.8	0.17	17.8	D
Palm Drive	II	45	35.8	35.1	70.9	0.37	18.9	D
Espinal Blvd	II	45	24.5	7.8	32.3	0.24	26.3	C
Airport Pulling Road	II	45	22.9	18.0	40.9	0.21	18.5	D
Bayshore Drive	II	45	31.8	30.3	62.1	0.32	18.6	D
Commercial Drive	II	45	49.3	14.6	63.9	0.62	34.8	B
Total	II		183.1	121.8	304.9	1.93	22.8	C

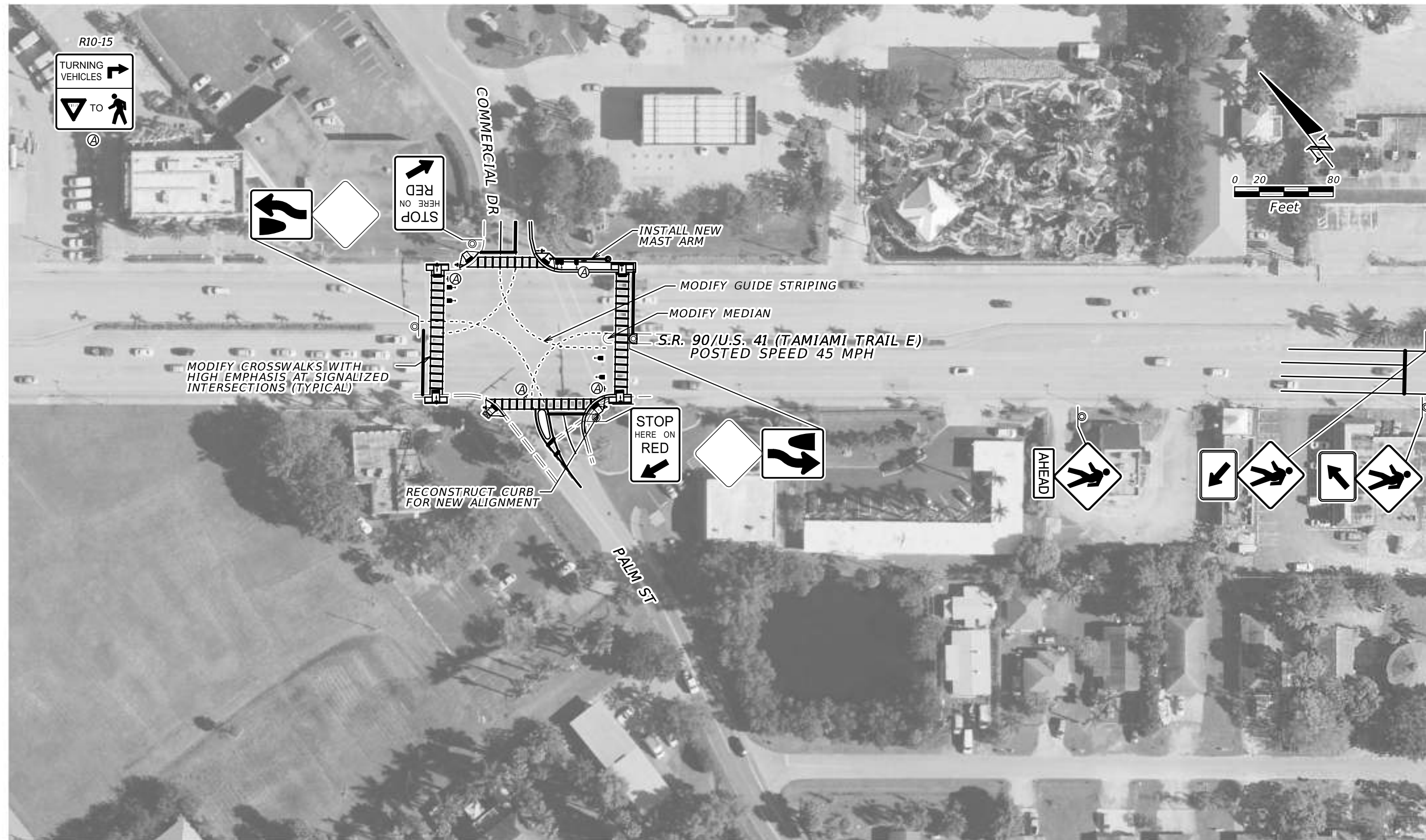
Arterial Level of Service: SE US 41

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bayshore Drive	II	45	49.3	33.1	82.4	0.62	27.0	C
Airport Pulling Road	II	45	31.8	12.7	44.5	0.32	26.0	C
Espinal Blvd	II	45	22.9	7.5	30.4	0.21	24.9	C
Palm Drive	II	45	24.5	9.6	34.1	0.24	24.9	C
Guilford Road	II	45	35.8	3.2	39.0	0.37	34.4	B
Total	II		164.3	66.1	230.4	1.76	27.5	C



APPENDIX F

CONCEPTUAL DESIGN PLANS



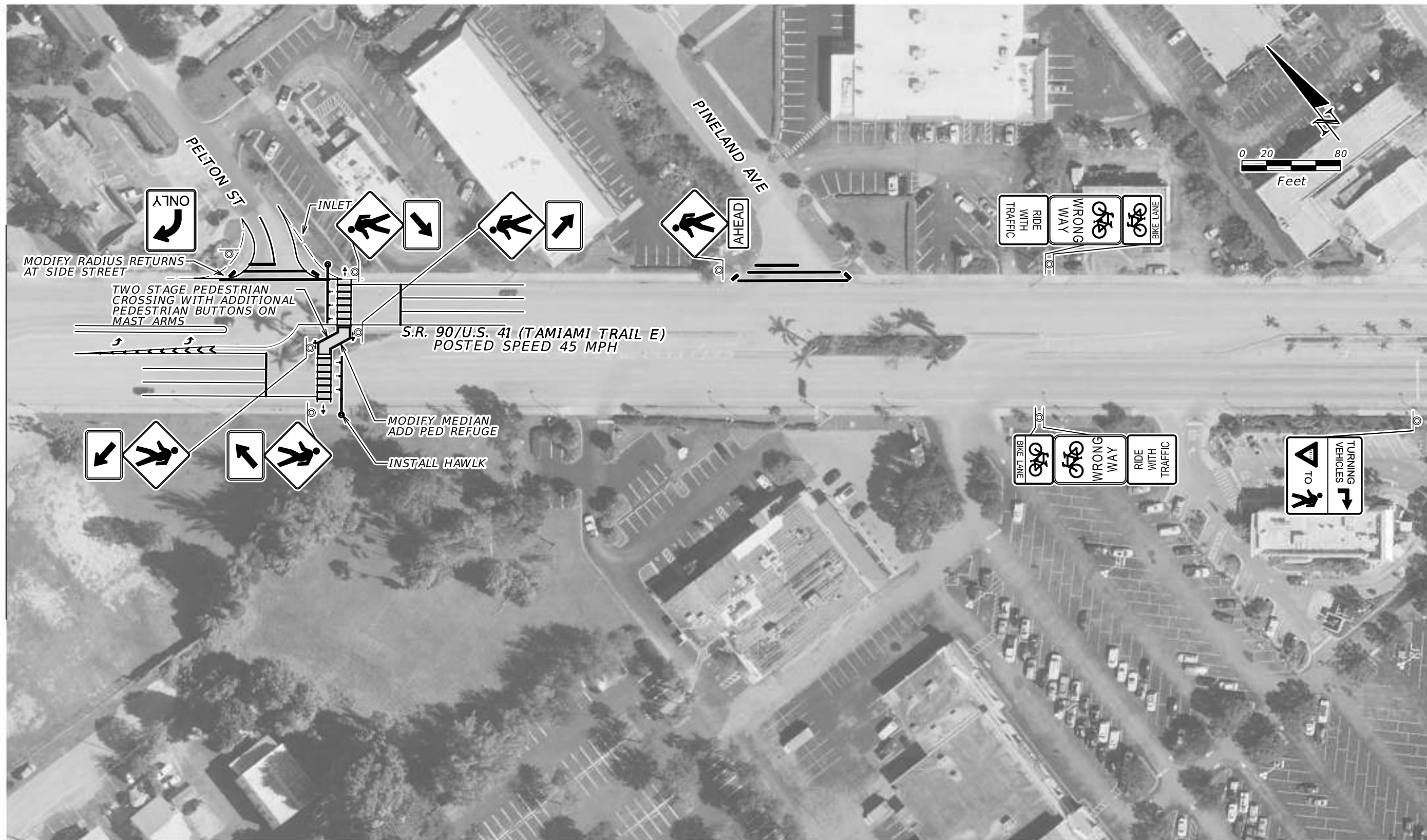
MATCHLINE - SEE SHEET 2

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO. 1
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 90	COLLIER	409224-1-32-91		



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 90	COLLIER	409224-1-32-91		2

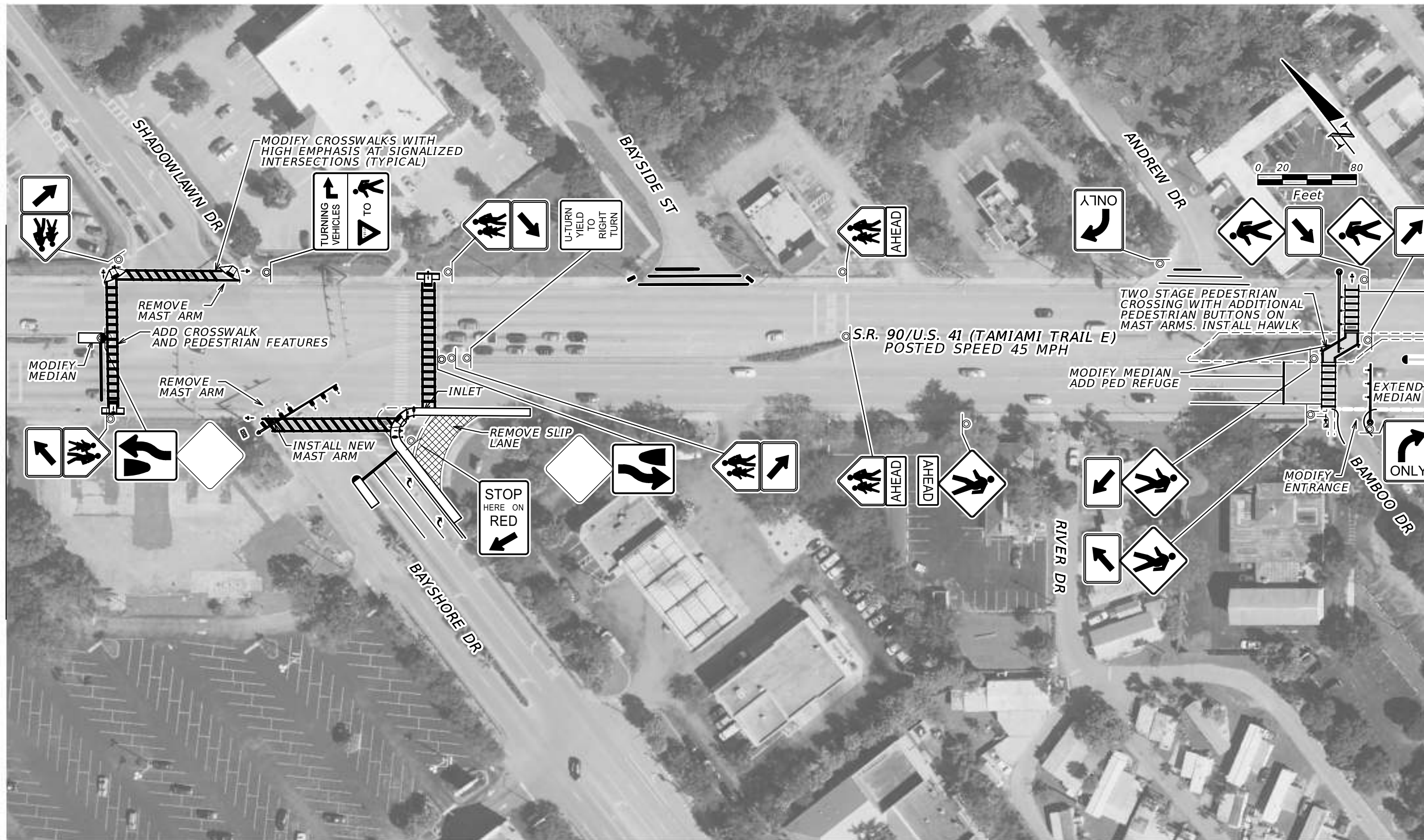
MATCHLINE - SEE SHEET 2



MATCHLINE - SEE SHEET 4

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	CONCEPTUAL DESIGN		SHEET NO. 3
DATE	DESCRIPTION	DATE	DESCRIPTION				
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 90	COLLIER	409224-1-32-91	

MATCHLINE - SEE SHEET 3

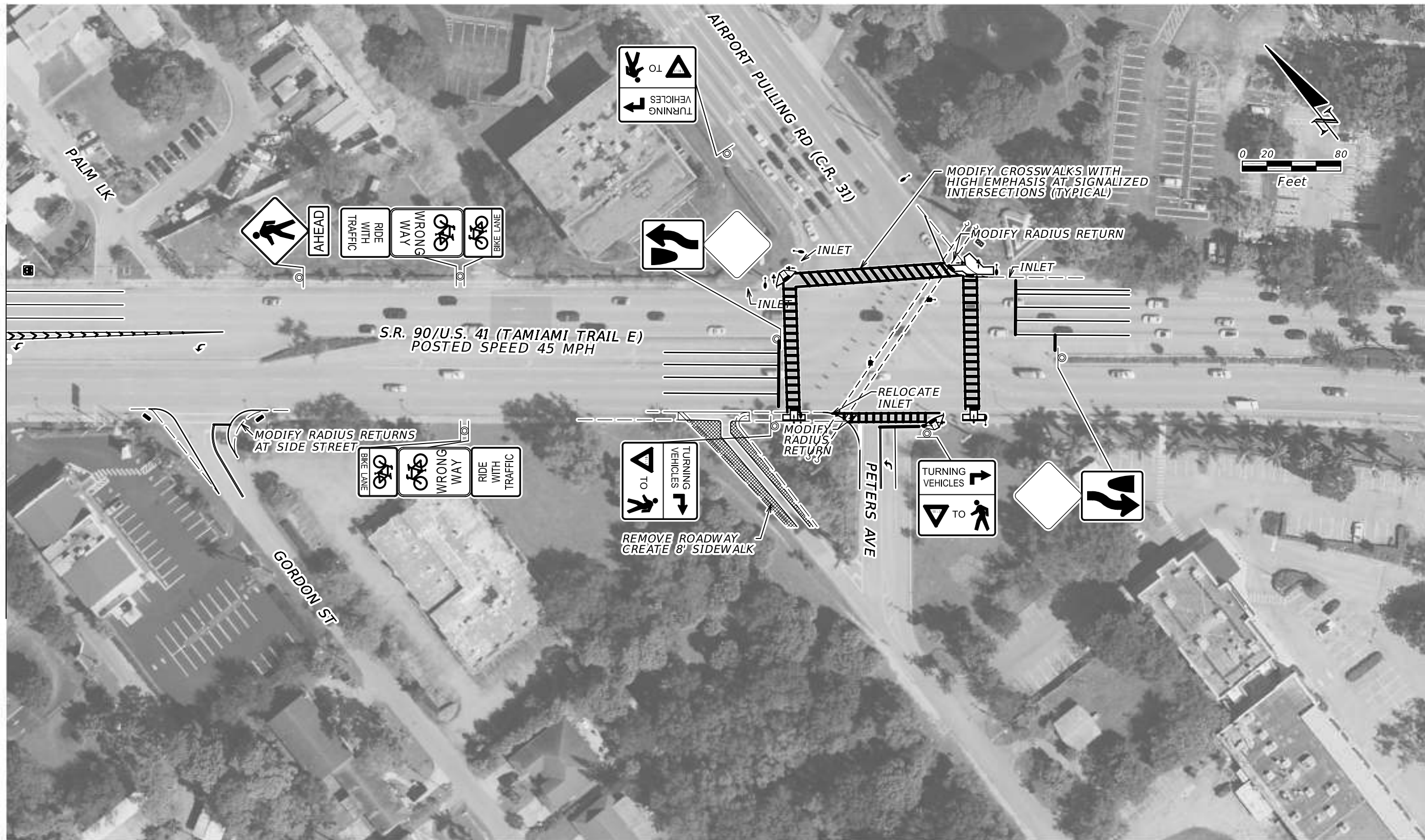


MATCHLINE - SEE SHEET 5

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	CONCEPTUAL DESIGN		SHEET NO. 4
DATE	DESCRIPTION	DATE	DESCRIPTION				
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 90	COLLIER	409224-1-32-91	

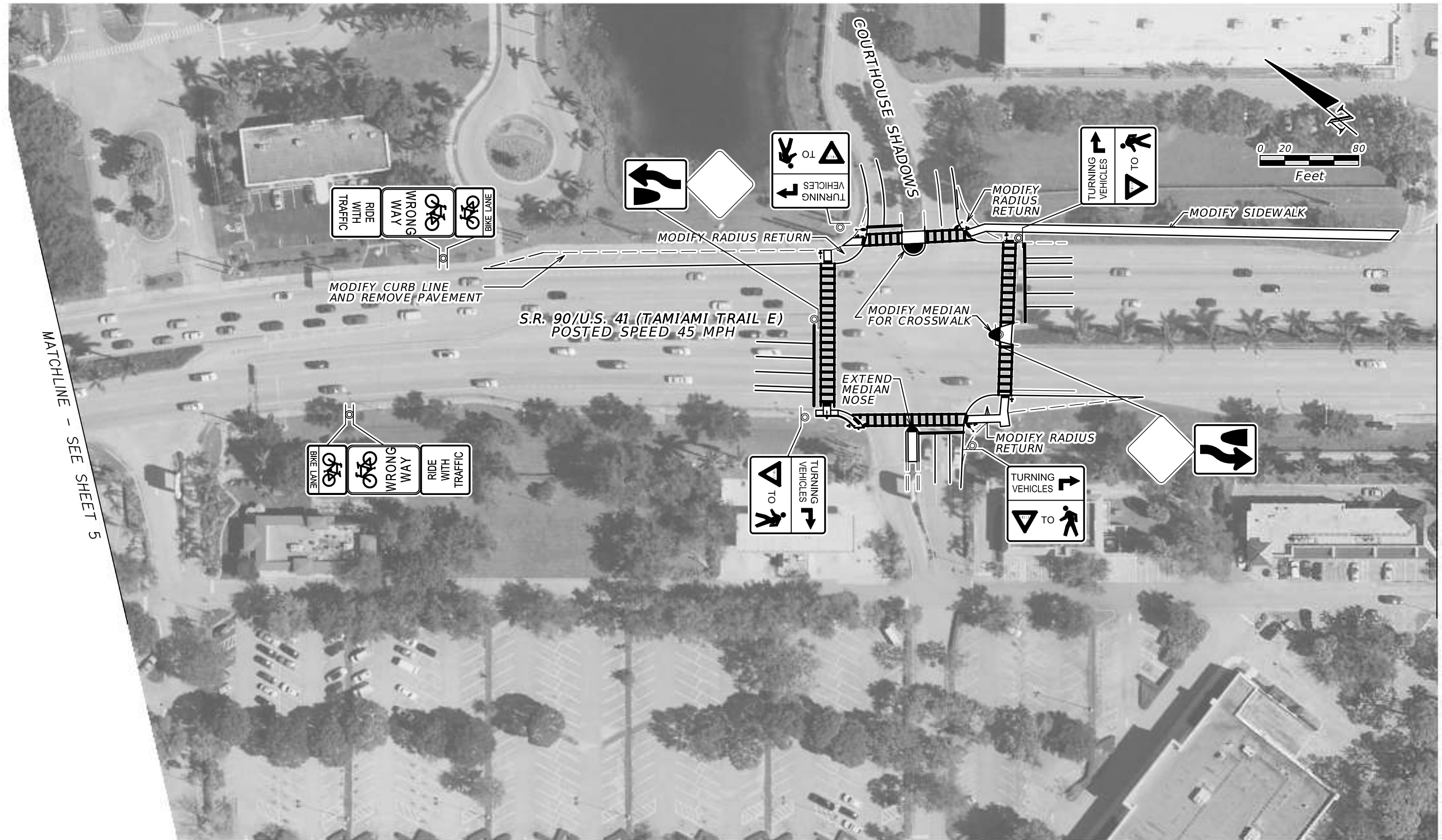
slinares7/12/20173:22:55 PM\\tmaw00\PMWORK3\JOBS\63228-D1 Safety\TECHPROD\Traffic\TWO 7\T908 US 41 Safety

MATCHLINE - SEE SHEET 4



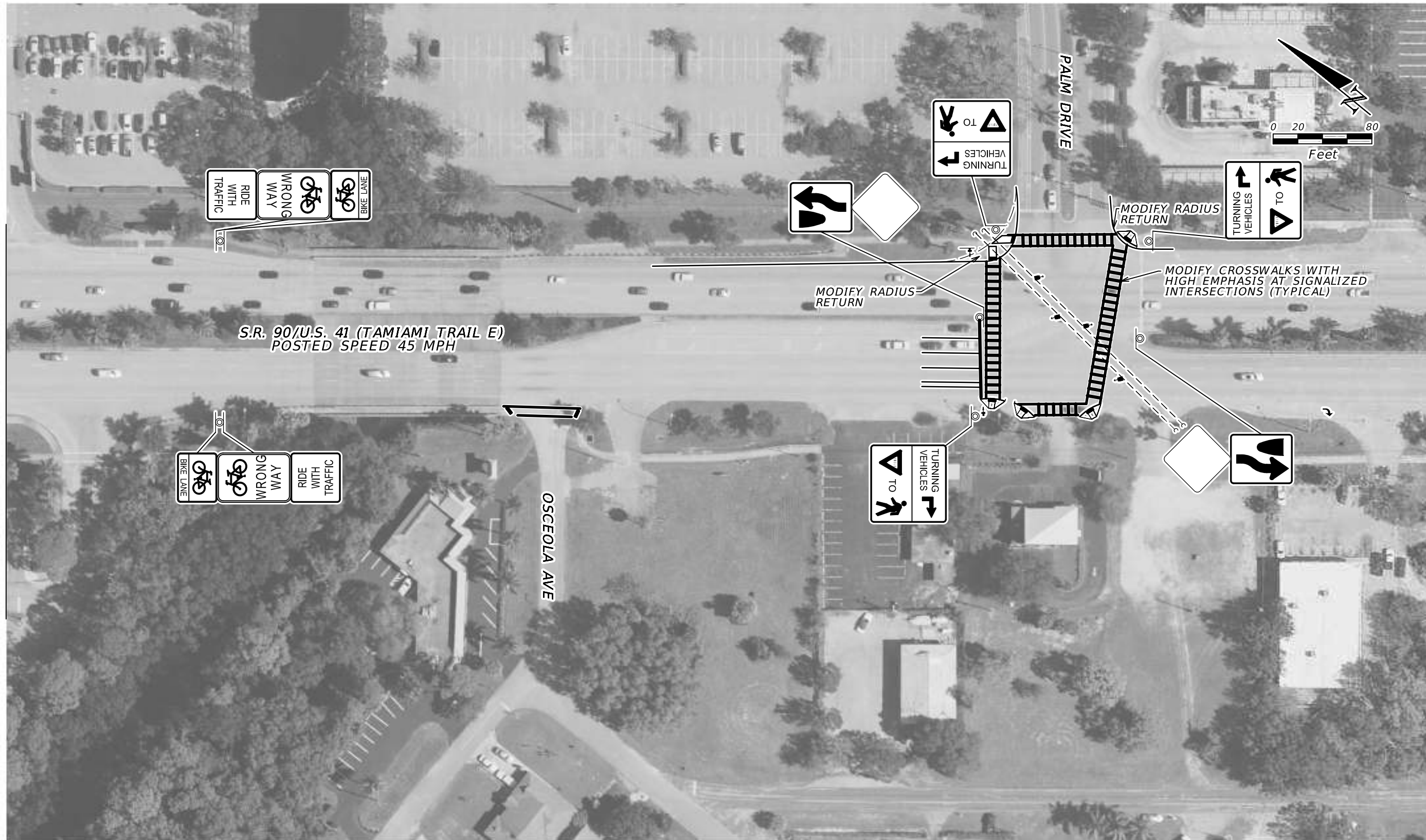
MATCHLINE - SEE SHEET 6

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	CONCEPTUAL DESIGN		SHEET NO. 5
DATE	DESCRIPTION	DATE	DESCRIPTION				
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR 90	COLLIER	409224-1-32-91	



REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO. 6
DATE	DESCRIPTION	DATE	DESCRIPTION					
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR 90	COLLIER	409224-1-32-91		

MATCHLINE - SEE SHEET 6



MATCHLINE - SEE SHEET 8

REVISIONS					STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 90	COLLIER	409224-1-32-91		7

MATCHLINE - SEE SHEET 7



MATCHLINE - SEE SHEET 9

REVISIONS					STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 90	COLLIER	409224-1-32-91		8

[illegible]

REVISIONS					STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CONCEPTUAL DESIGN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		9
					SR 90	COLLIER	409224-1-32-91		



APPENDIX G

ENGINEER'S ESTIMATE

S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET TO GUILFORD ROAD

PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
101-1	MOBILIZATION	LS	1	10%	See Below
102-1	MAINTENANCE OF TRAFFIC	LS	1	10%	See Below
102-14	TRAFFIC CONTROL OFFICER	HR	72	\$42.86	\$3,085.92
102-60	WORK ZONE SIGN	ED	6480	\$0.28	\$1,814.40
102-74-1	CHANNEL DEVICE-TYPS I,II,DI,VP, DRUM, LC	ED	14040	\$0.13	\$1,825.20
102-76	ARROW BOARD /ADVANCE WARNING ARROW PANEL	ED	270	\$5.95	\$1,606.50
102-99	PORTABLE CHANGEABLE MESSAGE SIGN,TEMP	ED	270	\$13.73	\$3,707.10
110-1-1	CLEARING AND GRUBBING	AC	1	\$12,329.15	\$12,329.15
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	1710	\$21.53	\$36,816.30
285-706	OPTIONAL BASE,BASE GROUP 06	SY	437	\$16.07	\$7,022.59
334-1- 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	49	\$103.84	\$5,088.16
337-7 -83	ASPHALTIC CONCRETE FRICTION CONCRETE,TRAFFIC C,FC-12.5,PG 76-22	TN	37	\$95.23	\$3,523.51
425-11	MODIFY EXISTING DRAINAGE STRUCTURE	EA	10	\$2,903.29	\$29,032.90
520-1-7	CONCRETE CURB & GUTTER, TYPE E	LF	72	\$15.84	\$1,140.48
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	680	\$19.79	\$13,457.20
520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL-VARIABLE WIDTH	SY	1064	\$76.32	\$81,204.48
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	1332	\$38.10	\$50,749.20
527-2	DETECTABLE WARNINGS	SF	730	\$28.72	\$20,965.60
570-1-2	PERFORMANCE TURF, SOD	SY	1500	\$2.61	\$3,915.00
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	4370	\$17.24	\$75,338.80
632-7 -1	SIGNAL CABLE-NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	\$5,406.00	\$5,406.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	73	\$609.70	\$44,508.10
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	3	\$1,286.25	\$3,858.75
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	3	\$1,696.59	\$5,089.77
646-1-12	ALUMINUM SIGNALS POLE, FURNISH & INSTALL, PEDESTRIAN DETECTOR POST	EA	49	\$910.13	\$44,596.37
646-1-60	ALUMINUM SIGNALS POLE (PEDESTAL AND PEDESTRIAN DETECTOR POST), REMOVE	EA	24	\$180.36	\$4,328.64
649-31-107	MAST ARM, F&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE-46'	EA	5	\$34,250.00	\$171,250.00
649-31-109	MAST ARM, F&I, WIND SPEED-150, SINGLE ARM, WITH LUMINAIRE-70.5'	EA	3	\$41,351.83	\$124,055.49
649-36-500	MAST ARM, REMOVE DEEP/COMPLETE FOUNDATION, BOLT ON ATTACHMENT	EA	2	\$5,007.17	\$10,014.34
650-1-14	TRAFFIC SIGNAL, FURNISH & INSTALL, ALUMINUM, 3 SECTION, 1 WAY	AS	30	\$920.24	\$27,607.20
650-1-16	TRAFFIC SIGNAL, FURNISH & INSTALL, ALUMINUM, 4 SECTION, 1 WAY	AS	4	\$1,177.97	\$4,711.88
650-1-60	TRAFFIC SIGNAL, REMOVE-POLES TO REMAIN	AS	10	\$109.22	\$1,092.20
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL, LED COUNTDOWN, 1 WAY	AS	49	\$654.35	\$32,063.15
653-1-60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL - POLE/PEDESTAL TO REMAIN	AS	6	\$56.91	\$341.46
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	16	\$668.58	\$10,697.28
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	AS	8	\$819.11	\$6,552.88

S.R. 90 (U.S. 41/TAMIAMI TRAIL E) FROM COMMERCIAL DRIVE/PALM STREET TO GUILFORD ROAD

PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	49	\$237.07	\$11,616.43
665-1-60	PEDESTRIAN DETECTOR, REMOVE-POLE PEDESTAL TO REMAIN	EA	6	\$42.02	\$252.12
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	3	\$29,136.61	\$87,409.83
670-5-400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	6	\$1,842.03	\$11,052.18
700-1-12	SINGLE POST SIGN, F&I, GROUND MOUNT, 12-20 SF	AS	143	\$1,030.43	\$147,351.49
705-10-4	OBJECT MARKER, TYPE 4	EA	16	\$175.55	\$2,808.80
710-11-290	PAINTED PAVEMENT MARKING, STANDARD, YELLOW, ISLAND NOSE	SF	40	\$2.72	\$108.80
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	LF	3400	\$2.01	\$6,834.00
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18"	LF	300	\$2.96	\$888.00
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	3000	\$4.05	\$12,150.00
711-11-141	THERMOPLASTIC, STANDARD, WHITE, DOT GUIDE, 6"	GM	0.05	\$1,899.38	\$94.97
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	17	\$66.46	\$1,129.82
711-15-101	THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, WHITE, SOLID, 6"	GM	1.2	\$4,392.97	\$5,271.56
711-15-201	THERMOPLASTIC, STANDARD-OPEN GRADED ASPHALT SURFACES, YELLOW, SOLID, 6"	GM	0.8	\$4,086.28	\$3,269.02
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8-6	LF	3200	\$1.27	\$4,064.00
715-4-122	LIGHT POLE COMPLETE, F&I, WIND SPEED 130, POLE HEIGHT 45'	EA	14	\$5,551.03	\$77,714.42
999-25	INITIAL CONTINGENCY (DO NOT BID)	LS	1	5%	See Below
	CONTINGENCY (PROJECT UNKNOWNNS)			15%	See Below
				SUBTOTAL:	\$1,220,811.45
(101-1) MOB (MOBILIZATION)				10%	\$122,081.14
				SUBTOTAL:	\$1,342,892.59
(101-1) MOT (MAINTENANCE OF TRAFFIC)				10%	\$122,081.14
				SUBTOTAL:	\$1,464,973.74
PU (PROJECT UNKNOWNNS)				15%	\$219,746.06
				SUBTOTAL:	\$1,684,719.80
(999-25) INITIAL CONTINGENCY (DO NOT BID)				5%	\$84,235.99
				SUBTOTAL:	\$1,768,955.79
RIGHT-OF-WAY					\$0.00
				PROJECT TOTAL:	\$1,768,955.79



APPENDIX H

NET PRESENT VALUE AND BENEFIT COST ANALYSIS



Benefit-Cost Analysis

District: **One**

County: **03 - Collier**

Date Prepared: **07/06/17**

Location: **U.S 41 from Commercial Dr to Guilford Rd**

Section : **3010000** Beg. Milepost : **13.158** End Milepost : **15.024**

Rdway Type: **6+ Lanes Urban Divided**

Control Element: **Other (describe in box below)**

Remove existing slip ramp, Install three pedestrian hybrid beacons (PHB or Hawlk), Install retroreflective backplates, and Upgrade pedestrian features.

ANNUAL COST OF IMPROVEMENTS

Type	Cost	Service Life	Capital Recovery Factor	Total
ROW		100	0.0408	\$ -
P.E.C.E.I.	\$ 442,238.95	20	0.0736	\$ 32,548.79
Structure		75	0.0425	\$ -
Roadway	\$ 1,768,955.79	20	0.0736	\$ 130,195.15
Drainage		20	0.0736	\$ -
Signal		20	0.0736	\$ -
Other		20	0.0736	\$ -
Sub-Total	\$ 2,211,194.74			\$ 162,743.93
Annual Cost =				\$ 162,743.93

Total number of crashes = 560
 # of correctable crashes, PC = 560
 # of years of crash data, YD = 5
 PC/YD = 112.00
 Crash reduction factor, CRF = 75.26%
 CRF x (PC/YD) = 84.29
 Cost per crash, CPC = \$117,867.00
 Benefit = \$9,934,689

Primary crash reduction factor (%): 59
 Change Right Turn Lane Geometry to Increase Line of Sight
 Additional crash reduction factor: 29
 Install a Pedestrian Hybrid Beacon (PHB or Hawlk)
 Additional crash reduction factor: 15
 Install Backplates

BENEFIT/COST RATIO

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$9,934,688.83}{\$162,743.93} = \mathbf{61.04}$$

Prepared by: **Sara Linares**

Year	CRF x (PC/YD)	Cost per Crash	(P/A,I,y) Factor	Present Value
1	84.29	\$117,867.00	0.96	\$9,552,908.97
2	84.29	\$117,867.00	0.92	\$9,185,512.32
3	84.29	\$117,867.00	0.89	\$8,832,223.38
4	84.29	\$117,867.00	0.85	\$8,492,446.06
5	84.29	\$117,867.00	0.82	\$8,165,882.30
6	84.29	\$117,867.00	0.79	\$7,851,737.30
7	84.29	\$117,867.00	0.76	\$7,549,812.37
8	84.29	\$117,867.00	0.73	\$7,259,412.04
9	84.29	\$117,867.00	0.70	\$6,980,238.28
10	84.29	\$117,867.00	0.68	\$6,711,694.97
11	84.29	\$117,867.00	0.65	\$6,453,583.43
12	84.29	\$117,867.00	0.62	\$6,205,406.89
13	84.29	\$117,867.00	0.60	\$5,966,668.61
14	84.29	\$117,867.00	0.58	\$5,737,269.25
15	84.29	\$117,867.00	0.56	\$5,516,513.34
16	84.29	\$117,867.00	0.53	\$5,304,400.88
17	84.29	\$117,867.00	0.51	\$5,100,335.79
18	84.29	\$117,867.00	0.49	\$4,904,218.70
19	84.29	\$117,867.00	0.47	\$4,715,552.88
20	84.29	\$117,867.00	0.46	\$4,534,238.95
21			0.44	
22			0.42	
23			0.41	
24			0.39	
25			0.38	

Total Present Value

Benefit Benefit

\$135,020,056.71

Cost Cost

\$2,211,194.74

Net Present Value

\$132,808,861.97