

# SUSAN E. O'ROURKE, P.E., Inc.

Traffic Engineering, Transportation Planning

## TRAFFIC ANALYSIS

FOR

53 Acre KOA Campground

Prepared for:

Mr. Brian Bacher  
1821 N. US Highway 1  
Ft. Pierce, FL 34946

Prepared by:

Susan E. O'Rourke, P.E., Inc.  
969 SE Federal Highway, Suite 402  
Stuart, Florida 34994  
772-781-7918

July 14, 2017

SR17062.0

Prepared by: Susan E. O'Rourke, P.E., Inc. Certificate of Authorization: #26869 969 SE Federal Highway, Ste. 402 Stuart, Florida 34994 772-781-7918	Professional Engineer  Susan E. O'Rourke, P.E. Date signed and sealed: 07/14/2017 License #: 42684
--	--

969 SE Federal Highway  
Suite 402  
Stuart, FL 34994

772.781.7918

SEORourke@comcast.net

# SUSAN E. O'ROURKE, P.E., Inc.

Traffic Engineering, Transportation Planning

July 14, 2017

Mr. Brian Bacher  
1821 N. US Highway 1  
Ft. Pierce, FL 34946

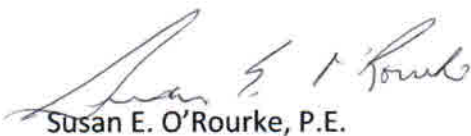
**Re: 53 Acre KOA Campground – NE corner of Edwards Rd and Jenkins Rd**

Dear Mr. Bacher:

Susan E. O'Rourke, P. E., Inc. has completed the traffic analysis of the proposed 53 Acre Campground development with 399 sites to be located on the northeast corner of Edwards Road and Jenkins Road in the City of Ft. Pierce in St. Lucie County, Florida. The steps in the analysis and the ensuing results are presented herein.

It has been a pleasure working with you, if you have any questions or comments, please do not hesitate to contact our office.

Respectfully submitted,  
**SUSAN E. O'ROURKE, P.E., INC.**



Susan E. O'Rourke, P.E.  
Registered Civil Engineer

*C6\_53 Acre Campground Development Report\_06.19.2017*

969 SE Federal Highway  
Suite 402  
Stuart, FL 34994

772.781.7918

SEORourke@comcast.net

## TABLE OF CONTENTS

INTRODUCTION	1
PROJECT DESCRIPTION	1
EXISTING CONDITIONS	3
PROJECT TRAFFIC	4
PROJECT DISTRIBUTION/ ASSIGNMENT/ IMPACT	6
BACKGROUND TRAFFIC	6
LINK ANALYSIS / CONCURRENCY REVIEW	6
INTERSECTION ANALYSIS	10
DRIVEWAY ANALYSIS	10
CONCLUSION	10

### TABLES

TABLE 1: Project Trip Generation	5
TABLE 2: Project Percent Assignment	8
TABLE 3: Link Analysis	9
TABLE 4: Intersection Analysis	10

### FIGURES

FIGURE 1: Project Location	2
FIGURE 2: Project Traffic Assignment	7
FIGURE 3: Project Driveway Volumes	11

### APPENDICES

APPENDIX A: Site Plan	
APPENDIX B: 2016 St. Lucie County Traffic Counts and Level of Service Report, FDOT 2012 Quality Level of Service, and Historical Growth Data	
APPENDIX C: Background Traffic and Other Project Data	
APPENDIX D: Intersection Analysis Data	
APPENDIX E: Driveway Analysis Data	

## **INTRODUCTION**

Susan E. O'Rourke, P.E., Inc. was retained to prepare a traffic analysis for the proposed 53 Acre campground development with 399 sites to be located on the northeast corner of Edwards Road and Jenkins Road, in the City of Fort Pierce, in St. Lucie County, Florida. The purpose of this report is to determine the project's impact on the surrounding roadway system.

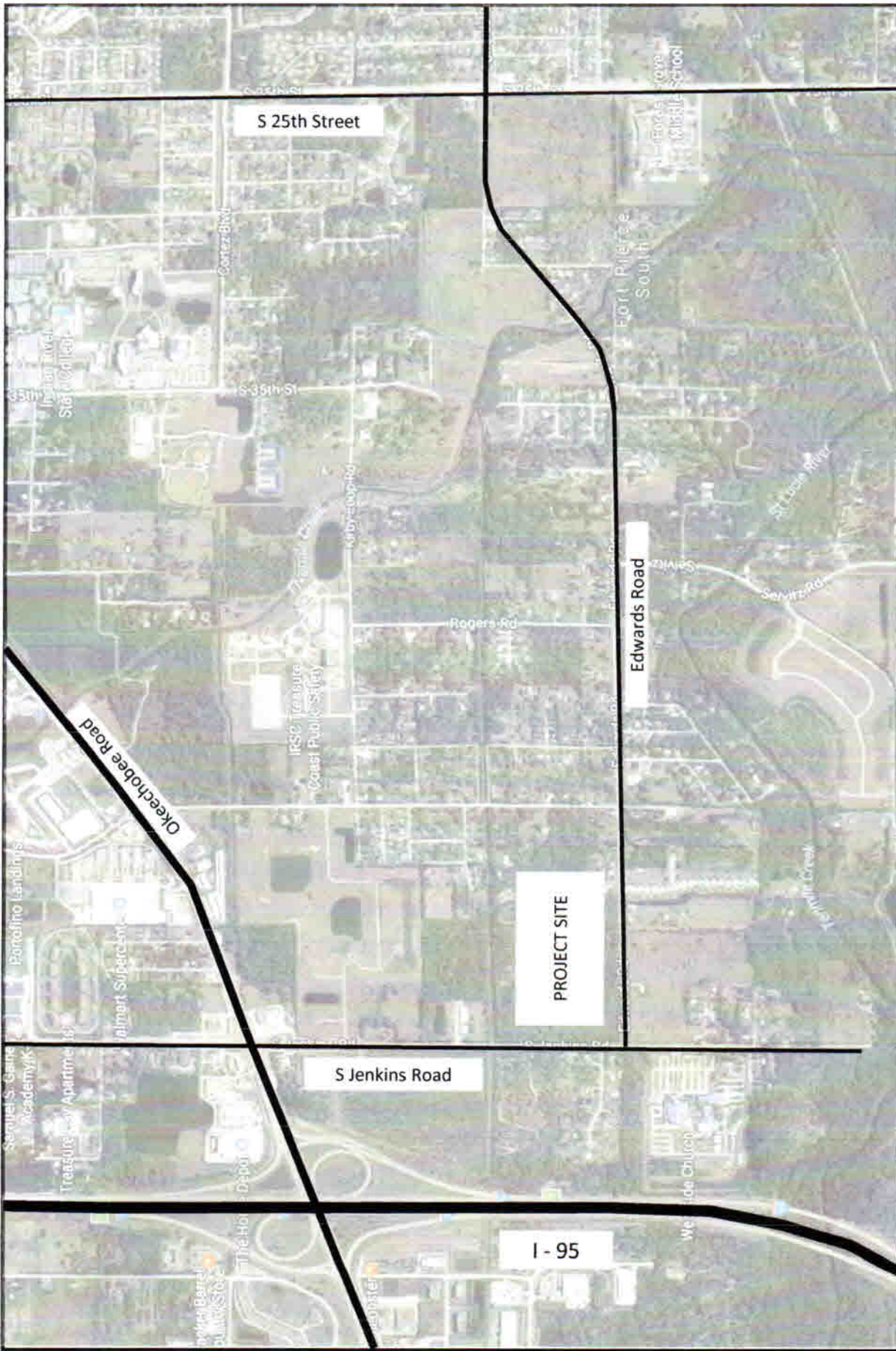
In order to make the determination that the project complies with County Concurrency Guidelines, the following analytical steps were taken:

- summary of the project
- summary of existing lane geometries
- summary of the existing traffic volumes
- assessment of project traffic
- determination of impact area
- summary of short term cumulative traffic volumes
- summary of levels of service with the project traffic added

Each of these steps is outlined herein.

## **PROJECT DESCRIPTION**

The project is a 53 Acre campground/recreational vehicle park with 399 sites to be located on the northeast corner of Edwards Road and Jenkins Road. There will be 93 cabin lots, 290 RV lots, and 16 camping lots. The project location is shown in **Figure 1**. The project site plan is provided in **APPENDIX A**.



**Figure 1 - Project Location**  
KOA Campground

**Susan E. O'Rourke, P.E., Inc.**  
969 SE Federal Hwy Suite 402  
Stuart, FL 34994

Not To Scale

## **EXISTING CONDITIONS**

The study area is defined as the roadways upon which the project has an impact of 3% of the level of service capacity of the roadway and 1% on the adjacent link. Once the project traffic was assigned, the study area was refined based on the impact percentages.

The study area roadways were defined in terms of existing lane geometrics and existing traffic volumes.

### **Existing Lane Geometrics and Traffic Control**

The study area was reviewed to determine the existing number and type of lanes, and the traffic control along the roadway. Each roadway is described below.

- Edwards road is a two-lane undivided collector roadway with an east/west alignment
- Jenkins Road is a two-lane undivided collector roadway with a north/south alignment
- 25<sup>th</sup> Street is a four-lane divided arterial roadway with a north/south alignment
- Okeechobee Road is a six-lane divided arterial roadway with a generally east/west alignment

### **Existing Traffic Volumes/ Service Volume**

Traffic volumes were obtained from the St. Lucie County TPO and from counts taken in the field in June of 2017. The count data along with the number of lanes and the associated peak hour/peak direction service volumes will be summarized in the upcoming sections of the report. The service volumes were developed based on the functional classification contained in the County Comprehensive Plan and the 2016 St. Lucie County Traffic Counts and Level of Service Report. The 2012 FDOT Quality Level of Service Handbook Tables were used for link segments that were not listed in the 2016 St. Lucie County Traffic Counts and Level of Service Report. These documents are included in **APPENDIX B**.

## **PROJECT TRAFFIC**

To estimate traffic generated by the project, the ITE Trip Generation, 9<sup>th</sup> Edition trip rates were applied. These calculations provide an estimate of the typical generation. Trip generation for the project is shown in **Table 1**.

As shown, the project will generate approximately 1,261 daily trips. There will be 49 gross AM peak hour trips and 108 gross PM peak hour trips.

**Table 1: Project Trip Generation**

**Daily**

Land Use	ITE Code	Intensity	Daily Trip Generation	Directional Split		Gross Trips		
				In	Out	In	Out	Total
Campground/Recreational Vehicle Park	260*	399 Occupied Sites	$T = 3.16(X)$	50%		631	630	1261
<b>TOTAL</b>						<b>631</b>	<b>630</b>	<b>1,261</b>

\* LU Code for Recreational Homes used in absence of daily data for LU Code 416

**AM**

Land Use	ITE Code	Intensity	AM Trip Generation	Directional Split		Gross Trips		
				In	Out	In	Out	Total
Campground/Recreational Vehicle Park	416	399 Occupied Sites	$Ln(T) = 0.16 Ln(X) + 2.93$	36%	64%	18	31	49
<b>TOTAL</b>						<b>18</b>	<b>31</b>	<b>49</b>

**PM**

Land Use	ITE Code	Intensity	PM Trip Generation	Directional Split		Gross Trips		
				In	Out	In	Out	Total
Campground/Recreational Vehicle Park	416	399 Occupied Sites	$T = .27(X)$	65%	35%	70	38	108
<b>TOTAL</b>						<b>70</b>	<b>38</b>	<b>108</b>

Source: ITE Trip Generation 9th Edition

## **PROJECT DISTRIBUTION/ ASSIGNMENT/IMPACT**

The project traffic was distributed by general geographic direction and then assigned to the roadway network.

**Distribution/ Assignment** – This general distribution led to an assignment of trips based on the anticipated ultimate destinations and the roadway paths used to reach those destinations. The project assignment is shown in **Figure 2**.

**Impact** – **Tables 2a and 2b** summarize the project impact as a percent of service volume capacity. As shown, there is one adjacent link with an impact of 1% or greater in the PM peak hour. The link lies on Jenkins Road.

## **BACKGROUND TRAFFIC**

Growth from other projects was accounted for in the study area. The following projects were included as background traffic in the analysis:

- Mariner Cove
- 39 Acre Residential Development
- Celebration Point
- Bent Creek
- Creekside
- Love's Travel Stop
- Kings Center
- Whispering Oaks
- Village of Sunset Lakes
- St. Lucie Commerce Center

Background traffic assignment tables for the study area links are in **Appendix C**.

## **LINK ANALYSIS / CONCURRENCY REVIEW**

In order to assess the impact on the significant links and the adjacent links, the total traffic on the link at project buildout was compared to the roadway capacity. To estimate the total traffic in 2019, the existing link volumes were grown to project buildout year of 2019 and the project traffic was added.

An area growth rate of 1.003% per year for Jenkins Road and for Edwards Road was applied to the existing counts in addition to the specific traffic from other projects. This rate was used to account for through traffic and other growth in the area.

**Tables 3a and 3b** summarizes the results of the link analysis. As shown, the roadway will operate at acceptable levels of service.

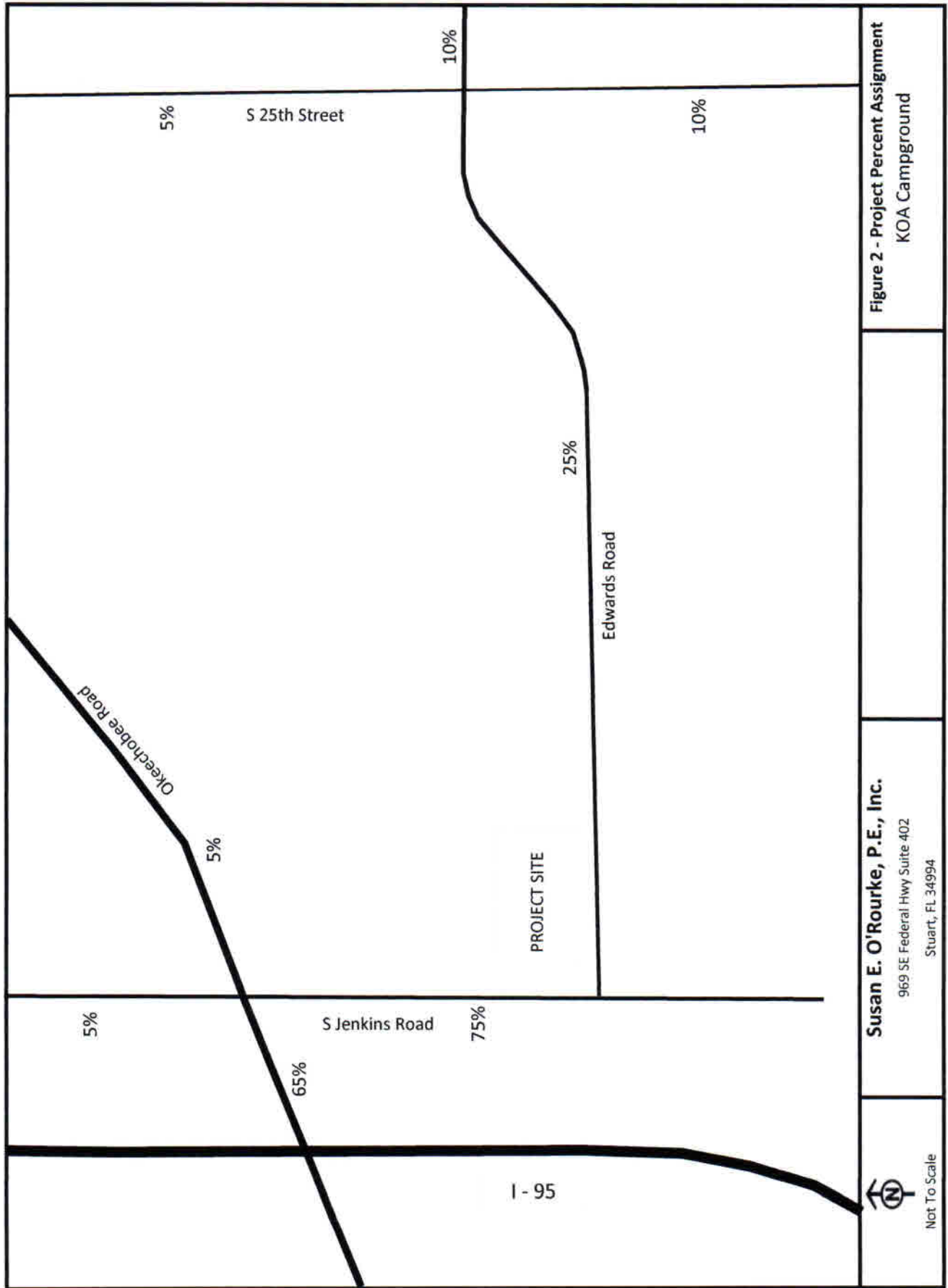


TABLE 2a - Project Percent Impact - AM

Segment	From	To	Direction	IN/OUT	(1) Greater than 3% (1% on Adjacent Links)	AADT 2016	(2) Peak Hour Service Capacity	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Edwards Rd	Jenkins Rd	McNeil Rd	EB	OUT	NO	9837	630	8	1.27%	25%
	Jenkins Rd	McNeil Rd	WB	IN	NO	9837	630	5	0.79%	25%
	McNeil Rd	Selvitz Rd	EB	OUT	NO	9837	700	8	1.14%	25%
	McNeil Rd	Selvitz Rd	WB	IN	NO	9837	700	5	0.71%	25%
	Selvitz Rd	25th Street	EB	OUT	NO	13500	880	8	0.91%	25%
	Selvitz Rd	25th Street	WB	IN	NO	13500	880	5	0.57%	25%
	25th Street	Sunrise Blvd	EB	OUT	NO	15966	1630	3	0.18%	10%
25th Street	25th Street	Sunrise Blvd	WB	IN	NO	15966	1630	2	0.12%	10%
	Bell Ave	Edwards Rd	NB	IN	NO	17500	2100	2	0.10%	10%
	Bell Ave	Edwards Rd	SB	OUT	NO	17500	2100	3	0.14%	10%
	Edwards Rd	Cortez Blvd	NB	OUT	NO	21478	2000	2	0.10%	5%
Jenkins Rd	Edwards Rd	Cortez Blvd	SB	IN	NO	21478	2000	1	0.05%	5%
	Edwards Rd	Okeechobee Rd	NB	OUT	NO	8100	880	23	2.61%	75%
	Edwards Rd	Okeechobee Rd	SB	IN	NO	8100	880	14	1.59%	75%
	Okeechobee Rd	Graham Rd	NB	OUT	NO	10048	920	2	0.22%	5%
Okeechobee Rd	Okeechobee Rd	Graham Rd	SB	IN	NO	10048	920	1	0.11%	5%
	I - 95	Jenkins Rd	EB	IN	NO	28517	4240	12	0.28%	65%
	I - 95	Jenkins Rd	WB	OUT	NO	28517	4240	20	0.47%	65%
	Jenkins Rd	McNeil Ave	EB	OUT	NO	28517	4040	2	0.05%	5%
Jenkins Rd	McNeil Ave	WB	IN	NO	28517	4040	1	0.02%	5%	

(1) St. Lucie County 2016 Traffic Counts and LOS Report

(2) 2012 FDOT Quality Level of Service Handbook Tables (880 with 10% Non-State reduction)

(3) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 49  
 Net In: 18  
 Net Out: 31

TABLE 2B - Project Percent Impact - PM

Segment	From	To	Direction	IN/OUT	(1) Greater than 3% (1% on Adjacent Links)	AADT 2016	(2) Peak Hour Service Capacity	Project Volume Peak Direction	% Project of Capacity-Peak Hour	Project Percent Assignment
Edwards Rd	Jenkins Rd	McNeil Rd	EB	OUT	NO	9837	630	10	1.59%	25%
	Jenkins Rd	McNeil Rd	WB	IN	NO	9837	630	18	2.86%	25%
	McNeil Rd	Selvitz Rd	EB	OUT	NO	9837	700	10	1.43%	25%
	McNeil Rd	Selvitz Rd	WB	IN	NO	9837	700	18	2.57%	25%
	Selvitz Rd	25th Street	EB	OUT	NO	13500	880	10	1.14%	25%
	Selvitz Rd	25th Street	WB	IN	NO	13500	880	18	2.05%	25%
	25th Street	Sunrise Blvd	EB	OUT	NO	15966	1630	4	0.25%	10%
25th Street	25th Street	Sunrise Blvd	WB	IN	NO	15966	1630	7	0.43%	10%
	Bell Ave	Edwards Rd	NB	IN	NO	17500	2100	7	0.33%	10%
	Bell Ave	Edwards Rd	SB	OUT	NO	17500	2100	4	0.19%	10%
	Edwards Rd	Cortez Blvd	NB	OUT	NO	21478	2100	4	0.19%	10%
Jenkins Rd	Edwards Rd	Cortez Blvd	SB	IN	NO	21478	2000	4	0.20%	5%
	Edwards Rd	Okeechobee Rd	NB	OUT	YES	8100	880	29	3.30%	75%
	Edwards Rd	Okeechobee Rd	SB	IN	YES	8100	880	53	6.02%	75%
	Okeechobee Rd	Graham Rd	NB	OUT	NO	10048	920	2	0.22%	5%
Okeechobee Rd	Okeechobee Rd	Graham Rd	SB	IN	NO	10048	920	4	0.43%	5%
	I - 95	Jenkins Rd	EB	IN	NO	28517	4240	46	1.08%	65%
	I - 95	Jenkins Rd	WB	OUT	NO	28517	4240	25	0.59%	65%
	Jenkins Rd	Virginia Ave	WB	OUT	NO	28517	4040	2	0.05%	5%
Jenkins Rd	Virginia Ave	WB	IN	NO	28517	4040	4	0.10%	5%	

(1) St. Lucie County 2016 Traffic Counts and LOS Report

(2) 2012 FDOT Quality Level of Service Handbook Tables (880 with 10% Non-State reduction)

(3) According to the Guidelines prepared by the TPO and modified by the City and County

Two-Way: 108  
 Net In: 70  
 Net Out: 38

TABLE 3a - Link Analysis - AM

Segment	From	To	Lanes	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	2017 Peak Hour Directional Volumes (2)	2019 Peak Hour Directional Volumes	Background Traffic/Approved Projects	2019 Traffic + Background Traffic	LOS D Capacity (1)	Project Volume Peak Direction	2019 Total Traffic	% Project of Capacity-Peak Hour	Does Project Meet Concurrency?	Project Percent Assignment
Edwards Rd	Jenkins Rd	McNeill Rd	2L	EB	OUT	NO	280	282	35	317	630	8	325	1.27%	YES	25%
	Jenkins Rd	McNeill Rd	2L	WB	IN	NO	335	337	30	367	630	5	372	0.79%	YES	25%
Jenkins Rd	Edwards Rd	Okeechobee Rd	2L	NB	OUT	NO	335	337	86	423	880	23	446	2.61%	YES	75%
	Edwards Rd	Okeechobee Rd	2L	SB	IN	NO	364	366	62	428	880	14	442	1.59%	YES	75%

(1) St. Lucie County 2018 Traffic Counts and LOS Report

(2) Turning Movement Counts from Intersection of Jenkins Rd and Edwards Rd

(3) Calculated from Historic AADT

Two-Way: 49  
 Net In: 18  
 Net Out: 31  
 Years Growth: 2  
 Area Growth Rate: 1.003

TABLE 3b - Link Analysis - PM

Segment	From	To	Lanes	Direction	IN/OUT	Greater than 3% (1% on Adjacent Links)	2017 Peak Hour Directional Volumes (2)	2019 Peak Hour Directional Volumes	Background Traffic/Approved Projects	2019 Growth + Approved Projects	LOS D Capacity (1)	Project Volume Peak Direction	2019 Total Traffic	% Project of Capacity-Peak Hour	Does Project Meet Concurrency?	Project Percent Assignment
Edwards Rd	Jenkins Rd	McNeill Rd	2L	EB	OUT	NO	311	313	50	363	630	10	373	1.59%	YES	25%
	Jenkins Rd	McNeill Rd	2L	WB	IN	NO	316	318	22	340	630	18	358	2.86%	YES	25%
Jenkins Rd	Edwards Rd	Okeechobee Rd	2L	NB	OUT	YES	294	296	128	424	880	29	453	3.30%	YES	75%
	Edwards Rd	Okeechobee Rd	2L	SB	IN	YES	355	357	95	452	880	53	505	6.02%	YES	75%

(1) St. Lucie County 2018 Traffic Counts and LOS Report

(2) Turning Movement Counts from Intersection of Jenkins Rd and Edwards Rd

(3) Calculated from Historic AADT

Two-Way: 108  
 Net In: 70  
 Net Out: 38  
 Years Growth: 2  
 Area Growth Rate: 1.003

## INTERSECTION ANALYSIS

The intersections of Jenkins Road and Edwards Road, as well as Jenkins Road and Okeechobee Road were counted in June of 2017. An annual growth rate of 1.003% was obtained using St. Lucie TPO Traffic Counts and Level of Service reports from 2016. The project traffic was also added to obtain the total turning movements.

The intersections were analyzed using the Highway Capacity Manual Software (HCS) for the Existing and 2019 buildout with project scenarios. Signal timing sheets were obtained from the City of Ft. Pierce for the intersection of Okeechobee Road and Jenkins Road. The intersection of Jenkins Road and Edwards Road is not signalized. Under existing conditions, both intersections operate at Level of Service "C" or better. Under buildout conditions, both intersections will operate at Level of Service "D" or better, which meets concurrency.

A summary of the intersection analysis for a 2019 buildout is shown in **Table 4**. The intersection data and turning movements are shown in **APPENDIX D**.

**Table 4 - Intersection Analysis - 2019**

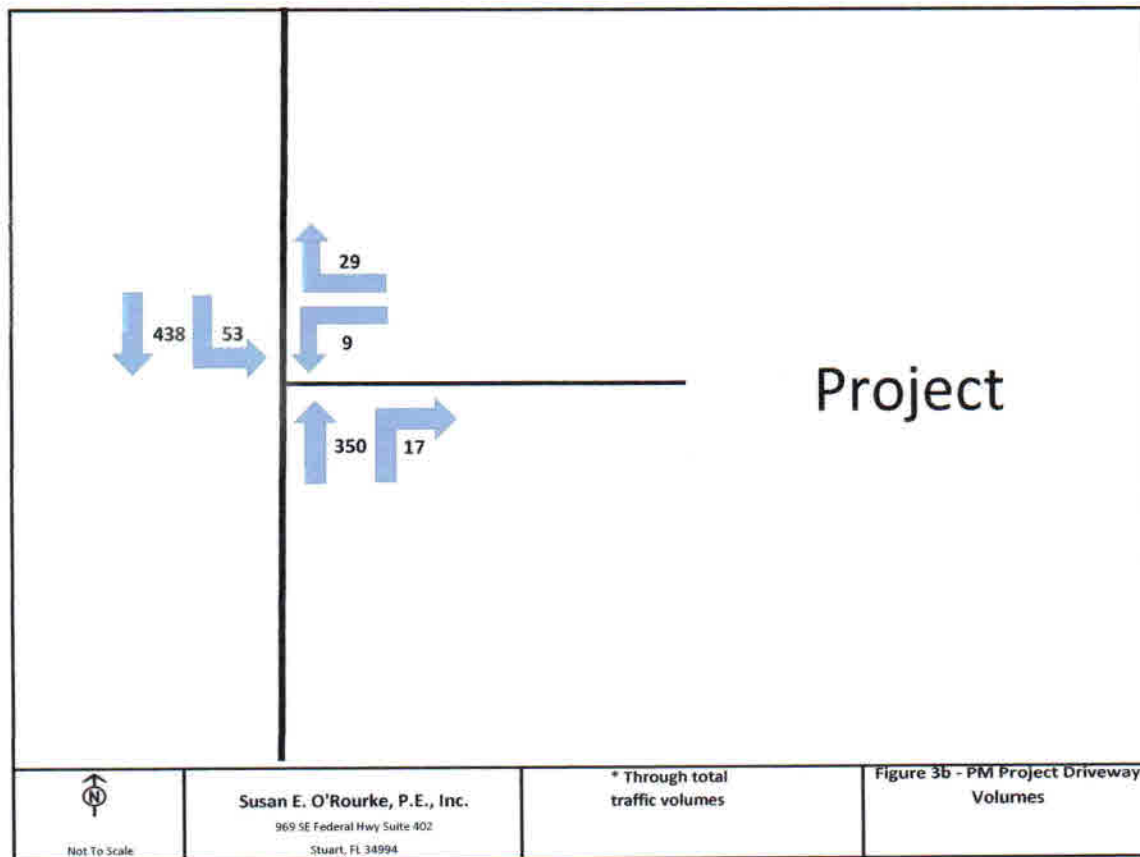
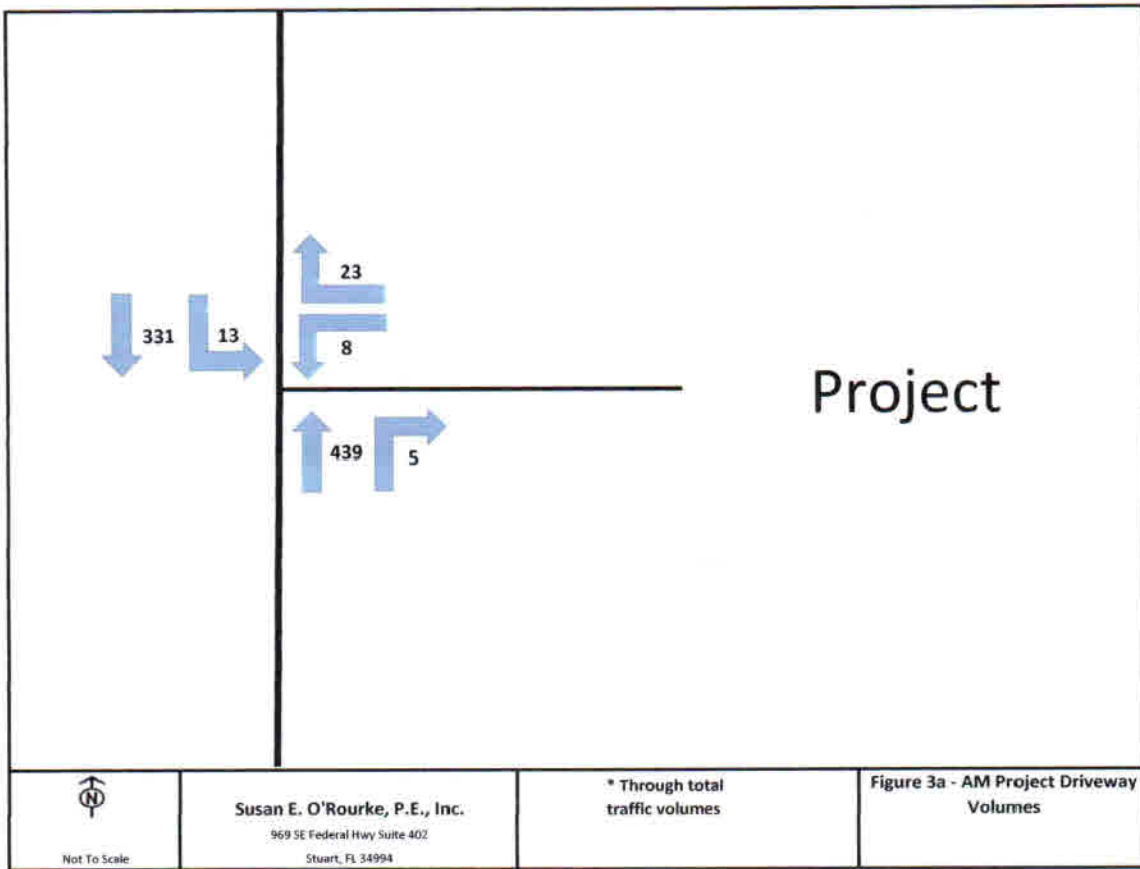
Intersection	AM		PM	
	Delay	LOS	Delay	LOS
Jenkins Road / Edwards	11.9	B	22.9	C
Jenkins Road / Okeechobee Road	40.5	D	54.1	D

## DRIVEWAY ANALYSIS

The project traffic was assigned to the project driveway. The project will take full access from one driveway on Jenkins Road. Driveway volumes for the AM and PM peak hour are shown in **Figure 3**. As shown, the volumes do not exceed industry standards of 75 right turn vehicles to require a turn lane. However, the volume does exceed the industry standard of 30 left turn vehicles to require a left turn lane. The driveway was analyzed using the Highway Capacity Manual Analysis Software for the option with a separate left turn lane and for an alternative option with a left through lane. The results of the driveway analyses are shown in **APPENDIX E**. At project buildout, the driveway intersections will operate at **LOS C** or better. The analysis shows that the left turn lane is not necessary for delay purposes and the addition of a left turn lane will be based on other factors.

## CONCLUSION

With its 1,261 daily trips, 49 AM peak hour trips and 108 PM peak hour trips, the project does not create the need for additional improvements to the roadway network. Therefore, the project meets the requirements for concurrency.



## APPENDIX A

### Site Plan



**APPENDIX B**

**2016 St. Lucie County Traffic Counts and Level of Service Report  
FDOT 2012 Quality Level of Service Table, and Historical Growth Data**

### Traffic Counts and Level of Service Report Fall 2016

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
25TH ST	MIDWAY RD to BELL AVE	940016	16,447	2015	2,100	-	-	-	-	-	-
25TH ST	BELL AVE to EDWARDS RD	159	17,500	2016	2,100	959	C	0.482	984	C	0.490
25TH ST	EDWARDS RD to CORTEZ BLVD	940021	21,478	2015	2,000	-	-	-	-	-	-
25TH ST	CORTEZ BLVD to VIRGINIA AVE	529	23,500	2016	2,000	1,230	C	0.644	1,406	C	0.736
25TH ST	VIRGINIA AVE to NEBRASKA AVE	940015	21,225	2015	2,000	-	-	-	-	-	-
25TH ST	NEBRASKA AVE to OKEECHOBEE RD	940015	21,225	2015	2,000	-	-	-	-	-	-
25TH ST	OKEECHOBEE RD to GEORGIA AVE	609	17,167	2014	1,630	855	D	0.525	838	D	0.514
25TH ST	GEORGIA AVE to DELAWARE AVE	609	17,167	2014	1,630	855	D	0.525	838	D	0.514
25TH ST	DELAWARE AVE to ORANGE AVE	940014	18,992	2015	1,630	-	-	-	-	-	-
25TH ST	ORANGE AVE to AVENUE D	610	14,500	2016	1,630	627	C	0.859	616	C	0.844
25TH ST	AVENUE D to AVENUE Q	940050	14,564	2015	1,630	-	-	-	-	-	-
25TH ST	AVENUE Q to JUANITA AVE	945152	13,222	2015	2,000	-	-	-	-	-	-
25TH ST	JUANITA AVE to ST LUCIE BLVD	940791	13,397	2013	2,100	-	-	-	-	-	-
25TH ST	ST LUCIE BLVD to US 1	945165	5,211	2015	2,100	-	-	-	-	-	-
33RD ST	OKEECHOBEE RD to DELAWARE AVE	611	6,000	2016	750	351	C	0.949	288	C	0.778
33RD ST	DELAWARE AVE to ORANGE AVE	948507	6,000	2015	790	-	-	-	-	-	-
35TH ST	KIRBY LOOP RD to CORTEZ BLVD	612	6,500	2016	540	518	D	0.959	388	D	0.719
35TH ST	CORTEZ BLVD to VIRGINIA AVE	612	6,500	2016	790	518	D	0.656	388	C	0.995
35TH ST	VIRGINIA AVE to OKEECHOBEE RD	613	4,400	2016	750	266	C	0.719	268	C	0.724
53RD ST	ANGLE RD to JUANITA AVE	614	2,600	2016	540	139	C	0.515	153	C	0.567
AE BACKUS AVE	7TH ST to US 1	632	800	2014	750	61	C	0.165	72	C	0.195
AIROSO BLVD	PORT ST LUCIE BLVD to THORNHILL DR	303	18,045	2014	2,100	956	C	0.476	902	C	0.449
AIROSO BLVD	THORNHILL DR to CROSSTOWN PKWY	303	18,045	2014	2,100	956	C	0.476	902	C	0.449
AIROSO BLVD	CROSSTOWN PKWY to PRIMA VISTA BLVD	243	12,625	2014	2,100	640	C	0.318	637	C	0.317
AIROSO BLVD	PRIMA VISTA BLVD to FLORESTA DR	101	14,252	2014	2,000	769	C	0.403	830	C	0.435

\* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

\* Volumes shown were adjusted using FDOT Seasonal Factors

\* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)

\* Volumes, LOS and V/C values with "-" designation are associated with FDOT Count Stations and will need to have current FDOT volume data supplied before values can be generated properly.

### Traffic Counts and Level of Service Report Fall 2016

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
EASY ST	BUCHANAN DR to YUCCA DR	106	5,900	2016	540	530	D	0.981	409	D	0.757
EDWARDS RD	JENKINS RD to MCNEIL RD	174	9,837	2015	630	494	C	0.823	492	C	0.820
EDWARDS RD	MCNEIL RD to SELVITZ RD	174	9,837	2015	700	494	C	0.748	492	C	0.745
EDWARDS RD	SELVITZ RD to 25TH ST	110	13,500	2016	880	745	C	0.898	716	C	0.863
EDWARDS RD	25TH ST to SUNRISE BLVD	108	15,966	2015	1,630	876	D	0.537	1,207	D	0.740
EDWARDS RD	SUNRISE BLVD to OLEANDER AVE	502	14,739	2015	1,630	738	D	0.453	720	C	0.986
EDWARDS RD	OLEANDER AVE to US 1	173	8,963	2015	1,630	433	C	0.593	432	C	0.592
FARMER'S MARKET RD	OLEANDER AVE to US 1	112	1,823	2015	750	118	C	0.319	105	C	0.284
FLORESTA DR	OAKLYN ST to PORT ST LUCIE BLVD	317	12,500	2016	920	946	F	1.028	700	C	0.805
FLORESTA DR	PORT ST LUCIE BLVD to CROSSTOWN PKWY	315	17,500	2016	880	1,233	F	1.401	1,023	F	1.163
FLORESTA DR	CROSSTOWN PKWY to PRIMA VISTA BLVD	109	12,500	2016	920	720	C	0.828	663	C	0.762
FLORESTA DR	PRIMA VISTA BLVD to AIROSO BLVD	107	10,942	2015	920	612	C	0.703	683	C	0.785
FLORESTA DR	SELVITZ RD to BAYSHORE BLVD	313	3,991	2015	630	321	C	0.535	311	C	0.518
FLORESTA DR	AIROSO BLVD to SELVITZ RD	313	3,991	2015	880	321	C	0.387	311	C	0.375
FT. PIERCE BLVD	INDRIO RD to EMERSON AVE	226	3,457	2015	540	265	C	0.981	209	C	0.774
GARDENIA AVE	OLEANDER AVE to US 1	666	2,733	2014	750	206	C	0.557	194	C	0.524
GATLIN BLVD	W. OF I-95 to E. OF I-95	945075	37,849	2015	3,170	-	-	-	-	-	-
GATLIN BLVD	E. OF I-95 to SAVAGE BLVD	945075	37,849	2015	3,170	-	-	-	-	-	-
GATLIN BLVD	SAVAGE BLVD to ROSSER BLVD	945075	37,849	2015	3,170	-	-	-	-	-	-
GATLIN BLVD	ROSSER BLVD to SAVONA BLVD	945075	37,849	2015	3,170	-	-	-	-	-	-
GATLIN BLVD	SAVONA BLVD to PORT ST LUCIE BLVD	945075	37,849	2015	3,170	-	-	-	-	-	-
GEORGIA AVE	25TH ST to OKEECHOBEE RD	667	4,600	2016	600	283	C	0.943	291	C	0.970
GEORGIA AVE	OKEECHOBEE RD to 17TH ST	667	4,600	2016	750	283	C	0.765	291	C	0.786
GEORGIA AVE	17TH ST to 13TH ST	508	4,658	2015	600	245	C	0.817	244	C	0.813
GEORGIA AVE	13TH ST to 7TH ST	506	1,979	2015	600	129	C	0.430	137	C	0.457

\* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT

\* Volumes shown were adjusted using FDOT Seasonal Factors

\* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)

\* Volumes, LOS and V/C values with "-" designation are associated with FDOT Count Stations and will need to have current FDOT volume data supplied before values can be generated properly.

### Traffic Counts and Level of Service Report Fall 2016

Roadway Name	Location	STATION ID	AADT	Last Count Year	PK Hr Service Capacity	AM PK Hr PK Dir			PM PK Hr PK Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
INDIAN RIVER DR	AVENUE D to SEAWAY DR	940004	5,622	2015	790	-	-	-	-	-	-
INDIAN RIVER DR	AVENUE A to AVENUE D	940004	5,622	2015	540	-	-	-	-	-	-
INDRIO RD	PRIVATE RD to I-95 W RAMP	940128	905	2015	1,080	-	-	-	-	-	-
INDRIO RD	I-95 W RAMP to I-95 E RAMP	940128	905	2015	3,240	-	-	-	-	-	-
INDRIO RD	I-95 E RAMP to KOBLEGARD RD	940038	9,712	2015	3,240	-	-	-	-	-	-
INDRIO RD	KOBLEGARD RD to JOHNSTON RD	940038	9,712	2015	700	-	-	-	-	-	-
INDRIO RD	JOHNSTON RD to EMERSON AVE	940038	9,712	2015	880	-	-	-	-	-	-
INDRIO RD	EMERSON RD to SEMINOLE RD	940281	9,567	2015	920	-	-	-	-	-	-
INDRIO RD	SEMINOLE RD to KINGS HWY	940281	9,567	2015	790	-	-	-	-	-	-
INDRIO RD	KINGS HWY to SLASH PINE TRL	114	5,800	2016	790	375	C	0.962	359	C	0.921
INDRIO RD	SLASH PINE TRL to US 1	114	5,800	2016	920	375	C	0.431	359	C	0.413
INDRIO RD	US 1 to OLD DIXIE HWY	672	1,000	2016	750	70	C	0.189	94	C	0.254
JENNINGS RD	US 1 to LENNARD RD	673	4,700	2016	2,100	311	C	0.155	254	C	0.126
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	133	8,100	2016	880	459	C	0.553	430	C	0.518
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	131	10,048	2015	920	538	C	0.618	545	C	0.626
JENKINS RD	GRAHAM RD to PETERSON RD	131	10,048	2015	630	538	C	0.897	545	C	0.908
JENKINS RD	PETERSON RD to ORANGE AVE	131	10,048	2015	920	538	C	0.618	545	C	0.626
JOHNSTON RD	ANGLE RD to L20	674	2,300	2016	1,070	156	B	0.411	151	B	0.397
JOHNSTON RD	L20 to MEADOWWOOD DR	675	2,067	2014	1,070	141	B	0.371	134	B	0.353
JOHNSTON RD	MEADOWWOOD DR to OLD JOHNSTON RD	675	2,067	2014	1,070	141	B	0.371	134	B	0.353
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	675	2,067	2014	1,070	141	B	0.371	134	B	0.353
JOHNSTON RD	INDRIO RD to RUSSOS RD	135	7,500	2016	1,070	453	C	0.596	453	C	0.596
JOHNSTON RD	RUSSOS RD to INDIAN RIVER C.L.	135	7,500	2016	1,070	453	C	0.596	453	C	0.596
JUANITA AVE	53RD ST to 25TH ST	122	3,289	2014	750	190	C	0.514	202	C	0.546
JUANITA AVE	25TH ST to US 1	120	3,308	2014	750	223	C	0.603	203	C	0.549

\* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT  
 \* Volumes shown were adjusted using FDOT Seasonal Factors  
 \* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)  
 \* Volumes, LOS and V/C values with "-" designation are associated with FDOT Count Stations and will need to have current FDOT volume data supplied before values can be generated properly.

### Traffic Counts and Level of Service Report Fall 2016

Roadway Name	Location	STATION ID	AADT	Last Count Year	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
						Volume	LOS	V/C	Volume	LOS	V/C
OKEECHOBEE RD	BLUEFIELD RD to CARLTON RD	687	7,023	2015	1,270	392	B	0.309	391	B	0.308
OKEECHOBEE RD	CARLTON RD to SNEED RD	940039	6,354	2015	1,340	-	-	-	-	-	-
OKEECHOBEE RD	IDEAL HOLDING RD to HEADER CANAL RD	940039	6,354	2015	1,340	-	-	-	-	-	-
OKEECHOBEE RD	SNEED RD to IDEAL HOLDING RD	940039	6,354	2015	1,340	-	-	-	-	-	-
OKEECHOBEE RD	HEADER CANAL RD to MIDWAY RD	940039	6,354	2015	1,740	-	-	-	-	-	-
OKEECHOBEE RD	MIDWAY RD to SHINN RD	940039	6,354	2015	1,740	-	-	-	-	-	-
OKEECHOBEE RD	SHINN RD to MCCARTY RD	940195	4,950	2015	1,810	-	-	-	-	-	-
OKEECHOBEE RD	MCCARTY RD to FLORIDA'S TURNPIKE	940025	6,106	2015	1,810	-	-	-	-	-	-
OKEECHOBEE RD	FLORIDA'S TURNPIKE to KINGS HWY	940025	6,106	2015	2,010	-	-	-	-	-	-
OKEECHOBEE RD	KINGS HWY to CROSSROADS PKWY	940748	20,215	2015	4,170	-	-	-	-	-	-
OKEECHOBEE RD	CROSSROADS PKWY to I-95	940106	20,908	2015	4,170	-	-	-	-	-	-
OKEECHOBEE RD	I-95 to JENKINS RD	940029	28,517	2015	4,240	-	-	-	-	-	-
OKEECHOBEE RD	JENKINS RD to MCNEIL RD	940029	28,517	2015	4,040	-	-	-	-	-	-
OKEECHOBEE RD	MCNEIL RD to VIRGINIA AVE	940742	29,383	2015	3,170	-	-	-	-	-	-
OKEECHOBEE RD	VIRGINIA AVE to HARTMAN RD	688	12,500	2016	2,100	686	C	0.341	686	C	0.341
OKEECHOBEE RD	HARTMAN RD to 35TH ST	688	12,500	2016	1,630	686	C	0.940	686	C	0.940
OKEECHOBEE RD	35TH ST to 33RD ST	689	14,500	2016	1,630	802	D	0.492	806	D	0.494
OKEECHOBEE RD	33RD ST to 25TH ST	689	14,500	2016	1,630	802	D	0.492	806	D	0.494
OKEECHOBEE RD	25TH ST to GEORGIA AVE	690	12,500	2016	1,630	743	D	0.456	698	C	0.956
OKEECHOBEE RD	GEORGIA AVE to DELAWARE AVE	690	12,500	2016	1,710	743	C	0.965	698	C	0.906
OLD DIXIE HWY	US 1 to SR A1A NORTH	691	4,433	2014	790	332	C	0.851	335	C	0.859
OLD DIXIE HWY	SR A1A NORTH to ST LUCIE BLVD	948521	1,850	2015	750	-	-	-	-	-	-
OLD DIXIE HWY	ST LUCIE BLVD to INDRIO RD	227	2,300	2016	790	169	C	0.433	131	C	0.336
OLD DIXIE HWY	INDRIO RD to INDIAN RIVER C.L.	948523	1,175	2015	870	-	-	-	-	-	-
OLEANDER AVE	BEACH AVE to KITTERMAN RD	692	2,533	2014	540	131	C	0.485	163	C	0.604

\* Note: A six digit number in the "STATION ID" column identifies segment counted by FDOT  
 \* Volumes shown were adjusted using FDOT Seasonal Factors  
 \* AADT = Annual Average Daily Traffic (volumes for both directions where applicable)  
 \* **Volumes, LOS and V/C values with " - " designation are associated with FDOT Count Stations and will need to have current FDOT volume data supplied before values can be generated properly.**

### Traffic Counts and Level of Service Report Fall 2013

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
CORTEZ BLVD	25TH STREET to SUNRISE BLVD	2,400	570	159	B	0.482	148	B	0.448
COUNTRY CLUB DR	ST LUCIE WEST BLVD to CALIFORNIA BLVD	6,000	1,340	336	B	0.317	318	B	0.300
CROSSTOWN PKWY	VILLAGE PKWY to I-95	9,600	1,850	556	B	0.378	527	B	0.359
CROSSTOWN PKWY	I-95 to CALIFORNIA BLVD	14,000	2,780	878	B	0.387	848	B	0.374
CROSSTOWN PKWY	CALIFORNIA BLVD to CASHMERE BLVD	13,000	2,780	710	B	0.313	636	B	0.280
CROSSTOWN PKWY	CASHMERE BLVD to CAMEO BLVD	15,000	2,780	768	B	0.338	700	B	0.308
CROSSTOWN PKWY	CAMEO BLVD to BAYSHORE BLVD	17,500	2,530	818	C	0.415	832	C	0.422
CROSSTOWN PKWY	BAYSHORE BLVD to AIROSO BLVD	11,000	2,780	576	B	0.254	559	B	0.246
CROSSTOWN PKWY	AIROSO BLVD to SANDIA DR	7,100	2,530	402	C	0.204	399	C	0.203
CROSSTOWN PKWY	SANDIA DR to OCEAN LN	5,100	600	257	B	0.734	279	B	0.797
CROSSTOWN PKWY	OCEAN LN to FLORESTA DR	4,400	460	250	B	0.926	233	B	0.863
CROSSROADS PKWY	OKEECHOBEE RD to KINGS HWY	550	600	43	B	0.123	40	B	0.114
DARWIN BLVD	BECKER RD to PAAR DR	5,060	630	461	C	0.781	406	C	0.688
DARWIN BLVD	PAAR DR to TULIP BLVD	5,060	830	461	B	0.960	406	B	0.846
DARWIN BLVD	TULIP BLVD to PORT ST LUCIE BLVD	11,500	830	629	C	0.817	714	C	0.927
DEL RIO BLVD	PORT ST LUCIE BLVD to CALIFORNIA BLVD	12,048	830	737	C	0.957	638	C	0.829
DEL RIO BLVD	CALIFORNIA BLVD to CASHMERE BLVD	8,700	790	494	C	0.668	532	C	0.719
DEL RIO BLVD	CALIFORNIA BLVD to CASHMERE BLVD	8,700	790	494	C	0.668	532	C	0.719
DEL RIO BLVD	CASHMERE BLVD to CALIFORNIA BLVD	4,000	790	253	B	0.550	258	B	0.561
DELAWARE AVE	HARTMAN RD to 33RD ST	1,600	580	345	C	0.863	242	C	0.605
DELAWARE AVE	33RD ST to 25TH ST	4,404	1,670	258	C	0.205	254	C	0.202
DELAWARE AVE	17TH ST to 13TH ST	9,600	770	493	C	0.930	526	C	0.992
DELAWARE AVE	13TH ST to 10TH ST	7,600	730	489	C	0.978	436	C	0.872
DELAWARE AVE	10TH ST to 7TH ST	7,600	580	489	D	0.843	436	D	0.752
DELAWARE AVE	7TH ST to US 1	7,300	570	408	D	0.716	392	D	0.688
EASY ST	US 1 to LENNARD EXTENSION RD	5,300	570	443	C	0.836	348	C	0.657
EASY ST	LENNARD EXTENSION RD to YUCCA DR	5,300	460	443	D	0.963	348	C	0.809
EDWARDS RD	JENKINS RD to MC NEIL RD	10,379	630	555	C	0.941	565	C	0.958
EDWARDS RD	MC NEIL RD to SELVITZ RD	10,379	630	555	C	0.941	565	C	0.958

\* Volumes shown were adjusted using FDOT Seasonal Factors  
\* AADT = Annual Average Daily Traffic

## Traffic Counts and Level of Service Report Fall 2013

Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
INDRIO RD	KINGS HWY to US 1	5,200	920	355	B	0.657	336	B	0.622
INDRIO RD	US 1 to OLD DIXIE HWY	1,000	790	67	B	0.146	85	B	0.185
INTERSTATE 95	TRADITION PKWY to ST LUCIE WEST BLVD	82,412	4,580	4,220	C	0.921	3,812	C	0.832
INTERSTATE 95	ST LUCIE WEST BLVD to MIDWAY RD	56,504	4,580	3,178	B	0.963	2,741	B	0.831
INTERSTATE 95	MIDWAY RD to OKEECHOBEE RD	64,444	4,580	3,890	C	0.849	3,159	B	0.957
INTERSTATE 95	OKEECHOBEE RD to ORANGE AVE	45,500	3,720	1,822	B	0.828	1,894	B	0.861
INTERSTATE 95	ORANGE AVE to INDRIO RD	84,036	3,720	4,042	F	1.005	3,721	E	0.926
JENNINGS RD	US 1 to LENNARD RD	4,100	1,850	330	B	0.224	236	B	0.161
JENKINS RD	EDWARDS RD to OKEECHOBEE RD	7,400	790	371	B	0.807	378	B	0.822
JENKINS RD	OKEECHOBEE RD to GRAHAM RD	9,600	830	577	C	0.749	507	C	0.658
JENKINS RD	GRAHAM RD to PETERSON RD	9,600	630	577	C	0.978	507	C	0.859
JENKINS RD	PETERSON RD to ORANGE AVE	9,600	830	577	C	0.749	507	C	0.658
JOHNSTON RD	ANGLE RD to ST LUCIE BLVD	1,900	1,120	136	B	0.324	111	B	0.264
JOHNSTON RD	ST LUCIE BLVD to MEADOWOOD	1,400	1,120	93	B	0.221	88	B	0.210
JOHNSTON RD	MEADOWOOD to OLD JOHNSTON RD	1,400	1,120	93	B	0.221	88	B	0.210
JOHNSTON RD	OLD JOHNSTON RD to INDRIO RD	1,400	1,120	93	B	0.221	88	B	0.210
JOHNSTON RD	INDRIO RD to RUSSOS ROAD	6,800	1,120	436	C	0.545	440	C	0.550
JOHNSTON RD	RUSSOS ROAD to INDIAN RIVER COUNTY LINE	6,800	1,120	436	C	0.545	440	C	0.550
JUANITA AVE	53RD STREET to 25TH ST	4,981	790	317	B	0.689	285	B	0.620
JUANITA AVE	25TH ST to US 1	3,810	790	209	B	0.454	207	B	0.450
KEEN RD	ANGLE RD to JUANITA AVE	2,536	580	218	B	0.641	222	B	0.653
KEEN RD	JUANITA AVE to ST LUCIE BLVD	2,536	580	218	B	0.641	222	B	0.653
KINGS ISLE	CASHMERE BLVD to TORINO PKWY	8,000	630	494	C	0.837	457	C	0.775
KINGS HWY	OKEECHOBEE RD to CROSSROADS PKWY	9,446	820	415	B	0.814	424	B	0.831
KINGS HWY	CROSSROADS PKWY to GRAHAM RD	9,446	660	415	C	0.629	424	C	0.642
KINGS HWY	GRAHAM RD to PICOS RD	8,977	660	442	C	0.670	425	C	0.644
KINGS HWY	PICOS RD to ORANGE AVE	8,977	820	442	B	0.867	425	B	0.833
KINGS HWY	ORANGE AVE to ANGLE RD	20,388	790	1,074	F	1.279	1,081	F	1.287
KINGS HWY	ANGLE RD to ST LUCIE BLVD	12,055	750	663	C	0.884	667	C	0.889

\* Volumes shown were adjusted using FDOT Seasonal Factors

\* AADT = Annual Average Daily Traffic

**Generalized Peak Hour Directional Volumes for Florida's Urbanized Areas<sup>1</sup>**

**TABLE 7**

12/18/12

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES						
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>						
<b>Class I (40 mph or higher posted speed limit)</b>						Lanes	B	C	D	E		
Lanes	Median	B	C	D	E	2	2,260	3,020	3,660	3,940		
1	Undivided	*	830	880	**	3	3,360	4,580	5,500	6,080		
2	Divided	*	1,910	2,000	**	4	4,500	6,080	7,320	8,220		
3	Divided	*	2,940	3,020	**	5	5,660	7,680	9,220	10,360		
4	Divided	*	3,970	4,040	**	6	7,900	10,320	12,060	12,500		
<b>Class II (35 mph or slower posted speed limit)</b>						<b>Freeway Adjustments</b>						
Lanes	Median	B	C	D	E	Auxiliary Lane	Ramp Metering					
1	Undivided	*	370	750	800	+ 1,000	+ 5%					
2	Divided	*	730	1,630	1,700							
3	Divided	*	1,170	2,520	2,560							
4	Divided	*	1,610	3,390	3,420							
<b>Non-State Signalized Roadway Adjustments</b> (Alter corresponding state volumes by the indicated percent.)												
Non-State Signalized Roadways - 10%												
<b>Median &amp; Turn Lane Adjustments</b>												
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors								
1	Divided	Yes	No	+5%								
1	Undivided	No	No	-20%								
Multi	Undivided	Yes	No	-5%								
Multi	Undivided	No	No	-25%								
-	-	-	Yes	+ 5%								
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2												
<b>BICYCLE MODE<sup>2</sup></b> (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
<b>Paved Shoulder/Bicycle Lane Coverage</b>						B	C	D	E			
0-49%						*	150	390	1,000			
50-84%						110	340	1,000	>1,000			
85-100%						470	1,000	>1,000	**			
<b>PEDESTRIAN MODE<sup>2</sup></b> (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)												
<b>Sidewalk Coverage</b>						B	C	D	E			
0-49%						*	*	140	480			
50-84%						*	80	440	800			
85-100%						200	540	880	>1,000			
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b> (Buses in peak hour in peak direction)												
<b>Sidewalk Coverage</b>						B	C	D	E			
0-84%						> 5	≥ 4	≥ 3	≥ 2			
85-100%						> 4	≥ 3	≥ 2	≥ 1			
						<b>UNINTERRUPTED FLOW HIGHWAYS</b>						
Lanes	Median	B	C	D	E							
1	Undivided	420	840	1,190	1,640							
2	Divided	1,810	2,560	3,240	3,590							
3	Divided	2,720	3,840	4,860	5,380							
<b>Uninterrupted Flow Highway Adjustments</b>												
Lanes	Median	Exclusive left lanes		Adjustment factors								
1	Divided	Yes		+5%								
Multi	Undivided	Yes		-5%								
Multi	Undivided	No		-25%								
						<sup>1</sup> Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.						
						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.						
						<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.						
						* Cannot be achieved using table input value defaults.						
						** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.						
						Source: Florida Department of Transportation Systems Planning Office <a href="http://www.dot.state.fl.us/planning/systems/stm/los/default.shtml">www.dot.state.fl.us/planning/systems/stm/los/default.shtml</a>						

**Area Growth Rate Calculation**

Segment	From	To	2013 AADT	2016 AADT
<b>Edwards Rd</b>	Jenkins Rd	McNeil Rd	10379	9837
<b>Jenkins Rd</b>	Edwards Rd	Okeechobee Rd	7400	8100

Area Growth Rate = (Total 2016 AADT/(Total 2013 AADT)^(1/Number of Years)

Total	17779	17937
-------	-------	-------

Area Growth Rate	1.003
------------------	-------

**APPENDIX C**

**Background Traffic and Other Project Data**





## **APPENDIX D**

### **Intersection Analysis Data**

# TURNING MOVEMENT VOLUME COUNTS

**N/S STREET:** Jenkins Rd. **E/W STREET:** Oklawaha Rd. **CONTROL:**  
**FILENAME:** KOA Blding Counts **CITY:** Ft. Pierce  
**COUNT DATE:** 6/15/2017 **DAY:** Wednesday  
**REPORT DATE:** 6/15/2017 **ANALYSIS YEAR:** 2017

15 Min Period	Northbound			Southbound			Eastbound			Westbound				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
7:00-7:15	36	19	1	23	25	6	20	154	47	2	107	5	445	2349
7:15-7:30	40	22	6	31	25	8	22	254	38	4	132	18	590	2524
7:30-7:45	48	25	1	54	41	7	53	204	29	3	115	14	614	2568
7:45-8:00	48	31	5	38	43	8	25	306	37	6	141	14	700	2533
8:00-8:15	48	29	2	46	31	6	24	244	49	5	113	23	620	2410
8:15-8:30	26	18	5	39	38	9	22	253	40	6	161	19	634	
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21	579	
8:45-9:00	37	21	12	31	17	6	22	226	53	15	128	7	577	

**AM PEAK HOUR IS FROM:** 7:30 AM TO 8:30 AM  
 Volumes: 170 101 13 175 153 30 124 1027 155 20 530 70 2566  
 Season Factor: 1.11  
 Growth: 189 112 14 194 170 33 138 1140 172 22 568 78 2850  
 In/Out: - - - - -  
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%  
**PROJECT** 0 0 0 0 0 0 0 0 0 0 0 0 0 0



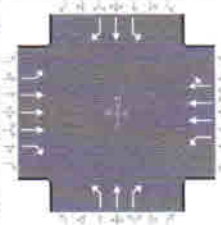
15 Min Period	Northbound			Southbound			Eastbound			Westbound				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
4:00-4:15	45	18	3	57	31	11	20	180	30	6	210	35	647	2753
4:15-4:30	37	24	3	62	34	12	33	182	30	3	208	35	563	2870
4:30-4:45	35	23	0	50	32	10	36	218	52	8	240	28	742	2940
4:45-5:00	46	19	4	68	37	7	31	200	34	4	215	38	701	2940
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	25	764	2859
5:15-5:30	45	26	2	54	31	3	32	164	45	4	271	34	733	
5:30-5:45	38	24	2	65	28	8	37	195	35	3	268	49	742	
5:45-6:00	34	23	4	46	34	7	23	188	33	2	188	38	620	

**PM PEAK HOUR IS FROM:** 5:00 PM TO 6:00 PM  
 Volumes: 158 93 14 219 138 26 114 790 162 14 991 140 2859  
 Season Factor: 1.11  
 Growth: 175 103 16 243 153 29 127 877 180 16 1100 155 3173  
 In/Out: - - - - -  
 Percentage: 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%  
**PROJECT** 0 0 0 0 0 0 0 0 0 0 0 0 0 0



# HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OREP			Duration, h	0.25		
Analyst	Jasmin Mohyuddin	Analysis Date	6/27/2017	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.95		
Urban Street	Okeechobee Road	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Jenkins Rd and Okeech...	File Name	Streets1.xus				
Project Description	KOA Campground-Existing						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	138	1140	172	22	588	78	189	112	14	194	170	33

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	3.2	1.6	53.7	13.6	0.4	13.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.7	4.7	4.7	4.7	0.0	4.7			
				Red	2.0	2.0	2.0	2.5	0.0	2.5			

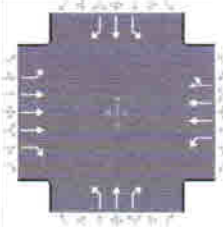
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	18.2	68.7	9.9	60.4	20.8	20.2	21.2	20.6
Change Period, ( Y+R <sub>c</sub> ), s	6.7	6.7	6.7	6.7	7.2	7.2	7.2	7.2
Max Allow Headway ( MAH ), s	3.1	0.0	3.1	0.0	3.1	3.1	3.1	3.1
Queue Clearance Time ( g <sub>s</sub> ), s	11.5		2.8		13.5	9.1	13.8	13.1
Green Extension Time ( g <sub>e</sub> ), s	0.1	0.0	0.0	0.0	0.0	0.5	0.2	0.4
Phase Call Probability	0.99		0.54		1.00	1.00	1.00	1.00
Max Out Probability	0.02		0.00		1.00	0.01	0.06	0.11

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate ( v ), veh/h	145	1200	181	23	475	226	199	118	15	204	179	35
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1810	1725	1610	1810	1900	1784	1810	1900	1610	1810	1900	1610
Queue Service Time ( g <sub>s</sub> ), s	9.5	17.5	5.6	0.8	9.5	9.6	11.5	7.1	1.0	11.8	11.1	2.1
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	9.5	17.5	5.6	0.8	9.5	9.6	11.5	7.1	1.0	11.8	11.1	2.1
Green Ratio ( g/C )	0.46	0.52	0.63	0.47	0.45	0.45	0.22	0.11	0.14	0.23	0.11	0.21
Capacity ( c ), veh/h	173	2672	1014	276	1700	798	269	206	218	335	213	335
Volume-to-Capacity Ratio ( X )	0.838	0.449	0.179	0.084	0.279	0.284	0.741	0.572	0.068	0.609	0.841	0.104
Back of Queue ( Q ), ft/ln ( 50 th percentile)	115.7	172.8	49.7	8.5	106.2	104.3	142	84.9	9.6	132	145.6	20.8
Back of Queue ( Q ), veh/ln ( 50 th percentile)	4.6	6.9	2.0	0.3	4.2	4.2	5.7	3.4	0.4	5.3	5.8	0.8
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	53.3	18.3	9.3	17.4	20.9	21.0	41.5	50.8	45.3	40.9	52.2	38.5
Incremental Delay ( d <sub>2</sub> ), s/veh	7.4	0.5	0.4	0.0	0.4	0.9	7.8	0.9	0.0	0.7	10.0	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay ( d ), s/veh	60.7	18.8	9.7	17.4	21.4	21.9	49.4	51.8	45.3	41.5	62.2	38.5
Level of Service ( LOS )	E	B	A	B	C	C	D	D	D	D	E	D
Approach Delay, s/veh / LOS	21.7		C	21.4		C	50.0		D	50.1		D
Intersection Delay, s/veh / LOS	28.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	3.3	C	3.4	C
Bicycle LOS Score / LOS	1.3	A	0.9	A	1.0	A	1.2	A

## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OREP			Duration, h	0.25		
Analyst	Jasmin Mohyuddin	Analysis Date	Jun 26, 2017	Area Type	Other		
Jurisdiction	St. Lucie	Time Period	PM	PHF	0.95		
Urban Street	Okeechobee Rd	Analysis Year	2017	Analysis Period	1> 7:00		
Intersection	Jenkins Rd and Okeech...	File Name	Jenkins and Okeechobee PM Existing.xus				
Project Description	KOA Campground- Existing						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h	127	877	180	16	1100	155	175	103	16	243	153	29

Signal Information																								
Cycle, s	120.0	Reference Phase	2																					
Offset, s	0	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					
		Green	2.6	1.4	55.1	9.8	0.3	9.1																
		Yellow	4.7	4.7	4.7	4.7	4.7	4.7	4.7															
		Red	2.0	2.0	2.0	2.5	2.5	2.5	2.5															

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	17.4	69.9	9.3	61.8	17.0	16.3	24.5	23.8
Change Period, ( $Y+R_c$ ), s	6.7	6.7	6.7	6.7	7.2	7.2	7.2	7.2
Max Allow Headway ( $MAH$ ), s	3.1	0.0	3.1	0.0	3.1	3.1	3.1	3.1
Queue Clearance Time ( $g_s$ ), s	10.7		2.6		11.8	8.7	17.1	11.6
Green Extension Time ( $g_e$ ), s	0.1	0.0	0.0	0.0	0.0	0.4	0.2	0.5
Phase Call Probability	0.99		0.43		1.00	1.00	1.00	1.00
Max Out Probability	0.00		0.00		1.00	0.01	0.24	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate ( $v$ ), veh/h	134	923	189	17	931	390	184	108	17	256	161	31
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1810	1725	1610	1810	1900	1590	1810	1900	1610	1810	1900	1610
Queue Service Time ( $g_s$ ), s	8.7	12.3	6.3	0.6	21.1	21.1	9.8	6.7	1.1	15.1	9.6	1.8
Cycle Queue Clearance Time ( $g_c$ ), s	8.7	12.3	6.3	0.6	21.1	21.1	9.8	6.7	1.1	15.1	9.6	1.8
Green Ratio ( $g/C$ )	0.09	0.53	0.61	0.48	0.46	0.46	0.16	0.08	0.10	0.24	0.14	0.23
Capacity ( $c$ ), veh/h	162	2727	980	350	1744	730	260	144	157	347	263	366
Volume-to-Capacity Ratio ( $X$ )	0.827	0.339	0.193	0.048	0.534	0.534	0.709	0.752	0.107	0.737	0.613	0.083
Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)	102.9	120.5	56.2	6.1	237.3	206.9	147.6	82.5	11.6	176.1	114.3	17.7
Back of Queue ( $Q$ ), veh/ln ( 50 th percentile)	4.1	4.8	2.2	0.2	9.5	8.3	5.9	3.3	0.5	7.0	4.6	0.7
Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay ( $d_1$ ), s/veh	53.7	16.3	10.4	16.5	23.3	23.3	48.1	54.3	49.4	41.1	48.7	36.5
Incremental Delay ( $d_2$ ), s/veh	4.1	0.3	0.4	0.0	1.2	2.8	7.4	3.0	0.1	4.2	0.9	0.0
Initial Queue Delay ( $d_3$ ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay ( $d$ ), s/veh	57.8	16.7	10.9	16.5	24.4	26.0	55.5	57.3	49.5	45.3	49.5	36.5
Level of Service (LOS)	E	B	B	B	C	C	E	E	D	D	D	D
Approach Delay, s/veh / LOS	20.2	C		24.8	C		55.8	E		46.2	D	
Intersection Delay, s/veh / LOS	28.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	3.3	C	3.4	C
Bicycle LOS Score / LOS	1.2	A	1.2	A	1.0	A	1.2	A

TURNING MOVEMENT VOLUME COUNTS

R/S STREET: J. Williams Rd. CONTROL: E/W STREET: Okenechokwe Rd.  
 FILENAME: KVA Bullhorn Counts CITY: H. Pines  
 COUNT DATE: 6/15/2017 DAY: Wednesday  
 REPORT DATE: 6/15/2017 ANALYSIS YEAR: 2019

15 Min Period

Volume	Northbound			Southbound			Eastbound			Westbound		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
7:00-7:15	36	19	1	23	25	8	20	154	47	7	107	5
7:15-7:30	40	24	6	31	25	8	22	254	26	4	132	18
7:30-7:45	48	25	1	54	41	7	53	224	29	3	115	14
7:45-8:00	48	31	5	36	43	8	25	306	37	6	141	14
8:00-8:15	48	29	7	46	31	6	24	244	49	5	113	22
8:15-8:30	26	16	5	39	38	9	22	253	40	6	103	19
8:30-8:45	43	24	8	34	31	3	16	218	43	8	130	21
8:45-9:00	37	21	12	31	17	6	22	236	55	15	128	7

AM PEAK HOUR IS FROM 7:30 AM TO 8:30 AM

Volume	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
Whispering Oaks	170	101	13	176	153	30	134	1027	155	20	530	70	2568	2499
SLCC	889	312	14	194	170	33	138	1140	172	22	588	78	2850	2850
Kings-Candler	190	113	15	139	121	34	138	1147	173	22	592	78	2858	2858
Percentage	65%	5%	5%	0%	5%	0%	0%	0%	65%	5%	0%	0%	0%	0%
PROJECT	20	2	2	0	1	0	0	0	12	1	0	0	0	0
Mariner Cove	36	8	8	0	2	0	0	0	7	3	0	0	0	0
39-Acre Residential	36	2	3	0	1	0	0	0	8	1	0	0	0	0
Whispering Oaks	0	5	0	17	17	35	9	0	0	0	0	5	0	0
SLCC	0	28	0	0	5	0	0	5	0	0	28	28	0	0
Love's	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kings-Candler	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Celebration Pines	0	0	0	0	0	0	72	24	0	0	0	0	0	0
Bent Creek	0	0	0	0	0	0	12	0	0	0	0	0	0	0
Villages of Sunset Lakes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whispering Oaks	7	0	0	0	0	0	7	23	126	21	0	43	0	0
Crestside	289	164	19	217	197	184	204	1278	223	27	663	111	9574	9574

Seasonal Factor: 1.11  
 Trips In: 18  
 Trips Out: 31  
 Growth Rate: 1.003  
 Years Growth: 2

15 Min Period Times

Volume	Northbound			Southbound			Eastbound			Westbound		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
4:00-4:15	45	19	3	57	31	11	20	180	30	5	210	35
4:15-4:30	37	28	3	62	39	12	33	182	30	8	208	35
4:30-4:45	35	23	0	50	32	10	36	228	32	8	240	28
4:45-5:00	46	19	4	68	37	7	31	200	34	4	213	38
5:00-5:15	41	18	6	54	45	8	22	223	49	5	264	29
5:15-5:30	45	28	2	64	31	3	32	184	45	4	271	34
5:30-5:45	38	24	2	46	28	8	17	195	35	3	268	39
5:45-6:00	34	23	4	46	34	7	23	188	33	2	188	38

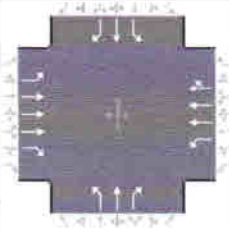
PM PEAK HOUR IS FROM 5:00 PM TO 6:00 PM

Volume	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL	ONE HOUR SUM
Whispering Oaks	158	91	14	219	138	26	114	790	162	14	991	140	2659	2659
SLCC	125	103	16	245	153	33	127	180	160	16	1100	155	3121	3121
Kings-Candler	136	101	16	245	154	29	127	812	182	16	1107	156	3159	3159
Percentage	65%	5%	5%	0%	5%	0%	0%	0%	65%	5%	0%	0%	0%	0%
PROJECT	25	2	2	0	4	0	0	0	14	15	0	0	0	0
Mariner Cove	17	4	8	0	8	0	0	0	15	3	0	0	0	0
39-Acre Residential	0	17	0	9	9	20	96	0	0	0	10	10	0	0
Whispering Oaks	0	10	0	39	39	0	0	39	0	0	0	0	0	0
SLCC	0	0	0	0	0	0	0	0	0	0	169	0	0	0
Love's	25	0	0	0	0	0	15	83	15	0	0	0	0	0
Kings-Candler	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Villages of Sunset Lakes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bent Creek	0	0	0	0	0	0	22	38	0	0	0	0	0	0
Celebration Pines	0	0	0	0	0	0	45	78	0	0	0	0	0	0
Total	260	142	28	293	220	141	291	1014	265	37	1267	153	4143	4143

Seasonal Factor: 1.11  
 Growth Rate: 1.003  
 Trips In: 70  
 Trips Out: 38  
 Years Growth: 2

# HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	OREP			Duration, h	0.25		
Analyst	Jasmin Mohyuddin	Analysis Date	6/27/2017	Area Type	Other		
Jurisdiction	St. Lucie County	Time Period	AM	PHF	0.95		
Urban Street		Analysis Year	2019	Analysis Period	1> 7:00		
Intersection	Jenkins Rd and Okeech...	File Name	JenkinsXOkeechobee AM Buildout.xus				
Project Description	KOA Campground- Buildout						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h	204	1278	221	27	663	111	289	164	19	217	197	184

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	3.7	4.4	47.3	14.8	0.4	14.9			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.7	4.7	4.7	4.7	0.0	4.7			
				Red	2.0	2.0	2.0	2.5	0.0	2.5			

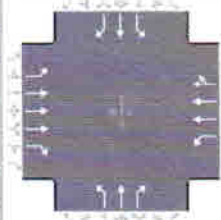
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	21.5	65.1	10.4	54.0	22.0	22.1	22.4	22.5
Change Period, ( Y+R <sub>c</sub> ), s	6.7	6.7	6.7	6.7	7.2	7.2	7.2	7.2
Max Allow Headway ( MAH ), s	3.1	0.0	3.1	0.0	3.1	3.1	3.1	3.1
Queue Clearance Time ( g <sub>s</sub> ), s	16.2		3.1		16.8	12.5	15.0	14.8
Green Extension Time ( g <sub>e</sub> ), s	0.0	0.0	0.0	0.0	0.0	0.7	0.2	0.5
Phase Call Probability	1.00		0.61		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		1.00	0.39	0.20	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate ( v ), veh/h	215	1345	233	28	554	260	304	173	20	228	207	194
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1810	1725	1610	1810	1900	1758	1810	1900	1610	1810	1900	1610
Queue Service Time ( g <sub>s</sub> ), s	14.2	21.6	7.9	1.1	12.4	12.6	14.8	10.5	1.3	13.0	12.8	12.3
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	14.2	21.6	7.9	1.1	12.4	12.6	14.8	10.5	1.3	13.0	12.8	12.3
Green Ratio ( g/C )	0.12	0.49	0.61	0.42	0.39	0.39	0.25	0.12	0.15	0.25	0.13	0.25
Capacity ( c ), veh/h	223	2520	983	235	1498	693	288	236	249	334	242	404
Volume-to-Capacity Ratio ( X )	0.961	0.534	0.237	0.121	0.370	0.376	1.057	0.731	0.080	0.684	0.857	0.480
Back of Queue ( Q ), ft/ln ( 50 th percentile)	234.8	216.8	71	11.7	142.3	137.8	169.3	133.8	12.8	147.9	181.3	121.2
Back of Queue ( Q ), veh/ln ( 50 th percentile)	9.4	8.7	2.8	0.5	5.7	5.5	6.8	5.4	0.5	5.9	7.3	4.8
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	52.3	21.3	10.6	20.9	25.8	25.8	42.7	50.6	43.4	39.1	51.3	38.3
Incremental Delay ( d <sub>2</sub> ), s/veh	48.9	0.8	0.6	0.1	0.7	1.6	68.9	6.1	0.1	2.3	17.9	0.3
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay ( d ), s/veh	101.2	22.2	11.2	21.0	26.5	27.4	111.6	56.7	43.4	41.4	69.2	38.6
Level of Service (LOS)	F	C	B	C	C	C	F	E	D	D	E	D
Approach Delay, s/veh / LOS	30.2		C	26.6		C	89.8		F	49.7		D
Intersection Delay, s/veh / LOS	40.5						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	3.3	C	3.4	C
Bicycle LOS Score / LOS	1.5	A	1.0	A	1.3	A	1.5	B

## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	OREP			Duration, h	0.25
Analyst	Jasmin Mohyuddin	Analysis Date	Jun 26, 2017	Area Type	Other
Jurisdiction	St. Lucie	Time Period	PM	PHF	0.95
Urban Street	Okeechobee Rd	Analysis Year	2019	Analysis Period	1> 7:00
Intersection	Jenkins Rd and Okeech...	File Name	Jenkins and Okeechobee PM Buildout.xus		
Project Description	KOA Campground- Buildout				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	294	1014	265	37	1267	183	260	142	28	293	220	141

Signal Information													
Cycle, s	120.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	No	Simult. Gap E/W	On	Green	4.4	2.2	47.3	9.8	2.9	11.7			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.7	4.7	4.7	4.7	4.7	4.7			
				Red	2.0	2.0	2.0	2.5	2.5	2.5			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4	3	8
Case Number	2.0	3.0	1.1	4.0	1.1	3.0	1.1	3.0
Phase Duration, s	20.0	62.9	11.1	54.0	17.0	18.9	27.1	29.0
Change Period, ( Y+R <sub>c</sub> ), s	6.7	6.7	6.7	6.7	7.2	7.2	7.2	7.2
Max Allow Headway ( MAH ), s	3.1	0.0	3.1	0.0	3.1	3.1	3.1	3.1
Queue Clearance Time ( g <sub>s</sub> ), s	15.3		3.5		11.8	11.2	19.7	15.6
Green Extension Time ( g <sub>e</sub> ), s	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.8
Phase Call Probability	1.00		0.73		1.00	1.00	1.00	1.00
Max Out Probability	1.00		0.00		1.00	0.83	1.00	0.03

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate ( v ), veh/h	309	1067	279	39	1076	450	274	149	29	308	232	148
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1810	1725	1610	1810	1900	1588	1810	1900	1610	1810	1900	1610
Queue Service Time ( g <sub>s</sub> ), s	13.3	12.8	11.3	1.5	25.9	27.2	9.8	9.2	1.9	17.7	13.6	8.6
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	13.3	12.8	11.3	1.5	25.9	27.2	9.8	9.2	1.9	17.7	13.6	8.6
Green Ratio ( g/C )	0.11	0.47	0.55	0.43	0.39	0.39	0.18	0.10	0.13	0.28	0.18	0.29
Capacity ( c ), veh/h	200	2425	886	311	1498	626	268	186	216	386	345	471
Volume-to-Capacity Ratio ( X )	1.545	0.440	0.315	0.125	0.719	0.719	1.022	0.806	0.137	0.799	0.671	0.315
Back of Queue ( Q ), ft/ln ( 50 th percentile)	522.9	110.6	105.8	15.9	267.8	267.5	192.2	124.8	19.5	217.8	165.3	84.1
Back of Queue ( Q ), veh/ln ( 50 th percentile)	20.9	4.4	4.2	0.6	10.7	10.7	7.7	5.0	0.8	8.7	6.6	3.4
Queue Storage Ratio ( RQ ) ( 50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay ( d <sub>1</sub> ), s/veh	53.4	14.4	14.7	20.0	23.4	26.5	50.1	53.0	45.8	38.2	45.7	33.1
Incremental Delay ( d <sub>2</sub> ), s/veh	268.3	0.6	0.9	0.1	3.0	7.0	60.6	12.1	0.1	8.9	2.6	0.1
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay ( d ), s/veh	321.7	15.0	15.6	20.1	26.4	33.5	110.8	65.1	45.9	47.1	48.3	33.2
Level of Service (LOS)	F	B	B	C	C	C	F	E	D	D	D	C
Approach Delay, s/veh / LOS	72.4		E	28.3		C	91.5		F	44.5		D
Intersection Delay, s/veh / LOS	54.1						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.4	B	2.4	B	3.3	C	3.4	C
Bicycle LOS Score / LOS	1.4	A	1.3	A	1.2	A	1.6	B

# Standard Report

Location: Jenkins x Okeechobee AM  
Unit ID: 4  
Study Date: Wednesday June 21, 2017  
Interval: 15 minutes

## Vehicles

	Southbound			Westbound			Northbound			Eastbound			Grand Total				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Total			
	Total			Total			Total			Total							
07:00	23	25	6	54	2	107	5	114	36	19	1	56	20	154	47	221	445
07:15	31	25	8	64	4	132	18	154	40	22	6	68	22	254	28	304	590
07:30	54	41	7	102	3	115	14	132	48	25	1	74	53	224	29	306	614
07:45	36	43	8	87	6	141	14	161	48	31	5	84	25	306	37	368	700
<b>Subtotal</b>	<b>144</b>	<b>134</b>	<b>29</b>	<b>307</b>	<b>15</b>	<b>495</b>	<b>51</b>	<b>561</b>	<b>172</b>	<b>97</b>	<b>13</b>	<b>282</b>	<b>120</b>	<b>938</b>	<b>141</b>	<b>1199</b>	<b>2349</b>
08:00	46	31	6	83	5	113	23	141	48	29	2	79	24	244	49	317	620
08:15	39	38	9	86	6	161	19	186	26	16	5	47	22	253	40	315	634
08:30	34	31	3	68	8	130	21	159	43	24	8	75	16	218	43	277	579
08:45	31	17	6	54	15	128	7	150	37	21	12	70	22	226	55	303	577
<b>Subtotal</b>	<b>150</b>	<b>117</b>	<b>24</b>	<b>291</b>	<b>34</b>	<b>532</b>	<b>70</b>	<b>636</b>	<b>154</b>	<b>90</b>	<b>27</b>	<b>271</b>	<b>84</b>	<b>941</b>	<b>187</b>	<b>1212</b>	<b>2410</b>
<b>Total</b>	<b>294</b>	<b>251</b>	<b>53</b>	<b>598</b>	<b>49</b>	<b>1027</b>	<b>121</b>	<b>1197</b>	<b>326</b>	<b>187</b>	<b>40</b>	<b>553</b>	<b>204</b>	<b>1879</b>	<b>328</b>	<b>2411</b>	<b>4759</b>
Table %	6.2	5.3	1.1	12.6	1.0	21.6	2.5	25.2	6.9	3.9	0.8	11.6	4.3	39.5	6.9	50.7	100.0
Intersection %	6.2	5.3	1.1	12.6	1.0	21.6	2.5	25.2	6.9	3.9	0.8	11.6	4.3	39.5	6.9	50.7	100.0
Approach %	49.2	42.0	8.9	100.0	4.1	85.8	10.1	100.0	59.0	33.8	7.2	100.0	8.5	77.9	13.6	100.0	-
Total Approach %	49.2	42.0	8.9	100.0	4.1	85.8	10.1	100.0	59.0	33.8	7.2	100.0	8.5	77.9	13.6	100.0	-
Peak Hour	07:30	07:30	07:30	07:30	08:00	07:45	07:45	07:45	07:15	07:15	08:00	07:15	07:15	07:15	08:00	07:30	07:30
Peak Total	175	153	30	358	34	545	77	647	184	107	27	305	124	1028	187	1306	2568
Peak Factor (PHF)	0.8	0.9	0.8	0.9	0.6	0.8	0.8	0.9	1.0	0.9	0.6	0.9	0.6	0.8	0.9	0.9	0.5

# Standard Report

Location: Jenkins x Okeechobee PM  
Unit ID: 4  
Study Date: Wednesday June 21, 2017  
Interval: 15 minutes

## Vehicles

	Southbound			Westbound			Northbound			Eastbound			Grand Total				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Total			
	Total			Total			Total			Total							
16:00	57	31	11	99	6	210	35	251	45	19	3	67	20	180	30	230	647
16:15	62	34	12	108	3	208	35	246	37	24	3	64	33	182	30	245	663
16:30	50	32	10	92	8	240	28	276	35	23	0	58	36	228	52	316	742
16:45	68	37	7	112	4	213	38	255	46	19	4	69	31	200	34	265	701
<b>Subtotal</b>	<b>237</b>	<b>134</b>	<b>40</b>	<b>411</b>	<b>21</b>	<b>871</b>	<b>136</b>	<b>1028</b>	<b>163</b>	<b>85</b>	<b>10</b>	<b>258</b>	<b>120</b>	<b>790</b>	<b>146</b>	<b>1056</b>	<b>2753</b>
17:00	54	45	8	107	5	264	29	298	41	18	6	65	22	223	49	294	764
17:15	54	31	3	88	4	271	34	309	45	28	2	75	32	184	45	261	733
17:30	65	28	8	101	3	268	39	310	38	24	2	64	37	195	35	267	742
17:45	46	34	7	87	2	188	38	228	34	23	4	61	23	188	33	244	620
<b>Subtotal</b>	<b>219</b>	<b>138</b>	<b>26</b>	<b>383</b>	<b>14</b>	<b>991</b>	<b>140</b>	<b>1145</b>	<b>158</b>	<b>93</b>	<b>14</b>	<b>265</b>	<b>114</b>	<b>790</b>	<b>162</b>	<b>1066</b>	<b>2859</b>
18:00	0	0	0	0	1	13	2	16	0	0	2	2	2	11	16	29	47
<b>Total</b>	<b>456</b>	<b>272</b>	<b>66</b>	<b>794</b>	<b>36</b>	<b>1875</b>	<b>278</b>	<b>2189</b>	<b>321</b>	<b>178</b>	<b>26</b>	<b>525</b>	<b>236</b>	<b>1591</b>	<b>324</b>	<b>2151</b>	<b>5659</b>
Table %	8.1	4.8	1.2	14.0	0.6	33.1	4.9	38.7	5.7	3.1	0.5	9.3	4.2	28.1	5.7	38.0	100.0
Intersection %	8.1	4.8	1.2	14.0	0.6	33.1	4.9	38.7	5.7	3.1	0.5	9.3	4.2	28.1	5.7	38.0	100.0
Approach %	57.4	34.3	8.3	100.0	1.6	85.7	12.7	100.0	61.1	33.9	5.0	100.0	11.0	74.0	15.1	100.0	-
Total Approach %	57.4	34.3	8.3	100.0	1.6	85.7	12.7	100.0	61.1	33.9	5.0	100.0	11.0	74.0	15.1	100.0	-
Peak Hour	16:45	16:15	16:00	16:15	16:00	16:45	16:45	16:45	16:45	17:00	16:45	16:45	16:45	16:15	16:30	16:30	16:30
Peak Total	241	148	40	419	21	1016	140	1172	170	93	14	273	122	835	180	1136	2940
Peak Factor (PHF)	0.9	0.8	0.8	0.9	0.7	0.9	0.9	0.9	0.9	0.8	0.6	0.9	0.8	0.9	0.9	0.9	0.5



Working Spreadsheet- Coordinated and Time of Day Settings - SECONDS

Location: Okeechobee Road at Jenkins Road

Day Plan	Plan Name	Start	End	Cycle No.	Splits/ Offset No.	Cycle Length	1 2 3 4 5 6 7 8								Offset
							EBL	NB	SRL	NB	WBL	EB	NBL	SB	
1	Free	0:00	6:30				19	54	27	20	15	58	22	25	26
1	AM	6:30	9:00	1	1	120	17	62	21	20	15	64	19	22	60
1	AM Off	9:00	11:00	1	2	120	17	59	25	19	15	61	19	25	23
1	Midday	11:00	13:00	1	3	120	17	62	21	20	15	64	19	22	60
1	PM Off	13:00	16:00	1	32	120	17	54	29	20	15	56	17	32	48
1	PM	16:00	18:00	1	4	120	17	62	21	20	15	64	19	22	60
1	Evening	18:00	20:00	2	2	120	17	62	21	20	15	64	19	22	60
1	Free	20:00	0:00												
2	Peak	11:00	16:00												
Running Free															

Notes:

- Yellow Light Timings (seconds)
- Red Light Timings (seconds)
- Pedestrian Walk Times (seconds)
- Flash Don't Walk (seconds)

4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
2	2	2.5	2.5	2	2	2.5	2.5	2	2	2.5	2.5	2	2.5	2.5	2.5
	7	7	5	7	7	5	5	7	7	5	5	7	5	5	5
	22	22	36	20	20	36	36	20	20	36	36	20	20	40	40

# TURNING MOVEMENT VOLUME COUNTS

**N/S STREET:** Jenkins Rd  
**FILENAME:** KOA Existing Counts  
**CONTROL:** E/W STREET, Edwards Rd  
**COUNT DATE:** 6/15/2017  
**DAY:** Thursday  
**CITY:** PSL  
**INTERSECTION:** 4  
**REPORT DATE:** 6/15/2017  
**ANALYSIS YEAR:** 2017

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
7:00-7:15	0	3	0	55	0	0	0	0	0	2	0	58	118	549
7:15-7:30	0	1	1	66	2	0	0	0	0	0	0	67	137	560
7:30-7:45	0	0	0	59	0	0	0	0	0	2	0	99	160	558
7:45-8:00	0	2	0	71	0	0	0	0	0	0	0	61	134	519
8:00-8:15	0	0	1	54	1	0	0	0	0	1	0	72	129	507
8:15-8:30	0	0	0	72	1	0	0	0	0	0	0	62	135	
8:30-8:45	0	0	0	69	1	0	0	0	0	1	0	50	121	
8:45-9:00	0	3	1	62	3	0	0	0	0	4	0	49	122	

**AM PEAK HOUR IS FROM:** 7:15AM TO 8:15AM  
**Volumes:** 0 3 2 250 3 0 0 0 0 0 8 0 299 560  
**Season Factor:** 0 3 2 278 3 0 0 0 0 0 5 0 332 622  
**Growth:** 0 3 2 278 3 0 0 0 0 0 5 0 332 622  
**In/Out:** 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%  
**Percentage PROJECT:** 0 0 0 0 0 0 0 0 0 0 0 0 0 0



15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		
4:00-4:15	0	0	3	78	2	0	0	0	0	0	0	74	157	608
4:15-4:30	0	0	0	95	1	0	0	0	0	2	0	60	158	595
4:30-4:45	0	1	0	92	2	0	0	0	0	3	0	51	149	580
4:45-5:00	0	0	1	80	2	0	0	0	0	3	0	53	139	589
5:00-5:15	0	1	1	80	2	0	0	0	0	1	0	64	149	617
5:15-5:30	0	1	2	64	6	0	0	0	0	8	0	62	148	
5:30-5:45	0	0	1	70	16	0	0	0	0	20	0	51	158	
5:45-6:00	0	3	3	58	23	0	0	0	0	20	0	59	167	

**PM PEAK HOUR IS FROM:** 5:00PM TO 6:00PM  
**Volumes:** 0 5 7 279 47 0 0 0 0 0 49 0 236 617  
**Season Factor:** 0 6 8 303 52 0 0 0 0 0 54 0 262 685  
**Growth:** 0 6 8 303 52 0 0 0 0 0 54 0 262 685  
**In/Out:** 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%  
**Percentage PROJECT:** 0 0 0 0 0 0 0 0 0 0 0 0 0 0

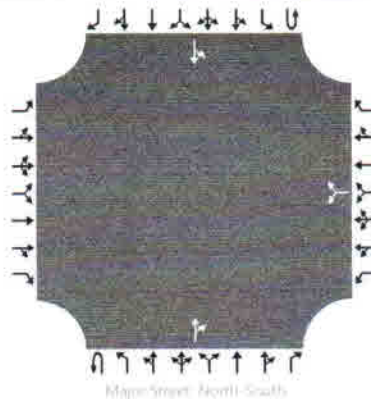


**Total** 0 5 8 303 52 0 0 0 0 0 54 0 262 685

# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Jasmin Mohyuddin	Intersection	Jenkins Rd and Edwards Rd
Agency/Co.	OREP	Jurisdiction	St. Lucie County
Date Performed	7/10/2017	East/West Street	Edwards Rd
Analysis Year	2017	North/South Street	Jenkins Rd
Time Analyzed	AM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	KOA Campground - Existing		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						3		332			3	2		278	3	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						364								302		
Capacity, c (veh/h)						1059								1608		
v/c Ratio						0.34								0.19		
95% Queue Length, Q <sub>95</sub> (veh)						1.5								0.7		
Control Delay (s/veh)						10.2								7.8		
Level of Service, LOS						B								A		
Approach Delay (s/veh)						10.2								7.7		
Approach LOS						B										

# HCS7 Two-Way Stop-Control Report

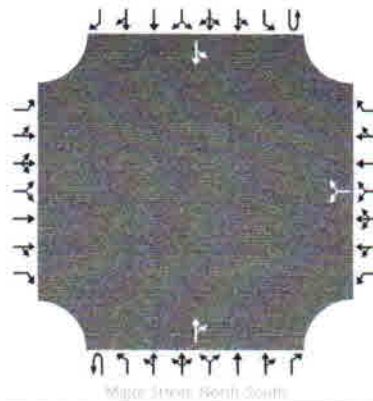
## General Information

Analyst	Jasmin Mohyuddin
Agency/Co.	OREP
Date Performed	7/10/2017
Analysis Year	2017
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	KOA Campground - Existing

## Site Information

Intersection	Jenkins Rd and Edwards Rd
Jurisdiction	St. Lucie County
East/West Street	Edwards Rd
North/South Street	Jenkins Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						54		262			6	8			303	52
Percent Heavy Vehicles (%)						3		3							3	
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.43		6.23							4.13	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.53		3.33							2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						344									329	
Capacity, c (veh/h)						750									1593	
v/c Ratio						0.46									0.21	
95% Queue Length, Q <sub>95</sub> (veh)						2.4									0.8	
Control Delay (s/veh)						13.8									7.8	
Level of Service, LOS						B									A	
Approach Delay (s/veh)						13.8									6.9	
Approach LOS						B										

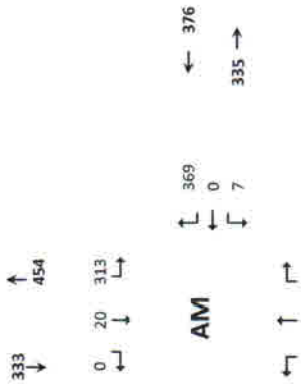
# TURNING MOVEMENT VOLUME COUNTS

**N/S STREET:** Jenkins Rd. **E/W STREET:** Edwards Rd. **CONTROL:**  
**FILENAME:** KOA Existing Counts **CITY:** PSI **INTERSECTION:** 4  
**COUNT DATE:** 6/15/2017 **DAY:** Thursday **ANALYSIS YEAR:** 2017  
**REPORT DATE:** 6/15/2017

15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
7:00-7:15	0	3	0	55	0	0	0	0	0	2	0	58	118	548
7:15-7:30	0	1	1	66	2	0	0	0	0	0	0	67	137	560
7:30-7:45	0	0	0	59	0	0	0	0	0	2	0	99	160	558
7:45-8:00	0	2	0	71	0	0	0	0	0	0	0	61	134	519
8:00-8:15	0	0	1	54	1	0	0	0	0	1	0	72	129	507
8:15-8:30	0	0	0	72	1	0	0	0	0	0	0	62	135	
8:30-8:45	0	0	0	69	1	0	0	0	0	1	0	50	121	
8:45-9:00	0	3	1	62	3	0	0	0	0	4	0	49	122	

**AM PEAK HOUR IS FROM: 7:15AM TO 8:15AM**  
 Volumes: 0 3 2 250 3 0 0 0 0 0 0 0 299 560  
 Season Factor: 0 3 2 278 3 0 0 0 0 0 0 3 332 622  
 Growth: 0 3 2 279 3 0 0 0 0 0 0 3 334 625  
 In/Out: - - - - -  
 Percentage: 0% 0% 0% 25% 0% 0% 0% 0% 0% 0% 0% 0% 25% 0%  
**PROJECT** 0 0 0 8 0 0 0 0 0 0 0 0 5 0  
 Mariner Cove 0 36 0 0 5 7 0 0 0 0 0 0 24 0  
 30 Acre Residential 0 46 20 0 10 0 0 0 0 0 4 0 0 0  
 Creekside 0 0 0 21 0 0 0 0 0 0 0 0 7 0  
 Total 0 85 22 313 20 0 0 0 0 0 7 0 369 817

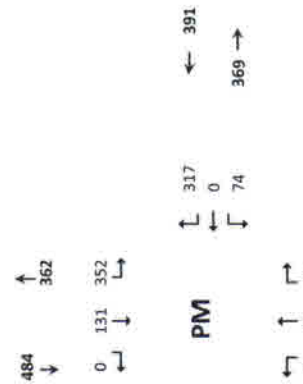
Seasonal Factor: 1.11  
 Trips In: 18  
 Trips Out: 31  
 Growth Rate: 1.003  
 Years Grown: 2



15 Min Period	Northbound			Southbound			Eastbound			Westbound			ONE HOUR SUM	
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR		TOTAL
4:00-4:15	0	0	3	78	2	0	0	0	0	0	0	74	157	603
4:15-4:30	0	0	0	95	1	0	0	0	0	2	0	60	158	595
4:30-4:45	0	1	0	92	2	0	0	0	0	3	0	51	149	580
4:45-5:00	0	0	1	80	2	0	0	0	0	3	0	53	139	588
5:00-5:15	0	1	1	80	2	0	0	0	0	1	0	64	149	617
5:15-5:30	0	1	2	64	6	0	0	0	0	8	0	62	143	
5:30-5:45	0	0	1	70	16	0	0	0	0	20	0	51	158	
5:45-6:00	0	3	3	59	23	0	0	0	0	20	0	59	167	

**PM PEAK HOUR IS FROM: 5:00PM TO 6:00PM**  
 Volumes: 0 5 7 273 47 0 0 0 0 0 49 0 236 617  
 Season Factor: 0 6 8 303 52 0 0 0 0 0 54 0 262 685  
 Growth: 0 6 8 305 52 0 0 0 0 0 55 0 264 689  
 In/Out: - - - - -  
 Percentage: 0% 0% 0% 25% 0% 0% 0% 0% 0% 0% 0% 0% 25% 0%  
**PROJECT** 0 0 0 10 0 0 0 0 0 0 0 0 18 0  
 Mariner Cove 0 17 0 0 23 34 0 0 0 0 0 0 11 0  
 39 Acre Residential 0 22 9 0 45 0 0 0 0 0 19 0 0 0  
 Creekside 0 0 0 15 0 0 0 0 0 0 0 0 25 0  
 Total 0 45 17 352 131 0 0 0 0 0 74 0 317 936

Seasonal Factor: 1.11  
 Growth Rate: 1.003  
 Trips In: 70  
 Trips Out: 38  
 Years Grown: 2



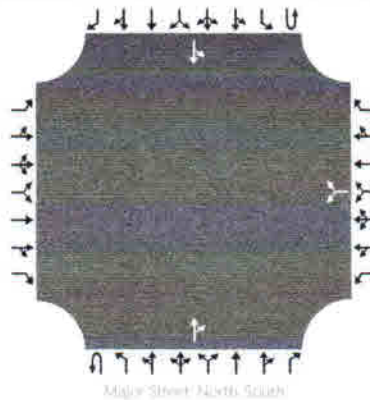
# HCS7 Two-Way Stop-Control Report

## General Information

## Site Information

Analyst	Jasmin Mohyuddin	Intersection	Jenkins Rd and Edwards Rd
Agency/Co.	OREP	Jurisdiction	St. Lucie County
Date Performed	6/27/2017	East/West Street	Edwards Rd
Analysis Year	2019	North/South Street	Jenkins Rd
Time Analyzed	AM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	KOA Campground - Buildout		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						7		369			85	22		313	20	
Percent Heavy Vehicles (%)							3	3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage							Undivided									

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.43		6.23							4.13	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.53		3.33							2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							395								329	
Capacity, c (veh/h)							913								1470	
v/c Ratio							0.43								0.22	
95% Queue Length, Q <sub>95</sub> (veh)							2.2								0.9	
Control Delay (s/veh)							11.9								8.2	
Level of Service, LOS							B								A	
Approach Delay (s/veh)							11.9								7.8	
Approach LOS							B									

# HCS7 Two-Way Stop-Control Report

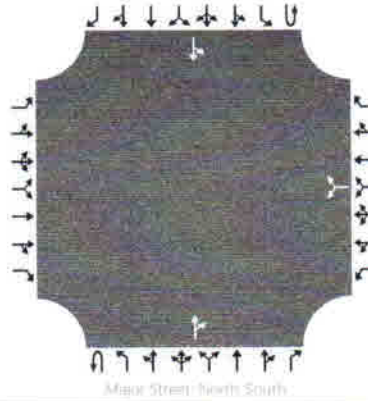
## General Information

Analyst	Jasmin Mohyuddin
Agency/Co.	OREP
Date Performed	6/27/2017
Analysis Year	2019
Time Analyzed	PM
Intersection Orientation	North-South
Project Description	KOA Campground - Buildout

## Site Information

Intersection	Edwards Rd and Jenkins Rd
Jurisdiction	St. Lucie County
East/West Street	Edwards Rd
North/South Street	Jenkins Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						74		317			45	17		352	131	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage							Undivided									

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						412								371		
Capacity, c (veh/h)						603								1529		
v/c Ratio						0.68								0.24		
95% Queue Length, Q <sub>95</sub> (veh)						5.3								1.0		
Control Delay (s/veh)						22.9								8.1		
Level of Service, LOS						C								A		
Approach Delay (s/veh)						22.9								6.5		
Approach LOS						C										

# Standard Report

Location: Edwards x Jenkins PM  
Unit ID: 4  
Study Date: Thursday June 15, 2017  
Interval: 15 minutes

## Vehicles

	Southbound			Westbound			Northbound			Eastbound			Grand Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Total
16:00	78	2	0	0	0	74	74	0	0	3	0	0	0	157
16:15	95	1	0	2	0	60	62	0	0	0	0	0	0	158
16:30	92	2	0	3	0	51	54	0	1	0	0	0	0	149
16:45	80	2	0	3	0	53	56	0	1	0	0	0	0	139
<b>Subtotal</b>	<b>345</b>	<b>7</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>238</b>	<b>246</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>603</b>
17:00	80	2	0	1	0	64	65	0	1	1	2	0	0	149
17:15	64	6	0	8	0	62	70	0	1	2	3	0	0	143
17:30	70	16	0	8	0	51	71	0	0	1	1	0	0	158
17:45	59	23	0	8	0	59	79	0	3	3	6	0	0	167
<b>Subtotal</b>	<b>273</b>	<b>47</b>	<b>0</b>	<b>320</b>	<b>49</b>	<b>236</b>	<b>285</b>	<b>0</b>	<b>5</b>	<b>7</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>617</b>
18:00	2	0	0	2	1	5	6	0	0	0	0	0	0	8
<b>Total</b>	<b>620</b>	<b>54</b>	<b>0</b>	<b>674</b>	<b>58</b>	<b>479</b>	<b>537</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>1228</b>
Table %	50.5	4.4	0.0	54.9	4.7	39.0	43.7	0.0	0.5	0.9	1.4	0.0	0.0	100.0
Intersection %	50.5	4.4	0.0	54.9	4.7	39.0	43.7	0.0	0.5	0.9	1.4	0.0	0.0	100.0
Approach %	92.0	8.0	0.0	100.0	10.8	89.2	100.0	0.0	35.3	64.7	100.0	0	0	-
Total Approach %	92.0	8.0	0.0	100.0	10.8	89.2	100.0	0.0	35.3	64.7	100.0	0	0	-
Peak Hour	16:15	17:00	-	16:15	17:00	-	16:00	17:00	-	17:00	17:00	-	-	17:00
Peak Total	347	47	0	354	49	0	238	285	0	5	7	12	0	617
Peak Factor (PHF)	0.9	0.5	-	0.9	0.6	-	0.8	0.9	-	0.4	0.6	0.5	-	0.5

# Standard Report

Location: Edwards x Jenkins AM  
Unit ID: 4  
Study Date: Thursday June 15, 2017  
Interval: 15 minutes

## Vehicles

	Southbound			Westbound			Northbound			Eastbound			Grand Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Total
	Total			Total			Total			Total				
07:00	55	0	0	55	2	0	58	60	0	3	0	0	0	118
07:15	66	2	0	68	0	0	67	67	0	1	1	0	0	137
07:30	59	0	0	59	2	0	99	101	0	0	0	0	0	160
07:45	71	0	0	71	0	0	61	61	0	2	0	0	0	134
<b>Subtotal</b>	<b>251</b>	<b>2</b>	<b>0</b>	<b>253</b>	<b>4</b>	<b>0</b>	<b>285</b>	<b>289</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>549</b>
08:00	54	1	0	55	1	0	72	73	0	0	1	0	0	129
08:15	72	1	0	73	0	0	62	62	0	0	0	0	1	136
08:30	69	1	0	70	1	0	50	51	0	0	0	0	0	121
08:45	62	3	0	65	4	0	49	53	0	3	1	4	0	122
<b>Subtotal</b>	<b>257</b>	<b>6</b>	<b>0</b>	<b>263</b>	<b>6</b>	<b>0</b>	<b>233</b>	<b>239</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>508</b>
<b>Total</b>	<b>508</b>	<b>8</b>	<b>0</b>	<b>516</b>	<b>10</b>	<b>0</b>	<b>518</b>	<b>528</b>	<b>0</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>0</b>	<b>1057</b>
Table %	48.1	0.8	0.0	48.8	0.9	0.0	49.0	50.0	0.0	0.9	0.3	1.1	0.0	100.0
Intersection %	48.1	0.8	0.0	48.8	0.9	0.0	49.0	50.0	0.0	0.9	0.3	1.1	0.0	100.0
Approach %	98.4	1.6	0.0	100.0	1.9	0.0	98.1	100.0	0.0	75.0	25.0	100.0	0.0	100.0
Total Approach %	98.4	1.6	0.0	100.0	1.9	0.0	98.1	100.0	0.0	75.0	25.0	100.0	0.0	100.0
Peak Hour	07:45	08:00	-	07:45	08:00	-	07:15	07:15	-	07:00	07:15	07:00	-	07:15
Peak Total	266	6	0	269	6	0	299	302	0	6	2	7	0	560
Peak Factor (PHF)	0.9	0.5	-	0.9	0.4	-	0.8	0.7	-	0.5	0.5	0.6	-	0.6

## **APPENDIX E**

### **Driveway Analysis Data**

# HCS7 Two-Way Stop-Control Report

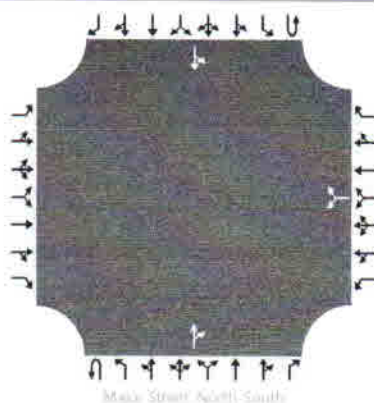
## General Information

Analyst	Jasmin Mohyuddin
Agency/Co.	OREP
Date Performed	6/28/2017
Analysis Year	2017
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	KOA Campground Alternative Driveway Option

## Site Information

Intersection	Driveway and Jenkins Rd
Jurisdiction	St. Lucie County
East/West Street	Project Driveway
North/South Street	Jenkins Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR			LT	
Volume, V (veh/h)						8		23			439	5		13	331	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						32								14		
Capacity, c (veh/h)						496								1088		
v/c Ratio						0.06								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.2								0.0		
Control Delay (s/veh)						12.8								8.4		
Level of Service, LOS						B								A		
Approach Delay (s/veh)					12.8								0.5			
Approach LOS					B											

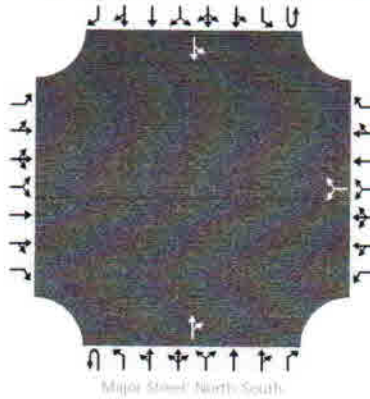
# HCS7 Two-Way Stop-Control Report

## General Information

## Site Information

Analyst	Jasmin Mohyuddin	Intersection	Driveway and Jenkins Rd
Agency/Co.	OREP	Jurisdiction	St. Lucie County
Date Performed	6/28/2017	East/West Street	Project Driveway
Analysis Year	2017	North/South Street	Jenkins Rd
Time Analyzed	PM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	KOA Campground Alternative Driveway Option		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration							LR					TR		LT			
Volume, V (veh/h)						9		29			350	17		53	438		
Percent Heavy Vehicles (%)							3	3						3			
Proportion Time Blocked																	
Percent Grade (%)							0										
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2								4.1	
Critical Headway (sec)						6.43		6.23								4.13	
Base Follow-Up Headway (sec)						3.5		3.3								2.2	
Follow-Up Headway (sec)						3.53		3.33								2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						40										56	
Capacity, c (veh/h)						504										1166	
v/c Ratio						0.08										0.05	
95% Queue Length, Q <sub>95</sub> (veh)						0.3										0.2	
Control Delay (s/veh)						12.8										8.2	
Level of Service, LOS						B										A	
Approach Delay (s/veh)						12.8									1.4		
Approach LOS						B											

# HCS7 Two-Way Stop-Control Report

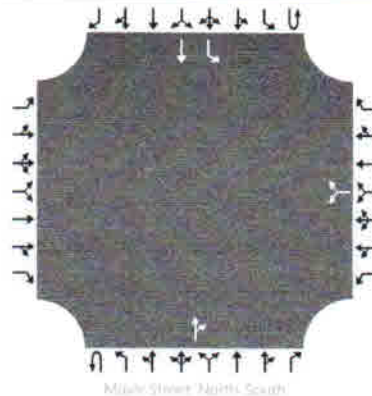
## General Information

Analyst	Jasmin Mohyuddin
Agency/Co.	OREP
Date Performed	6/28/2017
Analysis Year	2017
Time Analyzed	AM
Intersection Orientation	North-South
Project Description	KOA Campground Driveway

## Site Information

Intersection	Driveway & Jenkins Rd
Jurisdiction	St. Lucie County
East/West Street	Project Driveway
North/South Street	Jenkins Rd
Peak Hour Factor	0.95
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume, V (veh/h)						8		23			439	5		13	331	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized			No				No				No				No	
Median Type/Storage							Undivided									

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

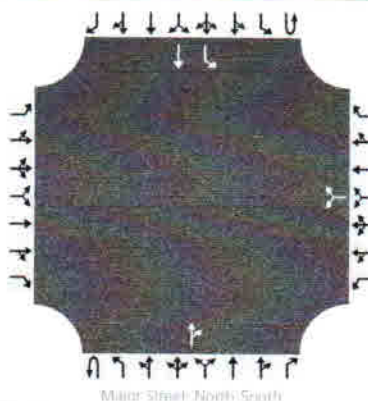
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							32								14	
Capacity, c (veh/h)							496								1088	
v/c Ratio							0.06								0.01	
95% Queue Length, Q <sub>95</sub> (veh)							0.2								0.0	
Control Delay (s/veh)							12.8								8.4	
Level of Service, LOS							B								A	
Approach Delay (s/veh)							12.8								0.3	
Approach LOS							B									

# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Jasmin Mohyuddin	Intersection	Driveway & Jenkins Rd
Agency/Co.	OREP	Jurisdiction	St. Lucie County
Date Performed	6/28/2017	East/West Street	Project Driveway
Analysis Year	2017	North/South Street	Jenkins Rd
Time Analyzed	PM	Peak Hour Factor	0.95
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	KOA Campground Driveway		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0	
Configuration							LR					TR		L	T		
Volume, V (veh/h)						9		29			350	17		53	438		
Percent Heavy Vehicles (%)						3		3						3			
Proportion Time Blocked																	
Percent Grade (%)							0										
Right Turn Channelized		No				No				No				No			
Median Type/Storage		Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2								4.1	
Critical Headway (sec)						6.43		6.23								4.13	
Base Follow-Up Headway (sec)						3.5		3.3								2.2	
Follow-Up Headway (sec)						3.53		3.33								2.23	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						40										56		
Capacity, c (veh/h)						504										1166		
v/c Ratio						0.08										0.05		
95% Queue Length, Q <sub>95</sub> (veh)						0.3										0.2		
Control Delay (s/veh)						12.8										8.2		
Level of Service, LOS								B								A		
Approach Delay (s/veh)						12.8									0.9			
Approach LOS						B												