

TRAFFIC IMPACT ANALYSIS

**SOUTHGATE SUBDIVISION**  
CITY OF GROVELAND, FLORIDA



Prepared for:

Southgate of Lake County, LLC  
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August 2015

TPD № 4673

**PROFESSIONAL ENGINEERING CERTIFICATION**

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning & Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

**PROJECT:** Southgate Subdivision  
**LOCATION:** City of Groveland, Florida  
**CLIENT:** Southgate of Lake County, LLC

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

**NAME:** Turgut Derwish, P.E.  
**P.E. No:** 20400  
**DATE:** August 4, 2015

**SIGNATURE:** \_\_\_\_\_



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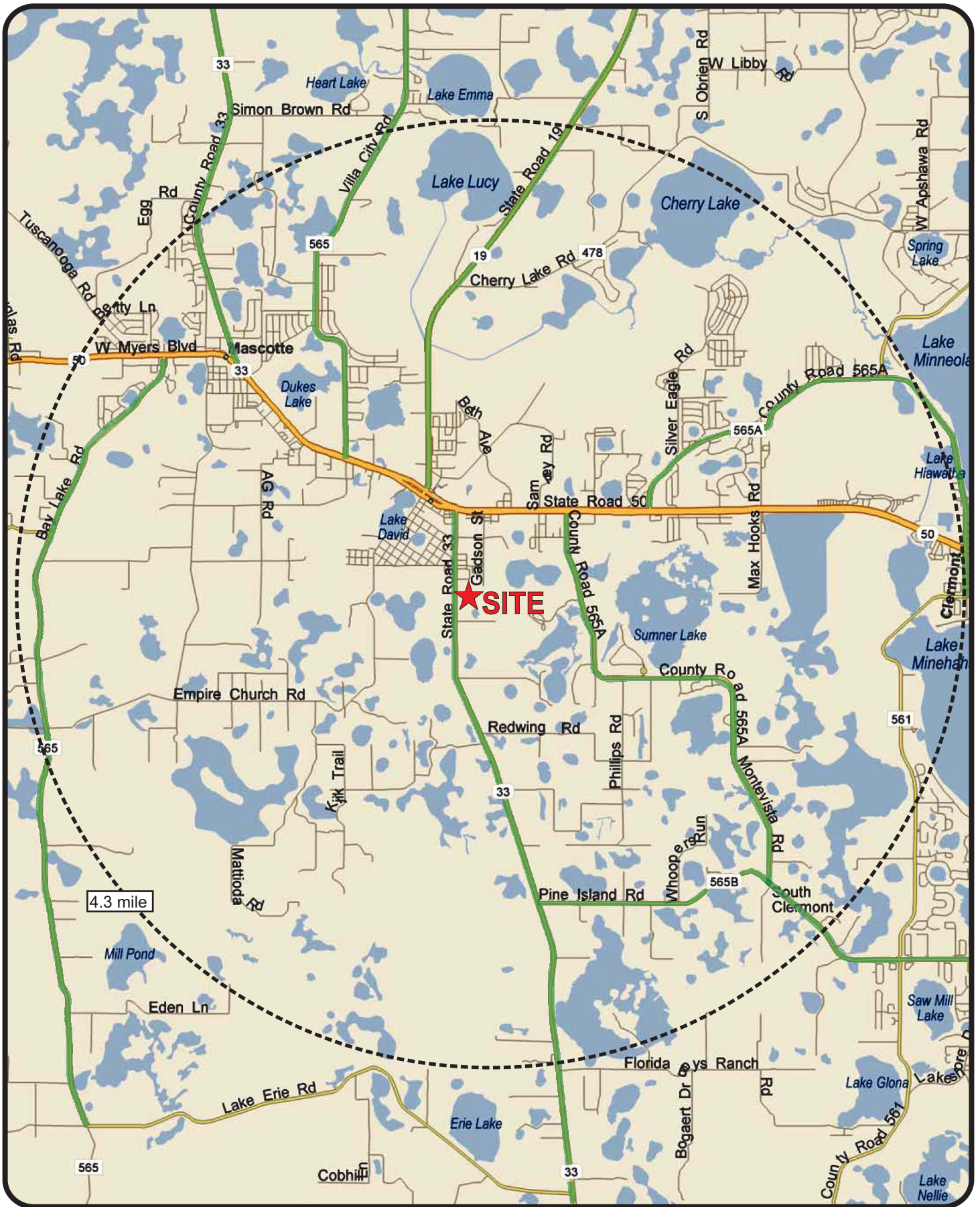
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## INTRODUCTION

This analysis was undertaken in order to assess the traffic impact of a proposed residential development in the City of Groveland, Florida. The development will consist of 85 single family units. The site of this development is located on SR 33 approximately 0.25 miles south of Anderson Road. **Figure 1** depicts the site location and the area roadways. SR 33 is a two-lane roadway with a north-south orientation. The development's proposed internal roadway, Southgate Avenue, intersects SR 33 from the east forming a "T" intersection. **Figure 2** depicts the Site Plan and its access configuration.

Data utilized in this study consisted of a site plan provided by Project Engineers, traffic volume data and Level of Service standards obtained from the Lake County *Transportation Management System* (TMS) Report dated April 3, 2015, and intersection turning movement counts by Traffic Planning and Design, Inc. staff.





Southgate Subdivision  
 Project № 4673  
 Figure 1

**Site Location**





## EXISTING CONDITIONS ANALYSIS

The existing conditions analysis includes classified roadways within an impact area of 4.3 miles as required by Lake Sumter MPO Traffic Impact Study (TIS) guidelines. This represents one-half of the total trip length established by Lake County in their Transportation Impact Fee Study Update for the type residential under construction. Additionally, the following intersections were included in the analysis:

- SR 33 and Anderson Road
- SR 33 and SR 50
- SR 33 and Southgate Avenue/Site Access

The analysis of the study roadways and intersections was accomplished for the P.M. peak hour traffic conditions.

### Roadway Segment Analysis

The roadways were analyzed by segment by comparing the existing traffic volumes with the adopted LOS/capacity values for the P.M. peak hour conditions. The existing traffic volumes and the adopted capacities for each segment were obtained from the County's *TMS* database. The existing P.M. peak hour roadway capacity analysis is summarized in **Table 1**. Relevant information on existing traffic volumes and roadway capacities is included in the County's *TMS* sheets in **Appendix A**.

The existing conditions analysis of P.M. peak hour traffic conditions reveals that all study roadway segments currently operate satisfactorily at or above their adopted Level of Service capacities.





**Table 1  
Existing P.M. Peak Hour Roadway Capacity Analysis**

Roadway Segment	Functional Class	# of Lanes	LOS		Peak Hour/Peak Direction		V/C Ratio	LOS
			Standard	Capacity	Direction	Volume		
<b>SR 33</b>								
SR 50 to Anderson Rd	Arterial 1	2	D	880	NB	299	0.34	C
Anderson Rd to CR 565B	Arterial 1	2	C	430	NB	218	0.51	B
CR 565B to CR 561	Arterial 1	2	C	430	NB	176	0.41	B
<b>SR 50</b>								
Sumter Cnty Ln to CR 565	Arterial 1	2	C	850	WB	443	0.52	C
CR 565 to CR 33	Arterial 1	2	D	1,130	WB	443	0.39	C
CR 33 to Groveland Farms Rd	Arterial 1	4	D	2,000	WB	807	0.40	C
Groveland Farms Rd to SR 19	Arterial 1	4	D	2,000	WB	1,009	0.50	C
SR 19 to SR 33	Arterial 1	4	D	2,000	WB	897	0.45	C
SR 33 to CR 565A N	Arterial 1	4	D	2,000	WB	971	0.49	C
CR 565A N to CR 561	Arterial 1	4	D	2,000	WB	1,012	0.51	C
<b>SR 19</b>								
US 27 to CR 478	Arterial 1	2	C	850	NB	475	0.56	C
CR 478 to Lake Catherine Rd	Arterial 1	2	C	850	NB	475	0.56	C
Lake Catherine Rd to SR 50	Arterial 1	2	C	840	SB	358	0.43	B
<b>CR 565B</b>								
SR 33 to CR 561	Collector	2	C	603	NB	95	0.16	C
<b>CR 565A</b>								
SR 50 to CR 561A	Collector	2	D	675	SB	359	0.53	D
SR 50 to CR 565B	Collector	2	D	675	SB	94	0.14	C
<b>CR 33</b>								
Smith Rd to SR 50	Arterial 1	2	D	1,190	NB	184	0.15	B
<b>CR 565</b>								
Kjellstrom Ln to SR 50	Collector	2	D	675	NB	163	0.24	C
SR 50 TO Sloans Ridge	Collector	2	D	675	SB	35	0.05	C
Sloans Ridge to Lake Erie Rd	Collector	2	C	603	SB	35	0.06	C



## Intersection Analysis

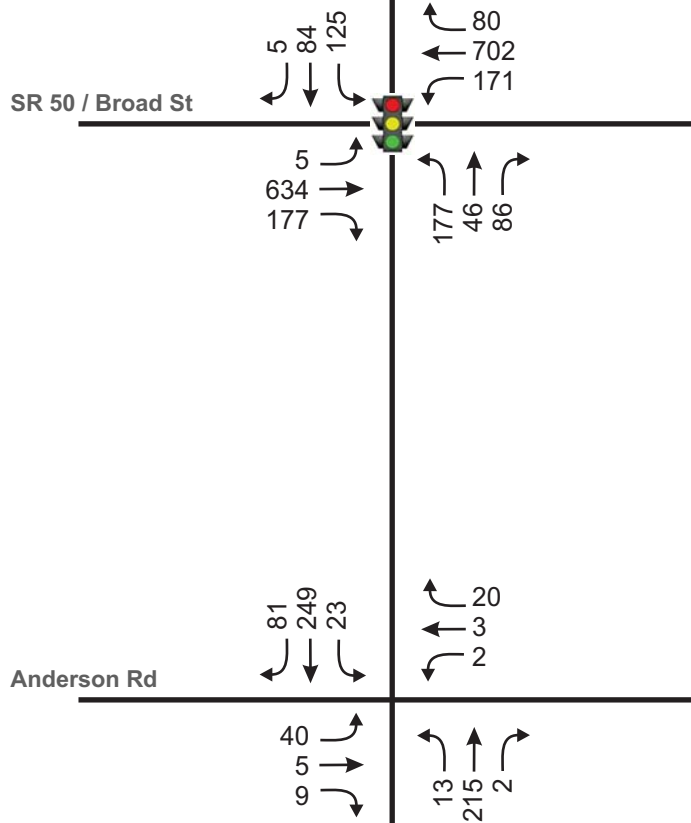
The study intersections were analyzed in accordance with the procedures of the *2010 Highway Capacity Manual (HCM)* and Highway Capacity Software (HCS). In the analysis, existing P.M. peak hour traffic volumes, intersection geometry and traffic controls were used. The seasonally adjusted intersection volumes in the form of turning movement counts are depicted in **Figure 3**. Detailed traffic counts, season factors and traffic control information are included in **Appendix B**.

The results of the intersection capacity analysis are summarized in **Table 2**. This table shows that the study intersections are currently operating at satisfactory Levels of Service. The HCS capacity analysis worksheets are included in **Appendix C**.

**Table 2**  
**Existing Intersection Capacity Analysis**

Intersection	Control	EB		WB		NB		SB		Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 33 and Anderson Rd	STOP	15.1	C	10.6	B	8.2	A	7.8	A	--	--
SR 33 and SR 50	Signal	21.8	B	12.9	B	27.7	C	26.9	C	19.4	C





## PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development is an 85-unit single family residential project. To determine the impact of this development on the area roadways, an analysis of its trip generation characteristics was made. This included the determination of the number of trips generated by the site and their distribution/assignment to the area roadways.

### Trip Generation

Trip generation rates were obtained from data contained in the Institute of *Transportation Engineers (ITE) Trip Generation Manual, 9th Edition*. The trip generation calculation of daily and P.M. peak hour volumes is summarized in **Table 3**, and the trip generation sheets are included in **Appendix D**.

**Table 3  
Trip Generation Summary**

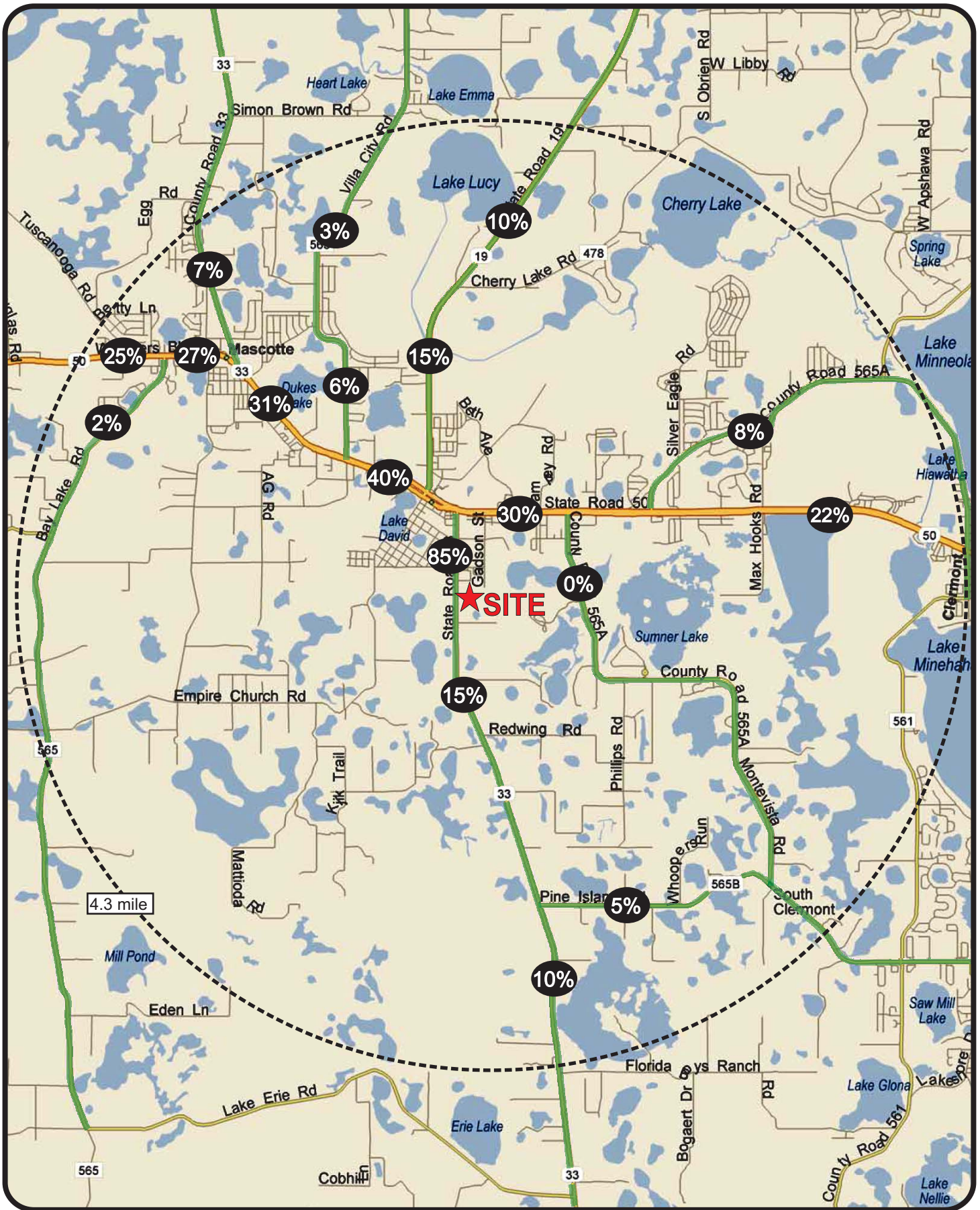
Land Use	LU Code	Quantity	Daily		P.M. Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total
Single Family Residential	210	85	9.52	809	1.00	54	31	85
<b>Total Trips</b>				<b>809</b>	-----	<b>54</b>	<b>31</b>	<b>85</b>

The proposed development is estimated to generate 809 daily trips and 85 P.M. peak hour trips 54 entering and 31 exiting. This trip generation represents Connection Category C for FDOT permitting.

### Trip Distribution / Trip Assignment

To determine the distribution of the project trips within the study area, existing P.M. peak hour traffic volumes at the study intersections and P.M. peak hour segment volumes were used. The distribution pattern thus determined is illustrated in **Figure 4**. Utilizing this distribution pattern, the development's P.M. peak hour trips were assigned to the area roadways as shown in **Figure 5**.

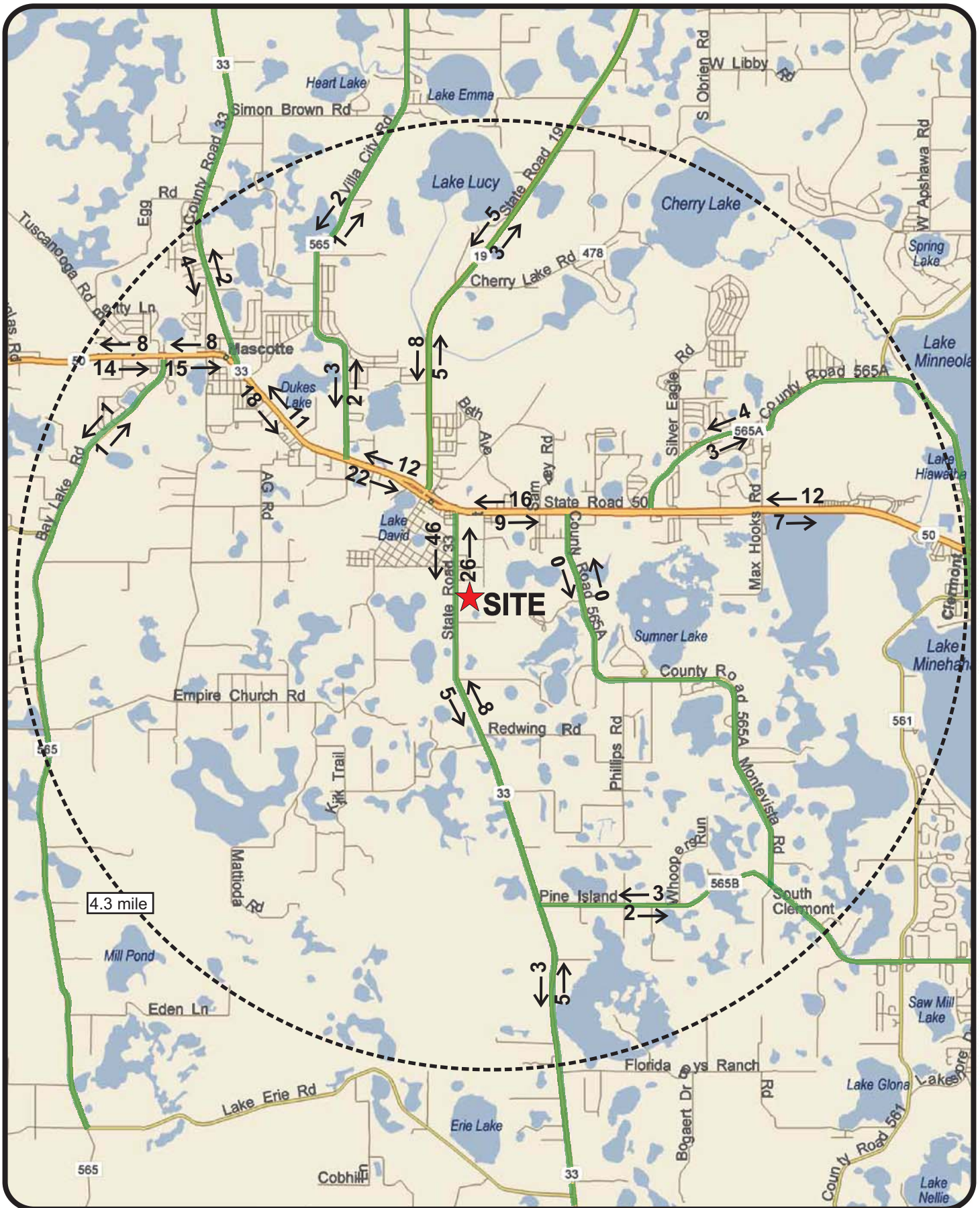




Southgate Subdivision  
 Project № 4673  
 Figure 4

### Project Trip Distribution





Southgate Subdivision  
 Project № 4673  
 Figure 5

**P.M. Peak Hour  
 Project Trip Assignment**



## PROJECTED TRAFFIC CONDITIONS

Projected traffic conditions were assessed in order to evaluate the impact of the proposed development within its area of influence. The projected conditions were estimated by combining existing P.M. peak hour trips of each road segment with reserved trips and project trips. Reserved trips for each road segment were obtained from the Lake County TMS Segment Report – 2014/15 Level of Service.

### Roadway Segment Analysis

**Table 4** is an analysis of the projected traffic conditions for the study roadways. This table lists the roadway segments along with their number of lanes, functional classification, existing/projected traffic volumes, capacities and resultant Levels of Service. The table reveals that all study roadway segments are projected to operate satisfactorily within their adopted LOS standards with project trips added.

### Intersection Analysis

The projected traffic volumes at the study intersections are depicted in **Figure 6**. The figure shows the existing P.M. peak hour traffic along with reserved and project trips on the intersection approaches. Reserved segment trips obtained from the county were assigned to the intersection approaches based upon the reserved trips on the intersecting segments.

The intersections were analyzed similar to the existing conditions analysis utilizing HCS software in accordance with the *2010 Highway Capacity Manual (HCM)*. The results of this analysis as summarized in **Table 5** indicate satisfactory traffic operating conditions at the intersections under projected conditions. The HCS capacity analysis worksheets are included in **Appendix E**.

**Table 5  
Projected Intersection Capacity Analysis**

Intersection	Traffic Control	EB		WB		NB		SB		Intersection	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 33 & Anderson Rd	STOP	16.7	C	11.0	B	8.4	A	7.9	A	--	--
SR 33 & SR 50	Signal	24.3	C	15.4	B	31.4	C	29.9	C	21.7	C
SR 33 & Southgate Ave/ Site Access	STOP	--	--	10.4	B	--	--	8.0	A	--	--

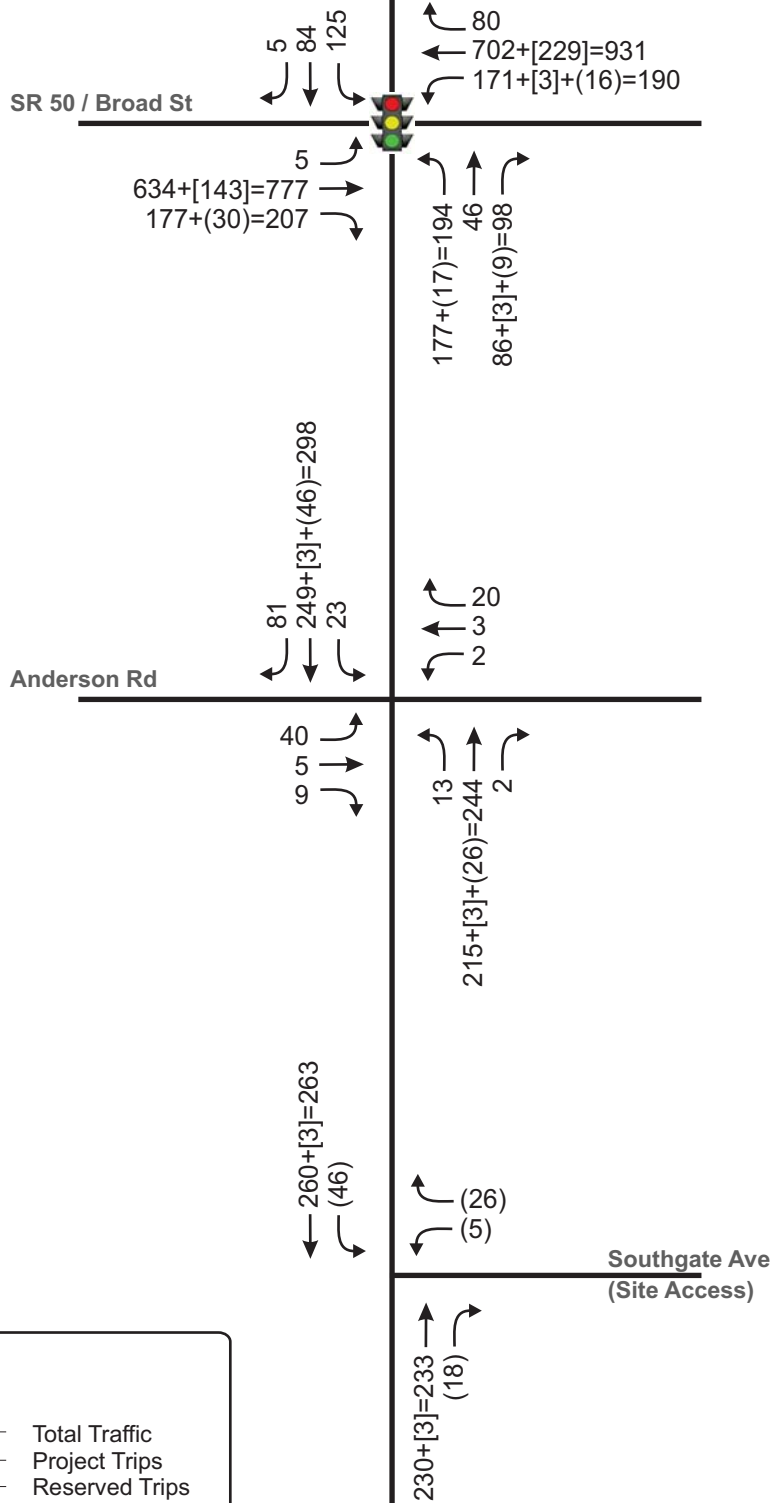


**Table 4  
Projected P.M. Peak Hour Roadway Analysis**

Roadway Segment	Functional Class	# of Lns	LOS		Direction	Existing	Peak Hour/Peak Direction Traffic Volumes			V/C Ratio	LOS Met?
			Standard	Direction			Reserved	Project	Total		
<b>SR 33</b>											
SR 50 to Anderson Rd	Arterial 1	2	D	880	NB	299	3	26	328	0.37	Y
Anderson Rd to CR 565B	Arterial 1	2	C	430	NB	218	3	26	247	0.57	Y
CR 565B to CR 561	Arterial 1	2	C	430	NB	176	0	5	181	0.42	Y
<b>SR 50</b>											
Sumter Cnty Ln to CR 565	Arterial 1	2	C	850	WB	443	12	8	463	0.54	Y
CR 565 to CR 33	Arterial 1	2	D	1,130	WB	443	12	8	463	0.41	Y
CR 33 to Groveland Farms Rd	Arterial 1	4	D	2,000	WB	807	42	11	860	0.43	Y
Groveland Farms Rd to SR 19	Arterial 1	4	D	2,000	WB	1,009	42	12	1,063	0.53	Y
SR 19 to SR 33	Arterial 1	4	D	2,000	WB	897	40	17	954	0.48	Y
SR 33 to CR 565A N	Arterial 1	4	D	2,000	WB	971	232	16	1,219	0.61	Y
CR 565A N to CR 561	Arterial 1	4	D	2,000	WB	1,012	189	12	1,213	0.61	Y
<b>SR 19</b>											
US 27 to CR 478	Arterial 1	2	C	850	NB	475	33	3	511	0.60	Y
CR 478 to Lake Catherine Rd	Arterial 1	2	C	850	NB	475	8	3	486	0.57	Y
Lake Catherine Rd to SR 50	Arterial 1	2	C	840	SB	358	7	8	373	0.44	Y
<b>CR 565B</b>											
SR 33 to CR 561	Collector	2	C	603	EB	95	9	2	106	0.18	Y
<b>CR 565A</b>											
SR 50 to CR 561A	Collector	2	D	675	SB	359	31	4	394	0.58	Y
SR 50 to CR 565B	Collector	2	D	675	SB	94	126	0	220	0.33	Y
<b>CR 33</b>											
Smith Rd to SR 50	Arterial 1	2	D	1,190	NB	184	37	2	223	0.19	Y
<b>CR 565</b>											
Kjellstrom Ln to SR 50	Collector	2	D	675	NB	163	3	2	168	0.25	Y
SR 50 TO Sloans Ridge	Collector	2	D	675	SB	35	0	1	36	0.05	Y
Sloans Ridge to Lake Erie Rd	Collector	2	C	603	SB	35	0	1	36	0.06	Y







**Legend:**

000 + [000] + (000) = 000

- Total Traffic
- Project Trips
- Reserved Trips
- Existing Traffic



## **STUDY CONCLUSIONS**

This traffic analysis was conducted in order to assess the traffic impact of a proposed residential development in the City of Groveland, Florida. Located on SR 33, approximately 0.25 miles south of Anderson Road. The development will consist of 85 single family units. The analysis assessed the impacts on the roadway network of the additional traffic that would result from the proposed development within a 4.3 mile impact area. The findings of this analysis are as follows:

- The proposed development will generate 809 new daily trips and 85 P.M. new peak hour trips, 54 entering and 31 exiting.
- The analysis of existing conditions indicated that all roadway segments within the project's impact area currently operate at satisfactory Levels of Service. The study intersections are also operating satisfactorily under existing conditions.
- The analysis of projected traffic conditions revealed results similar to existing conditions with the impacted roadway segments and intersections are projected to operate at satisfactory Levels of Service with project trips added.
- The development is proposed to be served by Southgate Avenue which intersects SR 33 forming a "T" intersection. This intersection is projected to operate satisfactorily.



## **APPENDICES**

**APPENDIX A**

Lake County TMS Sheets



# COUNTY TRANSPORTATION MANAGEMENT SYSTEM

## SUMTER COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on January 16, 2015

Segment ID	ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	EVACUATION ROUTE	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE							
													A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	EB/NB	V/C RATIO	LOS	WB/SB	V/C RATIO	LOS
5000	BAILEY TRL	BUENA VISTA BLVD (N)	SUNSET RIDGE DR	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	10,420	1,199	635	0.94	D	564	0.84	D
5010	BAILEY TRL	SUNSET RIDGE DR	ST. CHARLES PLACE	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	8,630	674	472	0.70	D	11	0.02	C
5020	BAILEY TRL	ST. CHARLES PL	BASSINGER CT	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,785	327	169	0.25	C	178	0.26	C
5030	BAILEY TRL	BASSINGER CT	BUENA VISTA BLVD (S)	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	4,203	526	268	0.40	C	258	0.38	C
6000030	BELVEDERE BLVD	C-466E	CHURCHILL DOWNS	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	9,456	1,159	521	0.66	C	638	0.81	C
6000035	BELVEDERE BLVD	CHURCHILL DOWNS	BUENA VISTA BLVD	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	6,384	885	447	0.56	C	438	0.55	C
6000050	BONITA BLVD	BUENA VISTA BLVD	CANAL ST	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,390	382	187	0.28	C	195	0.29	C
6000045	BONITA BLVD	MORSE BLVD	CANAL ST	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,664	367	170	0.25	C	197	0.29	C
6000015	BUENA VISTA BLVD	SR 44	C-44A	4D	U	COUNTY	WILDWOOD	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	14,258	1,302	740	0.41	C	562	0.31	C
6000010	BUENA VISTA BLVD	C-466A	C-466A	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	5,171	455	168	0.09	C	287	0.16	C
6000005	BUENA VISTA BLVD	C-466A	ST. CHARLES PL	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	18,280	1,549	808	0.45	C	741	0.41	C
60000051	BUENA VISTA BLVD	ST. CHARLES PL	ODELL CIRCLE S. END	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	13,503	1,201	601	0.33	C	600	0.33	C
60000052	BUENA VISTA BLVD	ODELL CIRCLE S. END	BONITA BLVD	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	11,989	1,054	507	0.28	C	547	0.30	C
60000053	BUENA VISTA BLVD	BONITA BLVD	ODELL CIRCLE N. END	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	13,857	1,203	555	0.31	C	648	0.36	C
60000054	BUENA VISTA BLVD	ODELL CIRCLE N. END	STILLWATER TRAIL	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	23,008	1,968	844	0.47	C	1,124	0.62	C
60000055	BUENA VISTA BLVD	STILLWATER TRAIL	TEMBERRY FOREST DR	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	18,971	1,616	736	0.41	C	880	0.49	C
60000056	BUENA VISTA BLVD	TEMBERRY FOREST DR	C-472 (Rainey Trail)	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	23,372	2,056	992	0.55	C	1,064	0.59	C
3300000	BUENA VISTA BLVD	C-472 (Rainey Trail)	BELVEDERE BLVD	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	20,922	1,818	866	0.48	C	952	0.53	C
33000001	BUENA VISTA BLVD	BELVEDERE BLVD	FALL TREES LN	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	20,492	1,727	836	0.46	C	891	0.50	C
33000002	BUENA VISTA BLVD	FALL TREES LN	LAUREL MANOR DR	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	20,327	1,701	835	0.46	C	866	0.48	C
33000003	BUENA VISTA BLVD	LAUREL MANOR DR	C-466	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	19,125	1,647	839	0.47	C	808	0.45	C
50000101	BUENA VISTA BLVD	C-466	SADDLEBROOK LN	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	17,643	1,473	730	0.41	C	743	0.41	C
50000102	BUENA VISTA BLVD	SADDLEBROOK LN	EL CAMINO REAL	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	20,049	1,655	868	0.48	C	787	0.44	C
5000000	BUENA VISTA BLVD	EL CAMINO REAL	MARION COUNTY BOUNDARY	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,800	N	4UMC	0	0	1,719	1,800	1,800	15,471	1,308	731	0.41	C	577	0.32	C
5000110	BUENOS AIRES BLVD	EL CAMINO REAL	US 27/US 441/SR 500	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	11,277	1,034	434	0.55	C	600	0.76	C
4040	BUTTONWOOD RUN	HARDING PATH	ST. CHARLES PL	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,241	606	361	0.53	D	245	0.36	C
35281102	C-44A	SR 44 (W)	CR 213	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	816	85	36	0.05	C	49	0.07	C
35281103	C-44A	CR 213	US 301/SR 35	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,052	99	67	0.10	C	32	0.05	C
3528120	C-44A	US 301/SR 35	CR 139	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,602	261	124	0.18	C	137	0.20	C
35281301	C-44A	CR 139	BUENA VISTA BLVD	4U	U	COUNTY	WILDWOOD	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	4,180	371	157	0.11	C	214	0.15	C
35281302	C-44A	BUENA VISTA BLVD	SR 44 (E)	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,262	115	54	0.08	C	61	0.09	C
3542100	C-462	CR 229	C-475	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	621	77	48	0.08	C	29	0.05	C
3542120	C-462	CR 229	CR 223	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	1,125	108	45	0.07	C	63	0.10	C
3542130	C-462	CR 223	CR 209	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	2,291	226	140	0.23	C	86	0.14	C
3542150	C-462	CR 209	US 301/SR 35	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,450	264	88	0.13	C	176	0.26	C
3541110	C-462	US 301/SR 35	CR 131	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	8,545	766	252	0.37	C	514	0.76	D
35411101	C-462	CR 131	CR 121	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	10,839	1,036	354	0.52	D	682	1.01	E
35411002	C-462	CR 121	CR 134	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	10,713	996	634	0.94	D	362	0.54	D
35411003	C-462	CR 134	C-466A	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	11,194	1,029	642	0.95	D	387	0.57	D
3537100	C-466	C-475	CR 229	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	4,670	456	326	0.54	C	130	0.22	C
3537200	C-466	CR 229	CR 209	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	5,232	501	173	0.29	C	328	0.54	C
3537130	C-466	CR 209	US 301/SR 35	2U	U	COUNTY	WILDWOOD	ARTERIAL 2	D	750	N	2U2	0	0	370	750	800	7,325	692	442	0.59	D	250	0.33	C
3537140	C-466	US 301/SR 35	CR 105	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	22,576	2,006	884	0.44	C	1,122	0.56	C
35371401	C-466	CR 105	CR 103	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	20,358	1,810	814	0.41	C	996	0.50	C
3537150	C-466	CR 103	CR 101	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	24,914	2,193	1,089	0.54	C	1,104	0.55	C
3537180	C-466	CR 101	BUENA VISTA BLVD	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	30,289	2,578	1,330	0.67	C	1,248	0.62	C
3537160	C-466	BUENA VISTA BLVD	MORSE BLVD	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	23,900	2,089	1,024	0.51	C	1,065	0.53	C
3537170	C-466	MORSE BLVD	C-100 (LAKE COUNTY BOUNDARY)	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	N	4U1	0	0	1,910	2,000	2,000	25,854	2,242	1,173	0.59	C	1,069	0.53	C
3533100	C-466A	US 3																							



# COUNTY TRANSPORTATION MANAGEMENT SYSTEM

## SUMTER COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on January 16, 2015

Segment ID	ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	EVACUATION ROUTE	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE							
													A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	EB/NB	V/C RATIO	LOS	WB/SB	V/C RATIO	LOS
3535110	C-478 E	CR 747	SR 471	2U	U	COUNTY	WEBSTER	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,123	128	54	0.08	C	74	0.11	C
3534100	C-478 E	SR 471	CR 707	2U	U	COUNTY	CENTER HILL	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,679	143	75	0.11	C	68	0.10	C
3534110	C-478 E (Virginia Ave)	CR 707	C-48 E	2U	U	COUNTY	CENTER HILL	COLLECTOR	D	675	N	2UC	0	0	333	675	720	1,085	87	32	0.05	C	55	0.08	C
3529000	C-478A	SR 50	SR 471	2U	U	COUNTY	WEBSTER	COLLECTOR	D	675	N	2UC	0	0	333	675	720	834	81	32	0.05	C	49	0.07	C
3553130	CR 48 (Florida St)	US 301/SR 35 (Noble Ave)	C-476 W	2U	U	COUNTY	BUSHNELL	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	3,515	304	145	0.18	C	159	0.20	C
3553160	C-48	CR 557	CR 557	2U	R	COUNTY	BUSHNELL	COLLECTOR	D	666	Y	2RC	0	0	603	666	666	6,498	557	287	0.43	C	270	0.41	C
3553170	C-48	CR 557	CR 747	2U	R	COUNTY	BUSHNELL	COLLECTOR	D	666	Y	2RC	0	0	603	666	666	6,146	527	251	0.38	C	276	0.41	C
3553180	C-48	CR 747	SR 471	2U	R	COUNTY	BUSHNELL	COLLECTOR	C	603	Y	2RC	0	0	603	666	666	5,104	424	182	0.30	C	242	0.40	C
3553190	C-48	SR 471	CR 567	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	5,138	417	188	0.31	C	229	0.38	C
3553200	C-48	CR 567	CR 569 (North Ave)	2U	R	COUNTY	CENTER HILL	COLLECTOR	D	666	N	2RC	0	0	603	666	666	4,967	416	173	0.26	C	243	0.36	C
3553210	C-48	CR 569 (North Ave)	C-478 (Virginia Ave)	2U	R	COUNTY	CENTER HILL	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,861	433	205	0.26	C	228	0.29	C
3553100	C-48	C-478 (Virginia Ave)	C-469	2U	R	COUNTY	CENTER HILL	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,899	425	193	0.24	C	232	0.29	C
3556100	C-48	C-469	CR 558	2U	R	COUNTY	CENTER HILL	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	3,222	249	96	0.12	C	153	0.19	C
3556110	C-48	CR 558	LAKE COUNTY BOUNDARY	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,309	212	83	0.10	C	129	0.16	C
3555100	C-48	CITRUS COUNTY BOUNDARY	C-575	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	Y	2RC	0	0	603	666	666	3,281	319	123	0.20	C	196	0.33	C
3555110	C-48	C-575	CR 625	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	Y	2RC	0	0	603	666	666	5,222	479	189	0.31	C	290	0.48	C
3555120	C-48	CR 625	CR 616	2U	U	COUNTY	BUSHNELL	MAJOR COLLECTOR	D	792	Y	2UMC	0	0	747	792	792	5,080	436	181	0.23	C	255	0.32	C
3555130	C-48	CR 616	CR 313	4D	U	COUNTY	BUSHNELL	MAJOR COLLECTOR	D	1,800	Y	4UMC	0	0	1,719	1,800	1,800	7,167	645	278	0.15	C	367	0.20	C
35541001	C-48	CR 313	SR 93/1-75	4D	U	COUNTY	BUSHNELL	MAJOR COLLECTOR	D	1,800	Y	4UMC	0	0	1,719	1,800	1,800	8,956	783	327	0.18	C	456	0.25	C
35320001	C-575	C-476	CR 663	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	801	68	47	0.08	C	21	0.03	C
3532000	C-575	CR 663	C-48	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	602	64	18	0.03	C	46	0.08	C
6000055	CANAL ST	C-466A	ODELL CIR (S)	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	2,764	285	166	0.21	C	119	0.15	C
6000060	CANAL ST	ODELL CIR (S)	BONITA BLVD	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	3,501	454	221	0.28	C	233	0.29	C
6000065	CANAL ST	BONITA BLVD	ODELL CIR (N)	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	5,519	690	291	0.37	C	399	0.50	C
6000070	CANAL ST	ODELL CIR (N)	STILLWATER TRL	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	792	N	2UMC	0	0	747	792	792	4,911	607	280	0.35	C	327	0.41	C
3248000	CR 101	C-466	WOODRIDGE DR	4D	U	COUNTY	WILDWOOD	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	6,789	585	350	0.24	C	235	0.16	C
4002000	CR 101	WOODRIDGE DR	CR 102	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,687	338	214	0.32	C	124	0.18	C
4000100	CR 102	US 301/SR 35	CR 101	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	533	N	2UC	0	0	333	675	720	983	116	28	0.05	C	88	0.17	C
40010001	CR 103	C-466 E	WOODRIDGE DR	4D	U	COUNTY	WILDWOOD	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	2,663	234	92	0.06	C	142	0.10	C
400100012	CR 103	WOODRIDGE DR	CR 102	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,394	189	99	0.15	C	90	0.13	C
3248400	CR 104	US 301/SR 35	CR 101	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	468	N	2RC	0	0	603	666	666	1,755	179	58	0.12	C	121	0.26	C
3224000	CR 121	C-462	CR 114	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	572	N	2UC	0	0	333	675	720	1,953	182	99	0.17	C	83	0.15	C
6000145	CR 139 (Powell Rd)	SR 44	C-44A	4D	U	COUNTY	WILDWOOD	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	7,759	696	356	0.24	C	340	0.23	C
3290000	CR 139 (Powell Rd)	CR 44A	C-466A	4D	U	COUNTY	WILDWOOD	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	8,522	703	354	0.24	C	349	0.24	C
3221000	CR 156	US 301/SR 35	SR 44	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	729	97	20	0.03	C	77	0.11	C
5080	CR 209	CR 232	C-462 E	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	491	57	29	0.04	C	27	0.04	C
3248105	CR 209	CR 216	C-462 E	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	833	83	46	0.07	C	37	0.05	C
3248102	CR 209	CR 216	C-466	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	708	73	33	0.05	C	40	0.06	C
3248110	CR 209	C-466	CR 209	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	437	60	36	0.05	C	24	0.04	C
6000	CR 213 (Walker Rd)	SR 44	C-44A	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	411	45	24	0.04	C	21	0.03	C
3245100	CR 229	CR 44	C-462	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	2,050	186	92	0.15	C	94	0.16	C
3245110	CR 229	C-462	C-466	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	1,935	185	92	0.15	C	93	0.15	C
4008000	CR 237	CR 222	C-466	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	363	42	21	0.03	C	21	0.03	C
4009000	CR 501	C-470E	C-500	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,340	270	179	0.27	C	91	0.13	C
40090001	CR 501	C-500	C-468	2U	U	COUNTY	WILDWOOD	COLLECTOR	D	675	N	2UC	0	0	333	675	720	2,376	253	179	0.27	C	74	0.11	C
3301000	CR 616 (Hayes Rd)	C-476	C-48	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	3,425	303	138	0.23	C	165	0.27	C
3297000	CR 625	C-476	C-48	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	392	43	26	0.04	C	17	0.03	C
3223000	CR 673	SR 93/1-75	CR 674	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	1,503	141	95	0.11	B	46	0.05	B
32230001	CR 673	CR 674	US 301/SR 35	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	C	850	N	2RMC	0	450	850	1,200	1,640	1,300	118	68	0.08	B	50	0.06	B
3269100	CR 721	SR 471	CR 721	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	734	73	40	0.07	C	33	0.05	C
3229000	CR 727	SR 50	CR 721	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	195	24	7	0.01	C	17	0.03	C
3231000	CR 728	C-469	LAKE COUNTY BOUNDARY	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	393	37	31	0.05	C	6	0.01	C
3293100	CR 747	C-478 E	CR 730	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	716	61	21	0.03	C	40	0.07	C
3293110	CR 747	CR 730	C-48	2U	R	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	C	603	N	2RC	0	0	603	666	666	1,296	145	75	0.12	C	70	0.12	C
5000300	EL CAMINO REAL	BUENA VISTA BLVD	ENRIQUE DR	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	16,646	1,393	599	0.41	C	794	0.54	D
5000390	EL CAMINO REAL	ENRIQUE DR	Buenos Aires Blvd	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	19,294	1,725	811	0.55	D	914	0.62	D
5999990	EL CAMINO REAL	Buenos Aires Blvd	MORSE BLVD N	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	12,994	1,180	564	0.38	C	616		



# COUNTY TRANSPORTATION MANAGEMENT SYSTEM

## SUMTER COUNTY TMS SEGMENT REPORT - 2014/15 Level of Service

Posted on January 16, 2015

Segment ID	ROAD NAME	FROM	TO	NUMBER OF LANES	AREA TYPE	MAINTAINING AGENCY	JURISDICTION	FUNCTIONAL CLASSIFICATION	FDOT LOS STANDARD	LOS CAPACITY	EVACUATION ROUTE	LOS CODE	PEAK HOUR DIRECTION CAPACITIES					2014/15 LEVEL OF SERVICE							
													A	B	C	D	E	AADT	PM PEAK HOUR TOTAL	EB/NB	V/C RATIO	LOS	WB/SB	V/C RATIO	LOS
35480001	SR 471	POLK COUNTY BOUNDARY	SR 50	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	1,877	125	54	0.13	B	71	0.17	B
3558170	SR 471	SR 50	CR 721	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	4,206	263	122	0.28	B	141	0.33	B
3558180	SR 471	CR 721	C-478A	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	3,781	268	116	0.17	C	152	0.23	C
3558190	SR 471	C-478A	C-478 E (S)	2U	R	STATE	WEBSTER	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	8,340	591	222	0.52	B	369	0.86	C
3558110	SR 471	C-478 E (S)	C-478 E (N)	2U	R	STATE	WEBSTER	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	10,212	752	281	0.65	C	471	1.10	D
3558120	SR 471	C-478 (N)	CR 722	2U	R	STATE	WEBSTER	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	8,761	634	285	0.66	C	349	0.81	C
3558140	SR 471	CR 722	C-48 E	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	4,943	359	151	0.35	B	208	0.48	B
3558150	SR 471	C-48 E	C-476	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	4,145	297	119	0.28	B	178	0.41	B
35581601	SR 471	C-476	US 301/SR 35	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	5,374	366	137	0.32	B	229	0.53	B
35541002	SR 48 (CR 48 W)	SR 93/1-75	CR 609	2D	U	STATE	BUSHNELL	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	13,834	1,164	559	0.64	C	605	0.69	C
3554120	SR 48 (CR 48 W)	CR 609	CR 311 (N West St)	2U	U	STATE	BUSHNELL	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	14,175	1,221	683	0.78	C	538	0.61	C
3554130	SR 48 (CR 48 W)	CR 311 (N West St)	C-475 S (Main St)	2U	U	STATE	BUSHNELL	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	10,530	984	458	0.52	C	526	0.60	C
3554140	SR 48 (Main St N)	US 301/SR 35	SR 48	4U	U	COUNTY	BUSHNELL	MAJOR COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	10,226	901	382	0.26	C	519	0.35	C
3559100	SR 50	HERNANDO COUNTY BOUNDARY	C-478A	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	4,425	311	147	0.34	B	164	0.38	B
3559110	SR 50	C-478A	SR 471	2U	U	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	4,723	321	142	0.16	C	179	0.20	C
3560110	SR 50	SR 471	C-469	2U	U	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	5,119	371	166	0.19	C	205	0.23	C
3560120	SR 50	C-469	LAKE COUNTY BOUNDARY	2U	U	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	D	880	Y	2U1	0	0	830	880	880	6,096	436	190	0.22	C	246	0.28	C
3545100	SR 91/FLORIDAS TURNPIKE	SR 93/1-75	US 301/SR 35	4F	R	STATE	WILDWOOD	FREEWAY	B	1,680	Y	4RF	0	1,680	2,500	3,040	3,500	21,411	1,531	851	0.51	B	976	0.58	B
3545110	SR 91/FLORIDAS TURNPIKE	US 301/SR 35	LAKE COUNTY BOUNDARY	4F	T	STATE	WILDWOOD	FREEWAY	C	2,880	Y	4TF	0	2,200	2,880	3,440	3,580	31,603	2,140	1,062	0.37	B	1,215	0.42	B
3546100	SR 93/1-75	HERNANDO COUNTY BOUNDARY	CR 673	4F	R	STATE	UNINCORPORATED SUMTER COUNTY	FREEWAY	B	1,680	Y	4RF	0	1,680	2,500	3,040	3,500	29,650	2,116	1,020	0.61	B	1,096	0.65	B
3546120	SR 93/1-75	CR 673	C-48	4F	R	STATE	BUSHNELL	FREEWAY	B	1,680	Y	4RF	0	1,680	2,500	3,040	3,500	28,943	2,065	1,002	0.60	B	1,063	0.63	B
3546130	SR 93/1-75	C-48	C-470 E	4F	R	STATE	BUSHNELL	FREEWAY	B	1,680	Y	4RF	0	1,680	2,500	3,040	3,500	32,454	2,289	1,126	0.67	B	1,163	0.69	B
3546140	SR 93/1-75	SR 91/FLORIDAS TURNPIKE	SR 44	6F	R	STATE	UNINCORPORATED SUMTER COUNTY	FREEWAY	B	2,500	Y	6RF	0	2,200	2,880	3,440	3,580	35,541	1,871	729	0.43	B	1,350	0.80	B
3546150	SR 93/1-75	SR 91/FLORIDAS TURNPIKE	SR 44	6F	R	STATE	UNINCORPORATED SUMTER COUNTY	FREEWAY	B	2,500	Y	6RF	0	2,500	3,720	4,560	5,400	49,711	3,402	1,374	0.55	B	2,028	0.81	B
3546180	SR 93/1-75	SR 44	MARION COUNTY BOUNDARY	6F	R	STATE	UNINCORPORATED SUMTER COUNTY	FREEWAY	B	2,500	Y	6RF	0	2,500	3,720	4,560	5,400	53,162	3,655	1,673	0.67	B	1,982	0.79	B
4000	ST. CHARLES	BUENA VISTA BLVD	AMBERJACK TERRACE	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,814	409	204	0.30	C	205	0.30	C
4010	ST. CHARLES	AMBERJACK TERRACE	BAILEY TRAIL	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	8,922	1,019	501	0.74	D	518	0.77	D
4020	ST. CHARLES	BAILEY TRAIL	BUENA VISTA BLVD	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	7,940	859	381	0.56	D	478	0.71	D
6000135	STILLWATER TRL	BUENA VISTA BLVD	CANAL ST	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	9,958	1,393	603	0.41	C	790	0.54	D
6000130	STILLWATER TRL	CANAL ST	MORSE BLVD	4D	U	COUNTY	UNINCORPORATED SUMTER COUNTY	MAJOR COLLECTOR	D	1,467	N	4UC	0	0	657	1,467	1,530	10,299	927	415	0.28	C	512	0.35	C
4060	STILLWATER TRL	MORSE BLVD	LOCKHART AVE	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	5,116	573	339	0.50	D	234	0.35	C
4070	STILLWATER TRL	LOCKHART AVE	ODELL CIRCLE	2U	U	COUNTY	UNINCORPORATED SUMTER COUNTY	COLLECTOR	D	675	N	2UC	0	0	333	675	720	3,326	418	185	0.27	C	233	0.35	C
3547105	US 27/US 441/SR 500	MARION COUNTY BOUNDARY	BUENOS AIRES BLVD	4D	U	STATE	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	2,000	Y	4U1	0	0	1,910	2,000	2,000	40,806	3,515	1,826	0.91	C	1,689	0.84	C
3547120	US 27/US 441/SR 500	BUENOS AIRES BLVD	MORSE BLVD	6D	U	STATE	UNINCORPORATED SUMTER COUNTY	ARTERIAL 1	D	3,020	Y	6U1	0	0	2,940	3,020	3,020	37,124	3,259	1,700	0.56	C	1,559	0.52	C
3253100	US 301/SR 35	HERNANDO COUNTY BOUNDARY	CR 656	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	3,510	299	129	0.30	B	170	0.40	B
325310	US 301/SR 35	CR 656	C-478	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	430	Y	2RU	0	240	430	740	1,490	4,320	354	155	0.31	B	219	0.51	B
3253140	US 301/SR 35	C-478	C-476 (Seminole Av)	2U	R	STATE	BUSHNELL	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	5,287	430	157	0.23	C	273	0.41	C
3253150	US 301/SR 35 (Main St)	C-476 (Seminole Av)	SR 48 (Main St)	4U	R	STATE	BUSHNELL	PRINCIPAL ARTERIAL	C	1,530	Y	4R1	0	0	1,530	1,580	1,580	10,338	906	408	0.27	C	498	0.33	C
3253130	US 301/SR 35 (Noble Av)	SR 48 (Main St)	C-48 (Florida St)	2U	R	STATE	BUSHNELL	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	6,487	599	298	0.44	C	301	0.45	C
3253110	US 301/SR 35 (Noble Av)	C-48 (Florida St)	C-476 (Noble Av)	2U	R	STATE	BUSHNELL	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	5,004	420	189	0.28	C	231	0.34	C
32531602	US 301/SR 35	C-476 (Noble Av)	C-542	2U	R	STATE	BUSHNELL	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	4,857	448	187	0.28	C	261	0.39	C
32531601	US 301/SR 35	C-542	C-470 E (S)	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	6,395	595	234	0.35	C	361	0.54	C
3253170	US 301/SR 35	C-470 E (S)	SR 471	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	14,394	1,364	426	0.64	C	938	1.40	F
3253180	US 301/SR 35	SR 471	C-470 E (N)	2U	R	STATE	UNINCORPORATED SUMTER COUNTY	PRINCIPAL ARTERIAL	C	670	Y	2R1	0	0	670	740	740	13,597	1,136	462	0.69	C	674	1.01	D
3253190	US 301/SR 35	C-470 E (N)	CR 514 (Warm Springs Ave)	2U	R	STATE	COLEMAN	ARTERIAL 1	C	670	Y	2R1	0	0	670	740	740	8,609	709	323	0.48	C	386	0.58	C
3253200	US 301/SR 35 (Warm Springs Ave)	CR 514 (Warm Springs Ave)	C-468	2U	U	STATE	COLEMAN	ARTERIAL 1	D	880	Y	2U1	0	0	830	880	880	8,788	743	343	0.39	C	400	0.45	C
3253210	US 301/SR 35	C-468	SR 91/FLORIDAS TURNPIKE	2U	U	STATE	WILDWOOD	ARTERIAL 1	D	880	Y	2U1	0	0	830	880	880	10,921	1,008	512	0.58	C	496	0.56	C
3253220	US 301/SR 35 (Main St)	SR 91/FLORIDAS TURNPIKE	CR 156 (Clay Drain Rd)	4D	U	STATE	WILD																		

## **APPENDIX B**

Existing Intersection Traffic Counts



Date: 3-Aug-15 City: Groveland  
 E/W Street Name: Anderson Rd County: Lake  
 N/S Street Name: SR 33 Study Period: PM

Anderson Rd		SR 33		SR 33		Anderson Rd	
3%	38	↖		↗		↖	19
0%	5	→		←		←	3
0%	9	↘		↙		↘	2
		SR 33		SR 33			
		↖		↗			
		12		207		2	
		0%		20%		0%	

% = Percentage of Trucks / Total

**Peak Hour Traffic**

	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Cars	22	209	77	2	3	19	12	165	2	37	5	9	562
Trucks	0	30	1	0	0	0	0	42	0	1	0	0	74
<b>Total</b>	<b>22</b>	<b>239</b>	<b>78</b>	<b>2</b>	<b>3</b>	<b>19</b>	<b>12</b>	<b>207</b>	<b>2</b>	<b>38</b>	<b>5</b>	<b>9</b>	<b>636</b>
<b>Peak Hour Factor</b>	0.946												
<b>Peak Hour</b>	05:00 PM to 06:00 PM												

**Total Vehicle Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	1	55	14	0	2	1	3	51	0	6	1	3	137
4:15:00 PM	5	54	16	1	1	5	3	49	2	10	0	2	148
4:30:00 PM	2	63	19	1	0	1	3	53	0	4	1	2	149
4:45:00 PM	7	50	15	1	1	4	1	51	2	6	1	3	142
5:00:00 PM	5	67	21	1	1	8	3	51	0	10	1	0	168
5:15:00 PM	6	59	18	1	2	4	5	47	0	8	1	2	153
5:30:00 PM	5	62	17	0	0	3	1	53	1	10	2	6	160
5:45:00 PM	6	51	22	0	0	4	3	56	1	10	1	1	155

**Date:** 3-Aug-15  
**E/W Street Name:** Anderson Rd  
**N/S Street Name:** SR 33  
**City:** Groveland  
**County:** Lake  
**Study Period:** PM

**Total Vehicle Traffic**

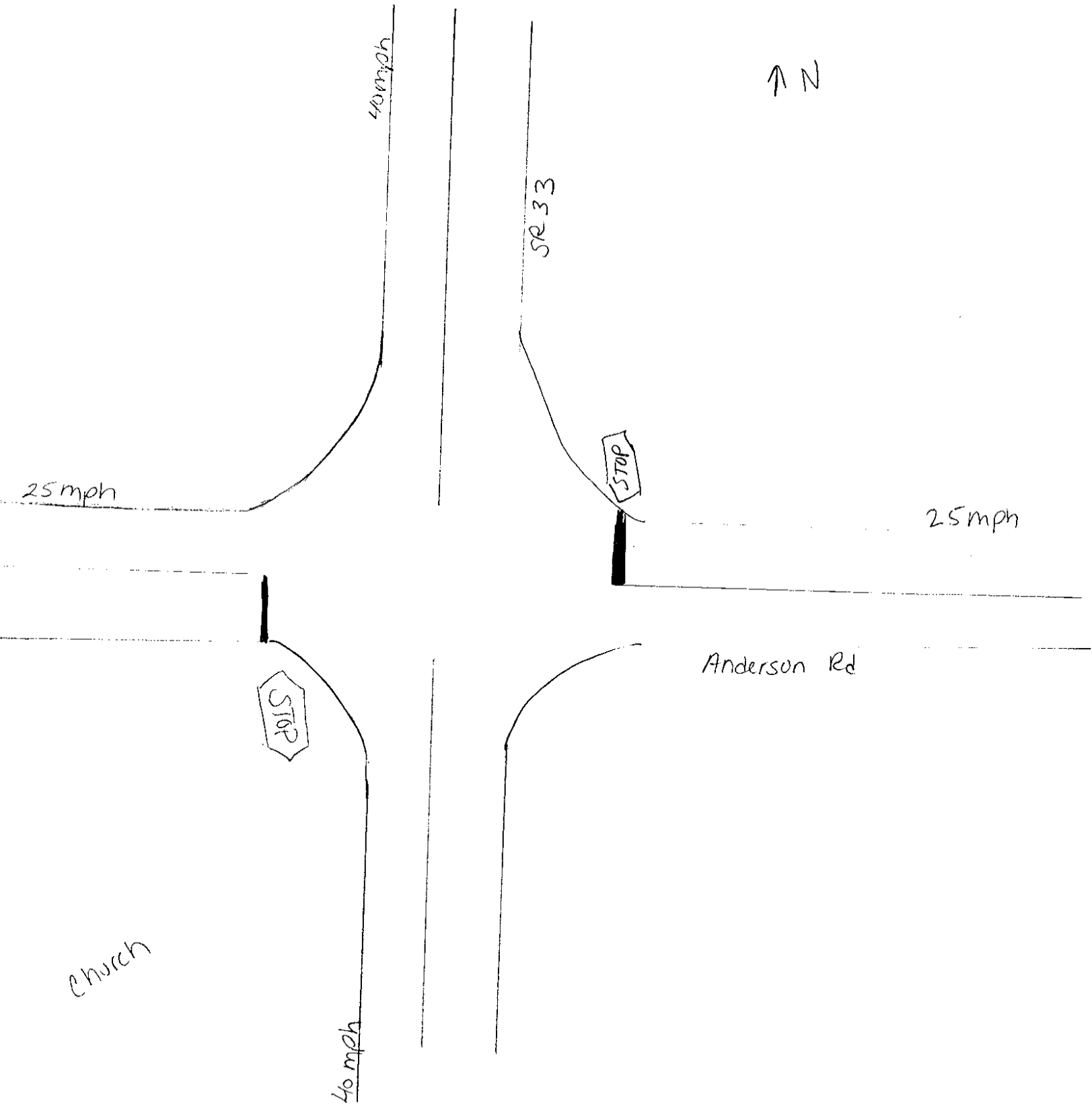
Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	1	55	14	0	2	1	3	51	0	6	1	3	137
4:15:00 PM	5	54	16	1	1	5	3	49	2	10	0	2	148
4:30:00 PM	2	63	19	1	0	1	3	53	0	4	1	2	149
4:45:00 PM	7	50	15	1	1	4	1	51	2	6	1	3	142
5:00:00 PM	5	67	21	1	1	8	3	51	0	10	1	0	168
5:15:00 PM	6	59	18	1	2	4	5	47	0	8	1	2	153
5:30:00 PM	5	62	17	0	0	3	1	53	1	10	2	6	160
5:45:00 PM	6	51	22	0	0	4	3	56	1	10	1	1	155

**Car Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	1	47	14	0	2	1	3	45	0	6	1	3	123
4:15:00 PM	5	47	16	1	1	4	3	32	2	10	0	2	123
4:30:00 PM	2	55	18	1	0	1	3	46	0	3	1	2	132
4:45:00 PM	7	42	15	1	1	4	1	43	2	6	1	3	126
5:00:00 PM	5	56	21	1	1	8	3	41	0	9	1	0	146
5:15:00 PM	6	53	18	1	2	4	5	39	0	8	1	2	139
5:30:00 PM	5	56	17	0	0	3	1	38	1	10	2	6	139
5:45:00 PM	6	44	21	0	0	4	3	47	1	10	1	1	138

**Truck Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	0	8	0	0	0	0	0	6	0	0	0	0	14
4:15:00 PM	0	7	0	0	0	1	0	17	0	0	0	0	25
4:30:00 PM	0	8	1	0	0	0	0	7	0	1	0	0	17
4:45:00 PM	0	8	0	0	0	0	0	8	0	0	0	0	16
5:00:00 PM	0	11	0	0	0	0	0	10	0	1	0	0	22
5:15:00 PM	0	6	0	0	0	0	0	8	0	0	0	0	14
5:30:00 PM	0	6	0	0	0	0	0	15	0	0	0	0	21
5:45:00 PM	0	7	1	0	0	0	0	9	0	0	0	0	17



↑ N

40 mph

SR 33

25 mph

25 mph

STOP

STOP

Anderson Rd

Church

40 mph



Date: 31-Aug-15 City: Groveland  
 E/W Street Name: SR 50 (Broad St) County: Lake  
 N/S Street Name: SR 33 Study Period: PM

SR 50 (Broad St)		SR 33	
0%	5	7	1
3%	610	→	
13%	170	↘	
SR 50 (Broad St)		SR 33	
20%	5	↙	20%
12%	81	↓	12%
2%	120	↘	2%
SR 50 (Broad St)		SR 33	
κ	77	↗	1%
←	675		2%
↙	164		1%

SR 50 (Broad St)		SR 33	
κ	170	21%	↗
↑	44	9%	
↗	83	1%	

% = Percentage of Trucks / Total

**Peak Hour Traffic**

	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Cars	118	71	4	162	660	76	135	40	82	5	589	148	2090
Trucks	2	10	1	2	15	1	35	4	1	0	21	22	114
<b>Total</b>	<b>120</b>	<b>81</b>	<b>5</b>	<b>164</b>	<b>675</b>	<b>77</b>	<b>170</b>	<b>44</b>	<b>83</b>	<b>5</b>	<b>610</b>	<b>170</b>	<b>2204</b>
Peak Hour Factor	0.902												
Peak Hour	04:45 PM to 05:45 PM												

**Total Vehicle Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	22	15	0	29	158	14	43	12	25	1	128	38	485
4:15:00 PM	32	19	0	38	174	20	43	9	17	1	140	33	526
4:30:00 PM	26	11	0	40	163	19	43	16	20	1	127	37	503
4:45:00 PM	25	21	1	31	149	14	40	11	19	1	132	41	485
5:00:00 PM	35	20	2	46	178	23	53	15	28	1	174	36	611
5:15:00 PM	27	19	0	39	175	23	46	2	14	2	145	43	535
5:30:00 PM	33	21	2	48	173	17	31	16	22	1	159	50	573
5:45:00 PM	37	11	0	46	156	23	38	10	16	0	112	28	477

**Date:** 31-Aug-15  
**E/W Street Name:** SR 50 (Broad St)  
**N/S Street Name:** SR 33  
**City:** Groveland  
**County:** Lake  
**Study Period:** PM

**Total Vehicle Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	22	15	0	29	158	14	43	12	25	1	128	38	485
4:15:00 PM	32	19	0	38	174	20	43	9	17	1	140	33	526
4:30:00 PM	26	11	0	40	163	19	43	16	20	1	127	37	503
4:45:00 PM	25	21	1	31	149	14	40	11	19	1	132	41	485
5:00:00 PM	35	20	2	46	178	23	53	15	28	1	174	36	611
5:15:00 PM	27	19	0	39	175	23	46	2	14	2	145	43	535
5:30:00 PM	33	21	2	48	173	17	31	16	22	1	159	50	573
5:45:00 PM	37	11	0	46	156	23	38	10	16	0	112	28	477

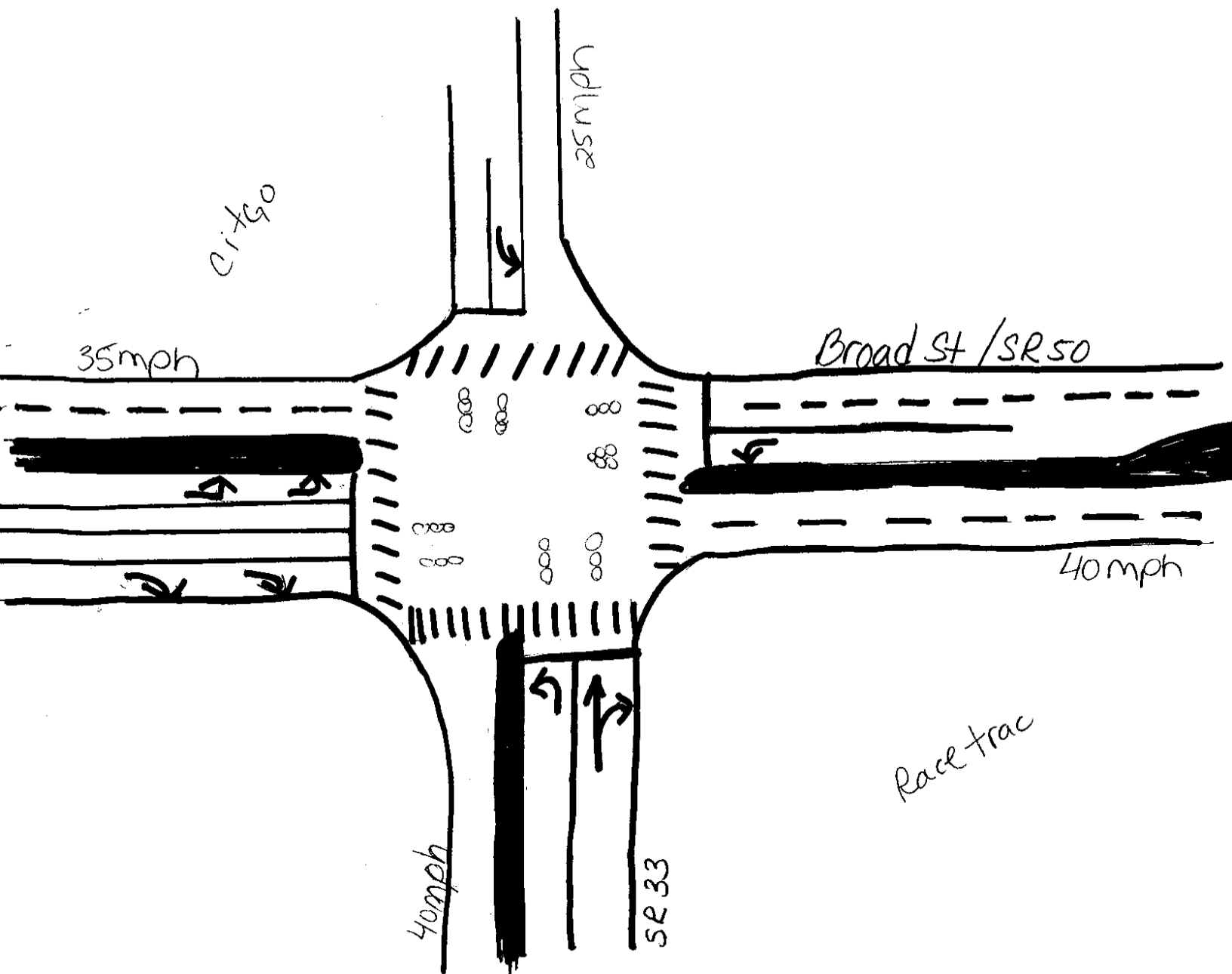
**Car Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	22	13	0	29	156	14	40	9	22	1	119	34	459
4:15:00 PM	31	18	0	35	169	20	30	4	16	1	136	28	488
4:30:00 PM	26	10	0	39	160	19	38	14	17	1	120	32	476
4:45:00 PM	25	16	0	31	147	13	34	10	19	1	127	36	459
5:00:00 PM	34	15	2	45	173	23	47	14	27	1	171	32	584
5:15:00 PM	26	19	0	39	172	23	34	2	14	2	136	38	505
5:30:00 PM	33	21	2	47	168	17	20	14	22	1	155	42	542
5:45:00 PM	37	8	0	46	154	22	33	8	16	0	108	24	456

**Truck Traffic**

Interval Starts	Southbound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00:00 PM	0	2	0	0	2	0	3	3	3	0	9	4	26
4:15:00 PM	1	1	0	3	5	0	13	5	1	0	4	5	38
4:30:00 PM	0	1	0	1	3	0	5	2	3	0	7	5	27
4:45:00 PM	0	5	1	0	2	1	6	1	0	0	5	5	26
5:00:00 PM	1	5	0	1	5	0	6	1	1	0	3	4	27
5:15:00 PM	1	0	0	0	3	0	12	0	0	0	9	5	30
5:30:00 PM	0	0	0	1	5	0	11	2	0	0	4	8	31
5:45:00 PM	0	3	0	0	2	1	5	2	0	0	4	4	21

NA ↑



2014 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 1100 LAKE COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2014 - 01/04/2014	0.99	1.04
2	01/05/2014 - 01/11/2014	1.01	1.06
3	01/12/2014 - 01/18/2014	1.03	1.08
4	01/19/2014 - 01/25/2014	1.01	1.06
5	01/26/2014 - 02/01/2014	1.00	1.05
* 6	02/02/2014 - 02/08/2014	0.98	1.03
* 7	02/09/2014 - 02/15/2014	0.96	1.01
* 8	02/16/2014 - 02/22/2014	0.94	0.99
* 9	02/23/2014 - 03/01/2014	0.94	0.99
*10	03/02/2014 - 03/08/2014	0.93	0.98
*11	03/09/2014 - 03/15/2014	0.93	0.98
*12	03/16/2014 - 03/22/2014	0.93	0.98
*13	03/23/2014 - 03/29/2014	0.93	0.98
*14	03/30/2014 - 04/05/2014	0.94	0.99
*15	04/06/2014 - 04/12/2014	0.95	1.00
*16	04/13/2014 - 04/19/2014	0.95	1.00
*17	04/20/2014 - 04/26/2014	0.96	1.01
*18	04/27/2014 - 05/03/2014	0.98	1.03
19	05/04/2014 - 05/10/2014	0.99	1.04
20	05/11/2014 - 05/17/2014	1.00	1.05
21	05/18/2014 - 05/24/2014	1.01	1.06
22	05/25/2014 - 05/31/2014	1.02	1.07
23	06/01/2014 - 06/07/2014	1.03	1.08
24	06/08/2014 - 06/14/2014	1.04	1.09
25	06/15/2014 - 06/21/2014	1.05	1.11
26	06/22/2014 - 06/28/2014	1.06	1.12
27	06/29/2014 - 07/05/2014	1.07	1.13
28	07/06/2014 - 07/12/2014	1.08	1.14
29	07/13/2014 - 07/19/2014	1.09	1.15
30	07/20/2014 - 07/26/2014	1.08	1.14
31	07/27/2014 - 08/02/2014	1.07	1.13
32	08/03/2014 - 08/09/2014	1.06	1.12
33	08/10/2014 - 08/16/2014	1.06	1.12
34	08/17/2014 - 08/23/2014	1.05	1.11
35	08/24/2014 - 08/30/2014	1.05	1.11
36	08/31/2014 - 09/06/2014	1.04	1.09
37	09/07/2014 - 09/13/2014	1.04	1.09
38	09/14/2014 - 09/20/2014	1.04	1.09
39	09/21/2014 - 09/27/2014	1.02	1.07
40	09/28/2014 - 10/04/2014	1.01	1.06
41	10/05/2014 - 10/11/2014	0.99	1.04
42	10/12/2014 - 10/18/2014	0.98	1.03
43	10/19/2014 - 10/25/2014	0.98	1.03
44	10/26/2014 - 11/01/2014	0.99	1.04
45	11/02/2014 - 11/08/2014	0.99	1.04
46	11/09/2014 - 11/15/2014	1.00	1.05
47	11/16/2014 - 11/22/2014	1.00	1.05
48	11/23/2014 - 11/29/2014	1.00	1.05
49	11/30/2014 - 12/06/2014	1.00	1.05
50	12/07/2014 - 12/13/2014	0.99	1.04
51	12/14/2014 - 12/20/2014	0.99	1.04
52	12/21/2014 - 12/27/2014	1.01	1.06
53	12/28/2014 - 12/31/2014	1.03	1.08

\* PEAK SEASON

09-MAR-2015 16:07:54

830UPD

5\_1100\_PKSEASON.TXT

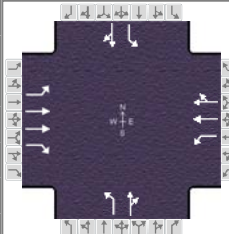


## **APPENDIX C**

Existing HCS Capacity Analysis Sheets

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	TPD, Inc.			Duration, h	0.25	
Analyst	MJA	Analysis Date	Aug 6, 2015		Area Type	Other
Jurisdiction	Lake County	Time Period	PM Peak Hour		PHF	0.90
Intersection	SR 50 & SR 33		Analysis Year	2015	Analysis Period	1 > 16:45
File Name	4673 - SR 50 & SR 33 - Existing.xus					
Project Description	PM Peak Hour - 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	5	634	177	171	702	80	177	46	86	125	84	5

Signal Information														
Cycle, s	78.4	Reference Phase	2											
Offset, s	0	Reference Point	End											
Uncoordinated	Yes	Simult. Gap E/W	On	Green	7.1	26.4	20.5	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.4	5.9	5.4	0.0	0.0	0.0				
				Red	2.9	2.9	2.9	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		4
Case Number		5.3	1.0	4.0		6.0		6.0
Phase Duration, s		35.2	14.4	49.6		28.8		28.8
Change Period, (Y+R <sub>c</sub> ), s		8.8	7.3	8.8		8.3		8.3
Max Allow Headway (MAH), s		4.6	3.6	4.6		4.0		4.0
Queue Clearance Time (g <sub>s</sub> ), s		15.1	7.1	13.7		19.0		15.8
Green Extension Time (g <sub>e</sub> ), s		11.3	0.1	11.5		1.5		1.7
Phase Call Probability		1.00	0.98	1.00		1.00		1.00
Max Out Probability		0.20	1.00	0.18		0.07		0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	6	704	197	190	442	427	197	147		139	99	
Adjusted Saturation Flow Rate (s), veh/h/ln	647	1756	1425	1792	1863	1795	1088	1635		1236	1775	
Queue Service Time (g <sub>s</sub> ), s	0.5	13.1	8.3	5.1	11.7	11.7	13.5	5.7		8.1	3.4	
Cycle Queue Clearance Time (g <sub>c</sub> ), s	0.5	13.1	8.3	5.1	11.7	11.7	17.0	5.7		13.8	3.4	
Green Ratio (g/C)	0.34	0.34	0.34	0.45	0.52	0.52	0.26	0.26		0.26	0.26	
Capacity (c), veh/h	310	1182	479	381	969	934	329	428		325	465	
Volume-to-Capacity Ratio (X)	0.018	0.596	0.410	0.498	0.457	0.457	0.598	0.343		0.427	0.213	
Available Capacity (c <sub>a</sub> ), veh/h	463	2016	818	448	1069	1030	460	626		474	679	
Back of Queue (Q), veh/ln (95th percentile)	0.1	8.7	4.7	3.5	7.8	7.6	6.1	3.8		4.3	2.6	
Queue Storage Ratio (RQ) (95th percentile)	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	17.4	21.6	20.0	15.1	11.8	11.8	29.3	23.5		29.1	22.6	
Incremental Delay (d <sub>2</sub> ), s/veh	0.0	0.6	0.7	0.7	0.4	0.4	1.3	0.4		0.7	0.2	
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	
Control Delay (d), s/veh	17.4	22.2	20.7	15.8	12.2	12.3	30.6	23.8		29.7	22.8	
Level of Service (LOS)	B	C	C	B	B	B	C	C		C	C	
Approach Delay, s/veh / LOS	21.8		C	12.9		B	27.7		C	26.9		C
Intersection Delay, s/veh / LOS	19.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.2	B	2.8	C	2.9	C
Bicycle LOS Score / LOS	1.2	A	1.4	A	1.1	A	0.9	A

TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	MJA			Intersection	SR 33 & Anderson Rd		
Agency/Co.	TPD, Inc.			Jurisdiction	Lake County		
Date Performed	8/6/2015			Analysis Year	2015		
Analysis Time Period	PM Peak Hour (Existing)						
Project Description 4673 - Southgate Subdivision							
East/West Street: Anderson Rd				North/South Street: SR 33			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
<b>Vehicle Volumes and Adjustments</b>							
<b>Major Street</b>	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	13	215	2	23	249	81	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	13	226	2	24	262	85	
Percent Heavy Vehicles	18	--	--	9	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	0	1	0	
Configuration	LTR			LTR			
Upstream Signal		0			0		
<b>Minor Street</b>	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	40	5	9	2	3	20	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	42	5	9	2	3	21	
Percent Heavy Vehicles	2	2	2	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		LTR			LTR		
<b>Delay, Queue Length, and Level of Service</b>							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	LTR	LTR	LTR			LTR	
v (veh/h)	13	24	26			56	
C (m) (veh/h)	1128	1300	670			413	
v/c	0.01	0.02	0.04			0.14	
95% queue length	0.03	0.06	0.12			0.47	
Control Delay (s/veh)	8.2	7.8	10.6			15.1	
LOS	A	A	B			C	
Approach Delay (s/veh)	--	--	10.6			15.1	
Approach LOS	--	--	B			C	

**APPENDIX D**

ITE Trip Generation Sheets

# Single-Family Detached Housing (210)

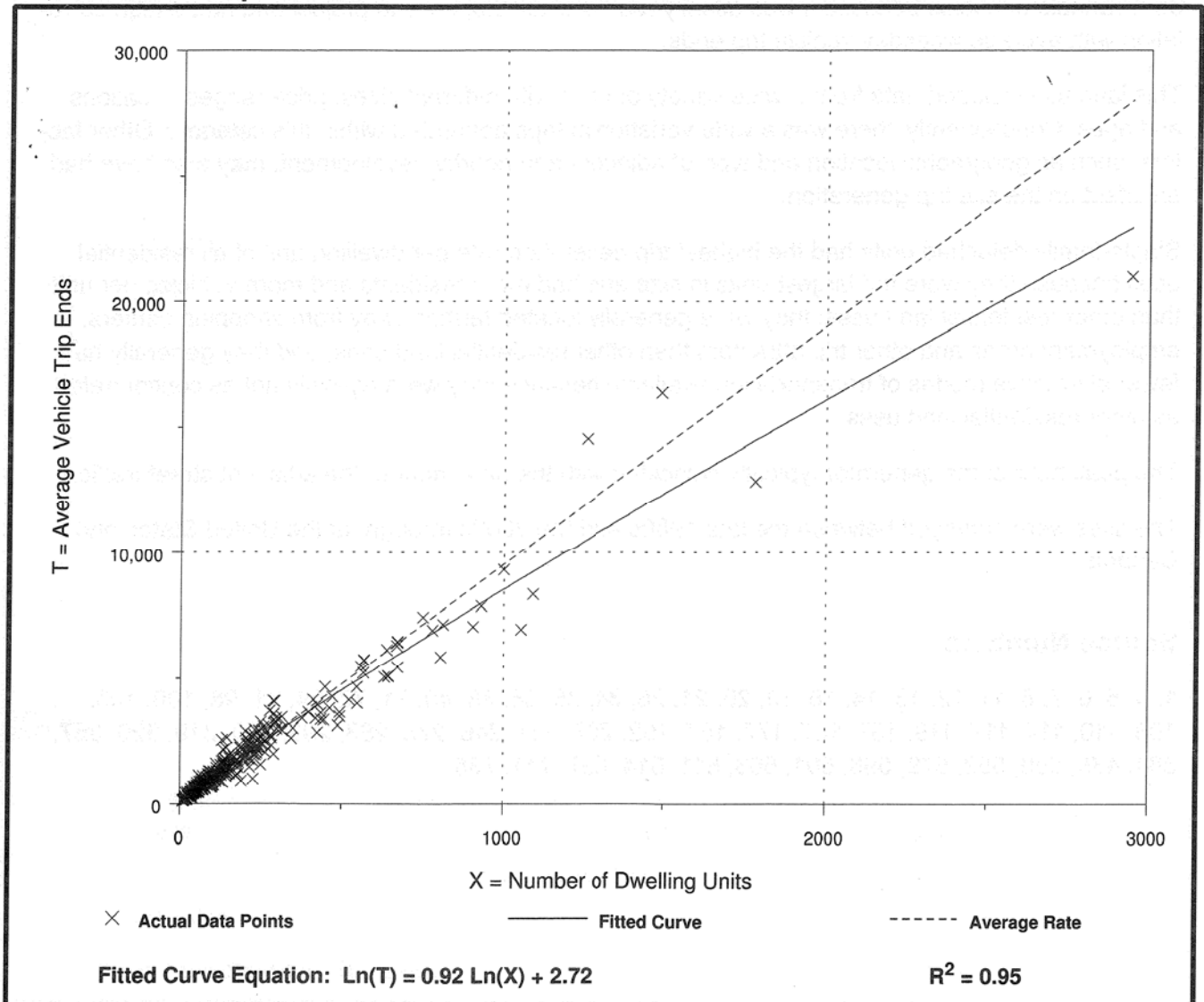
Average Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Number of Studies: 355  
Avg. Number of Dwelling Units: 198  
Directional Distribution: 50% entering, 50% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.52	4.31 - 21.85	3.70

## Data Plot and Equation



# Single-Family Detached Housing (210)

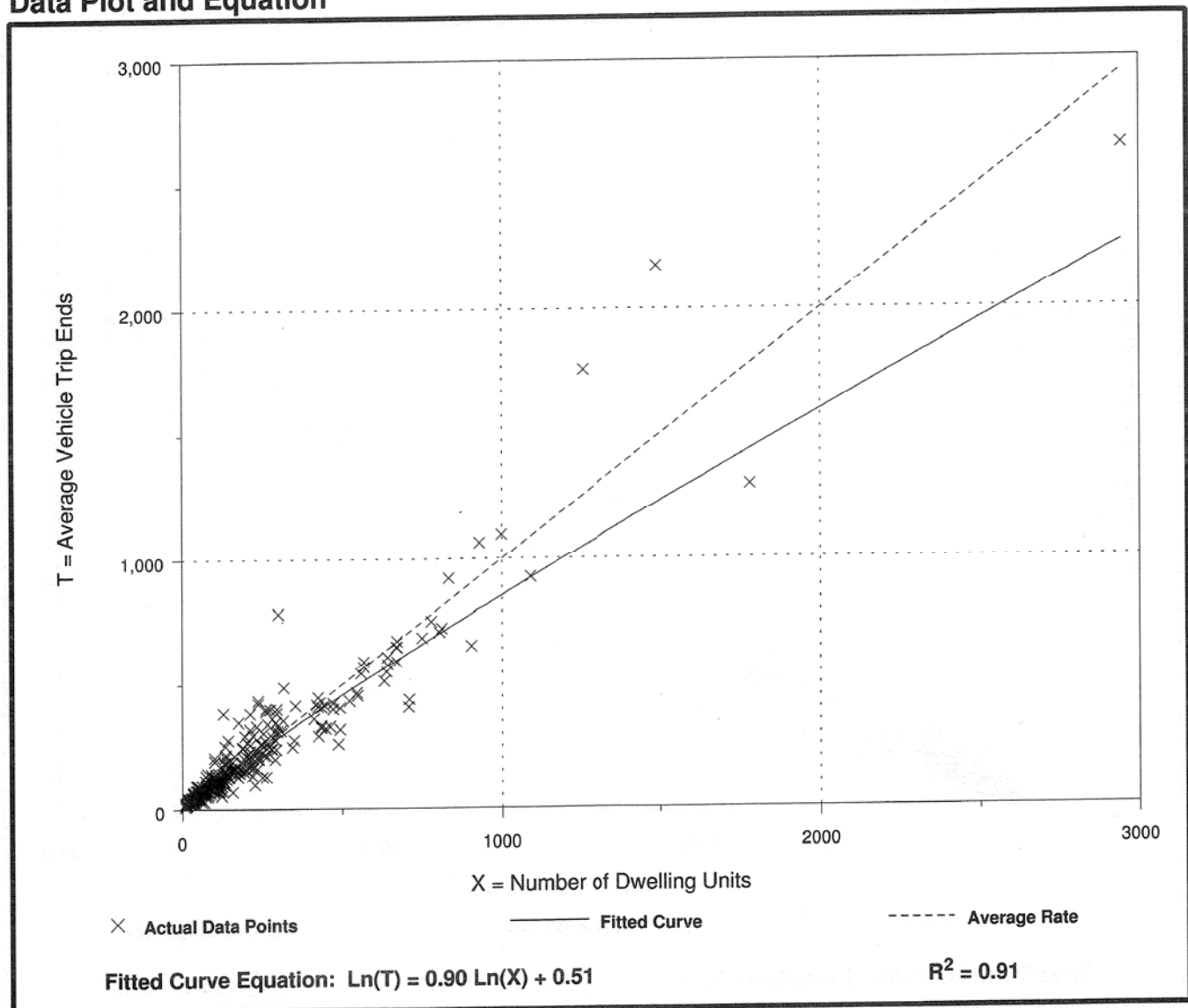
**Average Vehicle Trip Ends vs: Dwelling Units**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

Number of Studies: 321  
 Avg. Number of Dwelling Units: 207  
 Directional Distribution: 63% entering, 37% exiting

## Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
1.00	0.42 - 2.98	1.05

## Data Plot and Equation

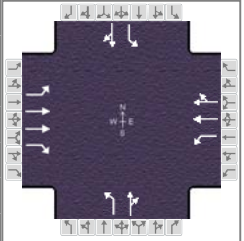


## **APPENDIX E**

Projected HSC Capacity Analysis Worksheets

# HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	TPD, Inc.			Duration, h	0.25	
Analyst	MJA	Analysis Date	Aug 6, 2015		Area Type	Other
Jurisdiction	Lake County	Time Period	PM Peak Hour		PHF	0.90
Intersection	SR 50 & SR 33		Analysis Year		Analysis Period	1 > 16:45
File Name	4673 - SR 50 & SR 33 - Projected.xus					
Project Description	PM Peak Hour - Projected					



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	5	777	207	190	931	80	194	46	98	125	84	5

Signal Information													
Cycle, s	88.5	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On	Green	8.3	31.8	24.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.4	5.9	5.4	0.0	0.0	0.0			
				Red	2.9	2.9	2.9	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		4
Case Number		5.3	1.0	4.0		6.0		6.0
Phase Duration, s		40.6	15.6	56.2		32.3		32.3
Change Period, (Y+R <sub>c</sub> ), s		8.8	7.3	8.8		8.3		8.3
Max Allow Headway (MAH), s		4.6	3.6	4.6		4.0		4.0
Queue Clearance Time (g <sub>s</sub> ), s		20.5	8.2	20.1		22.7		18.2
Green Extension Time (g <sub>e</sub> ), s		10.8	0.1	14.0		1.3		1.7
Phase Call Probability		1.00	0.99	1.00		1.00		1.00
Max Out Probability		0.48	1.00	0.48		0.31		0.06

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	6	863	230	211	569	554	216	160		139	99	
Adjusted Saturation Flow Rate (s), veh/h/ln	509	1756	1425	1792	1863	1810	1088	1628		1221	1775	
Queue Service Time (g <sub>s</sub> ), s	0.7	18.5	10.9	6.2	18.1	18.1	16.9	7.0		9.2	3.8	
Cycle Queue Clearance Time (g <sub>c</sub> ), s	3.2	18.5	10.9	6.2	18.1	18.1	20.7	7.0		16.2	3.8	
Green Ratio (g/C)	0.36	0.36	0.36	0.48	0.54	0.54	0.27	0.27		0.27	0.27	
Capacity (c), veh/h	250	1262	512	345	997	969	330	442		316	482	
Volume-to-Capacity Ratio (X)	0.022	0.684	0.449	0.611	0.571	0.572	0.653	0.362		0.440	0.205	
Available Capacity (c <sub>a</sub> ), veh/h	325	1786	724	381	997	969	403	552		398	601	
Back of Queue (Q), veh/ln (95th percentile)	0.1	11.7	6.3	4.5	11.4	11.2	7.8	4.7		5.0	2.9	
Queue Storage Ratio (RQ) (95th percentile)	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	20.1	24.1	21.7	17.3	13.8	13.8	32.9	26.0		32.6	24.9	
Incremental Delay (d <sub>2</sub> ), s/veh	0.0	0.8	0.7	2.0	0.9	0.9	2.2	0.4		0.7	0.2	
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	
Control Delay (d), s/veh	20.1	24.9	22.4	19.4	14.7	14.7	35.1	26.4		33.3	25.0	
Level of Service (LOS)	C	C	C	B	B	B	D	C		C	C	
Approach Delay, s/veh / LOS	24.3	C		15.4	B		31.4	C		29.9	C	
Intersection Delay, s/veh / LOS	21.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.3	B	2.2	B	2.8	C	3.0	C
Bicycle LOS Score / LOS	1.4	A	1.6	A	1.1	A	0.9	A



TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	MJA			Intersection	SR 33 & Anderson Rd		
Agency/Co.	TPD, Inc.			Jurisdiction	Lake County		
Date Performed	8/6/2015			Analysis Year			
Analysis Time Period	PM Peak Hour (Projected)						
Project Description 4673 - Southgate Subdivision							
East/West Street: Anderson Rd				North/South Street: SR 33			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
<b>Vehicle Volumes and Adjustments</b>							
<b>Major Street</b>	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	13	244	2	23	298	81	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	13	256	2	24	313	85	
Percent Heavy Vehicles	18	--	--	9	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	0	1	0	
Configuration	LTR			LTR			
Upstream Signal		0			0		
<b>Minor Street</b>	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	40	5	9	2	3	20	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	42	5	9	2	3	21	
Percent Heavy Vehicles	2	2	2	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	1	0	0	1	0	
Configuration		LTR			LTR		
<b>Delay, Queue Length, and Level of Service</b>							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	LTR	LTR	LTR			LTR	
v (veh/h)	13	24	26			56	
C (m) (veh/h)	1079	1267	628			364	
v/c	0.01	0.02	0.04			0.15	
95% queue length	0.04	0.06	0.13			0.54	
Control Delay (s/veh)	8.4	7.9	11.0			16.7	
LOS	A	A	B			C	
Approach Delay (s/veh)	--	--	11.0			16.7	
Approach LOS	--	--	B			C	

TWO-WAY STOP CONTROL SUMMARY							
<b>General Information</b>				<b>Site Information</b>			
Analyst	MJA			Intersection	SR 33 & Southgate Ave (Access)		
Agency/Co.	TPD, Inc.			Jurisdiction	Lake County		
Date Performed	8/6/2015			Analysis Year			
Analysis Time Period	PM Peak Hour (Projected)						
Project Description 4673 - Southgate Subdivision							
East/West Street: Southgate Ave (Site Access)				North/South Street: SR 33			
Intersection Orientation: North-South				Study Period (hrs): 0.25			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		233	18	46	263		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	0	245	18	48	276	0	
Percent Heavy Vehicles	18	--	--	9	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	1	0	0	1		0
Configuration			TR	LT			
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				5		26	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	0	0	0	5	0	27	
Percent Heavy Vehicles	2	2	2	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		LT		LR			
v (veh/h)		48		32			
C (m) (veh/h)		1262		700			
v/c		0.04		0.05			
95% queue length		0.12		0.14			
Control Delay (s/veh)		8.0		10.4			
LOS		A		B			
Approach Delay (s/veh)	--	--	10.4				
Approach LOS	--	--	B				