



Transportation Concurrency Management System

Wakulla County, Florida

Prepared by:

**Kimley-Horn and Associates, Inc.
Tallahassee, Florida**

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**Kimley-Horn
and Associates, Inc.**





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Introduction

The year 2005 Amendments (SB 360) to the state of Florida's Growth Management legislation directed local governments to enact concurrency management ordinances by December 1, 2006, that allow for "proportionate fair-share" contributions from developers toward concurrency requirements (§163.3180(16), F.S.). Concurrency is a technique designed to ensure that the required public facilities and services available are concurrent with the impacts of development and growth. In cases where there are capacity deficiencies, the Proportionate Fair-Share option provides applicants for development the opportunity to move forward by contributing a share of the cost of improving the impacted transportation facility.¹ In order to establish transportation concurrency:

Jurisdictions define an adequate level of service (LOS) and determine whether the service needs of a new development are more than existing capacity and any scheduled improvements in the Capital Improvements Element (CIE) in the Comprehensive Plan allow. If sufficient capacity is not available, the local government cannot permit development (unless certain conditions apply).²

This study was conducted to create a basis for the establishment of a Concurrency Management System (CMS) that reflects current growth trends along regionally and locally significant corridors in Wakulla County. From the year 2000 to 2005, Wakulla County experienced a 17.51% population increase from 22,863 to 26,867.³ The CMS compliments the previously adopted Proportionate Fair-Share Ordinance adopted by Wakulla County in 2007 to support needed infrastructure within Wakulla County. Together, a CMS program and Proportionate Fair-Share Ordinance will enable Wakulla County to plan for its own transportation needs, provide a mechanism for developers to pay towards necessary improvements, and promote development where desired. The corridors that will be included in the CMS are shown in **Figure 1** and are listed on the following page.

¹ Florida Department of Transportation and the Center for Urban Transportation Research (CUTR), February 2006, *Model Ordinance for Proportionate Fair-Share Mitigation of Development Impacts On Transportation Corridors*. <http://www.dot.state.fl.us/planning/gm/pfso/default.htm>.

² Florida Department of Transportation and the Center for Urban Transportation Research (CUTR), February 2006, *Model Ordinance for Proportionate Fair-Share Mitigation of Development Impacts On Transportation Corridors*. <http://www.dot.state.fl.us/planning/gm/pfso/default.htm>.

³ University of Florida, Bureau of Economic and Business Research, Population Program, *Florida Estimates of Population, April 1, 2006*. Census Data from U.S. Bureau of the Census.

- US 319/Crawfordville Highway
- US 98
- SR 363/Woodville Highway
- SR 267/Bloxham Cutoff
- Lower Bridge Road
- Spring Creek Highway
- East Ivan Road
- Wakulla-Arran Road
- Rehwinkle Road
- SR 61/CR 61/Shadeville Road
- Springhill Road
- Trice Lane
- Arran Road

Transportation Analysis: 2007 to 2017

Existing Conditions (2007)

Table 1 lists the roadways and the corresponding segmentation that has been identified for the CMS roadways within the limits of Wakulla County. Table 1 also presents the existing PM peak hour directional volumes for each segment. In addition, Table 1 shows the adopted Level of Service (LOS) standard and the maximum service volume at the LOS standard for each segment. The LOS standard for roadways within the County limits is set in the Comprehensive Plan at LOS “E”. The corresponding maximum service volumes were obtained from the Florida Department of Transportation (FDOT) Quality/Level of Service Handbook and previously approved alternative capacity analyses.

The existing available capacity on each roadway segment in the PM peak hour peak direction is also provided in Table 1. Currently, the traffic volumes on the roadway segments are below the maximum service volume in the PM peak hour peak direction at the adopted LOS standard and therefore they have remaining available capacity.

Future Year Conditions

In order to determine future year conditions for each of these roadway segments, an annual growth factor was applied. This growth was determined by obtaining historical count data from FDOT Historical AADT Reports from the 2006 Florida Traffic Information (FTI) DVD for select locations within the County over a five (5) year time period from year 2002 through year 2006. The analysis demonstrated that growth varies throughout the County ranged between 2.0% and 3.4%. The average volumetric change, based upon the historical annual growth, is to be applied annually to each roadway segment to determine the estimated PM peak hour traffic volume for a specified future year. Each roadway segment was analyzed to determine if traffic volumes in the PM peak hour would be greater than the maximum service volumes at the adopted LOS standard “E”.

2017

It is estimated that in year 2017 (**see Table 2**), traffic volumes on four of the study area roadway segments in Wakulla County will be greater than the maximum service volumes in the PM peak direction at the adopted LOS standard. The following segments are expected to experience traffic volumes greater than the service volume at the adopted level of service standard:

- US 319 from the County line to SR 267/Bloxham Cutoff. As shown in Table 2, the PM peak hour traffic volume on this segment is expected to exceed the maximum service volume by 36 trips.
- US 319 from SR 267/Bloxham Cutoff to East Ivan Road. As shown in Table 2, the PM peak hour traffic volume on this segment is expected to exceed the maximum service volume by 415 trips.
- US 319 from East Ivan Road to Wakulla-Arran Road. As shown in Table 2, the PM peak hour traffic volume on this segment is expected to exceed the maximum service volume by 58 trips.
- US 319 from Wakulla-Arran Road to Shadeville Road. As shown in Table 2, the PM peak hour traffic volume on this segment is expected to exceed the maximum service volume by 58 trips.

Table 1 Existing Conditions Concurrency Management System Wakulla County																			
Link #	Road	From	To	PD	LOS Standard	Source of LOS Standard	Maximum Service Volume at Adopted LOS Standard ¹	1% Capacity	5% Capacity	110% Capacity	Existing Peak Hour Dir Volume	Existing PH PD Volume 2007	Existing Available Capacity 2007	Growth Rate	Growth 2007	Total PH PD Trips	Available Capacity	Max # Trips Added & Meet Concurrency	Committed Improvements
100	US 319/Crawfordville Highway	Franklin County Line	S. Sopchoppy City Limits		E	Wakulla Comp Plan					114			2.4%					
101	US 319/Crawfordville Highway	S. Sopchoppy City Limits	Franklin County Line	PD			1,470	15	74	1617	139	139	1,331		0	139	1,331	1,331	
110	US 319/Crawfordville Highway	S. Sopchoppy City Limits	E. Sopchoppy City Limits		C	Wakulla Comp Plan					168			2.4%					
111	US 319/Crawfordville Highway	E. Sopchoppy City Limits	S. Sopchoppy City Limits	PD			810	8	41	891	193	193	617		0	193	617	617	
120	US 319/Crawfordville Highway	E. Sopchoppy City Limits	W. US 98		E	Wakulla Comp Plan					176			2.4%					
121	US 319/Crawfordville Highway	W. US 98	E. Sopchoppy City Limits	PD			1,470	15	74	1617	214	214	1,256		0	214	1,256	1,256	
130	US 319/Crawfordville Highway	E. US 98	Harvey Mill Road		E	Wakulla Comp Plan					334			2.0%					
131	US 319/Crawfordville Highway	Harvey Mill Road	E. US 98	PD			1,470	15	74	1617	586	586	884		0	586	884	884	
140	US 319/Crawfordville Highway	Harvey Mill Road	Shadeville Road		E	Wakulla Comp Plan					427			2.0%					
141	US 319/Crawfordville Highway	Shadeville Road	Harvey Mill Road	PD			1,410	14	71	1551	616	616	794		0	616	794	794	
150	US 319/Crawfordville Highway	Shadeville Road	Wakulla Arran Road		E	Wakulla Comp Plan					610			3.7%					
151	US 319/Crawfordville Highway	Wakulla Arran Road	Shadeville Road	PD			1,220	12	61	1342	933	933	287		0	933	287	287	
160	US 319/Crawfordville Highway	Wakulla Arran Road	East Ivan Road		E	Wakulla Comp Plan					610			3.7%					
161	US 319/Crawfordville Highway	East Ivan Road	Wakulla Arran Road	PD			1,220	12	61	1342	933	933	287		0	933	287	287	
170	US 319/Crawfordville Highway	East Ivan Road	SR 267		E	Wakulla Comp Plan					504			3.7%					
171	US 319/Crawfordville Highway	SR 267	East Ivan Road	PD			1,250	13	63	1375	1,215	1,215	35		0	1,215	35	35	
180	US 319/Crawfordville Highway	SR 267	Leon County Line		E	Wakulla Comp Plan					349			3.7%					
181	US 319/Crawfordville Highway	Leon County Line	SR 267	PD			1,250	13	63	1375	939	939	311		0	939	311	311	
200	US 98	Franklin County Line	Bottoms Road		E	Wakulla Comp Plan					204			2.4%					
201	US 98	Bottoms Road	Franklin County Line	PD			1,400	14	70	1540	170	170	1,196		0	1,196	1,196	1,196	
210	US 98	Bottoms Road	US 319 W		E	Wakulla Comp Plan					265			2.4%					
211	US 98	US 319 W	Bottoms Road	PD			1,470	15	74	1617	217	217	1,205		0	217	1,205	1,205	
220	US 98	US 319 W	US 319 E		E	Wakulla Comp Plan					453			2.4%					
221	US 98	US 319 E	US 319 W	PD			1,400	14	70	1540	371	371	947		0	947	947	947	
230	US 98	US 319 E	Spring Creek Highway		E	Wakulla Comp Plan					158			2.4%					
231	US 98	Spring Creek Highway	US 319 E	PD			1,410	14	71	1551	209	209	1,201		0	209	1,201	1,201	
240	US 98	Spring Creek Highway	SR 363		E	Wakulla Comp Plan					132			2.4%					
241	US 98	SR 363	Spring Creek Highway	PD			1,410	14	71	1551	172	172	1,238		0	172	1,238	1,238	
250	US 98	SR 363	Jefferson County Line		E	Wakulla Comp Plan					72			2.4%					
251	US 98	Jefferson County Line	SR 363	PD			1,410	14	71	1551	76	76	1,334		0	76	1,334	1,334	
300	SR 363/Woodville Highway	St. Marks	US 98		E	Wakulla Comp Plan					256			2.4%					
301	SR 363/Woodville Highway	US 98	St. Marks	PD			1,400	14	70	1540	451	451	949		0	451	949	949	
310	SR 363/Woodville Highway	US 98	SR 267		E	Wakulla Comp Plan					174			2.0%					
311	SR 363/Woodville Highway	SR 267	US 98	PD			860	9	43	946	152	152	686		0	152	686	686	
320	SR 363/Woodville Highway	SR 267	Leon County Line		E	Wakulla Comp Plan					214			3.5%					
321	SR 363/Woodville Highway	Leon County Line	SR 267	PD			860	9	43	946	554	554	306		0	554	306	306	
400	SR 267/Bloxham Cutoff	Leon County Line	US 319		E	Wakulla Comp Plan					166			2.4%					
401	SR 267/Bloxham Cutoff	US 319	Leon County Line	PD			1,410	14	71	1551	413	413	997		0	413	997	997	
410	SR 267/Bloxham Cutoff	US 319	SR 363		E	Wakulla Comp Plan					117			2.4%					
411	SR 267/Bloxham Cutoff	SR 363	US 319	PD			860	9	43	946	198	198	662		0	198	662	662	
420	SR 267/Bloxham Cutoff	SR 363	US 98		E	Wakulla Comp Plan					118			2.4%					
421	SR 267/Bloxham Cutoff	US 98	SR 363	PD			860	9	43	946	69	69	742		0	118	742	742	
500	Lower Bridge Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					178			2.4%					
501	Lower Bridge Road	Spring Creek Highway	US 319	PD			770	8	39	847	145	145	592		0	178	592	592	
510	Lower Bridge Road	Spring Creek Highway	US 98		E	Wakulla Comp Plan					22			2.4%					
511	Lower Bridge Road	US 98	Spring Creek Highway	PD			770	8	39	847	57	57	713		0	57	713	713	
600	Spring Creek Highway	US 98	Lower Bridge Road		E	Wakulla Comp Plan					114			2.4%					
601	Spring Creek Highway	Lower Bridge Road	US 98	PD			770	8	39	847	165	165	605		0	165	605	605	
610	Spring Creek Highway	Lower Bridge Road	Shadeville Road		E	Wakulla Comp Plan					182			2.4%					
611	Spring Creek Highway	Shadeville Road	Lower Bridge Road	PD			770	8	39	847	222	222	548		0	222	548	548	
620	Spring Creek Highway	Shadeville Road	SR 267		E	Wakulla Comp Plan					126			2.4%					
621	Spring Creek Highway	SR 267	Shadeville Road	PD			770	8	39	847	174	174	596		0	174	596	596	
700	East Ivan Road	Wakulla Arran Road	US 319		E	Wakulla Comp Plan					86			2.4%					
701	East Ivan Road	US 319	Wakulla Arran Road	PD			770	8	39	847	71	71	684		0	86	684	684	
800	Wakulla Arran Road	Magnolia Ridge	US 319		E	Wakulla Comp Plan					129			2.4%					
801	Wakulla Arran Road	US 319	Magnolia Ridge	PD			770	8	39	847	106	106	641		0	129	641	641	
810	Wakulla Arran Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					94			2.4%					
811	Wakulla Arran Road	Spring Creek Highway	US 319	PD			770	8	39	847	89	89	676		0	94	676	676	
900	Rehinkle Road	US 98	Lower Bridge Road		E	Wakulla Comp Plan					49			2.4%					
901	Rehinkle Road	Lower Bridge Road	US 98	PD			770	8	39	847	82	82	688		0	49	688	688	
1000	SR 61/CR 61/ Shadeville Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					169			2.4%					
1001	SR 61/CR 61/ Shadeville Road	Spring Creek Highway	US 319	PD			1,410	14	71	1551	138	138	1,241		0	169	1,241	1,241	
1010	SR 61/CR 61/ Shadeville Road	Spring Creek Highway	Wakulla Springs Road		E	Wakulla Comp Plan					217			2.4%					
1011	SR 61/CR 61/ Shadeville Road	Wakulla Springs Road	Spring Creek Highway	PD			1,410	14	71	1551	176	176	1,193		0	217	1,193	1,193	
1020	SR 61/CR 61/ Shadeville Road	Wakulla Springs Road	SR 267		E	Wakulla Comp Plan					201			2.4%					
1021	SR 61/CR 61/ Shadeville Road	SR 267	Wakulla Springs Road	PD			860	9	43	946	164	164	659		0	201	659	659	
1100	SR 61/CR 61/ Shadeville Road	SR 267	Leon County Line		E	Wakulla Comp Plan					134			2.4%					
1101	SR 61/CR 61/ Shadeville Road	Leon County Line	SR 267	PD			770	8	39	847	214	214	556		0	214	556	556	
1100	Springhill Road	SR 267	Leon County Line		E	Wakulla Comp Plan					232			2.4%					
1101	Springhill Road	Leon County Line	SR 267	PD			770	8	39	847	190	190	538		0	232	538	538	
1200	Trice Lane	Shadeville Road	US 319		E	Wakulla Comp Plan					155			2.4%					
1201	Trice Lane	US 319	Shadeville Road	PD			770	8	39	847	263	263	507		0	263	507	507	
1400	Arran Road	Wakulla Arran Road	US 319		E	Wakulla Comp Plan					211			2.4%					
1401	Arran Road	US 319	Wakulla Arran Road	PD			770	8	39	847	172	172	559		0	211	559	559	

**Table 2
Future Conditions
Concurrency Management System
Wakulla County**

Link #	Road	From	To	PD	LOS Standard	Source of LOS Standard	Maximum Service Volume at Adopted LOS Standard ¹	1% Capacity	5% Capacity	110% Capacity	Existing Peak Hour Dir Volume	Existing PH PD Volume 2007	Existing Available Capacity 2007	Growth Rate	Growth 2017	Total PH PD Trips	Available Capacity	Max # Trips Added & Meet Concurrency	Committed Improvements
100	US 319/Crawfordville Highway	Franklin County Line	S. Sopchoppy City Limits		E	Wakulla Comp Plan					114			2.4%					
101	US 319/Crawfordville Highway	S. Sopchoppy City Limits	Franklin County Line	PD			1,470	15	74	1617	139	139	1,331		33	172	1,298	1,298	
110	US 319/Crawfordville Highway	S. Sopchoppy City Limits	E. Sopchoppy City Limits		C	Wakulla Comp Plan					168			2.4%					
111	US 319/Crawfordville Highway	E. Sopchoppy City Limits	S. Sopchoppy City Limits	PD			810	8	41	891	193	193	617		46	239	571	571	
120	US 319/Crawfordville Highway	E. Sopchoppy City Limits	W. US 98		E	Wakulla Comp Plan					176			2.4%					
121	US 319/Crawfordville Highway	W. US 98	E. Sopchoppy City Limits	PD			1,470	15	74	1617	214	214	1,256		51	285	1,205	1,205	
130	US 319/Crawfordville Highway	E. US 98	Harvey Mill Road		E	Wakulla Comp Plan					334			2.0%					
131	US 319/Crawfordville Highway	Harvey Mill Road	E. US 98	PD			1,470	15	74	1617	586	586	884		117	703	767	767	
140	US 319/Crawfordville Highway	Harvey Mill Road	Shadeville Road		E	Wakulla Comp Plan					427			2.0%					
141	US 319/Crawfordville Highway	Shadeville Road	Harvey Mill Road	PD			1,410	14	71	1551	616	616	794		123	739	671	671	
150	US 319/Crawfordville Highway	Shadeville Road	Wakulla Arran Road		E	Wakulla Comp Plan					610			3.7%					
151	US 319/Crawfordville Highway	Wakulla Arran Road	Shadeville Road	PD			1,220	12	61	1342	933	933	287		345	1278	-58	12	
160	US 319/Crawfordville Highway	Wakulla Arran Road	East Ivan Road		E	Wakulla Comp Plan					610			3.7%					
161	US 319/Crawfordville Highway	East Ivan Road	Wakulla Arran Road	PD			1,220	12	61	1342	933	933	287		345	1278	-58	12	
170	US 319/Crawfordville Highway	East Ivan Road	SR 267		E	Wakulla Comp Plan					504			3.7%					
171	US 319/Crawfordville Highway	SR 267	East Ivan Road	PD			1,250	13	63	1375	1,215	1,215	35		450	1665	-415	0	
180	US 319/Crawfordville Highway	SR 267	Leon County Line		E	Wakulla Comp Plan					349			3.7%					
181	US 319/Crawfordville Highway	Leon County Line	SR 267	PD			1,250	13	63	1375	939	939	311		347	1286	-36	13	
200	US 98	Franklin County Line	Bottoms Road		E	Wakulla Comp Plan					204			2.4%					
201	US 98	Bottoms Road	Franklin County Line	PD			1,400	14	70	1540	170	170	1,196		49	253	1,147	1,147	
210	US 98	Bottoms Road	US 319 W		E	Wakulla Comp Plan					265			2.4%					
211	US 98	US 319 W	Bottoms Road	PD			1,470	15	74	1617	217	265	1,205		64	329	1,141	1,141	
220	US 98	US 319 W	US 319 E		E	Wakulla Comp Plan					453			2.4%					
221	US 98	US 319 E	US 319 W	PD			1,400	14	70	1540	371	453	947		109	562	838	838	
230	US 98	US 319 E	Spring Creek Highway		E	Wakulla Comp Plan					158			2.4%					
231	US 98	Spring Creek Highway	US 319 E	PD			1,410	14	71	1551	209	209	1,201		50	259	1,151	1,151	
240	US 98	Spring Creek Highway	SR 363		E	Wakulla Comp Plan					132			2.4%					
241	US 98	SR 363	Spring Creek Highway	PD			1,410	14	71	1551	172	172	1,238		41	213	1,197	1,197	
250	US 98	SR 363	Jefferson County Line		E	Wakulla Comp Plan					72			2.4%					
251	US 98	Jefferson County Line	SR 363	PD			1,410	14	71	1551	76	76	1,334		18	94	1,316	1,316	
300	SR 363/Woodville Highway	St. Marks	US 98		E	Wakulla Comp Plan					256			2.4%					
301	SR 363/Woodville Highway	US 98	St. Marks	PD			1,400	14	70	1540	451	451	949		108	559	841	841	
310	SR 363/Woodville Highway	US 98	SR 267		E	Wakulla Comp Plan					174			2.0%					
311	SR 363/Woodville Highway	SR 267	US 98	PD			860	9	43	946	152	174	686		35	209	651	651	
320	SR 363/Woodville Highway	SR 267	Leon County Line		E	Wakulla Comp Plan					214			3.5%					
321	SR 363/Woodville Highway	Leon County Line	SR 267	PD			860	9	43	946	554	554	306		194	748	112	112	
400	SR 267/Bloxham Cutoff	Leon County Line	US 319		E	Wakulla Comp Plan					166			2.4%					
401	SR 267/Bloxham Cutoff	US 319	Leon County Line	PD			1,410	14	71	1551	413	413	997		99	512	898	898	
410	SR 267/Bloxham Cutoff	US 319	SR 363		E	Wakulla Comp Plan					117			2.4%					
411	SR 267/Bloxham Cutoff	SR 363	US 319	PD			860	9	43	946	198	198	662		46	246	614	614	
420	SR 267/Bloxham Cutoff	SR 363	US 98		E	Wakulla Comp Plan					118			2.4%					
421	SR 267/Bloxham Cutoff	US 98	SR 363	PD			860	9	43	946	69	118	742		28	146	714	714	
500	Lower Bridge Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					178			2.4%					
501	Lower Bridge Road	Spring Creek Highway	US 319	PD			770	8	39	847	145	178	592		43	221	549	549	
510	Lower Bridge Road	Spring Creek Highway	US 98		E	Wakulla Comp Plan					22			2.4%					
511	Lower Bridge Road	US 98	Spring Creek Highway	PD			770	8	39	847	57	22	713		14	71	699	699	
600	Spring Creek Highway	US 98	Lower Bridge Road		E	Wakulla Comp Plan					114			2.4%					
601	Spring Creek Highway	Lower Bridge Road	US 98	PD			770	8	39	847	165	165	605		40	205	565	565	
610	Spring Creek Highway	Lower Bridge Road	Shadeville Road		E	Wakulla Comp Plan					182			2.4%					
611	Spring Creek Highway	Shadeville Road	Lower Bridge Road	PD			770	8	39	847	222	222	548		53	275	495	495	
620	Spring Creek Highway	Shadeville Road	SR 267		E	Wakulla Comp Plan					126			2.4%					
621	Spring Creek Highway	SR 267	Shadeville Road	PD			770	8	39	847	174	126	596		42	216	554	554	
700	East Ivan Road	Wakulla Arran Road	US 319		E	Wakulla Comp Plan					86			2.4%					
701	East Ivan Road	US 319	Wakulla Arran Road	PD			770	8	39	847	71	86	684		21	107	663	663	
800	Wakulla Arran Road	Magnolia Ridge	US 319		E	Wakulla Comp Plan					129			2.4%					
801	Wakulla Arran Road	US 319	Magnolia Ridge	PD			770	8	39	847	108	129	641		31	160	610	610	
810	Wakulla Arran Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					94			2.4%					
811	Wakulla Arran Road	Spring Creek Highway	US 319	PD			770	8	39	847	89	94	676		23	117	653	653	
900	Rehinkle Road	US 98	Lower Bridge Road		E	Wakulla Comp Plan					49			2.4%					
901	Rehinkle Road	Lower Bridge Road	US 98	PD			770	8	39	847	82	49	688		20	102	668	668	
1000	SR 61/CR 61/Shadeville Road	US 319	Spring Creek Highway		E	Wakulla Comp Plan					169			2.4%					
1001	SR 61/CR 61/Shadeville Road	Spring Creek Highway	US 319	PD			1,410	14	71	1551	138	169	1,241		41	210	1,200	1,200	
1010	SR 61/CR 61/Shadeville Road	Spring Creek Highway	Wakulla Springs Road		E	Wakulla Comp Plan					217			2.4%					
1011	SR 61/CR 61/Shadeville Road	Wakulla Springs Road	Spring Creek Highway	PD			1,410	14	71	1551	178	217	1,193		52	269	1,141	1,141	
1020	SR 61/CR 61/Shadeville Road	Wakulla Springs Road	SR 267		E	Wakulla Comp Plan					201			2.4%					
1021	SR 61/CR 61/Shadeville Road	SR 267	Wakulla Springs Road	PD			860	9	43	946	164	201	659		48	249	611	611	
1100	SR 61/CR 61/Shadeville Road	SR 267	Leon County Line		E	Wakulla Comp Plan					134			2.4%					
1101	SR 61/CR 61/Shadeville Road	Leon County Line	SR 267	PD			770	8	39	847	214	134	556		51	265	505	505	
1100	Springhill Road	SR 267	Leon County Line		E	Wakulla Comp Plan					232			2.4%					
1101	Springhill Road	Leon County Line	SR 267	PD			770	8	39	847	190	232	538		56	288	482	482	
1200	Trice Lane	Shadeville Road	US 319		E	Wakulla Comp Plan					155			2.4%					
1201	Trice Lane	US 319	Shadeville Road	PD			770	8	39	847	263	155	507		63	326	444	444	
1400	Arran Road	Wakulla Arran Road	US 319		E	Wakulla Comp Plan					211			2.4%					
1401	Arran Road	US 319	Wakulla Arran Road	PD			770	8	39	847	172	211	559		51	262	508	508	

Note: 1- Service volume adjusted due to narrow lane width



Planned Transportation Capacity Improvements in Wakulla County

In an effort to determine what transportation improvements would be required based on population growth and roadway deficiencies, the following transportation projects programmed for construction and planning efforts, summarized below, were examined.

Florida Department of Transportation Five-Year Work Program

An examination of the FDOT Five-Year Work Program for Wakulla County revealed the following planned capacity improvements programmed for construction in Wakulla County for the period from year 2007 to year 2012:

- Spring Creek Highway (CR 365) between CR 61 and end of pavement (Item 408808-2).
Lane additions and resurfacing are committed for this 8.50-mile segment.

Wakulla County Comprehensive Plan

The Wakulla County Comprehensive Plan does not provide updated road construction information. The Evaluation and Appraisal (EAR) report of the Comprehensive Plan provides an opportunity for transportation needs to be reevaluated throughout the County and updated within the Comprehensive Plan.

Recommendations

Due to anticipated continued growth and development within the County, it will likely be difficult for transportation funding to keep pace with travel demand. It will be increasingly important for the County to consider alternative strategies and funding mechanisms. The following recommendations provide options for short and long term transportation solutions for Wakulla County.

- 1. Establish and maintain a CMS/Long-Term CMS (10 years):** This report provides the basis for the creation of a CMS and corresponding Proportionate Fair-Share Ordinance. As previously stated, both of these items are required by the 2005 amendments to the state of Florida's Growth Management legislation to be in place in all Florida localities by December 1, 2006. The most desirable option that meets the requirements of the legislation and provides longer-term transportation strategies for roadways that are currently over capacity would be the establishment of a ten year Long-Term CMS. This method provides the most financial flexibility because it allows deficient roadways to be identified, capacity adding projects to be selected, and provides a portion of the funding needed for these improvements to be collected. This process, when combined with other funding mechanisms, enables development to continue as outlined by the County. This CMS can function as both the short-term and long-term system.
- 2. Utilize this study to establish a Capital Improvements Program (CIP) for transportation in the Capital Improvements Element (CIE) of the Comprehensive Plan:** As previously described, four road segments will be over capacity in Wakulla County by 2017. In order for a ten year long-term CMS program to be created, a corresponding ten year long-term CIP must be established. This will facilitate projects required for necessary capacity improvements as well as revenue the County expects to receive that could be used to finance those improvements to be identified within the CIE. Possible revenue options include Proportionate Fair-Share funding and financing from other recommendations described within this report. In addition, the schedule necessary for the completion of the CMS is

- advantageous for transportation improvements to be included in the Evaluation and Appraisal Report of the Comprehensive Plan.
- 3. Increase Impact Fees in Wakulla County:**

Impact fees in Florida vary widely across the state. In our experience we have observed fees from approximately \$1,300 to nearly \$18,000 per residential unit. Wakulla County should also consider establishing an impact fee more in line with the actual cost of impacts from new development and to offset the infrastructure costs created by this new commercial and residential development.
 - 4. Support mixed use, the clustering of residential and commercial uses, in-fill development, and sustainable land uses in areas where activity centers exist or could exist:** Population growth in Wakulla County will create demand for new retail and commercial land uses; such as banks, drug stores, and restaurants. Encouraging the clustering and mixing of these commercial land uses around existing or future residential areas will help reduce dependency on automobiles for shorter trips as people are provided opportunities for walking or bicycling. Encouraging in-fill development and the creation of a downtown destination corridor could also assist redevelopment efforts within the County and lead to a reduction of congestion on area roadways. In addition interconnecting between residential and non-residential land uses should be emphasized.
 - 5. Establish transit service and hours of operation within the Wakulla County:** Transit options in Wakulla at this time do not exist. Creating transit service would provide more transportation options for residents while reducing congestion on local roads. Proportionate Fair-Share funding could also be utilized to fund additional transit service. Coordination with StarMetro, the current transit provider in Leon County, should be emphasized to discuss this option.
 - 6. Continue to coordinate transportation planning activities with Leon County, Gadsden County, The City of Tallahassee, CRTPA and FDOT:** It should be noted that funding received from Proportionate-Fair Share mitigation alone will not be sufficient to fund

necessary transportation capacity improvements. Intergovernmental coordination will play a vital role in identifying possible solutions for capacity constraints as well as funding sources for road improvement projects.

7. Establish alternative roadways: The creation of parallel facilities for congested roadways, would provide needed additional roadway capacity for the County. Establishing alternative parallel facilities could also serve to increase the area available for targeted developments and redevelopment, while providing an opportunity for increased multimodal options through the provision of transit, pedestrian, and bicycle facilities. Proportionate fair-share mitigation funding can also be used for these types of improvements. **Figure 2** identifies some options for alternative corridors.

8. Complete interim/short-term intersection improvements and traffic operations and access management: It is widely recognized that intersections and access connections along a corridor affect the capacity of that corridor. By identifying and completing interim intersection improvements the County could increase the capacity of a corridor while remaining consistent with a long-term vision of an overall corridor improvement such as adding additional lanes. The following intersections and schedule have been identified as possible candidates for improvement:

- US 319 at E. Ivan Road – year 2008
- US 319 at SR 267 – year 2011
- US 319 at Wakulla-Arran Road – year 2013
- US 319 at Lower Bridge Road – year 2015

The improvement of each of these intersections has been estimated to cost approximately \$4.5 million each based upon the latest available construction cost data from FDOT District 3 (September 2006). The improvement of each of these intersections is estimated to add 650 trips to the capacity in the peak hour peak direction.

The addition of left- and right-turn lanes at access driveway connections is another type of improvement that can be made along corridors to increase the capacity. An operational analysis should be completed to determine where turn lanes would be appropriate and what length of turn lane would be required. The addition of turn lanes along state facilities should be coordinated with FDOT and the Capital Region Transportation Planning Agency (CRTPA). Access management guidelines provided by FDOT should be included in future updates to the Wakulla County Land Development Code.

- 9. Plan, design, and construct a long-term capacity improvement along US 319:** A long-term capacity improvement for the US 319 corridor from the County line to Lower Bridge Road is a long-term solution. The cost estimate, based on latest available date from FDOT District 3 (September 2006), to plan, design, acquire right-of-way, and construct two additional lanes (one in each direction) along this would cost approximately \$153 million dollars. The sooner the planning efforts begin for this the sooner the right-of-way can start being reserved.



Figure 2: Identified Corridor Improvements and Short-term Intersection Improvements

Conclusion:

The various elements needed for the establishment of a Transportation Concurrency Management System were designed to be available through this report. By creating a CMS program and securing Proportionate Fair-Share funding, Wakulla County has the unique opportunity to charter its own development course by determining and financing needed transportation improvements within its borders. The additional recommendations within this report will maximize transportation funding and alternative transportation options available to the County.

In order to make certain that future transportation needs are addressed, it will be important to annually measure actual growth achieved and conduct traffic counts to monitor congestion on area roadways. This will confirm the basis of the study and will provide necessary updates for the CMS. Maintaining an accurate assessment of transportation conditions within the County will enable Wakulla to possess a more informed position when participating in intergovernmental coordination efforts with other jurisdictions. The particular items needed to create and maintain a CMS program are outlined in **Appendix A-C**. Taken as a whole, these guidelines provide a standard and uniformed approach to analyze transportation impacts that can be used by all parties interested in new development in Wakulla County.

- **Appendix A:** Concurrency Management System Instructions
- **Appendix B:** Comprehensive Plan Amendment Application Traffic Impact Analysis Guidelines
- **Appendix C:** Application for Development Order (Site Plan Submittal) Traffic Impact Analysis Guidelines

Appendix A:

Concurrency Management System Instructions Wakulla County Concurrency Management System User's Manual

I) Introduction and Purpose

The purpose of this document is to provide the users and administrators of the Concurrency Management System (CMS) with guidance as to how the CMS is to be maintained and applied. The following will provide guidance on both short-term and long-term maintenance of the CMS data sets and tables and provides information on how best to apply the CMS for new applicants.

II) Existing Level of Service Standards

The existing level of service (LOS) standard on all roadways within the CMS is LOS E, as defined by the County's Comprehensive Plan.

III) Comprehensive Plan Amendment Application Analyses

Comprehensive plan amendment applications should follow the analysis guidelines provided by the County and all analyses, unless limited by an associated text amendment, should be for the maximum development intensity allowed under the proposed land use. The guidelines for trip generation, based upon the latest available ITE data, should be followed and the distribution of trips should be out to the five (5) percent threshold, five (5) percent of the service volume at the adopted level of service. A five-year and ten-year analysis should be completed for the proposed development, unless a more appropriate analysis horizon is identified and approved by County staff. The results of the analysis should summarize any future anticipated deficiencies and opportunities for mitigation of impacts should be identified.

IV) Structure and Basis of the Concurrency Database

The CMS database was developed and is maintained as a Microsoft Excel workbook. The roadways included in the CMS are as follows:

- US 319
- US 98
- SR 363
- SR 267
- Lower Bridge Road
- Spring Creek Highway
- East Ivan Road
- Wakulla Arran Road
- Rehwinke Road
- Shadeville Road/CR 61
- Springhill Road
- Trice Lane
- SR 61

These roadways were segmented at logical termini such as the limits of the County, the terminus of the roadway, or at intersections with significant cross streets. The segmentation adopted as part of the

CMS must be maintained in the analyses completed by applicants. The only deviation from the segmentation included in the CMS that may be permitted would be for alternative capacity analyses. The applicant may choose to adjust the segmentation to complete a more accurate or appropriate alternative capacity analysis.

The CMS is based on PM peak hour peak direction information.

At implementation of the CMS the base year data was year 2007; this information was collected in the summer of the same year. Each year in May, updated base year data will be collected if needed for each of the roadway segments and updated base year data will be published annually by July 1. The base year data will include any roadway characteristic modifications that have changed in the previous year and have not been accounted for in the CMS. The growth rates associated with traffic volume data will also be updated at this same time. The previous traffic volume data will be reviewed to determine the appropriate growth rate that should be applied to best estimate the future traffic volume demand on the CMS roadway segments. FDOT traffic volume data will be used to fill those gaps in data for the first three to five years of the CMS, until the County has the historical volume data collected needed to independently calculate the growth rate for the CMS roadway segments.

V) Applicability and Uses of the Database

The CMS was established as a tool to assist with monitoring and planning for both short-term and mid-term needs. The use of an annually updated growth rate to project volumes into the future will help better estimate the needs through the ten-year horizon of this CMS. These projections, to any future year, can be completed by simply inputting the desired future year into the cell at the top of the growth column that contains a highlighted year in the future year spreadsheet. By modifying the highlighted year, the user can determine, based upon the currently applied growth rates, what the projected future available capacity or areas of concern might be along the roadway segments contained within the CMS.

The CMS should also be used in completing traffic impact analyses for minimal, small, and large developments. “Minimal Developments” are defined as those developments that are projected to generate 15 or fewer PM peak hour trips at the site access(es) to the public roadway network. “Small Developments” are defined as all developments that are projected to generate 15 to 50 PM peak hour trips at the site driveway access(es) to the public roadway network. All developments that are not considered “Minimal Developments” or “Small Developments” are classified as “Large Developments”.

VI) Pre-application Methodology Meeting

A pre-application methodology meeting shall be scheduled with County staff to discuss and review the proposed methodology for the concurrency analysis and the operational traffic impact analysis that is required. The attendees at the meeting are to include the registered/certified professional individual that will be completing the traffic analyses on behalf of the applicant, as well as the County’s staff. At this meeting a review of the requirements associated with the analysis will be discussed. The applicant should prepare and provide a site plan at the meeting as well as any

materials supporting alternative analyses, beyond those analyses required as part of the CMS and operational traffic analysis submittal.

The County will make available summaries of the transportation impact requirements for those submitting for Comprehensive Plan Amendment Applications as well as for those submitting Transportation Concurrency Applications.

VII) Trip Generation

Trip generation calculations should follow the currently published guidelines and methodologies provided by the Institute of Transportation Engineers (ITE) for completing PM peak hour calculations, unless otherwise specified and agreed to by County staff. Alternative trip generation methodologies may be recommended and provided for County staff review and approval. It is recommended that these alternative methodologies or supporting data sets be provided to the County prior to the pre-application methodology meeting in order to expedite the review and approval process of the analysis.

A phased trip generation, concurrency analysis, and operational analysis are to be completed for those developments that are anticipated to have a buildout period of more than three (3) years from the date of the certificate of concurrency. The phasing should be consistent with the following schedule.

Phase I – up to three (3) years from the date of certificate of concurrency

Phase II – up to, but not beyond, six (6) years from the date of certificate of concurrency

Any phase anticipated to be built out beyond six (6) years from the anticipated date of the current application for certificate of concurrency will be required to complete a cumulative concurrency analysis, for all previous phases of development built or planned for in the schedule of development, before a certificate of concurrency will be provided for the additional phases. The cumulative concurrency analysis will be subject to the requirements and regulations in place at the time of submittal of the application for certificate of concurrency for the future phases of development.

Developers may apply for extensions to the certificate of concurrency for those phases of development previously approved, but not yet completed. An extension up to, but not to exceed, twelve months for each phase of development may be permitted at the discretion of County staff.

VIII) Study Area

As mentioned prior to this in the section of this document *Applicability and Uses of the Database*, projects will be defined as either “Minimal Developments”, “Small Developments”, or “Large Developments”. All analyses are ultimately bounded by Wakulla County limits. No applicant, unless expressly required by the County, is expected to complete analyses at intersection or on segments outside of the bounds of the County limits.

Minimal Developments

Applicants for developments classified as “Minimal” shall only be required to complete the concurrency application form provided by the County and any applicable application fee associated with the submittal for a concurrency review.

Small Developments

Applicants for “Small Developments” shall only be required to distribute traffic and analyze those CMS links nearest to the site access(es), unless the roadway that the driveway(s) connect to is defined as a “Segment of Concern”, meaning that the existing volume on that segment is greater than 85 percent of the service volume for that segment. If a “Small Development” is accessed via a “Segment of Concern” then the analyses should follow the same procedures as a “Large Development”.

Large Developments

Applicants for “Large Developments” shall distribute traffic on those roadway segments that the development accesses via site driveway access points and connect the development to the CMS roadway network. Additionally, those roadway segments, and one segments beyond, that are within the CMS and that are expected to experience traffic volumes in the peak direction that are greater than or equal to five (5) percent of the adopted LOS service volume in the peak direction and one link beyond.

The distribution of traffic for the “Small Developments” and “Large Developments” on the CMS roadway segments should be compared to the existing available capacity to determine whether adequate capacity is available.

Each type of analysis will be subject to a detailed review by the County or a qualified representative of the County.

IX) Project Traffic Distribution and Assignment

Project traffic should be distributed on the studied roadway segments as previously defined. Distribution should either be completed using the latest CRTPA FSUTMS or should be completed by hand using the gravity method and existing available traffic volume data and knowledge of the area.

Should CRTPA FSUTMS be used, a linear interpolation between the base year and future year of the model data to the analysis year should be completed and a select zone for the development should be run with appropriate zone connection(s) for the proposed development.

Should the hand distribution gravity model (based upon knowledge of the area and existing traffic volume data) be used, then the applicant’s best professional judgment should be documented and supported.

The County will require all information supporting the distribution be submitted as part of the analysis as to allow for a thorough review of the assumptions and methods used to complete the distribution and assignment of project traffic.

X) Roadway Segment Capacity Analyses

As noted previously the roadways included in the CMS were segmented at what were determined to be logical termini (County limits, cross streets, and roadway termini). The service volumes for these roadway segments were based upon year 2007, existing roadway characteristics, ARTPLAN AND HIGHPLAN, and the corresponding service volumes in the *FDOT 2007 Quality/Level-of-Service Handbook* peak hour peak direction service volume tables. As capacity improvements are funded and programmed the impacts of the projects on capacity should be included and represented in the CMS tables for the appropriate segments.

Alternative capacity analyses may be completed to more accurately reflect the service volumes for a particular portion of roadway. The methodology used to determine the alternative capacity must be approved by Wakulla County at the pre-application meeting (approved methodologies include FDOT's guidance for using the ARTPLAN and HIGHPLAN software packages). The County will review and hold the right to approve or comment upon any adjustments to the service volumes on the roadway segments included in the CMS. Those service volumes that are adjusted by alternative capacity analyses will be adopted and applied for a period of one year. The first applicant whose traffic impacts a roadway segment with an adjusted and expired service volume will be required to complete a new alternative capacity analysis using a methodology provided to the County and approved for use. This new alternative capacity analysis will be reviewed and either commented upon or approved. Once approved the results of the analysis will be used to either renew or adjust the expired service volume for a period of one year.

XI) Intersection LOS Analyses

Intersection LOS analyses are to be completed for the PM peak hour background and buildout conditions for the buildout year of each phase of development. The intersections to be analyzed are defined as those signalized intersections at the termini of or along study area roadway segments and the intersection of site driveway accesses. The County, at staff's discretion, may require that additional signalized and/or unsignalized intersections, beyond those defined by the study area, be analyzed as part of the operational portion of the CMS Application and Traffic Impact Analysis. For those intersections that are included in the study and deemed to be deficient, recommendations for mitigation that will return the intersections to an acceptable LOS are to be included.

XII) Turn Lane Analyses

Right-turn and left-turn lane analyses at the site driveway accesses are to be completed as part of the traffic impact analysis. Analyses should be completed in accordance with the requirements provided in NCHRP Report 457 "Evaluating Intersection Improvements: An Engineering Study Guide". Should turn lanes be warranted as a result of these analyses the appropriate dimensions of taper,

deceleration, and storage are to be calculated and included in accordance with the FDOT guidelines provided in Index 301.

XIII) Proportionate Fair-Share Program

Proportionate fair-share calculations using the following formula should be used to calculate the payment that is to be made for deficient roadway segments in the Wakulla County CMS that are impacted by traffic from a proposed development. The cost of improvements should be calculated and documented using the latest available cost estimates provided by FDOT District 3.

Proportionate Fair-Share = [(Development Trips_i-Available Capacity_i)/Service Volume Increase_i] x Cost of Roadway Segment Improvement_i

Where:

Development Trips = Those cumulative trips from the stage or phase of development under review that are assigned to roadway segment “i”

Available Capacity = Number of trips available on roadway segment “i” before a deficiency per the long-term Concurrency Management System is triggered. If the roadway is already deficient, there is no available capacity.

Service Volume Increase_i = Service volumes provided by the eligible improvement to roadway segment “i” per Item (d) of these regulations;

Cost_i = Adjusted cost of the improvement to segment “i”. Cost shall include all improvements and associated costs, such as design, right-of-way acquisition, planning, engineering, inspection, and physical development costs directly associated with construction at the anticipated cost in the year it will be incurred.

XIII) Aggregation of Development

Analyses of the cumulative impacts of those developments that are deemed by County staff to be physically adjacent or near to one another and are deemed to be part of a single, or unified, plan of development shall be completed.

Developments are presumed to be physically adjacent to one another or near one another when boundaries are within 750 feet of one another or when separated by properties that are assumed to be part of a single or unified plan of development that is congruent with the plans for development of those properties being sought for aggregation.

A single or unified plan of development is presumed when two or more of the following criteria are met:

- The same individual or entity has a significant interest in the property from a legal or equitable perspective, meaning the individual or entity has an interest or option for an interest greater than or equal to 20 percent in each development.
- The same individual or entity has retained or shared control of the developments.
- There is common management of the developments controlling the form of physical development or disposition of parcels of development.
- There is a voluntary sharing of transportation infrastructure that is indicative of a common development plan between the properties sought to be aggregated, or is designed specifically to accommodate the development to be aggregated, except that which is implemented at the request of a permitting or maintaining governmental or jurisdictional entity.
- There is a common advertising scheme or promotional plan in place for the developments sought for aggregation.
- There is a master plan or series of plans or drawings indicative of a single or unified plan of development that has been prepared and submitted to a governmental agency.

An applicant may discount the presumptions requiring aggregation by providing Wakulla County with clear and convincing documentation that supports the suggestion that a single or unified plan of development does not exist. Additionally, for those instances when the aggregation status of a parcel or series of parcels is debatable or unclear, the applicant, land owner and/or developer may be required to provide a notarized affidavit attesting to the validity of the evidence and documentation presented.

Regardless of the presumptions based upon the preceding, those projects that have been completed to the point of 85 percent or more for a period of 10 years or more shall not be subject to aggregation.

To encourage the design and construction of interconnectivity of development and the sharing of transportation infrastructure, Wakulla County reserves the right to make special provisions to these rules and regulations that pertain to the aggregation of development for transportation impact analyses and the determination of concurrency.

XIV) Annual LOS Report

Annually, a report detailing the LOS on the CMS roadways will be completed. This report will be completed by September 1st of each year and will summarize the current existing LOS of service for each roadway segment included in the CMS base upon the latest update completed for the CMS on August 1st of that same year. This report will be made available for public review and should be provided to FDOT District 3 Planning Office. The purpose of providing the CMS to FDOT is to communicate the LOS conditions of the various state roadways in Wakulla County and to facilitate future funding of needed improvements.

Appendix B:
Comprehensive Plan Amendment Application Traffic Impact Analysis Guidelines

Comprehensive Plan Amendment Application Traffic Impact Analysis Guidelines

The following are suggested guidelines to be followed when preparing a traffic impact analysis for a Large-Scale Comprehensive Plan Amendment (CPA) Application. This analysis is different from a concurrency analysis in that it analyzes the greatest allowable density under the proposed land use category and does not reserve any capacity on the roadway network, as it does not permit for any development to occur. Reservation of trips on the roadway network occurs upon the completion, submittal, and approval of an Application for Development Order. The CPA Application traffic impact analysis is a planning tool that allows for a better understanding of the future transportation needs in the area. Should you have any questions regarding this analysis, please feel free to contact Lindsay Stevens, Director of Planning and Community Development, Wakulla County at (850) 926-3695.

- 1) A roadway link PM peak hour, peak direction level of service analysis is to be completed.
- 2) Trip generation rates and equations should be based on *Institute of Transportation Engineers' (ITE) Trip Generation* (latest available edition). The PM peak hour of adjacent street traffic trip generation equations (or rates), if available, should be used to calculate the PM peak hour trip generation for the proposed development.
- 3) Methods and equations contained in the *ITE Trip Generation Handbook* should be used to calculate pass-by and internal capture, where appropriate.
- 4) Net new external project traffic should be distributed onto the surrounding study area roadway network. The distribution of traffic should be based upon travel patterns reflected in existing traffic volume data, an approved Florida Standard Urban Transportation Model Structure (FSUTMS) model, knowledge of the local development, and/or knowledge of local travel patterns.
- 5) The study area is defined by significantly impacted roadway links plus one link beyond. Roadway links are significantly impacted if the net new external PM peak hour project trips in the peak direction are five percent (5%) or more of the service volume (PM peak hour, peak direction) at the adopted level of service (LOS) standard.
- 6) The study area roadway network should consider all collectors and arterials within the study area, and any adjacent roads that connect the development to collectors and arterials.
- 7) Roadways should be segmented based upon the Wakulla County Concurrency Management System or other appropriate source.
- 8) A significance test should be completed to determine the study area. Alternative calculations for roadway link service volumes are permitted if justified and completed in accordance with Florida Department of Transportation guidelines. A roadway link within the study area is considered to be significantly impacted if the net new external project traffic during the PM

- peak hour on a roadway link in the peak direction is estimated to be five percent (5%) or more of the service volume (PM peak hour, peak direction) at the adopted LOS standard.
- 9) An adversity test at a five-year and ten-year buildout horizon should be completed for all significantly impacted roadway links in the study area. For example, the applicant submitting in 2007 should complete a year 2012 and a year 2017 analysis. This analysis should compare the total PM peak hour, peak direction traffic (background traffic at the buildout year, plus project traffic) to the service volume at the adopted LOS standard. If a significantly impacted roadway link is estimated to have total traffic volumes that are greater than the service volume, the link is presumed to be adversely impacted.
 - 10) Analysis year background traffic is typically estimated by applying an appropriate historical growth rate to existing, collected peak season traffic volumes. Growth rates from the Wakulla County Concurrency Management System should be used.
 - 11) Should a roadway link be both significantly and adversely impacted, strategies for mitigation of the proposed development's impacts should be recommended.

The above suggested guidelines shall not be construed as a final methodology statement for all projects. The responsible professional transportation engineer/planner should make the final determination regarding technical analysis methodologies based upon the specific project being proposed.

Appendix C:
Application for Development Order (Site Plan Submittal) Traffic Impact Analysis Guidelines

Application for Development Order (Site Plan Submittal) Traffic Impact Analysis Guidelines

The following are suggested guidelines to be followed when preparing a traffic impact analysis for an Application for Development Order. Upon approval of the Development Order, this concurrency analysis reserves capacity on the roadway network for the net new external project trips. The purpose of this traffic impact analysis is to identify the potential transportation deficiencies at the buildout year of the project. Should you have any questions regarding this analysis, please feel free to contact Lindsay Stevens, Director of Planning and Community Development, Wakulla County at (850) 926-3695.

- 1) A roadway link PM peak hour, peak direction level of service analysis as well as intersection analyses in the AM and PM peak hours should be completed.
- 2) Trip generation rates and equations should be based on *Institute of Transportation Engineers' Trip Generation* (latest available edition). The AM/PM peak hour of adjacent street traffic trip generation equations (or rates), if available, should be used to calculate trip generation for the proposed development.
- 3) Methods and equations contained in the *ITE Trip Generation Handbook* should be used to calculate pass-by and internal capture, where appropriate.
- 4) Net new external project traffic should be distributed onto the surrounding study area roadway network. The distribution of traffic should be based upon travel patterns reflected in existing traffic volume data, an approved Florida Standard Urban Transportation Model Structure (FSUTMS) model, knowledge of the local development, and/or knowledge of local travel patterns.
- 5) The study area is defined by significantly impacted roadway links plus one link beyond. Roadway links are significantly impacted if the net new external PM peak hour project trips in the peak direction are five percent (5%) or more of the service volume (PM peak hour, peak direction) at the adopted level of service (LOS) standard.
- 6) The study area roadway network should consider all collectors and arterials within the study area, and any adjacent roads that connect the development to collectors and arterials.
- 7) Roadways should be segmented based upon Wakulla County Concurrency Management System or other appropriate sources.
- 8) A significance test should be completed to determine the study area. Alternative calculations for roadway link service volumes are permitted if justified and completed in accordance with Florida Department of Transportation (FDOT) guidelines. A roadway link within the study area is considered to be significantly impacted if the net new external project traffic during the PM peak hour on a roadway link in the peak direction is estimated to be five percent (5%) or more of the service volume (PM peak hour, peak direction) at the adopted LOS standard.

- 9) For roadway links that are determined to be significantly impacted by project traffic, an analysis of the major intersections along the links (including the intersections at the end of the study area) should be completed. Major intersections are defined as the crossings of Federal, State, or major County/City/Local roadways. Intersections at project entrances should be analyzed as well.
- 10) The intersections should be analyzed for both the background (estimated background traffic volume at year of project buildout) and total (background traffic plus project trips) traffic conditions.
- 11) Buildout year background traffic is typically estimated by applying an appropriate historical growth rate to existing, collected peak season traffic volumes. Growth rates from the Wakulla County Concurrency Management System shall be used.
- 12) Intersection analyses should be performed by using either Highway Capacity Software (HCS) or Synchro.
- 13) For intersections projected to operate below the adopted level of service standard at project buildout, recommendations for improvements should be made. These improvements should return the intersection to a satisfactory level of service with total traffic volumes.
- 14) Turn lanes (left and right) warrants should be evaluated at all site entrances. Turn lane warrant analyses should be conducted in accordance with National Research Council and Transportation Research Board guidelines, and as consistent with FDOT proceedings.
- 15) The traffic analysis prepared for the Application for Development Order is to be signed and sealed by a qualified professional engineer whose primary area of expertise is transportation engineering/planning.

The above suggested guidelines shall not be construed as a final methodology statement for all projects. The responsible professional transportation engineer should recommend technical analysis methodologies based upon the specific project being proposed.