

**TABLE 2-5
EXISTING CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS**

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes ¹	VOLUME		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	North of SR-55 FWY	5+1H	8,631	9,569	29.9	35.3	D	E
		SR-55 FWY to MacArthur Blvd.	5+1H	10,090	11,296	38.9	>45.0	E	F
		North of Jamboree Rd.	6+1H	8,251	11,048	22.2	33.0	C	D
		South of Jamboree Rd.	6+1H	6,331	10,961	16.7	32.6	B	D
	NB	North of SR-55 Fwy	4+1H	7,055	5,129	30.8	20.5	D	C
		SR-55 FWY to MacArthur Blvd.	6+1H	7,085	7,478	18.7	24.5	C	C
		North of Jamboree Rd.	5+1H	8,382	6,825	28.6	22.0	D	C
		South of Jamboree Rd.	5+1H	8,593	6,117	29.7	19.4	D	C
SR-73 FREEWAY/TOLL ROAD	SB	North of SR-55 FWY	4	4,976	4,617	19.6	18.1	C	C
		North of Jamboree Rd.	4	7,422	6,885	32.9	29.3	D	D
		South of Jamboree Rd.	3	5,019	4,657	28.1	25.4	D	C
		North of Bonita Canyon Rd.	4	2,862	2,377	11.2	9.3	B	A
		Bonita Canyon Rd. to Newport Coast Dr.	4	2,896	2,687	11.4	10.5	B	A
	NB	North of SR-55 FWY	4	5,197	6,426	20.5	26.6	C	D
		North of Jamboree Rd.	4	7,750	9,584	35.4	>45.0	E	F
		South of Jamboree Rd.	3	5,242	6,482	30.0	43.9	D	E
		North of Bonita Canyon Rd.	4	2,802	3,658	11.0	14.3	A	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	3,024	3,740	11.9	14.7	B	B
SR-55 FREEWAY	SB	Dyer Rd. to MacArthur Blvd.	5+1H	4,918	6,976	15.6	22.5	B	C
		MacArthur Blvd. to I-405 FWY	5+1H	4,987	7,187	15.8	23.4	B	C
		I-405 FWY to SR-73 FWY	4	3,326	4,743	13.2	18.8	B	C
		SR-73 FWY to Mesa Dr.	4	3,305	4,712	13.1	18.7	B	C
		Mesa Dr. to 22nd St./Victoria St.	3	2,830	4,035	14.9	21.6	B	C
		22nd St./Victoria St. to End	3	2,117	3,018	11.2	15.9	B	B
	NB	Dyer Rd. to MacArthur Blvd.	4+1H	12,462	10,074	>45.0	>45.0	F	F
		MacArthur Blvd. to I-405 FWY	4+1H	13,021	10,593	>45.0	>45.0	F	F
		I-405 FWY to SR-73 FWY	4	8,455	7,069	42.8	30.9	E	D
		SR-73 FWY to Mesa Dr.	4	8,400	7,023	42.1	30.6	E	D
		Mesa Dr. to 22nd St./Victoria St.	4	7,192	6,013	31.8	24.7	D	C
		22nd St./Victoria St. to End	3	5,380	4,498	31.7	24.6	D	C

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on existing conditions.

² Density is measured by passenger cars per mile per lane (pc/mi/ln).

³ Level of service (LOS) determined using HCS 2010: Freeways software, Version 6.5

The maximum density value at which sustained flows at capacity are expected to occur is 45 pc/mi/ln.

Density values higher than 45 pc/mi/ln are given a LOS "F".

TABLE 2-6

**EXISTING CONDITIONS
 FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS**

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes ¹	VOLUME		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	SB Loop Off-Ramp at MacArthur Blvd.	2	2,313	1,154	9.1	12.5	A	B
		SB On-Ramp at MacArthur Blvd.	2	474	906	7.7	19.4	A	F⁴
		SB Off-Ramp at Jamboree Rd.	2	2,690	1,777	7.6	5.7	A	A
		SB Loop On Ramp at Jamboree Rd.	1	232	622	18.0	27.5	B	C
		SB On-Ramp at Jamboree Rd.	2	538	1,068	17.1	28.7	B	D
	NB	NB Loop On-Ramp at MacArthur Blvd.	1	484	1,359	16.7	22.6	B	C
		NB Off-Ramp at MacArthur Blvd.	1	1,781	706	28.2	17.2	D	B
		NB On-Ramp at Jamboree Rd.	2	1,200	1,020	23.6	19.6	C	B
		NB Loop On-Ramp at Jamboree Rd.	1	432	716	24.3	23.0	C	C
		NB Off-Ramp at Jamboree Rd.	2	1,843	1,028	22.8	12.9	C	B
SR-73 FREEWAY/TOLL ROAD	SB	SB On-Ramp at Bison Av.	1	69	344	18.2	16.6	B	B
		SB Loop Off-Ramp at Bonita Canyon Rd.	1	139	268	15.2	13.9	B	B
		SB On-Ramp at Bonita Canyon Rd.	1	173	578	14.5	15.6	B	B
		SB Off-Ramp at Newport Coast Dr.	1	263	516	17.6	18.1	B	B
		SB On-Ramp at Newport Coast Dr.	1	187	211	15.0	13.6	B	B
	NB	NB Off-Ramp at Bison Av.	1	556	117	17.5	18.7	B	B
		NB Loop On-Ramp at Bonita Canyon Rd.	1	272	109	14.8	17.0	B	B
		NB Off-Ramp at Bonita Canyon Rd.	1	494	191	8.1	9.4	A	A
		NB On-Ramp at Newport Coast Dr.	1	523	174	14.9	11.3	B	B
		NB Off-Ramp at Newport Coast Dr.	1	346	207	17.8	20.9	B	C

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on existing conditions.

² Density is measured by passenger cars per mile per lane (pc/mi/ln).

³ Level of service (LOS) determined using HCS 2010: Ramps software, Version 6.5

⁴ V/C is greater than 1.00; Level of Service "F".

TABLE 3-2

**2006 GENERAL PLAN CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS**

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes ¹	VOLUME		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	North of SR-55 FWY	5+1H	10,361	10,950	41.0	>45.0	E	F
		SR-55 FWY to MacArthur Blvd.	6+1H	13,302	11,136	>45.0	32.9	F	D
		North of Jamboree Rd.	7+1H	12,323	11,502	30.8	27.8	D	D
		South of Jamboree Rd.	7+1H	10,656	11,392	25.1	27.4	C	D
	NB	North of SR-55 Fwy	5+1H	8,828	6,579	30.9	21.1	D	C
		SR-55 FWY to MacArthur Blvd.	6+1H	11,864	12,031	37.4	38.4	E	E
		North of Jamboree Rd.	6+1H	12,640	11,431	42.4	35.0	E	D
		South of Jamboree Rd.	6+1H	13,101	10,459	>45.0	30.3	F	D
SR-73 FREEWAY/TOLL ROAD	SB	North of SR-55 FWY	4+1H	6,631	5,638	27.8	22.5	D	C
		North of Jamboree Rd.	4+1H	8,322	7,793	40.5	35.8	E	E
		South of Jamboree Rd.	4	7,204	6,706	31.4	28.2	D	D
		North of Bonita Canyon Rd.	5	4,291	3,896	13.5	12.2	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	4,204	4,137	16.5	16.2	B	B
	NB	North of SR-55 FWY	4+1H	5,949	7,715	24.1	35.1	C	E
		North of Jamboree Rd.	4+1H	8,660	10,320	44.1	>45.0	E	F
		South of Jamboree Rd.	4	7,451	8,222	33.1	39.6	D	E
		North of Bonita Canyon Rd.	5	4,514	5,085	14.2	15.9	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	4,484	4,905	17.6	19.3	B	C
SR-55 FREEWAY	SB	Dyer Rd. to MacArthur Blvd.	6+1H	6,325	8,392	16.7	22.6	B	C
		MacArthur Blvd. to I-405 FWY	6+1H	5,317	8,273	14.0	22.2	B	C
		I-405 FWY to SR-73 FWY	4	3,409	5,294	13.5	21.2	B	C
		SR-73 FWY to Mesa Dr.	4	3,709	5,430	14.7	21.8	B	C
		Mesa Dr. to 22nd St./Victoria St.	4	3,337	4,811	13.2	19.1	B	C
		22nd St./Victoria St. to End	3	2,561	3,619	13.5	19.2	B	C
	NB	Dyer Rd. to MacArthur Blvd.	5+1H	14,008	11,536	>45.0	>45.0	F	F
		MacArthur Blvd. to I-405 FWY	6+1H	13,835	11,083	>45.0	33.2	F	D
		I-405 FWY to SR-73 FWY	4	9,569	7,376	>45.0	33.1	F	D
		SR-73 FWY to Mesa Dr.	4	9,384	7,628	>45.0	35.1	F	E
		Mesa Dr. to 22nd St./Victoria St.	4	8,316	6,745	41.3	28.9	E	D
		22nd St./Victoria Av. to End	3	6,254	4,912	41.5	27.7	E	D

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on the Orange County Transportation Analysis Model (OCTAM)

² Density is measured by passenger cars per mile per lane (pc/mi/lane).

³ Level of service (LOS) determined using HCS 2010: Freeways software, Version 6.5

The maximum density value at which sustained flows at capacity are expected to occur is 45 pc/mi/lane.

Density values higher than 45 pc/mi/lane are given a LOS "F".

TABLE 3-3

**2006 GENERAL PLAN CONDITIONS
 FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS**

FREEWAY	DIRECTION	RAMP LOCATION	Lanes ¹	VOLUME		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	SB Loop Off-Ramp at MacArthur Blvd.	2	1,941	1,033	9.0	0.4	F⁴	A
		SB On-Ramp at MacArthur Blvd.	2	592	1,153	14.5	15.3	B	B
		SB Off-Ramp at Jamboree Rd.	2	2,510	1,916	9.7	4.4	A	A
		SB Loop On Ramp at Jamboree Rd.	1	299	800	23.4	26.6	C	C
		SB On-Ramp at Jamboree Rd.	2	753	1,330	23.8	28.1	C	D
	NB	NB Loop On-Ramp at MacArthur Blvd.	1	520	1,610	23.6	30.6	C	D
		NB Off-Ramp at MacArthur Blvd.	1	1,980	941	35.7	26.8	F	C
		NB On-Ramp at Jamboree Rd.	2	1,140	1,000	27.6	23.4	C	C
		NB Loop On-Ramp at Jamboree Rd.	1	510	740	29.7	27.6	D	C
		NB Off-Ramp at Jamboree Rd.	2	2,448	1,396	31.2	19.5	D	B
SR-73 FREEWAY/TOLL ROAD	SB	SB On-Ramp at Bison Av.	1	130	449	19.0	19.1	B	B
		SB Loop Off-Ramp at Bonita Canyon Rd.	1	317	541	22.0	20.0	C	B
		SB On-Ramp at Bonita Canyon Rd.	1	230	782	16.2	19.0	B	B
		SB Off-Ramp at Newport Coast Dr.	1	450	570	24.0	24.3	C	C
		SB On-Ramp at Newport Coast Dr.	1	230	340	19.1	19.4	B	B
	NB	NB Off-Ramp at Bison Av.	1	679	190	23.3	21.8	C	C
		NB Loop On-Ramp at Bonita Canyon Rd.	1	840	490	20.5	20.2	C	C
		NB Off-Ramp at Bonita Canyon Rd.	1	810	310	15.8	14.8	B	B
		NB On-Ramp at Newport Coast Dr.	1	520	170	15.4	15.2	B	B
		NB Off-Ramp at Newport Coast Dr.	1	500	255	25.3	26.1	C	C

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on existing conditions.

² Density is measured by passenger cars per mile per lane (pc/mi/lane).

³ Level of service (LOS) determined using HCS 2010: Ramps software, Version 6.5

⁴ V/C is greater than 1.00; Level of Service "F".

TABLE 4-7

GENERAL PLAN LUE AMENDMENT (PROPOSED PROJECT) CONDITIONS
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes ¹	VOLUME Δ		2006 GENERAL PLAN				GP LUE AMENDMENT			
				AM	PM	DENSITY ²		LOS ³		DENSITY ²		LOS ³	
						AM	PM	AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	North of SR-55 FWY	5+1H	35	65	41.0	>45.0	E	F	41.3	>45.0	E	F
		SR-55 FWY to MacArthur Blvd.	6+1H	-8	103	>45.0	32.9	F	D	>45.0	33.4	F	D
		North of Jamboree Rd.	7+1H	44	5	30.8	27.8	D	D	30.9	27.8	D	D
		South of Jamboree Rd.	7+1H	66	60	25.1	27.4	C	D	25.3	27.6	C	D
	NB	North of SR-55 Fwy	5+1H	55	24	30.9	21.1	D	C	31.2	21.2	D	C
		SR-55 FWY to MacArthur Blvd.	6+1H	57	35	37.4	38.4	E	E	37.8	38.7	E	E
		North of Jamboree Rd.	6+1H	89	16	42.4	35.0	E	D	43.1	35.1	E	E
		South of Jamboree Rd.	6+1H	-70	52	>45.0	30.3	F	D	>45.0	30.5	F	D
SR-73 FREEWAY/TOLL ROAD	SB	North of SR-55 FWY	4+1H	119	9	27.8	22.5	D	C	28.5	22.6	D	C
		North of Jamboree Rd.	4+1H	81	19	40.5	35.8	E	E	41.3	35.9	E	E
		South of Jamboree Rd.	4	85	14	31.4	28.2	D	D	32.0	28.3	D	D
		North of Bonita Canyon Rd.	5	-2	-39	13.5	12.2	B	B	13.5	12.1	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	-13	-30	16.5	16.2	B	B	16.4	16.1	B	B
	NB	North of SR-55 FWY	4+1H	23	-38	24.1	35.1	C	E	24.2	34.9	C	D
		North of Jamboree Rd.	4+1H	-2	43	44.1	>45.0	E	F	44.0	>45.0	E	F
		South of Jamboree Rd.	4	-9	22	33.1	39.6	D	E	33.1	39.8	D	E
		North of Bonita Canyon Rd.	5	-107	-82	14.2	15.9	B	B	13.8	15.7	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	-71	10	17.6	19.3	B	C	17.3	19.3	B	C
SR-55 FREEWAY	SB	Dyer Rd. to MacArthur Blvd.	6+1H	30	-1	16.7	22.6	B	C	16.8	22.6	B	C
		MacArthur Blvd. to I-405 FWY	6+1H	22	41	14.0	22.2	B	C	14.1	22.4	B	C
		I-405 FWY to SR-73 FWY	4	-5	64	13.5	21.2	B	C	13.5	21.5	B	C
		SR-73 FWY to Mesa Dr.	4	27	75	14.7	21.8	B	C	14.8	22.2	B	C
		Mesa Dr. to 22nd St./Victoria St.	4	4	56	13.2	19.1	B	C	13.2	19.3	B	C
		22nd St./Victoria St. to End	3	-8	52	13.5	19.2	B	C	13.5	19.5	B	C
	NB	Dyer Rd. to MacArthur Blvd.	5+1H	46	34	>45.0	>45.0	F	F	>45.0	>45.0	F	F
		MacArthur Blvd. to I-405 FWY	6+1H	14	-15	>45.0	33.2	F	D	>45.0	33.1	F	D
		I-405 FWY to SR-73 FWY	4	50	8	>45.0	33.1	F	D	>45.0	33.2	F	D
		SR-73 FWY to Mesa Dr.	4	14	44	>45.0	35.1	F	E	>45.0	35.4	F	E
		Mesa Dr. to 22nd St./Victoria St.	4	30	14	41.3	28.9	E	D	41.6	28.9	E	D
		22nd St./Victoria St. to End	3	29	17	41.5	27.7	E	D	41.9	27.8	E	D

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on the Orange County Transportation Analysis Model (OCTAM)

² Density is measured by passenger cars per mile per lane (pc/mi/lane). The maximum density value at which sustained flows at capacity are expected to occur is 45 pc/mi/lane. Density values higher than 45 pc/mi/lane are given a LOS "F".

³ Level of service (LOS) determined using HCS 2010: Freeways software, Version 6.5

TABLE 4-8

GENERAL PLAN LUE AMENDMENT (PROPOSED PROJECT) CONDITIONS
 FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS SUMMARY

FREEWAY	DIRECTION	RAMP LOCATION	Lanes ¹	VOLUME ⁵		2006 GENERAL PLAN				GP LUE AMENDMENT			
				Δ		DENSITY ²		LOS ³		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	SB Loop Off-Ramp at MacArthur Blvd.	2	4	26	9.0	0.4	F⁴	A	9.0	0.7	F⁴	A
		SB On-Ramp at MacArthur Blvd.	2	11	-3	14.5	15.3	B	B	14.5	15.2	B	B
		SB Off-Ramp at Jamboree Rd.	2	13	6	9.7	4.4	A	A	9.8	4.4	A	A
		SB Loop On Ramp at Jamboree Rd.	1	-8	-5	23.4	26.6	C	C	23.4	26.7	C	C
		SB On-Ramp at Jamboree Rd.	2	45	56	23.8	28.1	C	D	24.2	28.7	C	D
	NB	NB Loop On-Ramp at MacArthur Blvd.	1	31	75	23.6	30.6	C	D	23.8	31.2	C	D
		NB Off-Ramp at MacArthur Blvd.	1	21	4	35.7	26.8	F	C	36.0	26.9	F	C
		NB On-Ramp at Jamboree Rd.	2	-19	-1	27.6	23.4	C	C	28.5	23.4	D	C
		NB Loop On-Ramp at Jamboree Rd.	1	26	12	29.7	27.6	D	C	29.9	27.7	D	C
		NB Off-Ramp at Jamboree Rd.	2	1	25	31.2	19.5	D	B	31.1	19.7	D	B
SR-73 FREEWAY/TOLL ROAD	SB	SB On-Ramp at Bison Av.	1	0	0	19.0	19.1	B	B	18.9	18.9	B	B
		SB Loop Off-Ramp at Bonita Canyon Rd.	1	1	-61	22.0	20.0	C	B	20.3	19.5	C	B
		SB On-Ramp at Bonita Canyon Rd.	1	-10	-52	16.2	19.0	B	B	16.1	18.6	B	B
		SB Off-Ramp at Newport Coast Dr.	1	-169	-10	24.0	24.3	C	C	23.0	24.1	C	C
		SB On-Ramp at Newport Coast Dr.	1	1	10	19.1	19.4	B	B	19.7	19.4	B	B
	NB	NB Off-Ramp at Bison Av.	1	-7	-10	23.3	21.8	C	C	22.9	22.5	C	C
		NB Loop On-Ramp at Bonita Canyon Rd.	1	-138	-120	20.5	20.2	C	C	19.5	19.3	B	B
		NB Off-Ramp at Bonita Canyon Rd.	1	-102	-28	15.8	14.8	B	B	14.9	14.7	B	B
		NB On-Ramp at Newport Coast Dr.	1	0	0	15.4	15.2	B	B	15.2	15.3	B	B
		NB Off-Ramp at Newport Coast Dr.	1	0	22	25.3	26.1	C	C	25.0	26.4	C	C

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on existing conditions.

² Density is measured by passenger cars per mile per lane (pc/mi/ln).

³ Level of service (LOS) determined using HCS 2010: Ramps software, Version 6.5

⁴ V/C is greater than 1.00; Level of Service "F".

⁵ The change in volume does not necessarily affect the Density and LOS results accordingly. The capacity of a merge or diverge area is always controlled by the capacity of its freeway segments, upstream and downstream of the ramps, or by the capacity of the ramp itself. The volumes at the freeway segments could differ from General Plan Baseline to General Plan Project conditions.

TABLE 4-11

FWY RAMP INTERSECTION OPERATIONS ANALYSIS SUMMARY

ID	Intersection	Existing Peak Hour				2006 General Plan Peak Hour				LUE Amendment Peak Hour			
		Delay ¹ (Secs)		LOS ²		Delay ¹ (Secs)		LOS ²		Delay ¹ (Secs)		LOS ²	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
46	SR-73 NB / Bison Av.	8.7	33.7	A	C	19.4	54.7	B	D	21.1	54.7	C	D
47	SR-73 SB / Bison Av.	18.5	14.3	B	B	31.7	12.6	C	B	29.8	12.6	C	B
53	SR-73 NB / Bonita Canyon Dr.	14.2	9.0	B	A	27.8	14.9	C	B	26.5	12.6	C	B
54	SR-73 SB / Bonita Canyon Dr.	7.8	25.9	A	C	15.3	36.6	B	D	16.4	30.2	B	C
62	Newport Coast Dr. / SR-73 NB	7.5	6.7	A	A	9.3	7.8	A	A	9.5	7.3	A	A
69	MacArthur Bl. / I-405 NB Ramps	18.9	44.1	B	D	29.7	38.4	C	D	28.0	40.9	C	D
70	MacArthur Bl. / I-405 SB Ramps	36.4	27.8	D	C	38.8	49.9	D	D	34.0	36.9	C	D
75	Von Karman Av. / I-405 HOV Ramps	Does Not Exist				118.2	96.6	F	F	77.8	87.1	E	F
80	Jamboree Rd. / I-405 NB Ramps	16.2	13.2	B	B	20.1	21.7	C	C	19.1	23.3	B	C
81	Jamboree Rd. / I-405 SB Ramps	32.2	17.9	C	B	25.6	18.4	C	B	24.5	17.9	C	B

¹ Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.

² Level of Service (LOS) is calculated based on the signalized intersection capacity analysis methodology as specified in Chapter 16 of the HCM.

TABLE 5-5

GENERAL PLAN LUE AMENDMENT (PROJECT)ALTERNATIVE
BASIC FREEWAY SEGMENT ANALYSIS SUMMARY

FREEWAY	DIRECTION	MAINLINE SEGMENT LOCATION	Lanes ¹	VOLUME Δ		2006 GENERAL PLAN				GP LUE AMENDMENT ALT VOLUME			
				AM	PM	DENSITY ²		LOS ³		DENSITY ²		LOS ³	
						AM	PM	AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	North of SR-55 FWY	5+1H	-3	12	41.0	>45.0	E	F	41.0	>45.0	E	F
		SR-55 FWY to MacArthur Blvd.	6+1H	-45	-5	>45.0	32.9	F	D	>45.0	32.8	F	D
		North of Jamboree Rd.	7+1H	39	-8	30.8	27.8	D	D	30.9	27.8	D	D
		South of Jamboree Rd.	7+1H	-52	37	25.1	27.4	C	D	25.0	27.6	C	D
	NB	North of SR-55 Fwy	5+1H	-9	38	30.9	21.1	D	C	30.9	21.2	D	C
		SR-55 FWY to MacArthur Blvd.	6+1H	-10	13	37.4	38.4	E	E	37.4	38.5	E	E
		North of Jamboree Rd.	6+1H	48	-4	42.4	35.0	E	D	42.8	35.0	E	D
		South of Jamboree Rd.	6+1H	6	-55	>45.0	30.3	F	D	>45.0	30.1	F	D
SR-73 FREEWAY/TOLL ROAD	SB	North of SR-55 FWY	4+1H	91	-16	27.8	22.5	D	C	28.3	22.5	D	C
		North of Jamboree Rd.	4+1H	67	8	40.5	35.8	E	E	41.2	35.8	E	E
		South of Jamboree Rd.	4	72	10	31.4	28.2	D	D	31.9	28.3	D	D
		North of Bonita Canyon Rd.	5	-15	-27	13.5	12.2	B	B	13.4	12.1	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	-26	-28	16.5	16.2	B	B	16.4	16.1	B	B
	NB	North of SR-55 FWY	4+1H	-71	-16	24.1	35.1	C	E	23.7	35.0	C	D
		North of Jamboree Rd.	4+1H	-24	36	44.1	>45.0	E	F	43.8	>45.0	E	F
		South of Jamboree Rd.	4	-24	20	33.1	39.6	D	E	32.9	39.7	D	E
		North of Bonita Canyon Rd.	5	-97	-88	14.2	15.9	B	B	13.9	15.7	B	B
		Bonita Canyon Rd. to Newport Coast Dr.	4	-31	4	17.6	19.3	B	C	17.5	19.3	B	C
SR-55 FREEWAY	SB	Dyer Rd. to MacArthur Blvd.	6+1H	56	-7	16.7	22.6	B	C	16.8	22.6	B	C
		MacArthur Blvd. to I-405 FWY	6+1H	-19	-31	14.0	22.2	B	C	14.0	22.1	B	C
		I-405 FWY to SR-73 FWY	4	-17	29	13.5	21.2	B	C	13.4	21.3	B	C
		SR-73 FWY to Mesa Dr.	4	7	72	14.7	21.8	B	C	14.7	22.2	B	C
		Mesa Dr. to 22nd St./Victoria St.	4	6	47	13.2	19.1	B	C	13.2	19.3	B	C
		22nd St./Victoria St. to End	3	-10	44	13.5	19.2	B	C	13.5	19.4	B	C
	NB	Dyer Rd. to MacArthur Blvd.	5+1H	-13	83	>45.0	>45.0	F	F	>45.0	>45.0	F	F
		MacArthur Blvd. to I-405 FWY	6+1H	-33	19	>45.0	33.2	F	D	>45.0	33.3	F	D
		I-405 FWY to SR-73 FWY	4	39	3	>45.0	33.1	F	D	>45.0	33.1	F	D
		SR-73 FWY to Mesa Dr.	4	13	31	>45.0	35.1	F	E	>45.0	35.3	F	E
		Mesa Dr. to 22nd St./Victoria St.	4	6	20	41.3	28.9	E	D	41.4	29.0	E	D
		22nd St./Victoria St. to End	3	19	25	41.5	27.7	E	D	41.8	27.9	E	D

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on the Orange County Transportation Analysis Model (OCTAM)

² Density is measured by passenger cars per mile per lane (pc/mi/ln). The maximum density value at which sustained flows at capacity are expected to occur is 45 pc/mi/ln. Density values higher than 45 pc/mi/ln are given a LOS "F".

³ Level of service (LOS) determined using HCS 2010: Freeways software, Version 6.5

TABLE 5-6

GENERAL PLAN LUE AMENDMENT ALTERNATIVE
 FREEWAY RAMP JUNCTION MERGE/DIVERGE ANALYSIS SUMMARY

FREEWAY	DIRECTION	RAMP LOCATION	Lanes ¹	VOLUME ⁵		2006 GENERAL PLAN				GP LUE AMENDMENT ALT VOLUME			
				Δ		DENSITY ²		LOS ³		DENSITY ²		LOS ³	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
I-405 FREEWAY	SB	SB Loop Off-Ramp at MacArthur Blvd.	2	-19	-4	9.0	0.4	F ⁴	A	8.7	0.4	A	A
		SB On-Ramp at MacArthur Blvd.	2	2	-16	14.5	15.3	B	B	14.8	15.2	B	B
		SB Off-Ramp at Jamboree Rd.	2	18	-1	9.7	4.4	A	A	9.9	4.4	A	A
		SB Loop On Ramp at Jamboree Rd.	1	-5	-13	23.4	26.6	C	C	23.3	26.7	C	C
		SB On-Ramp at Jamboree Rd.	2	13	-1	23.8	28.1	C	D	23.8	28.3	C	D
	NB	NB Loop On-Ramp at MacArthur Blvd.	1	8	47	23.6	30.6	C	D	23.5	31.0	C	D
		NB Off-Ramp at MacArthur Blvd.	1	15	7	35.7	26.8	F	C	35.9	26.8	F	C
		NB On-Ramp at Jamboree Rd.	2	-7	0	27.6	23.4	C	C	28.4	23.4	D	C
		NB Loop On-Ramp at Jamboree Rd.	1	10	5	29.7	27.6	D	C	29.7	27.6	D	C
		NB Off-Ramp at Jamboree Rd.	2	19	8	31.2	19.5	D	B	31.4	19.4	D	B
SR-73 FREEWAY/TOLL ROAD	SB	SB On-Ramp at Bison Av.	1	0	1	19.0	19.1	B	B	18.9	19.0	B	B
		SB Loop Off-Ramp at Bonita Canyon Rd.	1	1	-41	22.0	20.0	C	B	20.2	19.7	C	B
		SB On-Ramp at Bonita Canyon Rd.	1	-10	-42	16.2	19.0	B	B	16.1	18.7	B	B
		SB Off-Ramp at Newport Coast Dr.	1	-171	-8	24.0	24.3	C	C	22.9	24.2	C	C
		SB On-Ramp at Newport Coast Dr.	1	1	1	19.1	19.4	B	B	19.7	19.3	B	B
	NB	NB Off-Ramp at Bison Av.	1	-7	-10	23.3	21.8	C	C	22.9	22.5	C	C
		NB Loop On-Ramp at Bonita Canyon Rd.	1	-138	-120	20.5	20.2	C	C	19.5	19.3	B	B
		NB Off-Ramp at Bonita Canyon Rd.	1	-72	-28	15.8	14.8	B	B	15.3	14.7	B	B
		NB On-Ramp at Newport Coast Dr.	1	0	0	15.4	15.2	B	B	15.3	15.2	B	B
		NB Off-Ramp at Newport Coast Dr.	1	-32	20	25.3	26.1	C	C	24.9	26.4	C	C

BOLD = Unacceptable Level of Service

¹ Number of lanes are in the specified direction and is based on existing conditions.

² Density is measured by passenger cars per mile per lane (pc/mi/lane).

³ Level of service (LOS) determined using HCS 2010: Ramps software, Version 6.5

⁴ V/C is greater than 1.00; Level of Service "F".

⁵ The change in volume does not necessarily affect the Density and LOS results accordingly. The capacity of a merge or diverge area is always controlled by the capacity of its freeway segments, upstream and downstream of the ramps, or by the capacity of the ramp itself. The volumes at the freeway segments could differ from General Plan Baseline to General Plan Project conditions.