

Appendix 5.1

Updated Transportation Tables

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
1	Fair Oaks Avenue/Tasman Drive	Sunnyvale	AM	25.7	C	28.0	C	27.7	C	0.018	0.5
			PM	34.3	C	35.0	C	35.7	D	0.050	1.5
2	Vienna Drive/Tasman Drive	Sunnyvale	AM	14.4	B	14.1	B	14.6	B	0.025	0.2
			PM	13.3	B	12.9	B	13.0	B	0.035	0.3
3	Lawrence Expressway/Tasman Drive	Santa Clara County (CMP)	AM	39.8	D	41.0	D	46.2	D	0.153	7.7
			PM	55.8	E	57.7	E	94.6	F	0.174	59.6
4	Birchwood Drive/Tasman Drive	Sunnyvale	AM	14.4	B	13.5	B	12.2	B	0.092	-0.4
			PM	10.6	B	10.5	B	13.0	B	0.205	3.8
5	Reamwood Avenue/Tasman Drive	Sunnyvale	AM	7.5	A	7.5	A	8.0	A	0.104	0.6
			PM	9.8	A	9.2	A	11.8	B	0.241	4.5
6	Patrick Henry Drive/Tasman Drive	Santa Clara	AM	10.9	B	12.1	B	15.5	B	0.116	0.0
			PM	12.6	B	13.2	B	21.4	C	0.230	5.9
7	Old Ironside Drive/Tasman Drive	Santa Clara	AM	14.4	B	13.2	B	11.8	B	0.106	-1.5
			PM	12.6	B	12.7	B	13.3	B	0.292	4.0
8	Great America Parkway/Tasman Drive	Santa Clara (CMP)	AM	25.6	C	26.0	C	34.1	C	0.334	11.8
			PM	29.2	C	31.5	C	171.2	F	0.688	226.6
9	Convention Center/Tasman Drive	Santa Clara	AM	16.2	B	16.2	B	18.2	B	0.169	3.0
			PM	18.5	B	20.2	C	157.3	F	0.225	140.3
10	Future Driveway (west of Centennial Boulevard)/ Tasman Drive	Santa Clara	AM	Future Signalized Intersection				4.2	A	N/A	N/A
			PM					15.0	B	N/A	N/A
11	Centennial Boulevard/Tasman Drive	Santa Clara	AM	19.8	B	19.8	B	52.9	D	0.484	47.9
			PM	19.6	B	19.8	B	134.7	F	0.779	180.9
12	Future Driveway (east of Centennial Boulevard)/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				3.4	A	N/A	N/A
			PM					18.7	B	N/A	N/A

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
13	Calle Del Sol/Tasman Drive	Santa Clara	AM	11.4	B	10.6	B	12.0	B	0.243	3.1
			PM	17.6	B	17.5	B	38.2	D	0.419	35.4
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.4	C	22.1	C	57.7	E	0.513	65.3
			PM	21.5	C	24.4	C	>180	F	0.850	245.6
15	Renaissance Drive/Tasman Drive	San José ⁱ	AM	23.5	C	22.7	C	19.4	B	0.195	-2.5
			PM	10.3	B	11.4	B	13.1	B	0.150	2.1
16	Vista Montana/Tasman Drive	San José ⁱ	AM	26.2	C	26.1	C	22.5	C	0.243	-3.1
			PM	22.2	C	23.8	C	27.6	C	0.131	6.2
17	Rio Robles/Tasman Drive	San José ⁱ	AM	24.3	C	24.2	C	28.2	C	0.238	7.1
			PM	27.5	C	46.4	D	101.8	F	0.252	75.5
18	North 1st Street/Tasman Drive	San José ⁱ	AM	33.5	C	38.0	D	40.1	D	0.148	2.9
			PM	38.0	D	42.0	D	45.6	D	0.178	7.5
19	Zanker Road/Tasman Drive	San José ⁱ	AM	36.4	D	37.8	D	40.0	D	0.119	2.8
			PM	37.7	D	41.4	D	42.4	D	0.111	1.4
20	McCarthy Boulevard/Tasman Drive	Milpitas	AM	34.0	C	34.2	C	41.9	D	0.144	10.6
			PM	33.0	C	31.8	C	34.3	C	0.170	18.1
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	58.0	E	79.5	E	99.1	F	0.118	36.5
			PM	61.7	E	76.1	E	111.4	F	0.093	60.8
22	Agnew Road De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	46.6	D	51.9	D	107.3	F	0.235	107.2
			PM	57.8	E	79.0	E	107.4	F	0.152	44.5
23	Lick Mill Boulevard/Montague Expressway	Santa Clara County	AM	21.2	C	21.4	C	21.9	C	0.089	5.2
			PM	22.0	C	22.0	C	100.9	F	0.285	138.6
24	North 1st Street/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	54.2	D	67.2	E	79.9	E	-0.032	8.5
			PM	69.0	E	88.9	F	86.9	F	0.226	7.8

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
25	Zanker Road/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	40.8	D	58.4	E	63.7	E	0.096	11.5
			PM	65.4	E	81.8	F	93.2	F	0.080	24.3
26	Montague Expressway/Plumeria Drive River Oaks Parkway	Santa Clara County ^j	AM	40.6	D	89.7	F	88.0	F	0.046	-9.0
			PM	41.5	D	170.5	F	159.7	F	0.045	-15.1
27	Trimble Road/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	49.4	D	47.7	D	47.6	D	0.034	-1.4
			PM	50.9	D	72.7	E	87.3	F	0.052	25.2
28	McCarthy Boulevard O'Toole Avenue/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	37.1	D	48.2	D	54.6	D	0.496	31.2
			PM	62.2	E	63.8	E	66.5	E	0.024	2.3
29	De La Cruz Boulevard/Trimble Road	San José (CMP) ⁱ	AM	29.4	C	28.9	C	33.9	C	0.153	4.9
			PM	32.0	C	31.1	C	35.6	D	0.086	6.4
30	North 1st Street/Trimble Road	San José (CMP) ⁱ	AM	40.2	D	45.0	D	47.8	D	0.062	4.1
			PM	40.8	D	43.8	D	46.4	D	0.059	3.3
31	Zanker Road/Trimble Road	San José (CMP) ⁱ	AM	38.3	D	38.2	D	38.6	D	0.034	0.4
			PM	38.4	D	38.5	D	39.0	D	0.135	6.9
32	North 1st Street/Charcot Avenue	San José ⁱ	AM	26.9	C	26.2	C	28.5	C	0.061	3.7
			PM	26.1	C	23.6	C	23.7	C	0.062	0.1
33	Zanker Road/Charcot Avenue	San José ⁱ	AM	22.0	C	22.0	C	22.1	C	0.017	0.3
			PM	23.9	C	23.9	C	24.3	C	0.045	0.4
34	North 1st Street/Brokaw Road	San José (CMP) ⁱ	AM	37.2	D	47.4	D	50.5	D	0.028	6.8
			PM	43.3	D	58.9	E	73.6	E	0.054	14.4
35	US 101 NB Off-Ramp/Brokaw Road	San José (CMP) ⁱ	AM	26.7	C	44.2	D	35.0	C	-0.164	-14.8
			PM	18.8	B	22.9	C	23.0	C	0.028	0.0
36	Zanker Road/Brokaw Road	San José (CMP) ⁱ	AM	36.7	D	36.7	D	37.8	D	0.030	1.5
			PM	43.1	D	43.1	D	46.2	D	0.110	6.3

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
37	Fair Oaks Avenue/Fair Oaks Way	Sunnyvale	AM	15.2	B	14.9	B	15.2	B	0.024	0.3
			PM	17.7	B	20.4	C	21.0	C	0.021	0.7
38	Fair Oaks Avenue/Weddell Drive	Sunnyvale	AM	12.6	B	18.4	B	18.2	B	0.036	-0.2
			PM	14.8	B	17.2	B	17.5	B	0.031	0.3
39	Fair Oaks Avenue/US 101 NB Ramps	Sunnyvale	AM	15.7	B	16.1	B	15.9	B	0.015	0.4
			PM	21.3	C	22.1	C	24.4	C	0.034	4.7
40	Fair Oaks Avenue/E. Ahawanee Avenue	Sunnyvale	AM	17.3	B	17.2	B	17.3	B	0.037	0.3
			PM	11.7	B	11.6	B	12.4	B	0.018	0.8
41	Fair Oaks Avenue/Duane Avenue	Sunnyvale	AM	27.3	C	27.3	C	28.1	C	0.040	0.7
			PM	30.2	C	30.1	C	30.7	C	0.017	0.8
42	Fair Oaks Avenue/Wolfe Road	Sunnyvale	AM	11.6	B	11.6	B	11.7	B	0.027	0.5
			PM	11.9	B	12.1	B	12.2	B	0.015	0.2
43	Fair Oaks Avenue/Maude Avenue	Sunnyvale	AM	29.3	C	28.8	C	30.2	C	0.027	2.1
			PM	27.3	C	27.3	C	27.6	C	0.012	0.2
44	Fair Oaks Avenue/E. Arques Avenue	Sunnyvale	AM	28.0	C	27.8	C	28.8	C	0.037	1.6
			PM	29.5	C	29.7	C	30.0	C	0.016	0.6
45	Fair Oaks Avenue/Evelyn Avenue	Sunnyvale	AM	27.8	C	27.8	C	28.3	C	0.017	0.7
			PM	26.0	C	26.0	C	26.5	C	0.019	0.5
46	Lawrence Expressway/Sandia Avenue	Santa Clara County	AM	50.5	D	50.9	D	54.7	D	0.024	0.7
			PM	57.9	E	58.4	E	67.0	E	0.085	15.3
47	Lawrence Expressway/US 101 NB Ramps	Santa Clara County	AM	23.1	C	23.1	C	23.3	C	0.106	-0.8
			PM	22.3	C	22.6	C	24.6	C	0.041	2.4
48	Lawrence Expressway/US 101 SB Ramps	Santa Clara County	AM	26.1	C	33.8	C	42.0	D	0.086	-4.3
			PM	87.1	F	90.8	F	84.5	F	0.041	-12.4
49	Lawrence Expressway/Oakmead Parkway	Santa Clara County	AM	46.4	D	46.9	D	55.5	E	0.097	13.9
			PM	51.5	D	52.1	D	58.1	E	0.073	7.4

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
50	Lawrence Expressway/Arques Avenue	Santa Clara County (CMP)	AM	38.3	D	41.2	D	46.4	D	0.117	8.4
			PM	61.4	E	66.9	E	93.3	F	0.121	45.1
51	Lawrence Expressway/Kifer Road	Santa Clara County	AM	27.4	C	27.7	C	43.7	D	0.128	23.8
			PM	48.6	D	50.5	D	54.4	D	0.111	2.8
52	Lawrence Expressway/Reed Avenue Monroe Street ⁱ	Santa Clara County (CMP)	AM	79.7	E	98.2	F	115.0	F	0.074	30.2
			PM	62.1	E	76.2	E	92.1	F	0.072	30.2
53	Lawrence Expressway/Cabrillo Avenue	Santa Clara County	AM	38.4	D	44.0	D	47.9	D	0.023	7.1
			PM	38.5	D	47.1	D	53.9	D	0.041	11.4
54	Lawrence Expressway/Benton Street	Santa Clara County	AM	71.2	E	80.6	F	89.2	F	0.026	14.2
			PM	44.9	D	47.3	D	52.9	D	0.042	9.0
55	Lawrence Expressway/Homestead Road	Santa Clara County (CMP)	AM	63.1	E	73.5	E	79.4	E	0.024	11.2
			PM	51.8	D	56.7	E	63.2	E	0.001	7.1
56	Lawrence Expressway/Pruneridge Avenue	Santa Clara County	AM	55.6	E	62.5	E	63.9	E	0.010	2.2
			PM	45.4	D	48.5	D	54.9	D	0.044	13.4
57	Great America Parkway/SR 237 WB Ramps	San José (CMP) ^j Santa Clara (CMP)	AM	17.5	B	20.9	C	116.5	F	0.489	139.9
			PM	17.5	B	18.9	B	55.3	E	0.524	48.3
58	Great America Parkway/SR 237 EB Ramps	Santa Clara County (CMP)	AM	12.3	B	10.9	B	72.0	E	0.573	90.0
			PM	10.4	B	8.6	A	11.6	B	0.175	3.6
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara County	AM	20.7	C	27.0	C	120.5	F	0.488	108.6
			PM	22.9	C	31.4	C	70.8	E	0.354	61.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara County	AM	18.9	B	19.2	B	83.1	F	0.417	101.9
			PM	26.6	C	26.6	C	48.9	D	0.213	40.2

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection		25.5	C	N/A	N/A		
			PM			21.0	C	N/A	N/A		
62	Great America Parkway/Future Driveway (north of Bunker Hill Lane)	Santa Clara	AM	Future Signalized Intersection		24.2	C	N/A	N/A		
			PM			25.1	C	N/A	N/A		
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.0	B	12.9	B	12.4	B	0.189	-2.7
			PM	15.5	B	15.6	B	16.5	B	0.264	2.9
64	Great America Parkway/Old Glory Lane	Santa Clara	AM	17.2	B	20.0	B	27.0	C	0.036	6.2
			PM	17.7	B	24.4	C	>180	F	0.423	326.5
65	Great America Parkway/Patrick Henry Drive	Santa Clara	AM	20.3	C	19.7	B	19.9	B	0.084	1.5
			PM	24.8	C	25.2	C	85.8	F	0.357	93.5
66	Great America Parkway/Mission College Boulevard ⁱ	Santa Clara (CMP)	AM	39.4	D	37.7	D	42.8	D	0.206	8.1
			PM	55.9	E	44.4	D	59.6	E	0.236	23.3
67	Great America Parkway-Bowers Avenue/US 101 NB Ramps	Santa Clara (CMP)	AM	9.7	A	18.7	B	18.5	B	0.041	0.2
			PM	9.9	A	12.6	B	13.5	B	0.185	2.0
68	Bowers Avenue/US 101 SB Ramps	Santa Clara (CMP)	AM	22.4	C	23.7	C	24.7	C	0.016	0.3
			PM	8.0	A	8.3	A	8.4	A	0.162	0.5
69	Bowers Avenue/Augustine Drive ⁱ	Santa Clara	AM	23.0	C	31.5	C	33.4	C	0.076	-0.1
			PM	25.3	C	44.6	D	72.6	E	0.212	45.9
70	Bowers Avenue/Scott Boulevard ⁱ	Santa Clara (CMP)	AM	29.9	C	31.6	C	36.3	D	0.200	8.2
			PM	31.6	C	35.1	D	52.7	D	0.305	45.2
71	Bowers Avenue/Central Expressway	Santa Clara County (CMP)	AM	47.4	D	49.9	D	54.3	D	0.135	8.4
			PM	46.5	D	64.6	E	112.4	F	0.043	81.2
72	Bowers Avenue/Kifer Road Walsh Avenue	Santa Clara	AM	21.1	C	20.5	C	20.3	C	0.028	-0.4
			PM	25.3	C	25.4	C	26.3	C	0.067	0.9

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
73	Bowers Avenue/Monroe Street	Santa Clara	AM	30.8	C	33.2	C	34.2	C	0.036	1.1
			PM	32.6	C	38.8	D	43.3	D	0.056	5.0
74	Bowers Avenue/El Camino Real	Santa Clara (CMP)	AM	28.7	C	30.4	C	30.9	C	0.018	0.6
			PM	32.3	C	35.5	D	37.9	D	0.045	3.8
75	San Tomas Expressway/Scott Boulevard	Santa Clara County (CMP)	AM	38.9	D	58.4	E	128.0	F	0.225	115.9
			PM	50.1	D	66.2	E	78.1	E	0.162	9.6
76	San Tomas Expressway/Walsh Avenue	Santa Clara County	AM	40.4	D	60.2	E	83.1	F	0.075	34.1
			PM	42.5	D	48.0	D	53.3	D	0.048	7.8
77	San Tomas Expressway/Monroe Street	Santa Clara County (CMP)	AM	71.2	E	103.7	F	124.7	F	0.063	30.3
			PM	47.2	D	55.2	E	59.5	E	0.311	5.1
78	San Tomas Expressway/El Camino Real ⁱ	Santa Clara County (CMP)	AM	64.1	E	71.9	E	86.4	F	0.053	23.9
			PM	62.6	E	57.3	E	61.2	E	0.311	8.5
79	San Tomas Expressway/Benton Street ⁱ	Santa Clara County	AM	78.7	E	41.9	D	44.4	D	0.023	-0.4
			PM	47.6	D	37.8	D	38.7	D	0.03	1.7
80	San Tomas Expressway/Homestead Road ⁱ	Santa Clara County (CMP)	AM	72.6	E	53.0	D	55.1	E	0.055	3.8
			PM	84.5	F	57.9	E	58.2	E	0.010	0.7
81	San Tomas Expressway/Forbes Avenue	Santa Clara County	AM	22.1	C	26.4	C	38.8	D	0.609	30.3
			PM	20.2	C	24.3	C	25.7	C	0.042	0.8
82	San Tomas Expressway/Pruneridge Avenue	Santa Clara County	AM	57.3	E	69.1	E	90.1	F	0.074	32.9
			PM	46.4	D	50.8	D	71.0	E	0.488	38.4
83	San Tomas Expressway/Saratoga Avenue	Santa Clara County (CMP)	AM	63.0	E	73.7	E	93.1	F	0.079	31.2
			PM	50.8	D	55.4	E	68.7	E	0.067	24.4

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
84	Gold Street/Gold Street Connector	San José ⁱ	AM	22.6	C	22.7	C	113.8	F	0.775	102.8
			PM	21.5	C	21.7	C	29.8	C	0.451	13.6
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection				51.7	D	N/A	N/A
			PM					34.7	C	N/A	N/A
86	Lafayette Street/Future Driveway (south of Great America Way)	Santa Clara	AM	Future Signalized Intersection				17.1	B	N/A	N/A
			PM					17.4	B	N/A	N/A
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection				32.3	C	N/A	N/A
			PM					28.6	C	N/A	N/A
90	Lafayette Street/Calle De Luna	Santa Clara	AM	14.8	B	15.5	B	34.9	C	0.565	25.8
			PM	18.8	B	19.2	B	22.6	C	0.392	4.7
91	Lafayette Street/Hogan Drive	Santa Clara	AM	10.3	B	9.8	A	8.9	A	0.360	1.7
			PM	10.8	B	10.5	B	9.6	A	0.313	1.9
92	Lafayette Street/Eisenhower Drive	Santa Clara	AM	10.7	B	10.4	B	12.4	B	0.387	3.3
			PM	8.2	A	8.1	A	8.5	A	0.327	1.9
93	Lafayette Street/Hope Drive	Santa Clara	AM	21.0	C	20.5	C	18.8	B	0.377	1.6
			PM	13.9	B	13.7	B	13.2	B	0.318	0.8
94	Lafayette Street/Agnew Road	Santa Clara	AM	38.2	D	38.7	D	38.1	D	0.401	1.3
			PM	40.2	D	41.0	D	47.2	D	0.338	10.3
95	Lafayette Street/Palm Drive	Santa Clara	AM	7.4	A	7.2	A	8.5	A	0.371	3.2
			PM	15.0	B	14.3	B	12.2	B	0.317	-0.7
96	Lafayette Street/Montague Expressway WB Ramps	Santa Clara	AM	32.4	C	34.1	C	53.5	D	0.401	20.6
			PM	24.8	C	26.1	C	25.3	C	0.160	2.5
97	Lafayette Street/Montague Expressway EB Ramps	Santa Clara	AM	15.1	B	14.0	B	15.6	B	0.176	2.2
			PM	12.5	B	13.0	B	11.4	B	0.046	-4.4

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
98	Lafayette Street/Central Expressway	Santa Clara County (CMP)	AM	55.2	E	60.5	E	77.3	E	0.474	24.2
			PM	61.2	E	63.5	E	113.4	F	0.062	52.6
99	Lafayette Street/Walsh Avenue	Santa Clara	AM	12.4	B	12.7	B	13.4	B	0.090	1.1
			PM	18.6	B	19.2	B	19.8	B	0.061	1.3
100	Lafayette Street/Martin Avenue	Santa Clara	AM	19.7	B	20.0	B	20.2	C	0.088	0.4
			PM	19.4	B	19.6	B	19.9	B	0.049	0.3
101	Lafayette Street/Mathew Street- Memorex Drive	Santa Clara	AM	9.5	A	9.7	A	11.6	B	0.103	2.4
			PM	10.0	A	10.1	B	10.9	B	0.058	1.1
102	Lafayette Street/El Camino Real	Santa Clara (CMP)	AM	41.1	D	41.7	D	44.7	D	0.086	4.4
			PM	38.9	D	39.6	D	40.9	D	0.063	1.6
103	Lafayette Street/Lewis Street	Santa Clara	AM	9.6	A	9.5	A	8.8	A	0.084	-0.9
			PM	35.1	D	37.2	D	43.7	D	0.047	11.7
104	Lafayette Street/Benton Street	Santa Clara	AM	18.4	B	18.4	B	18.0	B	0.077	-0.7
			PM	16.9	B	17.1	B	17.0	B	0.017	0.1
105	Lafayette Street/Homestead Road	Santa Clara	AM	10.3	B	10.2	B	11.2	B	0.081	1.3
			PM	11.0	B	10.9	B	11.2	B	0.005	0.4
106	Lafayette Street/Market Street	Santa Clara	AM	34.2	C	34.3	C	39.6	D	0.132	5.7
			PM	27.9	C	28.3	C	33.4	C	0.098	4.9
107	Lafayette Street/Poplar Street	Santa Clara	AM	13.9	B	13.8	B	16.3	B	0.047	3.4
			PM	10.2	B	10.1	B	10.6	B	0.027	0.4
110	North 1st Street/Nortech Parkway	San José ⁱ	AM	13.9	B	13.9	B	14.4	B	0.008	0.4
			PM	20.1	C	20.1	C	15.0	B	0.196	-3.9
111	North 1st Street/SR 237 WB Ramps	San José (CMP) ^j	AM	15.6	B	15.6	B	15.7	B	0.006	0.1
			PM	19.3	B	20.2	C	28.1	C	0.209	8.4
112	North 1st Street/SR 237 EB Ramps	San José (CMP) ^j	AM	23.9	C	24.8	C	24.9	C	0.010	0.2
			PM	20.9	C	21.3	C	29.8	C	0.193	11.1

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
113	North 1st Street/Vista Montana	San José ⁱ	AM	30.4	C	30.8	C	30.9	C	0.004	0.2
			PM	36.4	D	36.1	D	36.2	D	0.007	0.2
115	Lick Mill Boulevard/Hope Drive	Santa Clara	AM	26.6	C	26.6	C	23.8	C	0.121	-11.6
			PM	23.6	C	23.6	C	21.3	C	0.310	-1.6
117	Agnew Road/Sun Fire Way	Santa Clara	AM	10.7	B	10.4	B	10.7	B	0.008	0.1
			PM	17.6	B	17.4	B	17.6	B	0.013	0.3
118	De La Cruz Boulevard/Greenwood Drive	Santa Clara	AM	9.5	A	9.3	A	7.4	A	0.128	-2.7
			PM	8.3	A	8.2	A	6.4	A	0.072	-3.0
119	De La Cruz Boulevard/Aldo Avenue	Santa Clara	AM	16.5	B	16.5	B	13.7	B	0.099	-6.0
			PM	16.0	B	16.0	B	16.9	B	0.168	0.4
120	De La Cruz Boulevard/Laurelwood Road	Santa Clara	AM	15.7	B	15.9	B	51.2	D	0.164	37.6
			PM	16.7	B	16.7	B	23.6	C	0.225	7.2
121	De La Cruz Boulevard/Central Expressway	Santa Clara County (CMP)	AM	93.7	F	115.7	F	129.7	F	0.053	19.3
			PM	46.5	D	43.7	D	73.2	E	0.206	57.0
122	De La Cruz Boulevard/Reed Avenue	Santa Clara	AM	11.7	B	12.2	B	12.8	B	0.027	0.7
			PM	13.6	B	14.3	B	15.9	B	0.047	1.9
123	Great America Parkway/Gold Street Connector	San José/Santa Clara	AM	11.8	B	11.8	B	34.1	C	0.637	21.3
			PM	13.1	B	13.1	B	12.5	B	0.116	-2.5
124	Scott Boulevard/Central Expressway	Santa Clara County (CMP)	AM	46.8	D	45.9	D	47.2	D	0.039	2.3
			PM	66.7	E	71.7	E	87.1	F	0.037	29.0
125	San Tomas Expressway/Stevens Creek Boulevard	Santa Clara County (CMP)	AM	64.8	E	63.5	E	74.0	E	0.067	17.2
			PM	66.6	E	59.9	E	61.0	E	0.039	-0.7

Table 3.3-17. Existing with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
Notes:											
a.	CMP = Congestion Management Program intersection (VTA)										
b.	AM = morning peak hour, PM = evening peak hour.										
c.	"Counted Volumes" presents the delay and LOS for intersections, using existing intersection geometry and existing traffic counts.										
d.	"Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus vehicle trips from projects that are currently under construction (see Appendix 3.3-B and Appendix 3.3-D).										
e.	Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 <i>Highway Capacity Manual</i> , with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.										
f.	LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 <i>Highway Capacity Manual</i> .										
g.	Change in critical V/C ratio between existing and existing with-Project conditions.										
h.	Change in average critical movement delay between existing and existing with-Project conditions.										
i.	Geometry has been modified to include the improvements for projects that are under construction, as outlined in Appendix 3.3-D.										
j.	An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.										
k.	Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.										
Bold text indicates unacceptable operations, according to the jurisdiction's LOS standard.											
Bold and highlighted indicates a significant impact.											
Source: Fehr & Peers, September 2015.											

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/	Peak	Background ^c	Background with Project
----	--------------	---------------	------	-------------------------	-------------------------

		CMP ^a	Hour ^b	Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
1	Fair Oaks Avenue/Tasman Drive	Sunnyvale	AM	30.0	C	30.6	C	0.009	0.8
			PM	37.3	D	39.1	D	0.056	3.2
2	Vienna Drive/Tasman Drive	Sunnyvale	AM	14.5	B	14.8	B	0.026	0.2
			PM	12.7	B	12.7	B	0.016	0.1
3	Lawrence Expressway/Tasman Drive	Santa Clara County (CMP)	AM	70.6	E	85.3	F	0.206	29.8
			PM	81.9	F	106.5	F	0.153	47.2
4	Birchwood Drive/Tasman Drive	Sunnyvale	AM	11.0	B	11.3	B	0.077	0.5
			PM	11.8	B	12.6	B	0.035	0.7
5	Reamwood Avenue/Tasman Drive	Sunnyvale	AM	7.8	A	9.5	A	0.125	2.3
			PM	10.0	A	12.3	B	0.079	3.6
6	Patrick Henry Drive/Tasman Drive	Santa Clara	AM	15.8	B	16.4	B	0.109	0.8
			PM	17.7	B	29.9	C	0.190	16.0
7	Old Ironside Drive/Tasman Drive	Santa Clara	AM	17.5	B	16.8	B	0.098	0.9
			PM	17.2	B	21.1	C	0.222	5.9
8	Mat America Parkway/Tasman Drive ^h	Santa Clara (CMP)	AM	34.7	C	89.9	F	0.342	96.3
			PM	51.8	D	>180	F	0.665	300.6
9	Convention Center/Tasman Drive ^h	Santa Clara	AM	17.3	B	46.0	D	0.234	47.5
			PM	21.9	C	120.7	F	0.298	137.1
10	Future Driveway (west of Centennial Boulevard)/Tasman Drive ^h	Santa Clara	AM	Future Signalized Intersection		6.3	A	N/A	N/A
			PM	Future Signalized Intersection		27.6	C	N/A	N/A
11	Centennial Boulevard/Tasman Drive ^h	Santa Clara	AM	20.4	C	110.3	F	0.477	129.3
			PM	24.1	C	>180	F	0.569	191.4
12	Future Driveway (east of Centennial Boulevard)/Tasman Drive ^h	Santa Clara	AM	Future Signalized Intersection		6.6	A	N/A	N/A
			PM	Future Signalized Intersection		20.5	C	N/A	N/A
13	Calle Del Sol/Tasman Drive ^h	Santa Clara	AM	13.2	B	46.7	D	0.338	53.8
			PM	19.0	B	68.8	E	0.451	88.7
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	23.1	C	92.8	F	0.517	122.5
			PM	32.3	C	148.3	F	0.594	163.3
15	Renaissance Drive/Tasman Drive	San José ⁱ	AM	20.4	C	24.2	C	0.278	7.6
			PM	11.5	B	13.0	B	0.117	2.1

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
16	Vista Montana/Tasman Drive	San José ⁱ	AM	24.2	C	25.7	C	0.231	3.4
			PM	24.4	C	27.1	C	0.095	5.2
17	Rio Robles/Tasman Drive	San José ⁱ	AM	26.3	C	62.1	E	0.237	49.2
			PM	54.2	D	68.6	E	0.083	22.9
18	North 1st Street/Tasman Drive	San José ⁱ	AM	45.3	D	74.1	E	0.215	41.9
			PM	45.3	D	48.3	D	0.064	3.5
19	Zanker Road/Tasman Drive	San José ⁱ	AM	38.7	D	39.7	D	0.006	1.1
			PM	44.3	D	45.0	D	0.026	1.4
20	McCarthy Boulevard/Tasman Drive	Milpitas	AM	35.0	C	43.0	D	0.146	12.2
			PM	38.1	D	39.2	D	0.021	1.0
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	158.1	F	167.3	F	0.054	20.2
			PM	109.4	F	132.5	F	0.114	38.6
22	Agnew Road-De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	90.9	F	>180	F	0.384	289.1
			PM	121.5	F	145.6	F	0.196	62.3
23	Lick Mill Boulevard/Montague Expressway	Santa Clara County	AM	20.3	C	22.4	C	0.102	5.1
			PM	24.9	C	54.1	D	0.172	52.0
24	North 1st Street/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	77.7	E	95.7	F	0.082	22.9
			PM	125.8	F	138.9	F	0.030	11.4
25	Zanker Road/Montague Expressway ^h	Santa Clara County (CMP) ⁱ	AM	48.8	E	55.4	E	0.183	15.1
			PM	100.1	F	113.3	F	0.069	27.6
26	Montague Expressway/Plumeria Drive-River Oaks Parkway	Santa Clara County ⁱ	AM	92.4	F	95.4	F	0.074	-1.1
			PM	157.7	F	155.6	F	0.007	-2.2
27	Trimble Road/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	48.3	D	47.8	D	0.055	-3.5
			PM	90.0	F	94.4	F	0.047	6.8
28	McCarthy Boulevard-O'Toole Avenue/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	48.1	D	47.1	D	0.440	21.2
			PM	67.6	E	67.4	E	0.033	-6.0

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
29	De La Cruz Boulevard/Trimble Road	San José (CMP) ⁱ	AM	30.8	C	45.8	D	0.194	23.8
			PM	41.4	D	93.4	F	0.268	67.6
30	North 1st Street/Trimble Road	San José (CMP) ⁱ	AM	52.8	D	61.9	E	0.068	15.3
			PM	48.5	D	54.6	D	0.058	7.1
31	Zanker Road/Trimble Road ^g	San José (CMP) ⁱ	AM	38.4	D	38.8	D	0.013	0.1
			PM	37.3	D	37.6	D	0.025	0.1
32	North 1st Street/Charcot Avenue	San José ⁱ	AM	27.5	C	30.6	C	0.056	4.9
			PM	27.5	C	28.1	C	0.055	0.7
33	Zanker Road/Charcot Avenue ^h	San José ⁱ	AM	23.1	C	22.9	C	0.023	-0.3
			PM	26.0	C	25.9	C	0.019	0.1
34	North 1st Street/Brokaw Road	San José (CMP) ⁱ	AM	69.1	E	79.4	E	0.060	21.8
			PM	77.8	E	105.0	F	0.079	32.6
35	US 101 NB Off-Ramp/Brokaw Road	San José (CMP) ⁱ	AM	36.5	D	37.4	D	0.027	1.2
			PM	22.6	C	22.2	C	0.042	-0.2
36	Zanker Road/Brokaw Road ^h	San José (CMP) ⁱ	AM	34.9	C	35.2	D	0.075	3.1
			PM	50.2	D	50.6	D	0.006	0.5
37	Fair Oaks Avenue/Fair Oaks Way	Sunnyvale	AM	17.4	B	17.5	B	0.003	0.1
			PM	26.7	C	26.7	C	0.000	0.0
38	Fair Oaks Avenue/Weddell Drive	Sunnyvale	AM	20.5	C	20.5	C	0.004	0.0
			PM	18.8	B	19.8	B	0.032	1.4
39	Fair Oaks Avenue/US 101 NB Ramps	Sunnyvale	AM	21.6	C	22.2	C	0.013	1.1
			PM	32.5	C	35.9	D	0.025	7.2
40	Fair Oaks Avenue/E. Ahawane Avenue	Sunnyvale	AM	17.4	B	17.4	B	0.000	0.0
			PM	12.3	B	12.3	B	0.002	0.0
41	Fair Oaks Avenue/Duane Avenue	Sunnyvale	AM	28.2	C	28.4	C	0.000	0.0
			PM	32.4	C	33.8	C	0.029	1.1
42	Fair Oaks Avenue/Wolfe Road	Sunnyvale	AM	11.6	B	11.7	B	0.003	0.1
			PM	12.5	B	12.8	B	0.017	0.3

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
43	Fair Oaks Avenue/Maude Avenue	Sunnyvale	AM	29.1	C	29.3	C	0.000	0.0
			PM	31.0	C	31.7	C	0.031	1.0
44	Fair Oaks Avenue/E. Arques Avenue	Sunnyvale	AM	29.5	C	30.3	C	0.022	0.9
			PM	34.0	C	35.7	D	0.046	2.6
45	Fair Oaks Avenue/Evelyn Avenue	Sunnyvale	AM	28.2	C	28.4	C	0.006	0.3
			PM	27.2	C	27.7	C	0.018	0.8
46	Lawrence Expressway/Sandia Avenue	Santa Clara County	AM	51.6	D	54.4	D	0.010	0.5
			PM	63.0	E	64.8	E	0.041	4.7
47	Lawrence Expressway/US 101 NB Ramps	Santa Clara County	AM	23.2	C	23.3	C	0.095	-0.6
			PM	23.8	C	28.0	C	0.121	6.1
48	Lawrence Expressway/US 101 SB Ramps	Santa Clara County	AM	33.9	C	31.3	C	0.098	-5.6
			PM	82.3	F	74.6	E	0.047	-11.8
49	Lawrence Expressway/Oakmead Parkway	Santa Clara County	AM	49.3	D	68.0	E	0.094	30.3
			PM	57.5	E	74.8	E	0.086	30.8
50	Lawrence Expressway/Arques Avenue	Santa Clara County (CMP)	AM	44.2	D	58.5	E	0.122	24.5
			PM	97.1	F	127.5	F	0.120	54.1
51	Lawrence Expressway/Kifer Road	Santa Clara County	AM	29.7	C	43.9	D	0.097	22.3
			PM	67.5	E	79.0	E	0.051	21.1
52	Lawrence Expressway/Reed Avenue-Monroe Street ^h	Santa Clara County (CMP)	AM	107.8	F	121.3	F	0.056	23.6
			PM	112.9	F	129.6	F	0.066	31.4
53	Lawrence Expressway/Cabrillo Avenue	Santa Clara County	AM	62.4	E	75.4	E	0.037	21.8
			PM	83.9	F	98.6	F	0.044	24.0
54	Lawrence Expressway/Benton Street	Santa Clara County	AM	113.2	F	122.9	F	0.034	15.4
			PM	74.2	E	86.0	F	0.172	33.4
55	Lawrence Expressway/Homestead Road	Santa Clara County (CMP)	AM	92.1	F	98.6	F	0.028	12.5
			PM	99.0	F	115.0	F	0.045	19.9
56	Lawrence Expressway/Pruneridge Avenue	Santa Clara County	AM	72.7	E	79.9	E	0.023	13.0
			PM	81.1	F	85.6	F	0.219	-5.5

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
57	Great America Parkway/SR 237 WB Ramps	San José	AM	26.5	C	104.7	F	0.356	117.6
		(CMP) ⁱ Santa Clara (CMP)	PM	19.5	B	72.8	E	0.532	72.0
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	11.9	B	68.8	E	0.485	86.7
			PM	10.9	B	23.4	C	0.268	21.9
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	29.3	C	123.1	F	0.448	107.7
			PM	34.7	C	139.3	F	0.467	155.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	20.6	C	91.6	F	0.387	118.7
			PM	37.2	D	112.2	F	0.243	124.0
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized		24.9	24.9	C	N/A
			PM	Intersection		22.7	22.7	C	N/A
62	Great America Parkway/Future Driveway (north of Bunker Hill Lane)	Santa Clara	AM	Future Signalized		23.9	23.9	C	N/A
			PM	Intersection		25.8	25.8	C	N/A
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.2	B	12.5	B	0.104	-1.0
			PM	15.7	B	16.6	B	0.233	2.7
64	Great America Parkway/Old Glory Lane	Santa Clara	AM	76.0	E	138.6	F	0.198	118.8
			PM	70.4	E	>180	F	0.431	334.6
65	Great America Parkway/Patrick Henry Drive	Santa Clara	AM	25.4	C	45.7	D	0.144	47.8
			PM	73.9	E	>180	F	0.414	202.8
66	Great America Parkway/Mission College Boulevard ^h	Santa Clara (CMP)	AM	47.0	D	68.5	E	0.203	34.7
			PM	51.9	D	108.7	F	0.272	83.8
67	Great America Parkway-Bowers Avenue/US 101 NB Ramps	Santa Clara (CMP)	AM	18.5	B	18.5	B	0.056	0.5
			PM	13.9	B	19.2	B	0.143	7.6
68	Bowers Avenue/US 101 SB Ramps	Santa Clara (CMP)	AM	25.5	C	27.0	C	0.031	0.8
			PM	8.7	A	10.0	A	0.115	1.9
69	Bowers Avenue/Augustine Drive ^h	Santa Clara	AM	34.6	C	36.4	D	0.117	4.1
			PM	68.3	E	115.8	F	0.175	69.6

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
70	Bowers Avenue/Scott Boulevard ^h	Santa Clara (CMP)	AM	32.7	C	40.6	D	0.171	13.1
			PM	39.4	D	62.1	E	0.210	54.4
71	Bowers Avenue/Central Expressway	Santa Clara County (CMP)	AM	80.3	F	94.3	F	0.118	25.4
			PM	117.1	F	147.9	F	0.068	23.4
72	Bowers Avenue/Kifer Road- Walsh Avenue	Santa Clara	AM	22.2	C	22.3	C	0.030	0.2
			PM	32.3	C	34.9	C	0.049	4.5
73	Bowers Avenue/Monroe Street	Santa Clara	AM	35.9	D	36.3	D	0.019	0.5
			PM	48.6	D	56.1	E	0.038	8.4
74	Bowers Avenue/El Camino Real ^h	Santa Clara (CMP)	AM	35.3	D	35.9	D	0.009	1.1
			PM	58.8	E	61.7	E	0.015	5.1
75	San Tomas Expressway/Scott Boulevard	Santa Clara County (CMP)	AM	99.6	F	167.0	F	0.207	109.2
			PM	79.7	E	90.9	F	0.336	17.8
76	San Tomas Expressway/Walsh Avenue	Santa Clara County	AM	101.9	F	118.9	F	0.052	26.3
			PM	68.4	E	76.4	E	0.043	6.9
77	San Tomas Expressway/Monroe Street	Santa Clara County (CMP)	AM	158.1	F	171.4	F	0.038	21.0
			PM	69.4	E	71.3	E	0.006	3.2
78	San Tomas Expressway/El Camino Real ^h	Santa Clara County (CMP)	AM	142.0	F	152.9	F	0.035	18.7
			PM	92.8	F	101.6	F	0.038	16.0
79	San Tomas Expressway/Benton Street ^h	Santa Clara County	AM	77.0	E	88.7	F	0.047	19.3
			PM	55.9	E	57.5	E	0.021	3.3
80	San Tomas Expressway/Homestead Road ^h	Santa Clara County (CMP)	AM	69.1	E	71.9	E	0.028	5.5
			PM	74.6	E	79.3	E	0.024	8.2
81	San Tomas Expressway/Forbes Avenue	Santa Clara County	AM	64.8	E	75.5	E	0.035	17.8
			PM	43.2	D	48.4	D	0.022	10.4
82	San Tomas Expressway/Pruneridge Avenue	Santa Clara County	AM	128.3	F	139.4	F	0.051	20.4
			PM	81.5	F	85.9	F	0.024	7.7
83	San Tomas Expressway/Saratoga Avenue	Santa Clara County (CMP)	AM	132.3	F	142.6	F	0.035	18.5
			PM	75.3	E	80.4	F	0.019	8.6

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
84	Gold Street/Gold Street Connector	San José ⁱ	AM	23.3	C	115.8	F	0.747	113.2
			PM	21.7	C	34.4	C	0.515	20.2
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection		54.8	D	N/A	N/A
			PM			35.7	D	N/A	N/A
86	Lafayette Street/Future Driveway (south of Great America Way)	Santa Clara	AM	Future Signalized Intersection		16.9	B	N/A	N/A
			PM			18.7	B	N/A	N/A
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection		31.4	C	N/A	N/A
			PM			31.8	C	N/A	N/A
90	Lafayette Street/Calle De Luna	Santa Clara	AM	16.4	B	70.3	E	0.581	66.4
			PM	19.6	B	24.4	C	0.453	8.7
91	Lafayette Street/Hogan Drive	Santa Clara	AM	10.6	B	10.5	B	0.424	3.4
			PM	10.6	B	11.1	B	0.377	4.1
92	Lafayette Street/Eisenhower Drive	Santa Clara	AM	10.5	B	19.1	B	0.440	11.9
			PM	7.9	A	10.5	B	0.393	5.0
93	Lafayette Street/Hope Drive	Santa Clara	AM	20.1	C	21.3	C	0.426	5.8
			PM	14.3	B	18.4	B	0.343	1.7
94	Lafayette Street/Agnew Road	Santa Clara	AM	38.1	D	44.1	D	0.431	11.7
			PM	41.5	D	56.1	E	0.361	21.5
95	Lafayette Street/Palm Drive	Santa Clara	AM	7.5	A	10.3	B	0.409	5.8
			PM	14.5	B	12.3	B	0.307	-1.0
96	Lafayette Street/Montague Expressway WB Ramps	Santa Clara	AM	37.7	D	87.8	F	0.507	59.1
			PM	35.7	D	32.6	C	0.142	-33.5
97	Lafayette Street/Montague Expressway EB Ramps	Santa Clara	AM	13.8	B	15.7	B	0.187	2.7
			PM	12.3	B	12.4	B	0.162	0.6
98	Lafayette Street/Central Expressway	Santa Clara County (CMP)	AM	118.5	F	129.0	F	0.038	2.8
			PM	90.9	F	118.8	F	0.065	42.8
99	Lafayette Street/Walsh Avenue	Santa Clara	AM	13.2	B	14.2	B	0.084	1.6

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
100	Lafayette Street/Martin Avenue	Santa Clara	PM	20.5	C	20.7	C	0.039	1.0
			AM	21.7	C	22.1	C	0.082	0.8
			PM	24.8	C	26.7	C	0.063	2.6
101	Lafayette Street/Mathew Street- Memorex Drive	Santa Clara	AM	12.3	B	16.2	B	0.084	5.1
			PM	12.0	B	12.6	B	0.030	1.0
102	Lafayette Street/El Camino Real ^h	Santa Clara (CMP)	AM	53.4	D	64.4	E	0.078	18.1
			PM	45.9	D	49.6	D	0.062	6.6
103	Lafayette Street/Lewis Street	Santa Clara	AM	8.7	A	8.0	A	0.078	-0.5
			PM	73.8	E	89.4	F	0.065	25.9
104	Lafayette Street/Benton Street	Santa Clara	AM	17.9	B	17.4	B	0.058	-0.3
			PM	16.7	B	16.4	B	0.029	0.0
105	Lafayette Street/Homestead Road	Santa Clara	AM	10.4	B	10.1	B	0.051	-0.1
			PM	10.4	B	10.2	B	0.025	-0.2
106	Lafayette Street/Market Street	Santa Clara	AM	36.7	D	38.9	D	0.069	2.2
			PM	31.4	C	35.4	D	0.063	4.2
107	Lafayette Street/Poplar Street	Santa Clara	AM	13.7	B	12.9	B	0.056	-0.3
			PM	10.3	B	10.1	B	0.029	0.2
110	North 1st Street/Nortech Parkway	San José	AM	13.1	B	13.1	B	0.000	0.0
			PM	19.6	B	14.6	B	0.191	-4.3
111	North 1st Street/SR 237 WB Ramps	San José (CMP) ⁱ	AM	15.6	B	15.9	B	0.010	0.3
			PM	21.4	C	34.5	C	0.203	14.2
112	North 1st Street/SR 237 EB Ramps	San José (CMP) ⁱ	AM	29.2	C	29.2	C	0.000	0.0
			PM	27.4	C	53.5	D	0.192	34.1
113	North 1st Street/Vista Montana	San José ⁱ	AM	29.7	C	29.7	C	0.000	0.0
			PM	36.9	D	36.8	D	0.020	0.4
115	Lick Mill Boulevard/Hope Drive	Santa Clara	AM	26.7	C	24.2	C	0.080	-11.7
			PM	23.2	C	26.9	C	0.187	6.3
117	Agnew Road/Sun Fire Way	Santa Clara	AM	10.6	B	10.6	B	0.000	0.0

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
			PM	17.7	B	16.1	B	0.062	-1.4
118	De La Cruz Boulevard/Greenwood Drive	Santa Clara	AM	8.4	A	7.2	A	0.159	-1.7
			PM	7.4	A	7.4	A	0.186	-7.4
119	De La Cruz Boulevard/Aldo Avenue	Santa Clara	AM	16.4	B	14.5	B	0.171	-4.7
			PM	17.4	B	25.7	C	0.301	11.7
120	De La Cruz Boulevard/Laurelwood Road	Santa Clara	AM	27.7	C	141.9	F	0.196	120.2
			PM	21.0	C	91.3	F	0.325	76.7
121	De La Cruz Boulevard/Central Expressway	Santa Clara County (CMP)	AM	>180	F	>180	F	0.055	31.5
			PM	97.8	F	111.3	F	0.030	22.7
122	De La Cruz Boulevard/Reed Avenue	Santa Clara	AM	16.8	B	19.1	B	0.019	2.9
			PM	35.6	D	40.0	D	0.013	6.2
123	Great America Parkway/Gold Street Connector	San José Santa Clara	AM	11.9	B	29.1	C	0.577	15.9
			PM	13.6	B	13.0	B	0.152	-2.1
124	Scott Boulevard/Central Expressway	Santa Clara County (CMP)	AM	55.2	E	56.5	E	0.017	2.7
			PM	150.1	F	164.7	F	0.027	23.6
125	San Tomas Expressway/Stevens Creek Boulevard	Santa Clara County (CMP)	AM	118.7	F	122.0	F	0.032	5.5
			PM	65.4	E	71.5	E	0.084	5.1

Table 3.3-18. Background with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project				
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g	
Notes:										
a.	CMP = Congestion Management Program intersection (VTA).									
b.	AM = morning peak hour, PM = evening peak hour									
c.	"Background" presents the delay and LOS for intersections using 2020 geometry and traffic volumes estimated and the VTA travel demand model.									
d.	Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 <i>Highway Capacity Manual</i> , with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.									
e.	LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 <i>Highway Capacity Manual</i> .									
f.	Change in critical V/C ratio between background and background with-Project conditions.									
g.	Change in average critical movement delay between background and background with-Project conditions.									
h.	Geometry has been modified to include the improvements for projects under construction and planned projects under background conditions, as outlined in Appendix 3.3-D.									
i.	An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.									
j.	Maximum left/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.									
Bold text indicates unacceptable operations according to the jurisdiction's LOS standard.										
Bold and highlighted indicates a significant impact.										
Source: Fehr & Peers, September 2015.										

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
3	Lawrence Expressway/ Tasman Drive	Santa Clara County (CMP)	No feasible mitigation (no right-of-way is available).	N/A	0%	x	x	AM	---	---	SU	---	---	SU
								PM	---	---	SU	---	---	SU
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right- turn lane and add a third westbound left- turn lane.	Yes	100%	x	x	AM	34.0	C	LTS	88.6	F	SU
								PM	100.3	F	SU	162.1	F	SU
9	Convention Center/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	x	AM	---	---	LTS	---	---	LTS
								PM	---	---	SU	---	---	SU
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		x	AM	---	---	LTS	---	---	SU
								PM	---	---	SU	---	---	SU
13	Calle Del Sol/Tasman Drive*	Santa Clara	Add a westbound right-turn lane. Reconfigure southbound approaches to include two left-turn lanes and one right-turn lane with overlap phase.	Yes	100%		x	AM				13.8	B	LTS
								PM				18.8	B	LTS

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
14	Lick Mill Boulevard/ Tasman Drive	Santa Clara	Partial Mitigation: Reconfigure northbound and southbound approach to two left-turn lanes, one through lane, and one right-turn lane. Change the northbound/southbou nd signal phasing from split to protective. Add a second westbound left-turn lane.	Yes	100%	x	x	AM PM	42.2	D	LTS	72.7	E	SU
									83.8	F	SU	56.7	E	SU
17	Rio Robles/ Tasman Drive	San José ^b	Partial Mitigation: Widen the southbound approach to include one left-turn lane and one shared through/right-turn lane. Change the northbound/southbou nd signal phasing from split to protected. <u>Install crosswalk treatments that enhance visibility and traffic surveillance cameras at the intersection (but without any communications).</u>	Yes	Pay North San José fee or fair- share contribution of partial mitigation	x	x	AM PM	27.8	C	SU	55.6	E	SU
									47.0	D	SU	34.4	C	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
18	North 1st Street/ Tasman Drive	San José ^b	No feasible mitigation (no right-of-way is available). Off-setting Mitigation: A new bus/shuttle stop (including right-of-way) is a proposed improvement at this location.**	Yes	Pay fair-share contribution of off-setting mitigation		x	AM PM				---	---	SU SU
21	Mission College Boulevard/ Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a third southbound left-turn lane (VTP 2040 #X14).**	Possible	% of Total Traffic	x	x	AM PM	99.1 99.3	F F	SU SU	167.2 111.2	F F	SU SU
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic	x	x	AM PM	--- ---	--- ---	SU SU	--- ---	--- ---	SU SU
22	Agnew Road-De La Cruz Boulevard/ Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a second northbound left-turn lane.	Possible	100%	x	x	AM PM	70.2 93.5	E F	SU SU	153.8 124.2	F F	SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
23	Lick Mill Boulevard/ Montague Expressway	Santa Clara County	Add a third southbound left-turn lane.	No	100%	x		AM PM	21.3 59.4	C E	SU SU			
24	North 1st Street/ Montague Expressway	Santa Clara County (CMP) ^b	No feasible mitigation (no right-of-way is available). Off-setting Mitigation: Future interchange, which includes grade separation of the light rail, is planned.**	Yes	% of Total Traffic	x	x	AM PM	--- ---	--- ---	SU SU	--- ---	--- ---	SU SU
25	Zanker Road/ Montague Expressway*	Santa Clara County (CMP) ^b	Widen Zanker Road to three lanes in each direction and add second northbound and southbound left- turn lanes with no separate right-turn lanes (North San José Deficiency Plan, January 2006).** Off-setting Mitigation: HOV-type signal improvements that could support future Bus Rapid Transit facilities.**	Yes	% of Total Traffic	x		AM PM AM PM	49.1 60.7	D E	SU SU			--- --- --- --- SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
26	Montague Expressway/ Plumeria Drive-River Oaks Parkway	Santa Clara County ^b	Partial Mitigation: Install an eastbound right-turn overlap phase and limit northbound U-turns.	No	% of Total Traffic	x	x	AM PM	87.5	F	SU	94.8	F	SU
									83.5	F	SU	82.8	F	SU
27	Trimble Road/ Montague Expressway	Santa Clara County (CMP) ^b	A "fly-over" is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). <u>The City of San José is fully responsible for implementing this improvement.</u>	Yes	0% of Total Traffic	x	x	AM	---	---	SU	---	---	SU
								PM	---	---	SU	---	---	SU
28	McCarthy Boulevard- O'Toole Avenue/ Montague Expressway	Santa Clara County (CMP) ^b	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic			AM				---	---	SU
								PM				---	---	SU
29	De La Cruz	San José	Add a third	Yes	Pay North San		x	AM				45.7	D	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Boulevard/ Trimble Road	(CMP) ^b	southbound left-turn lane.		José fee or fair- share contribution of off-setting mitigation			PM				62.1	E	SU
30	North 1st Street/ Trimble Road	San José (CMP) ^b	Add a second eastbound left-turn lane and add an exclusive westbound right-turn lane (North San José Deficiency Plan, January 2006).	Yes	Pay North San José fee or fair- share contribution of mitigation		x	AM PM				47.8 53.0	D D	SU SU
34	North 1st Street/ Brokaw Road	San José (CMP) ^b	Partial Mitigation: Add a third westbound left- turn lane.** Off-setting Mitigation: Bicycle facilities along North 1st Street between Brokaw Road and Gish Road; continue the sidewalk on the southeast corner of the intersection to the US 101 northbound loop on-ramp.	No	Pay North San José fee or fair- share contribution of mitigation	x	x	AM PM	50.2 66.3	D E	SU SU	79.1 94.5	E F	SU SU
48	Lawrence Expressway/ US 101 SB Ramps	Santa Clara County	Convert eastbound left-turn lane to a shared left-/right-turn lane.	No	100%	x		AM PM	37.4 56.8	D E	SU SU			

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
50	Lawrence Expressway/ Arques Avenue	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).	Yes	% of Total Traffic	x	x	AM PM	---	---	SU	---	---	SU
									---	---	SU	---	---	SU
52	Lawrence Expressway/ Reed Avenue- Monroe Street*	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).	Yes	% of Total Traffic	x	x	AM PM	---	---	SU	---	---	SU
									---	---	SU	---	---	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
53	Lawrence Expressway/ Cabrillo Avenue	Santa Clara County	An interchange is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		x	AM				---	---	SU
								PM				---	---	SU
54	Lawrence Expressway/ Benton Street	Santa Clara County	Partial Mitigation: Add a second southbound left-turn lane and a second eastbound left- turn lane.	No	100%	x	x	AM	88.7	F	SU	122.1	F	SU
								PM	51.5	D	SU	78.1	E	SU
55	Lawrence Expressway/ Homestead Road	Santa Clara County (CMP)	Add a third eastbound through lane and a third westbound through lane (Yahoo! Santa Clara Campus TIA, August 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005; and City of Santa Clara Traffic Mitigation Program, June 2011).	Possible	100%		x	AM				87.5	F	SU
								PM				92.0	F	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
56	Lawrence Expressway/ Pruneridge Avenue	Santa Clara County	An interchange is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		x	AM PM				---	---	SU SU
57	Great America Parkway/SR 237 WB Ramps	Santa Clara (CMP) San José (CMP) ^b	Add third westbound left-turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%	x	x	AM PM	57.5 39.4	E D	LTS <u>SU</u> SU <u>LTS</u>	52.1 49.9	D D	SU <u>LTS</u> LTS <u>LTS</u>
58	Great America Parkway/SR 237 EB Ramps ^c	Santa Clara (CMP)	Add third southbound through lane (from Int. 57) and a second eastbound right-turn lane.	Yes	100%	x ^c	x ^c	AM PM	28.3 11.5	C B	LTS LTS	30.6 23.3	C C	LTS LTS
59	Great America Parkway/ Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%	x	x	AM PM	63.3 27.2	E C	SU LTS	69.5 40.8	E D	SU LTS

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
60	Great America Parkway/ Old Mountain View-Alviso Road	Santa Clara	Partial Mitigation: Add a second eastbound left-turn lane.	Possible	100%	x	x	AM	60.4	E	SU	91.6	F	SU
								PM	25.2	C	LTS	55.0	D	LTS
64	Great America Parkway/ Old Glory Lane	Santa Clara	Partial Mitigation: Add a second northbound left-turn lane. Install an overlap phase for eastbound right turning vehicles (Yahoo! Santa Clara Campus TIA, August 2009).	No	100%	x	x	AM	26.4	C	LTS	64.4	E	LTS
								PM	>180	F	SU	>180	F	SU
65	Great	Santa Clara	Partial Mitigation: Add	Yes	100%	x	x	AM	16.1	B	LTS	21.2	C	LTS

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	America Parkway/ Patrick Henry Drive		a second northbound left-turn lane and an eastbound free-right- turn lane. The eastbound right-turn lane includes the addition of a fourth southbound lane on Great America Parkway between Patrick Henry Drive and Mission College Boulevard (Yahoo! Santa Clara Campus TIA, August 2009).					PM	58.0	E	SU	136.6	F	SU
66	Great America Parkway/ Mission College Boulevard*	Santa Clara (CMP)	Partial Mitigation: Add a southbound and a westbound right-turn pocket (Yahoo! Santa Clara Campus TIA, August 2009).	Possible	100%		x	AM PM				52.8 98.6	D F	LTS SU
69	Bowers Avenue/ Augustine Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	x	AM PM	---	---	LTS SU	---	---	LTS SU
71	Bowers Avenue/ Central Expressway	Santa Clara County (CMP)	Partial Mitigation: Add third southbound left- turn lane and third eastbound left-turn lane.**	No	100%	x	x	AM PM	51.7 102.1	D F	SU SU	80.8 128.0	F F	SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic	x	x	AM	---	---	SU	---	---	SU
								PM	---	---	SU	---	---	SU
73	Bowers Avenue/ Monroe Street	Santa Clara	Add a northbound and a southbound left-turn lane. Change the northbound and southbound from split to protected left-turn phasing.	No	100% of Total Traffic			AM				30.9	C	LTS
								PM				29.9	C	LTS
75	San Tomas Expressway/ Scott Boulevard	Santa Clara County (CMP)	Partial Mitigation: A second westbound right-turn lane is identified as a Tier 1C priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Santa Clara Traffic Mitigation Program, June 2011).**	No	% of Total Traffic	x	x	AM	127.5	F	SU	166.0	F	SU
								PM	77.3	E	SU	95.9	F	SU
			An interchange is	No	% of Total	x	x	AM	---	---	SU	---	---	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
			identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).		Traffic			PM	---	---	SU	---	---	SU
76	San Tomas Expressway/ Walsh Avenue	Santa Clara County	Partial Mitigation: Add a second eastbound left-turn lane.	No	100%	x	x	AM PM	83.1 53.0	F D	SU SU	117.5 61.1	F E	SU SU
77	San Tomas Expressway/ Monroe Street	Santa Clara County (CMP)	Partial Mitigation: A second northbound left-turn lane is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic	x	x	AM PM	124.3 59.3	F E	SU SU	171.1 71.2	F E	SU SU
78	San Tomas Expressway/ El Camino Real*	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic	x	x	AM PM	--- ---	--- ---	SU SU	--- ---	--- ---	SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
79	San Tomas Expressway/ Benton Street*	Santa Clara County	Add a second eastbound left-turn lane.	Possible	100%		x	AM PM				65.8 52.3	E D	SU SU
82	San Tomas Expressway/ Pruneridge Avenue	Santa Clara County	Partial Mitigation: Add a second northbound left-turn lane.	No	100%	x	x	AM PM	89.2 70.6	F E	SU SU	125.6 82.3	F F	SU SU
83	San Tomas Expressway/ Saratoga Avenue	Santa Clara County (CMP)	Widen San Tomas to four lanes in each direction including exclusive right-turn lanes and maintain HOV lanes identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic	x	x	AM PM	60.2 46.1	E D	SU SU	74.1 63.8	E E	SU SU
84	Gold Street/Gold Street Connector	San José ^b	<u>Convert northbound through lane to a shared left- turn/through lane, and add a second northbound left turn lane and second eastbound right-turn lane. (move pedestrian crossing to north leg of intersection).</u>	Yes	100%	x	x	AM PM	26.325 <u>.7</u>	C C	SU SU	27.56 <u>24.529</u> <u>.3</u>	C C	SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
90	Lafayette Street/Calle De Luna	Santa Clara	Reconstruct the westbound approach to include two left-turn lanes and one right- turn lane.	No	100%		x	AM				48.9	D	LTS
								PM				22.0	C	LTS
94	Lafayette Street/ Agnew Road	Santa Clara	Add a second eastbound left-turn lane and a second southbound left-turn lane.	No	100%		x	AM				36.7	D	LTS
								PM				45.4	D	LTS
96	Lafayette Street/ Montague Expressway WB Ramps	Santa Clara	Add second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	No	100%		x	AM				44.1	D	LTS
								PM				29.6	C	LTS
98	Lafayette Street/ Central Expressway	Santa Clara County (CMP)	HOV lane conversion to mixed-flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).**	No	% of Total Traffic	x	x	AM	62.9	E	SU	85.6	F	SU
								PM	101.8	F	SU	95.2	F	SU
			Grade separation between Central Expressway and Lafayette Street.	Yes	% of Total Traffic	x	x	AM	---	---	SU	---	---	SU
								PM	---	---	SU	---	---	SU
103	Lafayette	Santa Clara	No feasible mitigation	N/A	0%		x	AM				---	---	LTS

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
109	Street/ Lewis Street	San José ^b	(no right-of-way is available).	Possible	100%			PM				---	---	SU
	Liberty Street/ Taylor Street		Signalize.				x	AM			13.2	B	SU	
								PM			15.8	B	SU	
			<u>Off-setting Mitigation: Construct traffic control devices to divert traffic from entering the Alviso neighborhood.**</u>											
114	Calle Del Sol/Calle Del Luna	Santa Clara	Signalize.	Possible	100%		x	AM				10.2	B	LTS
								PM			15.3	B	LTS	
120	De La Cruz Boulevard/ Laurelwood Road	Santa Clara	Reconfigure the northbound and southbound approaches to include one left-turn lane, one through, and one shared through/right- turn lane; change the phasing from split to protected in the northbound and southbound directions; and increase cycle length.	No	100%		x	AM				13.5	B	LTS
								PM			21.8	C	LTS	
121	De La Cruz	Santa Clara	HOV lane conversion to	Yes	% of Total	x	x	AM	59.0	E	SU	70.8	E	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Boulevard/ Central Expressway	County (CMP)	mixed-flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). Add second southbound right-turn lane.		Traffic			PM	67.3	E	SU	94.9	F	SU
123	Great America Parkway/ Gold Street Connector ^c	San Jose ^b Santa Clara	Add a second northbound right-turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%	x ^c	x ^c	AM PM	9.9 10.0	A A	LTSSU LTSSU	9.8 9.6	A A	LTSSU LTSSU
124	Scott Boulevard/ Central Expressway	Santa Clara County (CMP)	HOV lane conversion to mixed-flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	No	% of Total Traffic	x	x	AM PM	43.2 64.8	D E	SU SU	45.0 122.5	D F	SU SU
125	San Tomas	Santa Clara	Widen San Tomas to	Yes	% of Total		x	AM				106.7	F	SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Expressway/ Stevens Creek Boulevard	County (CMP)	four lanes in each direction including exclusive northbound and southbound right- turn lanes and maintain HOV lanes identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).**		Traffic			PM				67.7	E	SU
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		x	AM PM				---	---	SU SU

Table 3.3-20. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- c. This intersection is not an affected intersection, but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measure will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the traffic volume growth at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under existing or background no-project conditions. See Appendix 3.3-D.

**City-preferred mitigation option.

Source: Fehr & Peers, September 2015.

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
1	Fair Oaks Avenue/Tasman Drive	Sunnyvale	AM	25.7	C	28.0	C	28.3	C	0.010	0.3
			PM	34.3	C	35.0	C	35.3	D	0.023	0.4
2	Vienna Drive/Tasman Drive	Sunnyvale	AM	14.4	B	14.1	B	14.2	B	0.009	0.1
			PM	13.3	B	12.9	B	13.1	B	0.009	0.4
3	Lawrence Expressway/Tasman Drive	Santa Clara County (CMP)	AM	39.8	D	41.0	D	42.1	D	0.041	1.6
			PM	55.8	E	57.7	E	118.2	F	0.202	102.3
4	Birchwood Drive/Tasman Drive	Sunnyvale	AM	14.4	B	13.5	B	13.4	B	0.008	0.0
			PM	10.6	B	10.5	B	11.2	B	0.078	0.9
5	Reamwood Avenue/Tasman Drive	Sunnyvale	AM	7.5	A	7.5	A	7.6	A	0.012	0.1
			PM	9.8	A	9.2	A	11.2	B	0.211	2.9
6	Patrick Henry Drive/Tasman Drive	Santa Clara	AM	10.9	B	12.1	B	15.7	B	0.021	0.5
			PM	12.6	B	13.2	B	17.4	B	0.107	2.0
7	Old Ironside Drive/Tasman Drive	Santa Clara	AM	14.4	B	13.2	B	13.9	B	0.010	0.6
			PM	12.6	B	12.7	B	11.4	B	0.109	0.0
8	Great America Parkway/Tasman Drive	Santa Clara (CMP)	AM	25.6	C	26.0	C	29.9	C	0.262	8.0
			PM	29.2	C	31.5	C	52.9	D	0.263	34.0
9	Convention Center/Tasman Drive	Santa Clara	AM	16.2	B	16.2	B	16.9	B	0.080	1.0
			PM	18.5	B	20.2	C	37.8	D	0.113	26.4
10	Future Driveway (west of Centennial Boulevard)/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				5.6	A	N/A	N/A
			PM					14.3	B	N/A	N/A
11	Centennial Boulevard/Tasman Drive	Santa Clara	AM	19.8	B	19.8	B	48.7	D	0.455	37.2
			PM	19.6	B	19.8	B	121.7	F	0.720	152.8
12	Future Driveway (east of Centennial Boulevard)/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				2.6	A	N/A	N/A
			PM					10.0	A	N/A	N/A
13	Calle Del Sol/Tasman Drive	Santa Clara	AM	11.4	B	10.6	B	14.0	B	0.159	4.3
			PM	17.6	B	17.5	B	24.9	C	0.328	14.1

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.4	C	22.1	C	37.4	D	0.138	20.3
			PM	21.5	C	24.4	C	41.5	D	0.198	25.0
15	Renaissance Drive/Tasman Drive	San José ⁱ	AM	23.5	C	22.7	C	21.2	C	0.081	-1.5
			PM	10.3	B	11.4	B	11.0	B	0.009	0.1
16	Vista Montana/Tasman Drive	San José ⁱ	AM	26.2	C	26.1	C	24.1	C	0.135	-2.6
			PM	22.2	C	23.8	C	24.6	C	0.017	-6.1
17	Rio Robles/Tasman Drive	San José ⁱ	AM	24.3	C	24.2	C	25.6	C	0.130	2.3
			PM	27.5	C	46.4	D	92.7	F	0.215	60.3
18	North 1st Street/Tasman Drive	San José ⁱ	AM	33.5	C	38.0	D	38.6	D	0.051	0.7
			PM	38.0	D	42.0	D	44.7	D	0.161	5.3
19	Zanker Road/Tasman Drive	San José ⁱ	AM	36.4	D	37.8	D	38.1	D	0.045	0.2
			PM	37.7	D	41.4	D	42.6	D	0.121	1.3
20	McCarthy Boulevard/Tasman Drive	Milpitas	AM	34.0	C	34.2	C	36.0	D	0.053	2.4
			PM	33.0	C	31.8	C	33.6	C	0.159	16.4
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	58.0	E	79.5	E	92.3	F	0.082	21.4
			PM	61.7	E	76.1	E	94.6	F	0.054	32.4
22	Agnew Road-De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	46.6	D	51.9	D	52.4	D	0.006	0.9
			PM	57.8	E	79.0	E	83.1	F	0.054	4.5
23	Lick Mill Boulevard/Montague Expressway	Santa Clara County	AM	21.2	C	21.4	C	20.5	C	0.010	0.8
			PM	22.0	C	22.0	C	60.0	E	0.167	67.5
24	North 1st Street/Montague Expressway	Santa Clara County (CMP) ^j	AM	54.2	D	67.2	E	72.5	E	0.007	2.2
			PM	69.0	E	88.9	F	92.5	F	0.025	1.6
25	Zanker Road/Montague Expressway	Santa Clara County (CMP) ^j	AM	40.8	D	58.4	E	61.2	E	0.037	4.6
			PM	65.4	E	81.8	F	86.3	F	0.041	8.3
26	Montague Expressway/Plumeria Drive River Oaks Parkway	Santa Clara County ^j	AM	40.6	D	89.7	F	89.8	F	0.008	1.5
			PM	41.5	D	170.5	F	164.2	F	0.041	-13.4
27	Trimble Road/Montague	Santa Clara	AM	49.4	D	47.7	D	47.9	D	0.003	1.0

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
	Expressway	County (CMP) ⁱ	PM	50.9	D	72.7	E	87.6	F	0.048	23.0
28	McCarthy Boulevard O'Toole Avenue/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	37.1	D	48.2	D	51.0	D	0.476	25.3
			PM	62.2	E	63.8	E	67.2	E	0.019	7.0
29	De La Cruz Boulevard/Trimble Road	San José (CMP) ⁱ	AM	29.4	C	28.9	C	29.9	C	0.045	1.7
			PM	32.0	C	31.1	C	31.3	C	0.003	0.2
30	North 1st Street/Trimble Road	San José (CMP) ⁱ	AM	40.2	D	45.0	D	47.0	D	0.047	2.9
			PM	40.8	D	43.8	D	45.9	D	0.044	2.3
31	Zanker Road/Trimble Road	San José (CMP) ⁱ	AM	38.3	D	38.2	D	38.4	D	0.008	0.3
			PM	38.4	D	38.5	D	38.4	D	0.076	3.9
32	North 1st Street/Charcot Avenue	San José ⁱ	AM	26.9	C	26.2	C	28.2	C	0.053	3.3
			PM	26.1	C	23.6	C	23.7	C	0.046	0.2
33	Zanker Road/Charcot Avenue	San José ⁱ	AM	22.0	C	22.0	C	22.2	C	0.009	0.4
			PM	23.9	C	23.9	C	24.2	C	0.013	0.4
34	North 1st Street/Brokaw Road	San José (CMP) ⁱ	AM	37.2	D	47.4	D	48.7	D	0.012	2.8
			PM	43.3	D	58.9	E	68.2	E	0.045	12.0
35	US 101 NB Off-Ramp/Brokaw Road	San José (CMP) ⁱ	AM	26.7	C	44.2	D	35.0	C	-0.164	-14.8
			PM	18.8	B	22.9	C	23.2	C	0.016	0.2
36	Zanker Road/Brokaw Road	San José (CMP) ⁱ	AM	36.7	D	36.7	D	37.6	D	0.024	1.2
			PM	43.1	D	43.1	D	44.8	D	0.066	3.2
37	Fair Oaks Avenue/Fair Oaks Way	Sunnyvale	AM	15.2	B	14.9	B	15.2	B	0.011	0.3
			PM	17.7	B	20.4	C	20.9	C	0.015	0.6
38	Fair Oaks Avenue/Weddell Drive	Sunnyvale	AM	12.6	B	18.4	B	18.6	B	0.008	0.2
			PM	14.8	B	17.2	B	17.4	B	0.016	0.2
39	Fair Oaks Avenue/US 101 NB Ramps	Sunnyvale	AM	15.7	B	16.1	B	16.3	B	0.015	0.4
			PM	21.3	C	22.1	C	23.6	C	0.022	2.9

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
40	Fair Oaks Avenue/E Ahawane Avenue	Sunnyvale	AM	17.3	B	17.2	B	17.4	B	0.006	0.3
			PM	11.7	B	11.6	B	12.4	B	0.016	0.8
41	Fair Oaks Avenue/Duane Avenue	Sunnyvale	AM	27.3	C	27.3	C	27.8	C	0.016	0.7
			PM	30.2	C	30.1	C	30.7	C	0.014	0.9
42	Fair Oaks Avenue/Wolfe Road	Sunnyvale	AM	11.6	B	11.6	B	11.6	B	0.003	0.0
			PM	11.9	B	12.1	B	12.1	B	0.011	0.1
43	Fair Oaks Avenue/Maude Avenue	Sunnyvale	AM	29.3	C	28.8	C	29.6	C	0.015	0.9
			PM	27.3	C	27.3	C	27.6	C	0.006	0.2
44	Fair Oaks Avenue/E Arques Avenue	Sunnyvale	AM	28.0	C	27.8	C	28.4	C	0.024	0.9
			PM	29.5	C	29.7	C	30.0	C	0.010	0.4
45	Fair Oaks Avenue/Evelyn Avenue	Sunnyvale	AM	27.8	C	27.8	C	28.1	C	0.008	0.3
			PM	26.0	C	26.0	C	26.3	C	0.013	0.3
46	Lawrence Expressway/Sandia Avenue	Santa Clara County	AM	50.5	D	50.9	D	51.8	D	0.015	0.2
			PM	57.9	E	58.4	E	75.0	E	0.090	25.9
47	Lawrence Expressway/US 101 NB Ramps	Santa Clara County	AM	23.1	C	23.1	C	23.2	C	0.029	-0.3
			PM	22.3	C	22.6	C	23.4	C	0.031	1.1
48	Lawrence Expressway/US 101 SB Ramps	Santa Clara County	AM	26.1	C	33.8	C	35.9	D	0.011	0.6
			PM	87.1	F	90.8	F	87.6	F	0.012	-2.5
49	Lawrence Expressway/Oakmead Parkway	Santa Clara County	AM	46.4	D	46.9	D	47.8	D	0.022	1.5
			PM	51.5	D	52.1	D	55.1	E	0.057	5.0
50	Lawrence Expressway/Arques Avenue	Santa Clara County (CMP)	AM	38.3	D	41.2	D	41.8	D	0.010	0.8
			PM	61.4	E	66.9	E	80.7	F	0.060	23.4
51	Lawrence Expressway/Kifer Road	Santa Clara County	AM	27.4	C	27.7	C	28.1	C	0.004	0.3
			PM	48.6	D	50.5	D	51.8	D	0.020	-0.1
52	Lawrence Expressway/Reed Avenue-Monroe Street ⁱ	Santa Clara County (CMP)	AM	79.7	E	98.2	F	110.0	F	0.038	16.8
			PM	62.1	E	76.2	E	81.9	F	0.024	10.4
53	Lawrence Expressway/Cabrillo	Santa Clara	AM	38.4	D	44.0	D	45.3	D	0.008	1.6

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
	Avenue	County	PM	38.5	D	47.1	D	47.6	D	0.010	0.6
54	Lawrence Expressway/Benton Street	Santa Clara	AM	71.2	E	80.6	F	86.6	F	0.017	8.3
		County	PM	44.9	D	47.3	D	50.0	D	0.025	4.0
55	Lawrence Expressway/Homestead Road	Santa Clara	AM	63.1	E	73.5	E	74.5	E	0.005	1.7
		County (CMP)	PM	51.8	D	56.7	E	59.7	E	0.008	1.0
56	Lawrence Expressway/Pruneridge Avenue	Santa Clara	AM	55.6	E	62.5	E	63.2	E	0.007	0.8
		County	PM	45.4	D	48.5	D	50.1	D	0.008	1.7
57	Great America Parkway/SR 237 WB Ramps	<u>San José</u>	AM	17.5	B	20.9	C	98.8	F	0.384	93.1
		<u>(CMP)</u> ; Santa Clara (CMP)	PM	17.5	B	18.9	B	24.0	C	0.295	6.1
58	Great America Parkway/SR 237 EB Ramps	Santa Clara	AM	12.3	B	10.9	B	11.9	B	0.238	2.8
		(CMP)	PM	10.4	B	8.6	A	8.4	A	0.037	-0.6
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	20.7	C	27.0	C	70.2	E	0.382	62.4
			PM	22.9	C	31.4	C	39.4	D	0.226	15.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	18.9	B	19.2	B	69.3	E	0.379	79.2
			PM	26.6	C	26.6	C	56.2	E	0.239	53.5
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection				40.9	D	N/A	N/A
			PM					41.9	D	N/A	N/A
62	Great America Parkway/Future Driveway (north of Bunker Hill Lane)	Santa Clara	AM	Does not exist under existing with Project Phases 1, 2, and 3							
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.0	B	12.9	B	12.3	B	0.135	-3.0
			PM	15.5	B	15.6	B	15.5	B	0.194	1.0
64	Great America Parkway/Old Glory Lane	Santa Clara	AM	17.2	B	20.1	C	22.1	C	0.052	1.9
			PM	17.7	B	24.4	C	56.1	E	0.149	59.2
65	Great America Parkway/Patrick Henry Drive	Santa Clara	AM	20.3	C	19.7	B	19.5	B	0.045	0.7
			PM	24.8	C	25.2	C	27.2	C	0.083	4.2

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
66	Great America Parkway/Mission College Boulevard ⁱ	Santa Clara (CMP)	AM	39.4	D	37.7	D	39.3	D	0.137	3.2
			PM	55.9	E	44.4	D	45.3	D	0.056	1.3
67	Great America Parkway-Bowers Avenue/US 101 NB Ramps	Santa Clara (CMP)	AM	9.7	A	18.7	B	18.7	B	0.002	0.1
			PM	9.9	A	12.6	B	12.5	B	0.061	0.1
68	Bowers Avenue/US 101 SB Ramps	Santa Clara (CMP)	AM	22.4	C	23.7	C	23.9	C	0.009	0.2
			PM	8.0	A	8.3	A	8.1	A	0.034	-0.1
69	Bowers Avenue/Augustine Drive ⁱ	Santa Clara	AM	23.0	C	31.5	C	32.8	C	0.009	0.5
			PM	25.3	C	44.6	D	46.7	D	0.043	3.9
70	Bowers Avenue/Scott Boulevard ⁱ	Santa Clara (CMP)	AM	29.9	C	31.6	C	32.0	C	0.028	0.5
			PM	31.6	C	35.1	D	35.8	D	0.043	2.1
71	Bowers Avenue/Central Expressway	Santa Clara County (CMP)	AM	47.4	D	49.9	D	50.3	D	0.012	0.6
			PM	46.5	D	64.6	E	77.8	E	0.035	18.3
72	Bowers Avenue/Kifer Road Walsh Avenue	Santa Clara	AM	21.1	C	20.5	C	20.6	C	0.016	-0.1
			PM	25.3	C	25.4	C	25.6	C	0.028	0.7
73	Bowers Avenue/Monroe Street	Santa Clara	AM	30.8	C	33.2	C	33.8	C	0.023	0.7
			PM	32.6	C	38.8	D	40.7	D	0.028	2.2
74	Bowers Avenue/El Camino Real	Santa Clara (CMP)	AM	28.7	C	30.4	C	30.8	C	0.015	0.5
			PM	32.3	C	35.5	D	37.4	D	0.036	3.0
75	San Tomas Expressway/Scott Boulevard	Santa Clara County (CMP)	AM	38.9	D	58.4	E	59.3	E	0.007	1.7
			PM	50.1	D	66.2	E	67.5	E	0.012	2.8
76	San Tomas Expressway/Walsh Avenue	Santa Clara County	AM	40.4	D	60.2	E	68.3	E	0.030	11.9
			PM	42.5	D	48.0	D	55.0	D	0.041	11.0
77	San Tomas Expressway/Monroe Street	Santa Clara County (CMP)	AM	71.2	E	103.7	F	105.9	F	0.010	3.1
			PM	47.2	D	55.2	E	55.5	E	0.007	0.2
78	San Tomas Expressway/El Camino Real ⁱ	Santa Clara County (CMP)	AM	64.1	E	71.9	E	73.3	E	0.008	2.3
			PM	62.6	E	57.3	E	57.5	E	0.007	0.2
79	San Tomas Expressway/Benton	Santa Clara	AM	78.7	E	41.9	D	42.6	D	0.009	0.9

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
80	Street ⁱ	County	PM	47.6	D	37.8	D	38.5	D	0.012	1.1
	San Tomas Expressway/Homestead Road ⁱ	Santa Clara	AM	72.6	E	53.0	D	53.9	D	0.010	1.2
		County (CMP)	PM	84.5	F	57.9	E	58.0	E	0.006	0.5
81	San Tomas Expressway/Forbes Avenue	Santa Clara County	AM	22.1	C	26.4	C	27.7	C	0.007	0.4
			PM	20.2	C	24.3	C	25.0	C	0.019	0.9
82	San Tomas Expressway/Pruneridge Avenue	Santa Clara County	AM	57.3	E	69.1	E	71.0	E	0.011	2.7
			PM	46.4	D	50.8	D	67.6	E	0.460	32.3
83	San Tomas Expressway/Saratoga Avenue	Santa Clara County (CMP)	AM	63.0	E	73.7	E	75.6	E	0.015	3.0
			PM	50.8	D	55.4	E	67.4	E	0.061	20.7
84	Gold Street/Gold Street Connector	San José ⁱ	AM	22.6	C	22.7	C	23.3	C	0.005	0.4
			PM	21.5	C	21.7	C	21.7	C	0.020	0.1
86	Lafayette Street/Future Driveway (south of Great America Way)	Santa Clara	AM PM	Does not exist under existing with Parcels 4 and 5 (Phases 1, 2, and 3)							
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM PM	Future Signalized Intersection				10.5 7.5	B A	N/A N/A	N/A N/A
90	Lafayette Street/Calle De Luna	Santa Clara	AM	14.8	B	15.5	B	15.8	B	0.127	0.6
			PM	18.8	B	19.2	B	19.8	B	0.125	1.0
91	Lafayette Street/Hogan Drive	Santa Clara	AM	10.3	B	9.8	A	10.3	B	0.059	0.5
			PM	10.8	B	10.5	B	10.0	A	0.125	0.4
92	Lafayette Street/Eisenhower Drive	Santa Clara	AM	10.7	B	10.4	B	10.5	B	0.072	0.0
			PM	8.2	A	8.1	A	7.5	A	0.128	0.0
93	Lafayette Street/Hope Drive	Santa Clara	AM	21.0	C	20.5	C	20.4	C	0.070	0.3
			PM	13.9	B	13.7	B	13.2	B	0.119	-0.4
94	Lafayette Street/Agnew Road	Santa Clara	AM	38.2	D	38.7	D	37.9	D	0.079	-1.4
			PM	40.2	D	41.0	D	41.2	D	0.121	-0.7
95	Lafayette Street/Palm Drive	Santa Clara	AM	7.4	A	7.2	A	7.5	A	0.069	0.3
			PM	15.0	B	14.3	B	13.4	B	0.125	-0.9

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
96	Lafayette Street/Montague Expressway WB Ramps	Santa Clara	AM	32.4	C	34.1	C	33.7	C	0.070	-1.7
			PM	24.8	C	26.1	C	24.5	C	0.054	0.7
97	Lafayette Street/Montague Expressway EB Ramps	Santa Clara	AM	15.1	B	14.0	B	13.6	B	0.054	-0.3
			PM	12.5	B	13.0	B	12.5	B	0.059	-0.5
98	Lafayette Street/Central Expressway	Santa Clara County (CMP)	AM	55.2	E	60.5	E	64.0	E	0.005	1.5
			PM	61.2	E	63.5	E	81.2	F	-0.013	15.6
99	Lafayette Street/Walsh Avenue	Santa Clara	AM	12.4	B	12.7	B	13.0	B	0.048	0.6
			PM	18.6	B	19.2	B	19.8	B	0.040	1.0
100	Lafayette Street/Martin Avenue	Santa Clara	AM	19.7	B	20.0	B	20.3	C	0.050	0.3
			PM	19.4	B	19.6	B	19.9	B	0.026	0.2
101	Lafayette Street/Mathew Street- Memorex Drive	Santa Clara	AM	9.5	A	9.7	A	10.7	B	0.061	1.4
			PM	10.0	A	10.1	B	10.5	B	0.028	0.6
102	Lafayette Street/El Camino Real	Santa Clara (CMP)	AM	41.1	D	41.7	D	43.2	D	0.049	2.2
			PM	38.9	D	39.6	D	40.3	D	0.028	0.8
103	Lafayette Street/Lewis Street	Santa Clara	AM	9.6	A	9.5	A	9.2	A	0.044	-0.5
			PM	35.1	D	37.2	D	39.6	D	0.017	4.3
104	Lafayette Street/Benton Street	Santa Clara	AM	18.4	B	18.4	B	18.3	B	0.042	-0.3
			PM	16.9	B	17.1	B	17.3	B	0.008	0.2
105	Lafayette Street/Homestead Road	Santa Clara	AM	10.3	B	10.2	B	10.2	B	0.038	-0.2
			PM	11.0	B	10.9	B	11.3	B	-0.001	0.5
106	Lafayette Street/Market Street	Santa Clara	AM	34.2	C	34.3	C	36.5	D	0.075	2.2
			PM	27.9	C	28.3	C	30.1	C	0.099	1.8
107	Lafayette Street/Poplar Street	Santa Clara	AM	13.9	B	13.8	B	14.3	B	0.037	0.8
			PM	10.2	B	10.1	B	10.6	B	0.019	0.4
110	North 1st Street/Nortech Parkway	San José ^j	AM	13.9	B	13.9	B	14.4	B	0.008	0.4
			PM	20.1	C	20.1	C	18.9	B	0.048	-0.5
111	North 1st Street/SR 237 WB Ramps	San José	AM	15.6	B	15.6	B	15.7	B	0.006	0.1

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
112	North 1st Street/SR 237 EB Ramps	San José (CMP) ⁱ	PM	19.3	B	20.2	C	21.6	C	0.053	1.4
			AM	23.9	C	24.8	C	25.0	C	0.013	0.3
113	North 1st Street/Vista Montana	San José ⁱ (CMP) ⁱ	PM	20.9	C	21.3	C	22.2	C	0.023	1.1
			AM	30.4	C	30.8	C	30.9	C	0.004	0.2
115	Lick Mill Boulevard/Hope Drive	Santa Clara	AM	26.6	C	26.6	C	24.2	C	0.081	-10.9
			PM	23.6	C	23.6	C	21.4	C	0.224	-2.7
117	Agnew Road/Sun Fire Way	Santa Clara	AM	10.7	B	10.4	B	10.7	B	0.008	0.1
			PM	17.6	B	17.4	B	17.6	B	0.013	0.3
118	De La Cruz Boulevard/Greenwood Drive	Santa Clara	AM	9.5	A	9.3	A	9.3	A	0.027	-0.2
			PM	8.3	A	8.2	A	8.3	A	0.006	0.6
119	De La Cruz Boulevard/Aldo Avenue	Santa Clara	AM	16.5	B	16.5	B	16.6	B	0.004	0.0
			PM	16.0	B	16.0	B	15.9	B	0.056	-0.6
120	De La Cruz Boulevard/Laurelwood Road	Santa Clara	AM	15.7	B	15.9	B	17.6	B	0.039	1.8
			PM	16.7	B	16.7	B	17.9	B	0.073	1.1
121	De La Cruz Boulevard/Central Expressway	Santa Clara County (CMP)	AM	93.7	F	115.7	F	121.0	F	0.022	7.7
			PM	46.5	D	43.7	D	64.2	E	0.053	30.5
122	De La Cruz Boulevard/Reed Avenue	Santa Clara	AM	11.7	B	12.2	B	12.3	B	0.008	0.1
			PM	13.6	B	14.3	B	14.9	B	0.022	0.7
123	Great America Parkway/Gold Street Connector	San José/Santa Clara	AM	11.8	B	11.8	B	12.0	B	0.010	0.4
			PM	13.1	B	13.1	B	13.4	B	0.014	0.5
124	Scott Boulevard/Central Expressway	Santa Clara County (CMP)	AM	46.8	D	45.9	D	47.0	D	0.005	0.9
			PM	66.7	E	71.7	E	73.7	E	0.006	3.1
125	San Tomas Expressway/Stevens Creek Boulevard	Santa Clara County (CMP)	AM	64.8	E	63.5	E	68.6	E	0.030	8.2
			PM	66.6	E	59.9	E	60.6	E	0.006	0.1

Table 3.3-24. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA)
- b. AM = morning peak hour, PM = evening peak hour.
- c. "Counted Volumes" presents the delay and LOS for intersections, using existing intersection geometry and existing traffic counts.
- d. "Existing" presents delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction (see Appendix 3.3-B and Appendix 3.3-D).
- e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.
- f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 *Highway Capacity Manual*.
- g. Change in critical volume-to-capacity ratio between existing and existing with Project Phases 1, 2, and 3.
- h. Change in average critical movement delay between existing and existing with Project Phases 1, 2, and 3.
- i. Geometry has been modified to include the improvements for projects under construction as outlined in Appendix 3.3-D.
- j. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- k. Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project Phases 1, 2, and 3		Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
3	Lawrence Expressway/ Tasman Drive	Santa Clara County (CMP)	No feasible mitigation (no right-of-way is available).	N/A	0%	x	AM	---	---	SU	---	---	SU
							PM	---	---	SU	---	---	SU
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right-turn lane and add a third westbound left-turn lane.	Yes	100%		AM	34	C	LTS			
							PM	100.3	F	SU			
9	Convention Center/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM	---	---	LTS			
							PM	---	---	SU			
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	AM	---	---	LTS	---	---	LTS
							PM	---	---	SU	---	---	SU
14	Lick Mill Boulevard/ Tasman Drive	Santa Clara	Partial Mitigation: Reconfigure northbound and southbound approaches to two left-turn lanes, one through lane, and one right-turn lane. Change phasing on northbound/southbound approaches from split to protected. Add a second westbound left-turn lane.	Yes	100%		AM	42.2	D	LTS			
							PM	83.8	F	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
17	Rio Robles/ Tasman Drive	San José ^b	Widen the southbound approach to include one left-turn lane and one shared through/right-turn lane. Change the northbound/southbound signal phasing from split to protected. <u>Install crosswalk treatments that enhance visibility and traffic surveillance cameras at the intersection (but without any communications).</u>	Yes	Pay North San José fee or fair-share contribution of mitigation measure	x	AM	27.8	C	SU	25.2	C	SU
							PM	47	D	SU	41.5	D	SU
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a third southbound left-turn lane (VTP 2040 #X14).**	Possible	% of Total Traffic	x	AM	99.1	F	SU	92.3	F	SU
							PM	99.3	F	SU	82.0	F	SU
			Yes	% of Total Traffic		AM	---	---	SU	---	---	SU	
						PM	---	---	SU	---	---	SU	
22	Agnew Road-De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a second northbound left-turn lane.	Possible	100%	x	AM	70.2	E	SU	51.3	D	SU
							PM	93.5	F	SU	82.6	F	SU
23	Lick Mill	Santa Clara	Add a third southbound left-	No	100%		AM	21.3	C	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a County	Mitigation Measure ^d turn lane.	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Boulevard/ Montague Expressway						PM	59.4	E	SU			
24	North 1st Street/ Montague Expressway	Santa Clara County (CMP) ^b	No feasible mitigation (no right-of-way is available).	No	% of Total Traffic		AM	---	---	SU			
							PM	---	---	SU			
			Off-setting Mitigation: Future interchange, which includes grade separation of the light rail, is planned.**	Yes									
25	Zanker Road/ Montague Expressway*	Santa Clara County (CMP) ^b	Widen Zanker Road to three lanes in each direction and add second northbound and southbound left-turn lanes with no separate right-turn lanes (North San José Deficiency Plan, January 2006).	Yes	% of Total Traffic	x	AM	49.1	D	SU	46.8	D	SU
							PM	60.7	E	SU	56.7	E	SU
26	Montague Expressway/ Plumeria Drive-River Oaks Parkway	Santa Clara County ^b	Install an eastbound right-turn overlap phase and limit northbound U-turns.	No	% of Total Traffic	x	AM	87.5	F	SU	89.2	F	SU
							PM	83.5	F	SU	85.5	F	SU
27	Trimble Road/	Santa Clara	A "fly-over" is identified at this	Yes	<u>0% of Total</u>	x	AM	---	---	SU	---	---	SU

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Montague Expressway	County (CMP) ^b	intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). <u>The City of San José is fully responsible for implementing this improvement.</u>		Traffic		PM	---	---	SU	---	---	SU
34	North 1st Street/ Brokaw Road	San José (CMP) ^b	Partial Mitigation: Add a third westbound left-turn lane.** Off-setting Mitigation: Bicycle facilities along N. 1st Street between Brokaw Road and Gish Road; continue the sidewalk on the southeast corner of the intersection to the US 101 northbound loop on-ramp.	No	Pay North San José fee or fair-share contribution of partial or off-setting mitigation	x	AM PM	50.2 66.3	D E	SU SU	48.6 64.2	D E	SU SU
48	Lawrence Expressway/ US 101 SB Ramps	Santa Clara County	Convert eastbound left-turn lane to a shared left-turn/right- turn lane.	No	100%	x	AM PM	37.4 56.8	D E	SU SU	24.6 50.4	C D	SU SU
50	Lawrence	Santa Clara	An interchange is identified at	Yes	% of Total	x	AM	---	---	SU	---	---	SU

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a County	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f Traffic	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Expressway/ Arques Avenue	(CMP)	this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).				PM	---	---	SU	---	---	SU
52	Lawrence Expressway/ Reed Avenue- Monroe Street*	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).	Yes	% of Total Traffic	x	AM PM	---	---	SU SU	---	---	SU SU
54	Lawrence Expressway/ Benton Street	Santa Clara County	Partial Mitigation: Add a second southbound left-turn lane and a second eastbound left-turn lane.	No	100%	x	AM PM	88.7 51.5	F D	SU SU	86.0 48.5	F D	SU SU
57	Great America Parkway/SR 237 WB Ramps	San José (CMP) ^b Santa a-Clara (CMP)	Add third westbound left-turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%	x	AM PM	57.5 39.4	E D	SU LT S S	37.9 21.4	D C	SU LT S S
58	Great America Parkway/SR 237 EB Ramps ^c	Santa Clara (CMP)	Add third southbound through lane (from Int. 57) and a second eastbound right-turn lane.	Yes	100%	x ^c	AM PM	28.3 11.5	C B	LTS LTS	10.2 8.3	B A	LTS LTS

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
59	Great America Parkway/ Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%	x	AM	63.3	E	SU	66.5	E	SU
							PM	27.2	C	LTS	26.7	C	LTS
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	Partial Mitigation: Add a second eastbound left-turn lane.	Possible	100%	x	AM	60.4	E	SU	55.0	D	LTS
							PM	25.2	C	LTS	25.8	C	LTS
64	Great America Parkway/Old Glory Lane	Santa Clara	Partial Mitigation: Add a second northbound left-turn lane. Install an overlap phase for eastbound right turning vehicles (Yahoo! Santa Clara Campus TIA, August 2009).	No	100%	x	AM	26.4	C	LTS	21.1	C	LTS
							PM	>180	F	SU	56.1	E	SU
65	Great America Parkway/ Patrick Henry Drive	Santa Clara	Partial Mitigation: Add a second northbound left-turn lane and an eastbound free-right-turn lane. The eastbound right-turn lane includes the addition of a fourth southbound lane on Great America Parkway between Patrick Henry Drive and Mission College Boulevard (Yahoo! Santa Clara Campus TIA, August 2009).	Yes	100%		AM	16.1	B	LTS			
							PM	58.0	E	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
69	Bowers Avenue/ Augustine Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM	33.4	C	LTS			
							PM	72.6	E	SU			
71	Bowers Avenue/ Central Expressway	Santa Clara County (CMP)	Partial Mitigation: Add third southbound left-turn lane and third eastbound left-turn lane.**	No	100%		AM	51.7	D	SU			
							PM	102.1	F	SU			
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		AM	---	---	SU			
							PM	---	---	SU			
75	San Tomas Expressway/ Scott Boulevard	Santa Clara County (CMP)	Partial Mitigation: A second westbound right-turn lane is identified as a Tier 1C priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Santa Clara Traffic Mitigation Program, June 2011).**	No	% of Total Traffic		AM	127.5	F	SU			
							PM	77.3	E	SU			
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	No	% of Total Traffic		AM	---	---	SU			
							PM	---	---	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
76	San Tomas Expressway/ Walsh Avenue	Santa Clara County	Partial Mitigation: Add a second eastbound left-turn lane.	No	100%		AM	83.1	F	SU			
							PM	53.0	D	SU			
77	San Tomas Expressway/ Monroe Street	Santa Clara County (CMP)	Partial Mitigation: A second northbound left-turn lane is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		AM	124.3	F	SU			
							PM	59.3	E	SU			
78	San Tomas Expressway/ El Camino Real*	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		AM	---	---	SU			
							PM	---	---	SU			
82	San Tomas Expressway/ Pruneridge Avenue	Santa Clara County	Partial Mitigation: Add a second northbound left-turn lane.	No	100%		AM	89.2	F	SU			
							PM	70.6	E	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
83	San Tomas Expressway/ Saratoga Avenue	Santa Clara County (CMP)	Widen San Tomas to four lanes in each direction including exclusive right-turn lanes and maintain HOV lanes identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		AM	60.2	E	SU			
							PM	46.1	D	SU			
84	Gold Street/ Gold Street Connector	San José ^b	Add second northbound left- turn lane and second eastbound right turn lane (move pedestrian crossing to north leg of intersection).	Yes	100%		AM	25.7	€	SU			
							PM	23.6	€	SU			
98	Lafayette Street/Central Expressway	Santa Clara County (CMP)	Partial Mitigation: HOV lane conversion to mixed-flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).**	No	% of Total Traffic	x	AM	62.9	E	SU	53.6	D	SU
							PM	101.8	F	SU	72.3	E	SU
						Grade separation between Central Expressway and Lafayette Street.	Yes	% of Total Traffic	x	AM	---	---	SU
							PM	---	---	SU	---	---	SU

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project Phases 1, 2, and 3		Existing with Project			Existing with Project Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
121	De La Cruz Boulevard/ Central Expressway	Santa Clara County (CMP)	HOV lane conversion to mixed- flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). Add second southbound right-turn lane.	Yes	% of Total Traffic	x	AM	59.0	E	SU	48.8	D	SU
							PM	67.3	E	SU	53.5	D	SU
123	Great America Parkway/Gold Street Connector ^c	San José ^b Santa Clara	Add a second northbound right- turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%	x ^c	AM	9.9	A	LTSS <u>U</u>	12.0	B	LTSS <u>U</u>
							PM	10.0	A	LTSS <u>U</u>	13.4	B	LTSS <u>U</u>
124	Scott Boulevard/ Central Expressway	Santa Clara County (CMP)	HOV lane conversion to mixed- flow lanes on Central Expressway identified as a Tier 1A priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	No	% of Total Traffic		AM	43.2	D	SU			
							PM	64.8	E	SU			

Table 3.3-26. Existing with Project Phases 1, 2, and 3 Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure					
						Existing with Project Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Project Phases 1, 2, and 3	
							Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- c. This intersection is not an affected intersection but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measures will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the added traffic at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under existing no-Project conditions and with-Project conditions. See Appendix 3.3-D.

**City-preferred mitigation option.

Source: Fehr & Peers, September 2015.

Table 3.3-29. Existing with-Project Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
8	Great America Parkway/Tasman Drive	Santa Clara (CMP)	AM	25.6	C	26.0	C	34.1	C	0.334	11.8
			PM	29.2	C	31.5	C	171.2	F	0.688	226.6
9	Convention Center/Tasman Drive	Santa Clara	AM	16.2	B	16.2	B	18.2	B	0.169	3.0
			PM	18.5	B	20.2	C	157.3	F	0.225	140.3
10	Future Driveway (west of Centennial Boulevard)/ Tasman Drive	Santa Clara	AM	Future Signalized Intersection				3.9	A	N/A	N/A
			PM					13.2	B	N/A	N/A
11	Centennial Boulevard/Tasman Drive ⁱ	Santa Clara	AM	19.8	B	19.8	B	56.5	E	0.431	53.7
			PM	19.6	B	19.8	B	171.3	F	0.775	215.7
13	Calle Del Sol/Tasman Drive	Santa Clara	AM	11.4	B	10.6	B	11.6	B	0.233	2.6
			PM	17.6	B	17.5	B	35.9	D	0.406	31.2
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.4	C	22.1	C	57.7	E	0.513	65.3
			PM	21.5	C	24.4	C	>180	F	0.821	235.7
57	Great America Parkway/SR 237 WB Ramps	San José Santa Clara (CMP) ^j	AM	17.5	B	20.9	C	116.5	F	0.489	139.9
			PM	17.5	B	18.9	B	55.3	E	0.524	48.3
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	12.3	B	10.9	B	72.0	E	0.573	90.0
			PM	10.4	B	8.6	A	11.6	B	0.175	3.6
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	20.7	C	27.0	C	120.5	F	0.488	108.6
			PM	22.9	C	31.4	C	70.8	E	0.354	61.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	18.9	B	19.2	B	68.0	E	0.598	97.0
			PM	26.6	C	26.6	C	56.2	E	0.347	43.4
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection				16.5	B	N/A	N/A
			PM					24.5	C	N/A	N/A
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.0	B	12.9	B	12.4	B	0.189	-2.7
			PM	15.5	B	15.6	B	16.5	B	0.264	2.9
84	Gold Street/Gold Street Connector	San José ^l	AM	22.6	C	22.7	C	113.8	F	0.775	102.8
			PM	21.5	C	21.7	C	29.8	C	0.451	13.6
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection				51.7	D	N/A	N/A
			PM					34.7	C	N/A	N/A
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection				19.6	B	N/A	N/A
			PM					13.6	B	N/A	N/A
88	Lafayette Street/Future Driveway	Santa Clara	AM	Future Signalized Intersection				9.9	A	N/A	N/A

Table 3.3-29. Existing with-Project Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
90	(north of Calle Del Mundo)	Santa Clara	PM					13.1	B	N/A	N/A
	Lafayette Street/Calle De Luna		AM	14.8	B	15.5	B	34.9	C	0.565	25.8
			PM	18.8	B	19.2	B	22.6	C	0.392	4.7
123	Great America Parkway/Gold Street Connector	San José Santa Clara	AM	11.8	B	11.8	B	34.1	C	0.637	21.3
			PM	13.1	B	13.1	B	12.5	B	0.116	-2.5
1081	New Viaduct/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				4.2	A	N/A	N/A
			PM					13.9	B	N/A	N/A

Notes:

a. CMP = Congestion Management Program intersection (VTA).

b. AM = morning peak hour, PM = evening peak hour.

c. "Counted Volumes" presents the delay and LOS for intersections, using existing intersection geometry and existing traffic counts.

d. "Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects currently that are under construction (see Appendix 3.3-B and Appendix 3.3-D).

e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 Highway Capacity Manual, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.

f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 Highway Capacity Manual.

g. Change in critical volume-to-capacity ratio between existing and existing with-Project conditions.

h. Change in average critical movement delay between existing and existing with-Project conditions.

i. Geometry has been modified to include the improvements for projects under construction as outlined in Appendix 3.3-D.

j. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

k. Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-31. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
8	Great America Parkway/Tasman Drive	Santa Clara (CMP)	AM	25.6	C	26.0	C	29.9	C	0.262	8.0
			PM	29.2	C	31.5	C	52.9	D	0.263	34.0
9	Convention Center/Tasman Drive	Santa Clara	AM	16.2	B	16.2	B	16.9	B	0.080	1.0
			PM	18.5	B	20.2	C	37.8	D	0.113	26.4
10	Future Driveway (west of Centennial Boulevard)/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				5.2	A	N/A	N/A
			PM					13.0	B	N/A	N/A
11	Centennial Boulevard/Tasman Drive	Santa Clara	AM	19.8	B	19.8	B	51.3	D	0.404	42.0
			PM	19.6	B	19.8	B	46.6	D	0.474	46.8
13	Calle Del Sol/Tasman Drive	Santa Clara	AM	11.4	B	10.6	B	10.9	B	0.194	1.0
			PM	17.6	B	17.5	B	23.6	C	0.332	12.9
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.4	C	22.1	C	27.7	C	0.185	11.8
			PM	21.5	C	24.4	C	49.9	D	0.262	34.1
57	Great America Parkway/SR 237 WB Ramps	San José (CMP)-Santa Clara (CMP)	AM	17.5	B	20.9	C	98.8	F	0.384	93.1
			PM	17.5	B	18.9	B	24.0	C	0.295	6.1
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	12.3	B	10.9	B	11.9	B	0.238	2.8
			PM	10.4	B	8.6	A	8.4	A	0.037	-0.6
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	20.7	C	27.0	C	70.2	E	0.382	62.4
			PM	22.9	C	31.4	C	39.4	D	0.226	15.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	18.9	B	19.2	B	138.7	F	0.866	216.4
			PM	26.6	C	26.6	C	100.9	F	0.543	111.3
61	Great America Parkway/Future Driveway (south of Old	Santa Clara	AM PM	Does not exist under Existing with Parcels 4 and 5 (Phases 1, 2, and 3)							

Table 3.3-31. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h
	Mountain View-Alviso Road)										
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.0	B	12.9	B	12.3	B	0.135	-3.0
			PM	15.5	B	15.6	B	15.5	B	0.194	1.0
84	Gold Street/Gold Street Connector	San José ^j	AM	22.6	C	22.7	C	23.3	C	0.005	0.4
			PM	21.5	C	21.7	C	21.7	C	0.020	0.1
86	Lafayette Street/Future Driveway (south of Great America Way)	Santa Clara	AM PM	Does not exist under existing with Project Phases 1, 2, and 3							
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection				7.8	A	N/A	N/A
			PM					12.9	B	N/A	N/A
90	Lafayette Street/Calle De Luna	Santa Clara	AM	14.8	B	15.5	B	15.8	B	0.127	0.6
			PM	18.8	B	19.2	B	19.8	B	0.125	1.0
123	Great America Parkway/Gold Street Connector	San José Santa Clara	AM	11.8	B	11.8	B	12.2	B	0.010	0.4
			PM	13.1	B	13.1	B	13.5	B	0.008	0.5
1081	New Viaduct/Tasman Drive	Santa Clara	AM	Future Signalized Intersection				4.3	A	N/A	N/A
			PM					15.5	B	N/A	N/A

Table 3.3-31. Existing with Project Phases 1, 2, and 3 Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Counted Volumes ^c		Existing ^d		Existing with Project Phases 1, 2, and 3			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. AM = morning peak hour, PM = evening peak hour.
- c. “Counted Volumes” presents the delay and LOS for intersections, using existing intersection geometry and existing traffic counts.
- d. “Existing” presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction (see Appendix 3.3-B and Appendix 3.3-D).
- e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 Highway Capacity Manual, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.
- f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 Highway Capacity Manual.
- g. Change in critical volume-to-capacity ratio between existing and existing conditions with Project Phases 1, 2, and 3.
- h. Change in average critical movement delay between existing and existing conditions with Project Phases 1, 2, and 3.
- i. Geometry has been modified to include the improvements for projects under construction as outlined in Appendix 3.3-D.
- j. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- k. Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (Intersections 60, 61, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-33. Background with-Project Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
8	Great America Parkway/Tasman Drive ^h	Santa Clara (CMP)	AM	34.7	C	89.9	F	0.342	96.3
			PM	51.8	D	>180	F	0.665	300.6
9	Convention Center/Tasman Drive ^h	Santa Clara	AM	17.3	B	46.0	D	0.234	47.5
			PM	21.9	C	120.7	F	0.298	137.1
10	Future Driveway (west of Centennial Boulevard)/Tasman Drive ^h	Santa Clara	AM	Future Signalized Intersection		6.2	A	N/A	N/A
			PM			24.3	C	N/A	N/A
11	Centennial Boulevard/Tasman Drive ^h	Santa Clara	AM	20.4	C	110.4	F	0.415	131.4
			PM	24.1	C	172.2	F	0.541	177.6
13	Calle Del Sol/Tasman Drive ^h	Santa Clara	AM	13.2	B	43.1	D	0.325	48.0
			PM	19.0	B	65.0	E	0.435	82.0
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	23.1	C	92.8	F	0.517	122.5
			PM	32.3	C	148.3	F	0.594	163.3
57	Great America Parkway/SR 237 WB Ramps	San José (CMP) Santa Clara (CMP)	AM	26.5	C	104.7	F	0.356	117.6
			PM	19.5	B	72.8	E	0.532	72.0
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	11.9	B	68.8	E	0.485	86.7
			PM	10.9	B	23.4	C	0.268	21.9
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	29.3	C	123.1	F	0.448	107.7
			PM	34.7	C	139.3	F	0.467	155.0
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	20.6	C	55.8	E	0.470	69.7
			PM	37.2	D	100.6	F	0.414	99.2
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection		16.1	16.1	B	N/A
			PM			23.5	23.5	C	N/A
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	13.2	B	12.5	B	0.104	-1.0
			PM	15.7	B	16.6	B	0.233	2.7
84	Gold Street/Gold Street Connector	San José ⁱ	AM	23.3	C	115.8	F	0.747	113.2
			PM	21.7	C	34.4	C	0.515	20.2
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection		54.8	D	N/A	N/A
			PM			35.7	D	N/A	N/A
87	Lafayette Street/Future Urban	Santa Clara	AM	Future Signalized		19.8	B	N/A	N/A

Table 3.3-33. Background with-Project Signalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Background ^c		Background with Project			
				Delay ^d	LOS ^e	Delay ^d	LOS ^e	Δ in Crit. V/C ^f	Δ in Crit. Delay ^g
88	Interchange	Santa Clara	PM	Intersection		18.7	B	N/A	N/A
	Lafayette Street/Future Driveway (north of Calle Del Mundo)		AM	Future Signalized		10.9	B	N/A	N/A
			PM	Intersection		17.4	B	N/A	N/A
90	Lafayette Street/Calle De Luna	Santa Clara	AM	16.4	B	69.2	E	0.578	65.1
			PM	19.6	B	24.5	C	0.453	8.7
123	Great America Parkway/Gold Street Connector	San José ⁱ Santa Clara	AM	11.9	B	29.1	C	0.577	15.9
			PM	13.6	B	13.0	B	0.152	-2.1
1081	New Viaduct/Tasman Drive ^h	Santa Clara	AM	Future Signalized		6.6	A	N/A	N/A
			PM	Intersection		13.9	B	N/A	N/A

Notes:

a. CMP = Congestion Management Program intersection (VTA).

b. AM = morning peak hour, PM = evening peak hour.

c. "Background" presents the delay and LOS for intersections, using 2020 geometry and traffic volumes estimated using the VTA travel demand model.

d. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.

e. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 *Highway Capacity Manual*.

f. Change in critical volume-to-capacity ratio between background and background with-Project conditions.

g. Change in average critical movement delay between background and background with-Project conditions.

h. Geometry has been modified to include the improvements for projects under construction and planned projects under background conditions as outlined in Appendix 3.3-D.

i. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

j. Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-34. Background with-Project Unsignalized Intersection LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Unsig. Type ^b	Peak Hour ^c	Background ^d		Background with Project		Signal Warrant Met?
					Delay ^e	LOS ^f	Delay ^e	LOS ^f	
12	Future Driveway (east of Centennial Boulevard)/Tasman Drive ^g	Santa Clara	SSSC	AM PM	Future Unsignalized Intersection		32.9 78.8	D F	No Yes
85	Lafayette Street/Great America Way	Santa Clara	SSSC	AM PM	11.1 27.0	B D	Signalized Intersection		N/A N/A
89	Lafayette Street/Calle Del Mundo	Santa Clara	SSSC	AM PM	20.5 13.9	C B	> 150 > 150	F F	No No
114	Calle Del Sol/Calle De Luna	Santa Clara	SSSC	AM PM	15.6 23.2	C C	32.0 74.4	D F	No Yes

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. SSSC = Side-Street Stop-Controlled intersection, AWSC = All-Way Stop-Controlled intersection.
- c. AM = morning peak hour, PM = evening peak hour.
- d. "Background" presents the delay and LOS for intersections using 2020 geometry and traffic volumes estimated using the VTA travel demand model.
- e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 Highway Capacity Manual, with adjusted saturation flow rates to reflect Santa Clara County conditions for all-way stop-controlled intersection. For side-street stop-controlled intersections, values reported are the worst approach.
- f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which apply the methods described in the 2000 Highway Capacity Manual.
- g. Geometry has been modified to include improvements from projects that are under construction and planned projects under background conditions, as outlined in Appendix 3.3-D.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-35. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right-turn lane and add a third westbound left-turn lane.	Yes	100%	x	x	AM	34.0	C	LTS	88.8	F	SU
								PM	100.3	F	SU	163.1	F	SU
9	Convention Center/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	x	AM	---	---	LTS	---	---	LTS
								PM	---	---	SU	---	---	SU
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	x	AM	---	---	SU	---	---	SU
								PM	---	---	SU	---	---	SU
13	Calle Del Sol/ Tasman Drive*	Santa Clara	Add a westbound right-turn lane. Reconfigure southbound approaches to include two left-turn lanes and one right-turn lane with overlap phase.	Yes	100%			AM				26.9	C	LTS
								PM				18.7	B	LTS
14	Lick Mill	Santa Clara	Partial Mitigation:	Yes	100%	x	x	AM	42.8	D	LTS	72.8	E	SU

Table 3.3-35. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Boulevard/ Tasman Drive		Reconfigure northbound and southbound approach to two left-turn lanes, one through lane, and one right-turn lane. Change phasing on northbound/southbound approaches from split to protected. Add a second westbound left-turn lane.					PM	117.1	F	SU	96.1	F	SU
57	Great America Parkway/SR 237 WB Ramps	San José Santa Clara (CMP) ⁱ	Add third westbound left-turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%	x	x	AM	57.5	E	SU TS	52.1	D	SU TS
								PM	39.4	D	SU TS	49.9	D	SU TS
58	Great America Parkway/SR 237 EB Ramps ^c	Santa Clara (CMP)	Add third southbound through lane (from Int. 57) and a second eastbound right-turn lane.	Yes	100%	x ^c	x ^c	AM	28.3	C	LTS	30.6	C	LTS
								PM	11.5	B	LTS	23.3	C	LTS
59	Great America Parkway/ Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%	x	x	AM	63.3	E	SU	69.5	E	SU
								PM	27.2	C	LTS	40.8	D	LTS
60	Great	Santa Clara	Partial Mitigation: Add	Possible	100%	x	x	AM	67.2	E	SU	55.0	D	LTS

Table 3.3-35. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	America Parkway/Old Mountain View-Alviso Road		second eastbound left- turn lane.					PM	44.1	D	LTS	66.3	E	SU

Table 3.3-35. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Peak Hour	Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project		Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
84	Gold Street/Gold Street Connector	San José ⁱ	<u>Convert northbound through lane to a shared left-turn/through lane, and add a second northbound left-turn and second eastbound right-turn lane (move pedestrian crossing to north leg of intersection).</u>	Yes	100%	x	x	AM	26.325	C	SU	28.827	C	SU
									7			6		
								PM	28.523	C	SU	29.324	C	SU
									6			5		
90	Lafayette Street/Calle De Luna	Santa Clara	Reconstruct the westbound approach to include two left-turn lanes and one right-turn lane.	No	100%			AM				48.0	D	LTS
												22.1	C	LTS
114	Calle Del Sol/Calle Del Luna	Santa Clara	Signalize.	Possible	100%			AM				11.4	B	LTS
												12.4	B	LTS
123	Great America Parkway/Gold Street Connector ^c	San José ⁱ Santa Clara	Add a second northbound right-turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%			AM	9.9	A	<u>LTSS</u>	9.8	A	<u>LTSS</u>
								PM	10.0	A	<u>LTSS</u>	9.6	A	<u>LTSS</u>

Table 3.3-35. Project-Specific (Existing with-Project/Background with-Project) Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario			Delay and LOS with Mitigation Measure					
						Existing with Project	Background with Project	Peak Hour	Existing with Project			Background with Project		
									Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h

Notes:

- a. For the Variant Access Scheme analysis, only a subset of intersections were studied (Intersections 8, 9, 10, 11, 12, 13, 14, 57, 58, 59, 60, 61, 62, 63, 84, 85, 86, 87, 88, 89, 90, 114, 123).
- b. CMP = Congestion Management Program intersection (VTA).
- c. This intersection is not an affected intersection, but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measures will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the added traffic at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.
- i. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under existing or background no-project conditions and with-Project conditions. See Appendix 3.3-D.

Source: Fehr & Peers, September 2015.

Table 3.3-36. Phases 1, 2, and 3 Project-Specific Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Delay and LOS with Mitigation Measure						
						Existing with Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Phases 1, 2, and 3			
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h	
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right-turn lane and add a third westbound left-turn lane.	Yes	100%			AM	34.0	C	LTS			
								PM	100.3	F	SU			
9	Convention Center/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%			AM	---	---	LTS			
								PM	---	---	SU			
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%			AM	---	---	SU			
								PM	---	---	SU			
14	Lick Mill Boulevard/ Tasman Drive	Santa Clara	Partial Mitigation: Reconfigure northbound and southbound approach to two left-turn lanes, one through lane, and one right- turn lane. Change phasing on the northbound/southbound approaches from split to protected. Add a second westbound left-turn lane.	Yes	100%			AM	42.8	D	LTS			
								PM	117.1	F	SU			
57	Great America Parkway/SR 237 WB Ramps	<u>San</u> <u>José Santa</u> <u>Clara</u> (CMP) ⁱ	Add third westbound left- turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%		x	AM	57.5	E	<u>SU</u> <u>LTS</u>	37.9	D	<u>SU</u> <u>LTS</u> <u>S</u>
								PM	39.4	D	<u>SU</u> <u>LTS</u>	21.4	C	<u>SU</u> <u>LTS</u> <u>S</u>
58	Great America	Santa Clara	Add third southbound	Yes	100%		x ^c	AM	28.3	C	LTS	10.2	B	LTS

Table 3.3-36. Phases 1, 2, and 3 Project-Specific Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario	Delay and LOS with Mitigation Measure						
						Existing with Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h
	Parkway/SR 237 EB Ramps ^c	(CMP)	through lane (from Int. 57) and a second eastbound right-turn lane.				PM	11.5	B	LTS	8.3	A	LTS
59	Great America Parkway/ Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right- turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%	x	AM PM	63.3 27.2	E C	SU LTS	66.5 26.7	E C	SU LTS
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	Partial Mitigation: Add second eastbound left-turn lane.	Possible	100%	x	AM PM	67.2 44.1	E D	SU LTS	138.0 72.4	F E	SU SU
84	Gold Street/Gold Street Connector	San José	Add second northbound left turn and second eastbound right turn lane (move pedestrian crossing to north leg of intersection).	Yes	100%		AM PM	25.7 23.6	C C	SU SU			
123	Great America Parkway/Gold Street Connector ^c	San José/Santa Clara	Add a second northbound right-turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%	x ^c	AM PM	9.9 10.0	A A	LTS SU SU	12.2 13.6	B B	LTS U LTS U

Table 3.3-36. Phases 1, 2, and 3 Project-Specific Intersection Mitigation Measures –Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Affected Scenario		Delay and LOS with Mitigation Measure					
						Existing with Phases 1, 2, and 3	Peak Hour	Existing with Project			Existing with Phases 1, 2, and 3		
								Delay ^g	LOS	Sig? ^h	Delay ^g	LOS	Sig? ^h

Notes:

- a. For the Variant Access Scheme analysis, only a subset of intersections were studied (Intersections 8, 9, 10, 11, 12, 13, 14, 57, 58, 59, 60, 61, 62, 63, 84, 85, 86, 87, 88, 89, 90, 114, 123). The impacts and mitigation measures for the other off-site intersections would be the same as Phases 1, 2, and 3 with the Base Access Scheme.
- b. CMP = Congestion Management Program intersection (VTA).
- c. This intersection is not an affected intersection, but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measures will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the added traffic at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.
- i. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under existing no-project conditions and with-Project conditions. See Appendix 3.3-D.

Source: Fehr & Peers, September 2015.

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
1	Fair Oaks Avenue/ Tasman Drive	Sunnyvale	AM	28.0	C	39.1	D	38.8	D	0.006	1.1	1.7%
			PM	35.0	C	46.6	D	56.1	E	0.108	17.8	8.1%
2	Vienna Drive/Tasman Drive	Sunnyvale	AM	14.1	B	14.5	B	14.6	B	0.022	0.2	5.2%
			PM	12.9	B	13.5	B	15.1	B	0.071	2.2	13.0%
3	Lawrence Expressway/ Tasman Drive	Santa Clara County (CMP)	AM	41.0	D	176.2	F	>180	F	0.091	12.3	11.1%
			PM	57.7	E	122.3	F	>180	F	0.213	128.1	16.1%
4	Birchwood Drive/ Tasman Drive	Sunnyvale	AM	13.5	B	13.1	B	14.0	B	0.009	0.3	15.7%
			PM	10.5	B	16.4	B	23.3	C	0.075	11.4	29.6%
5	Reamwood Avenue/ Tasman Drive	Sunnyvale	AM	7.5	A	39.7	D	38.6	D	0.007	4.1	16.4%
			PM	9.2	A	12.6	B	19.5	B	0.066	12.2	35.5%
6	Patrick Henry Drive/ Tasman Drive	Santa Clara	AM	12.1	B	23.3	C	24.0	C	0.007	1.5	16.4%
			PM	13.2	B	21.2	C	24.8	C	0.049	3.1	33.6%
7	Old Ironside Drive/ Tasman Drive	Santa Clara	AM	13.2	B	14.9	B	21.0	C	0.184	19.0	17.0%
			PM	12.7	B	18.8	B	25.5	C	0.122	10.4	35.5%
8	Great America Parkway/ Tasman Drive ⁱ	Santa Clara (CMP)	AM	26.0	C	128.4	F	162.5	F	0.255	64.9	19.7%
			PM	31.5	C	125.7	F	>180	F	0.580	276.3	35.9%
9	Convention Center/ Tasman Drive ⁱ	Santa Clara	AM	16.2	B	125.3	F	131.0	F	0.059	39.1	23.4%
			PM	20.2	C	36.9	D	163.4	F	0.245	155.4	44.4%
10	Future Driveway (west of Centennial Boulevard)/ Tasman Drive	Santa Clara	AM	Future Signalized Intersection				5.7	A	N/A	N/A	27.5%
			PM					38.2	D	N/A	N/A	48.7%
11	Centennial Boulevard/ Tasman Drive ⁱ	Santa Clara	AM	19.8	B	111.1	F	167.9	F	0.302	93.0	29.8%
			PM	19.8	B	46.1	D	>180	F	0.531	182.4	50.5%
12	Future Driveway (east of Centennial Boulevard)/ Tasman Drive	Santa Clara	AM	Future Signalized Intersection				31.4	C	N/A	N/A	33.5%
			PM					23.7	C	N/A	N/A	51.5%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
13	Calle Del Sol/Tasman Drive ⁱ	Santa Clara	AM	10.6	B	44.0	D	127.1	F	0.301	125.8	32.7%
			PM	17.5	B	20.9	C	100.4	F	0.418	128.7	45.4%
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.1	C	61.1	E	>180	F	0.537	207.8	33.0%
			PM	24.4	C	89.7	F	>180	F	0.658	200.8	36.6%
15	Renaissance Drive/Tasman Drive	San José ^j	AM	22.7	C	22.9	C	63.5	E	0.231	59.1	23.4%
			PM	11.4	B	21.9	C	29.6	C	0.046	13.4	25.3%
16	Vista Montana/Tasman Drive	San José ^j	AM	26.1	C	24.5	C	45.3	D	0.210	29.0	22.3%
			PM	23.8	C	44.8	D	52.4	D	0.037	12.1	19.6%
17	Rio Robles/Tasman Drive	San José ^j	AM	24.2	C	48.3	D	127.2	F	0.216	105.6	19.8%
			PM	46.4	D	105.6	F	125.8	F	0.074	29.0	21.0%
18	North 1st Street/Tasman Drive	San José ^j	AM	38.0	D	114.4	F	>180	F	0.216	92.3	10.0%
			PM	42.0	D	60.3	E	75.4	E	0.091	18.0	11.2%
19	Zanker Road/Tasman Drive	San José ^j	AM	37.8	D	66.7	E	92.3	F	0.110	37.6	6.6%
			PM	41.4	D	48.4	D	50.8	D	0.038	4.2	5.1%
20	McCarthy Boulevard/Tasman Drive	Milpitas	AM	34.2	C	102.5	F	146.6	F	0.124	56.3	9.1%
			PM	31.8	C	49.6	D	51.8	D	0.022	5.6	4.6%
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	79.5	E	>180	F	>180	F	0.035	4.1	2.2%
			PM	76.1	E	166.3	F	175.0	F	0.033	16.4	2.2%
22	Agnew Road-De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	AM	51.9	D	>180	F	>180	F	0.430	261.1	7.2%
			PM	79.0	E	>180	F	>180	F	0.236	47.4	7.3%
23	Lick Mill Boulevard/Montague Expressway	Santa Clara County	AM	21.4	C	55.3	E	65.8	E	0.200	47.1	6.7%
			PM	22.0	C	38.4	D	103.5	F	0.232	97.0	9.9%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
24	North 1st Street/Montague Expressway	Santa Clara County (CMP) ⁱ	AM	67.2	E	162.0	F	176.0	F	0.082	19.1	5.1%
			PM	88.9	F	165.9	F	>180	F	0.108	22.3	6.5%
25	Zanker Road/Montague Expressway ⁱ	Santa Clara County (CMP) ^j	AM	58.4	E	148.6	F	169.1	F	0.045	36.8	4.1%
			PM	81.8	F	118.0	F	126.3	F	0.025	9.0	6.4%
26	Montague Expressway/Plumeria Drive-River Oaks Parkway	Santa Clara County ^j	AM	89.7	F	105.5	F	110.6	F	0.061	4.6	3.8%
			PM	170.5	F	167.5	F	164.0	F	0.026	-8.9	7.1%
27	Trimble Road/Montague Expressway	Santa Clara County (CMP) ^j	AM	47.7	D	50.0	D	51.6	D	0.049	0.9	3.4%
			PM	72.7	E	113.2	F	143.5	F	0.122	46.7	5.7%
28	McCarthy Boulevard- O'Toole Avenue/Montague Expressway	Santa Clara County (CMP) ^j	AM	48.2	D	60.0	E	68.8	E	0.034	15.0	3.1%
			PM	63.8	E	116.2	F	122.1	F	0.024	10.8	5.0%
29	De La Cruz Boulevard/Trimble Road	San José (CMP) ^j	AM	28.9	C	34.2	C	76.9	E	0.312	83.3	12.4%
			PM	31.1	C	151.1	F	>180	F	0.247	117.9	9.5%
30	North 1st Street/Trimble Road	San José (CMP) ^j	AM	45.0	D	86.1	F	111.4	F	0.106	44.0	2.4%
			PM	43.8	D	74.1	E	87.6	F	0.093	34.5	3.7%
31	Zanker Road/Trimble Road ⁱ	San José (CMP) ^j	AM	38.2	D	59.3	E	78.0	E	0.116	36.0	1.4%
			PM	38.5	D	79.4	E	82.7	F	0.034	13.9	3.1%
32	North 1st Street/Charcot Avenue	San José ^j	AM	26.2	C	40.5	D	47.7	D	0.042	11.7	2.6%
			PM	23.6	C	31.8	C	35.5	D	0.063	6.1	2.9%
33	Zanker Road/Charcot Avenue ⁱ	San José ^j	AM	22.0	C	25.0	C	25.8	C	0.037	0.3	2.0%
			PM	23.9	C	30.5	C	33.1	C	0.039	4.3	3.8%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
34	North 1st Street/Brokaw Road	San José (CMP) ^j	AM	47.4	D	143.6	F	141.1	F	0.000	0.0	1.1%
			PM	58.9	E	144.4	F	164.9	F	0.056	25.7	1.9%
35	US 101 NB Off-Ramp/Brokaw Road	San José (CMP) ^j	AM	44.2	D	37.8	D	37.8	D	0.000	0.0	0.4%
			PM	22.9	C	22.0	C	21.8	C	0.006	0.1	0.2%
36	Zanker Road/Brokaw Road ⁱ	San José (CMP) ^j	AM	36.7	D	68.4	E	83.6	F	0.083	32.0	1.3%
			PM	43.1	D	95.0	F	109.6	F	0.058	24.3	3.0%
37	Fair Oaks Avenue/Fair Oaks Way	Sunnyvale	AM	14.9	B	17.9	B	18.0	B	0.000	0.0	0.8%
			PM	20.4	C	44.4	D	71.5	E	0.085	34.8	5.4%
38	Fair Oaks Avenue/Weddell Drive	Sunnyvale	AM	18.4	B	22.2	C	22.0	C	0.005	-0.4	0.8%
			PM	17.2	B	24.7	C	33.2	C	0.061	11.7	5.8%
39	Fair Oaks Avenue/US 101 NB Ramps	Sunnyvale	AM	16.1	B	27.2	C	26.4	C	0.000	0.0	0.7%
			PM	22.1	C	38.5	D	51.8	D	0.068	24.6	5.4%
40	Fair Oaks Avenue/E. Ahawanee Avenue	Sunnyvale	AM	17.2	B	17.4	B	17.3	B	0.046	0.1	0.9%
			PM	11.6	B	12.0	B	11.9	B	0.047	0.1	2.5%
41	Fair Oaks Avenue/Duane Avenue	Sunnyvale	AM	27.3	C	28.2	C	29.5	C	0.033	-0.1	0.9%
			PM	30.1	C	36.8	D	39.0	D	0.045	3.2	2.1%
42	Fair Oaks Avenue/Wolfe Road	Sunnyvale	AM	11.6	B	12.0	B	12.0	B	0.020	0.4	0.4%
			PM	12.1	B	13.8	B	14.7	B	0.053	1.1	2.2%
43	Fair Oaks Avenue/Maude Avenue	Sunnyvale	AM	28.8	C	33.7	C	34.5	C	0.019	1.2	0.0%
			PM	27.3	C	61.5	E	73.6	E	0.049	18.1	2.6%
44	Fair Oaks Avenue/E. Arques Avenue	Sunnyvale	AM	27.8	C	34.4	C	34.8	C	0.019	1.1	0.0%
			PM	29.7	C	65.9	E	95.3	F	0.111	43.8	2.8%
45	Fair Oaks Avenue/Evelyn Avenue	Sunnyvale	AM	27.8	C	28.7	C	29.3	C	0.021	0.7	0.0%
			PM	26.0	C	56.4	E	62.4	E	0.021	8.8	2.4%
46	Lawrence Expressway/Sandia Avenue	Santa Clara County	AM	50.9	D	71.7	E	95.4	F	0.169	3.2	11.0%
			PM	58.4	E	74.6	E	81.3	F	0.133	11.9	9.4%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
47	Lawrence Expressway/US 101 NB Ramps	Santa Clara County	AM	23.1	C	24.2	C	25.5	C	0.111	1.8	8.3%
			PM	22.6	C	28.8	C	48.8	D	0.177	35.5	8.7%
48	Lawrence Expressway/US 101 SB Ramps	Santa Clara County	AM	33.8	C	31.5	C	30.5	C	0.090	-2.5	7.7%
			PM	90.8	F	77.5	E	85.8	F	0.071	19.4	7.4%
49	Lawrence Expressway/Oakmead Parkway	Santa Clara County	AM	46.9	D	81.2	F	128.2	F	0.119	70.4	7.9%
			PM	52.1	D	90.2	F	141.7	F	0.132	87.0	7.1%
50	Lawrence Expressway/Arques Avenue ⁱ	Santa Clara County (CMP)	AM	41.2	D	58.9	E	59.8	E	0.041	1.3	0.3%
			PM	66.9	E	56.4	E	62.7	E	0.040	12.1	3.7%
51	Lawrence Expressway/Kifer Road	Santa Clara County	AM	27.7	C	61.4	E	92.0	F	0.106	47.9	5.2%
			PM	50.5	D	91.5	F	106.8	F	0.062	24.9	6.5%
52	Lawrence Expressway/Reed Avenue-Monroe Street ⁱ	Santa Clara County (CMP)	AM	98.2	F	155.0	F	>180	F	0.096	42.9	4.8%
			PM	76.2	E	174.2	F	>180	F	0.047	22.9	5.6%
53	Lawrence Expressway/Cabrillo Avenue	Santa Clara County	AM	44.0	D	90.7	F	115.3	F	0.060	38.3	4.5%
			PM	47.1	D	107.7	F	125.9	F	0.062	27.6	5.8%
54	Lawrence Expressway/Benton Street	Santa Clara County	AM	80.6	F	125.5	F	141.9	F	0.047	23.9	3.0%
			PM	47.3	D	121.8	F	140.2	F	0.046	35.1	4.4%
55	Lawrence Expressway/Homestead Road	Santa Clara County (CMP)	AM	73.5	E	135.3	F	144.0	F	0.047	15.4	2.3%
			PM	56.7	E	168.8	F	>180	F	0.076	33.6	2.9%
56	Lawrence Expressway/Pruneridge Avenue	Santa Clara County	AM	62.5	E	100.8	F	110.2	F	0.024	8.9	2.4%
			PM	48.5	D	147.9	F	159.5	F	0.004	-1.2	2.7%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
57	Great America Parkway/SR 237 WB Ramps	San José (CMP); Santa Clara (CMP)	AM	20.9	C	27.9	C	90.4	F	0.299	96.1	47.7%
			PM	18.9	B	20.0	B	42.7	D	0.361	30.9	48.4%
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	10.9	B	13.3	B	61.7	E	0.420	70.8	56.3%
			PM	8.6	A	13.5	B	27.4	C	0.220	25.1	46.0%
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	27.0	C	29.9	C	76.9	E	0.293	60.0	49.8%
			PM	31.4	C	59.0	E	165.9	F	0.392	161.9	37.8%
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	19.2	B	21.9	C	91.0	F	0.335	114.3	42.8%
			PM	26.6	C	48.9	D	113.1	F	0.182	100.1	36.2%
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection				22.1	C	N/A	N/A	52.7%
			PM					22.8	C	N/A	N/A	47.6%
62	Great America Parkway/Future Driveway (north of Bunker Hill Lane)	Santa Clara	AM	Future Signalized Intersection				21.0	C	N/A	N/A	39.1%
			PM					25.3	C	N/A	N/A	43.9%
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	12.9	B	14.5	B	13.7	B	0.040	-3.9	22.0%
			PM	15.6	B	16.8	B	18.9	B	0.192	4.6	31.4%
64	Great America Parkway/Old Glory Lane	Santa Clara	AM	20.1	C	112.5	F	168.3	F	0.170	106.0	16.0%
			PM	24.4	C	104.4	F	>180	F	0.337	281.1	29.3%
65	Great America Parkway/Patrick Henry Drive	Santa Clara	AM	19.7	B	52.7	D	65.1	E	0.061	32.6	13.3%
			PM	25.2	C	88.6	F	>180	F	0.320	150.8	25.7%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
66	Great America Parkway/Mission College Boulevard ⁱ	Santa Clara (CMP)	AM	37.7	D	56.0	E	74.5	E	0.123	34.1	10.3%
			PM	44.4	D	60.1	E	121.5	F	0.257	95.6	17.9%
67	Great America Parkway- Bowers Avenue/US 101 NB Ramps	Santa Clara (CMP)	AM	18.7	B	18.4	B	18.8	B	0.071	1.1	8.7%
			PM	12.6	B	14.2	B	15.4	B	0.052	2.1	18.1%
68	Bowers Avenue/US 101 SB Ramps	Santa Clara (CMP)	AM	23.7	C	26.2	C	27.0	C	0.050	1.6	6.5%
			PM	8.3	A	12.6	B	12.7	B	0.028	0.3	11.3%
69	Bowers Avenue/Augustine Drive ⁱ	Santa Clara	AM	31.5	C	36.6	D	43.0	D	0.099	10.8	4.0%
			PM	44.6	D	88.7	F	123.1	F	0.118	50.4	10.8%
70	Bowers Avenue/Scott Boulevard ⁱ	Santa Clara (CMP)	AM	31.6	C	54.2	D	80.4	F	0.122	44.1	3.5%
			PM	35.1	D	56.0	E	93.7	F	0.199	69.9	9.1%
71	Bowers Avenue/Central Expressway	Santa Clara County (CMP)	AM	49.9	D	> 180	F	> 180	F	0.073	32.7	1.1%
			PM	64.6	E	> 180	F	> 180	F	0.026	14.6	3.4%
72	Bowers Avenue/Kifer Road-Walsh Avenue	Santa Clara	AM	20.5	C	35.7	D	43.6	D	0.064	13.0	2.3%
			PM	25.4	C	68.7	E	84.0	F	0.058	25.1	4.9%
73	Bowers Avenue/Monroe Street	Santa Clara	AM	33.2	C	36.6	D	37.1	D	0.019	0.4	1.8%
			PM	38.8	D	116.1	F	172.9	F	0.161	68.2	3.2%
74	Bowers Avenue/El Camino Real ⁱ	Santa Clara (CMP)	AM	30.4	C	75.9	E	81.1	F	0.021	9.0	0.8%
			PM	35.5	D	76.2	E	82.6	F	0.030	12.4	1.5%
75	San Tomas Expressway/Scott Boulevard	Santa Clara County (CMP)	AM	58.4	E	> 180	F	> 180	F	0.185	175.3	2.6%
			PM	66.2	E	88.3	F	111.8	F	0.113	32.4	2.3%
76	San Tomas Expressway/Walsh Avenue	Santa Clara County	AM	60.2	E	163.9	F	> 180	F	0.046	25.4	3.0%
			PM	48.0	D	107.7	F	137.1	F	0.038	19.6	3.8%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
77	San Tomas Expressway/Monroe Street	Santa Clara County (CMP)	AM	103.7	F	>180	F	>180	F	0.058	24.0	2.6%
			PM	55.2	E	90.6	F	98.3	F	0.018	7.8	3.6%
78	San Tomas Expressway/El Camino Real ⁱ	Santa Clara County (CMP)	AM	71.9	E	>180	F	>180	F	0.051	24.1	2.1%
			PM	57.3	E	118.5	F	126.9	F	0.029	15.0	3.0%
79	San Tomas Expressway/Benton Street ⁱ	Santa Clara County	AM	41.9	D	138.1	F	156.9	F	0.049	28.4	2.6%
			PM	37.8	D	57.9	E	58.3	E	0.007	1.1	3.7%
80	San Tomas Expressway/Homestead Road ⁱ	Santa Clara County (CMP)	AM	53.0	D	144.4	F	167.3	F	0.083	37.3	2.4%
			PM	57.9	E	109.4	F	120.4	F	0.045	17.1	3.1%
81	San Tomas Expressway/Forbes Avenue ⁱ	Santa Clara County	AM	26.4	C	23.8	C	29.2	C	0.017	0.2	3.1%
			PM	24.3	C	23.4	C	35.2	D	0.078	28.0	3.6%
82	San Tomas Expressway/Pruneridge Avenue ⁱ	Santa Clara County	AM	69.1	E	>180	F	>180	F	0.049	24.1	2.5%
			PM	50.8	D	82.0	F	87.5	F	0.021	8.7	3.3%
83	San Tomas Expressway/Saratoga Avenue ⁱ	Santa Clara County (CMP)	AM	73.7	E	116.8	F	132.1	F	0.052	24.6	2.4%
			PM	55.4	E	120.8	F	130.7	F	-0.008	-11.0	3.0%
84	Gold Street/Gold Street Connector	San José ⁱ	AM	22.7	C	24.3	C	96.7	F	0.638	84.6	49.8%
			PM	21.7	C	21.8	C	32.5	C	0.409	16.5	43.0%
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection				46.8	D	N/A	N/A	63.0%
			PM					39.0	D	N/A	N/A	51.7%
86	Lafayette Street/Future Driveway (south of Great America Way)	Santa Clara	AM	Future Signalized Intersection				15.9	B	N/A	N/A	43.3%
			PM					18.2	B	N/A	N/A	51.2%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection				32.4	C	N/A	N/A	69.7%
			PM					29.9	C	N/A	N/A	78.3%
90	Lafayette Street/Calle De Luna	Santa Clara	AM	15.5	B	17.9	B	105.5	F	0.617	106.7	56.9%
			PM	19.2	B	18.5	B	26.4	C	0.379	12.4	60.0%
91	Lafayette Street/Hogan Drive	Santa Clara	AM	9.8	A	9.5	A	13.0	B	0.455	7.2	51.0%
			PM	10.5	B	9.8	A	12.7	B	0.335	6.8	51.0%
92	Lafayette Street/Eisenhower Drive	Santa Clara	AM	10.4	B	9.8	A	34.9	C	0.469	33.4	47.4%
			PM	8.1	A	7.5	A	9.5	A	0.250	3.2	52.5%
93	Lafayette Street/Hope Drive	Santa Clara	AM	20.5	C	19.3	B	29.6	C	0.467	17.6	43.3%
			PM	13.7	B	17.7	B	29.1	C	0.363	19.1	42.3%
94	Lafayette Street/Agnew Road	Santa Clara	AM	38.7	D	36.6	D	51.0	D	0.452	24.0	38.9%
			PM	41.0	D	43.9	D	87.0	F	0.384	71.0	35.8%
95	Lafayette Street/Palm Drive	Santa Clara	AM	7.2	A	7.0	A	12.6	B	0.435	9.2	45.4%
			PM	14.3	B	13.0	B	12.0	B	0.237	-0.4	42.6%
96	Lafayette Street/Montague Expressway WB Ramps	Santa Clara	AM	34.1	C	41.4	D	111.5	F	0.510	86.2	40.3%
			PM	26.1	C	38.2	D	37.7	D	0.121	4.6	37.9%
97	Lafayette Street/Montague Expressway EB Ramps	Santa Clara	AM	14.0	B	13.0	B	13.2	B	0.177	0.6	25.7%
			PM	13.0	B	11.6	B	12.3	B	0.130	1.6	34.7%
98	Lafayette Street/Central Expressway ⁹	Santa Clara County (CMP)	AM	60.5	E	>180	F	>180	F	0.058	16.5	5.8%
			PM	63.5	E	115.5	F	127.0	F	0.028	16.6	7.6%
99	Lafayette Street/Walsh Avenue	Santa Clara	AM	12.7	B	14.1	B	16.1	B	0.084	3.1	11.1%
			PM	19.2	B	20.5	C	21.9	C	0.048	2.2	12.6%
100	Lafayette Street/Martin Avenue	Santa Clara	AM	20.0	B	23.3	C	24.9	C	0.076	2.5	9.2%
			PM	19.6	B	25.2	C	26.4	C	0.048	1.9	9.6%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
101	Lafayette Street/Mathew Street-Memorex Drive	Santa Clara	AM	9.7	A	13.1	B	18.1	B	0.078	6.7	11.4%
			PM	10.1	B	11.8	B	12.4	B	0.024	0.9	12.8%
102	Lafayette Street/El Camino Real ⁹	Santa Clara (CMP)	AM	41.7	D	87.4	F	118.9	F	0.122	50.0	6.0%
			PM	39.6	D	64.3	E	78.8	E	0.059	19.1	6.3%
103	Lafayette Street/Lewis Street	Santa Clara	AM	9.5	A	8.1	A	8.0	A	0.071	0.0	13.0%
			PM	37.2	D	122.0	F	141.2	F	0.071	31.0	8.9%
104	Lafayette Street/Benton Street	Santa Clara	AM	18.4	B	17.5	B	17.5	B	0.055	0.1	11.2%
			PM	17.1	B	17.7	B	18.3	B	0.029	0.7	8.9%
105	Lafayette Street/Homestead Road	Santa Clara	AM	10.2	B	10.3	B	10.3	B	0.054	0.1	11.9%
			PM	10.9	B	10.1	B	10.3	B	0.025	0.0	9.7%
106	Lafayette Street/Market Street	Santa Clara	AM	34.3	C	37.0	D	39.8	D	0.060	3.1	12.5%
			PM	28.3	C	37.1	D	41.6	D	0.042	3.9	9.9%
107	Lafayette Street/Poplar Street	Santa Clara	AM	13.8	B	13.3	B	13.4	B	0.039	0.5	14.5%
			PM	10.1	B	10.2	B	10.3	B	0.032	0.3	12.1%
110	North 1st Street/Nortech Parkway	San José	AM	13.9	B	11.6	B	11.2	B	0.021	-0.4	5.0%
			PM	20.1	C	18.1	B	16.8	B	0.055	-1.4	24.8%
111	North 1st Street/SR 237 WB Ramps	San José (CMP) ^j	AM	15.6	B	16.6	B	18.4	B	0.084	1.3	6.5%
			PM	20.2	C	24.6	C	27.0	C	0.055	3.3	12.3%
112	North 1st Street/SR 237 EB Ramps ⁱ	San José (CMP) ^j	AM	24.8	C	50.9	D	54.2	D	0.010	3.9	0.5%
			PM	21.3	C	30.8	C	39.5	D	0.083	11.5	8.7%
113	North 1st Street/Vista Montana	San José ^j	AM	30.8	C	27.4	C	27.4	C	0.004	0.0	0.3%
			PM	36.1	D	37.9	D	38.1	D	0.006	0.4	1.6%
115	Lick Mill Boulevard/Hope Drive	Santa Clara	AM	26.6	C	25.9	C	23.6	C	0.08	-12	27.0%
			PM	23.6	C	27.3	C	36.0	D	0.268	13.5	25.7%
117	Agnew Road/Sun Fire Way	Santa Clara	AM	10.4	B	10.6	B	10.6	B	0.000	0.0	0.0%
			PM	17.4	B	16.6	B	15.1	B	0.086	-1.6	12.3%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contribution
118	De La Cruz Boulevard/Greenwood Drive	Santa Clara	AM	9.3	A	7.6	A	7.4	A	0.217	-0.6	38.4%
			PM	8.2	A	7.3	A	6.9	A	0.064	0.1	28.9%
119	De La Cruz Boulevard/Aldo Avenue	Santa Clara	AM	16.5	B	16.2	B	16.7	B	0.222	-1.7	30.3%
			PM	16.0	B	49.8	D	66.0	E	0.078	27.5	21.3%
120	De La Cruz Boulevard/Laurelwood Road	Santa Clara	AM	15.9	B	55.1	E	>180	F	0.261	193.6	26.6%
			PM	16.7	B	122.4	F	>180	F	0.173	92.3	19.9%
121	De La Cruz Boulevard/Central Expressway ⁱ	Santa Clara County (CMP)	AM	115.7	F	>180	F	>180	F	0.159	67.3	2.4%
			PM	43.7	D	>180	F	>180	F	0.060	231.0	3.6%
122	De La Cruz Boulevard/Reed Avenue	Santa Clara	AM	12.2	B	>180	F	>180	F	0.048	32.0	1.9%
			PM	14.3	B	90.2	F	91.5	F	0.021	8.9	3.8%
123	Great America Parkway/Gold Street Connector	San José/Santa Clara	AM	11.8	B	11.5	B	22.7	C	0.519	8.8	49.8%
			PM	13.1	B	13.8	B	12.8	B	0.083	-2.5	36.9%
124	Scott Boulevard/Central Expressway ⁱ	Santa Clara County (CMP)	AM	45.9	D	149.0	F	156.1	F	0.078	2.4	0.1%
			PM	71.7	E	>180	F	>180	F	0.082	57.3	1.5%
125	San Tomas Expressway/Stevens Creek Boulevard ⁱ	Santa Clara County (CMP)	AM	63.5	E	>180	F	>180	F	0.033	14.2	1.6%
			PM	59.9	E	142.6	F	147.8	F	-0.104	11.2	2.0%

Table 3.3-49. Cumulative with-Project Signalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project			
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. AM = morning peak hour, PM = evening peak hour
- c. "Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction (see Appendix 3.3-B and Appendix 3.3-D).
- d. "Cumulative" presents the delay and LOS for intersections, using 2040 geometry and traffic volumes estimated using the VTA travel demand model.
- e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.
- f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 *Highway Capacity Manual*.
- g. Change in critical volume-to-capacity ratio between cumulative without-Project and cumulative with-Project conditions.
- h. Change in average critical movement delay between cumulative without-Project and cumulative with-Project conditions.
- i. Geometry has been modified to include the improvements for projects under construction and planned under Cumulative conditions as outlined in Appendix 3.3-D.
- j. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- k. Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.

Bold text indicates unacceptable operations according to the jurisdiction's LOS standard.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
1	Fair Oaks Avenue/ Tasman Drive	Sunnyvale	Reconfigure the eastbound approach to include one left-turn lane, one through lane, and one shared through/right-turn lane.	Possible	% of Total Traffic	x	AM PM	38.8 52.0	D D	SU SU
3	Lawrence Expressway/ Tasman Drive	Santa Clara County (CMP)	No feasible mitigation (no right-of-way is available).	N/A	0%		AM PM	--- ---	--- ---	SU SU
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right-turn lane and add a third westbound left-turn lane.	Yes	100%		AM PM	149.8 >180	F F	SU SU
9	Convention Center/Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM PM	--- ---	--- ---	SU SU
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM PM	--- ---	--- ---	SU SU
13	Calle Del Sol/Tasman Drive*	Santa Clara	Add a westbound right-turn lane. Reconfigure southbound approach to include two left-turn lanes and one right-turn lane with overlap phase.	Yes	100%		AM PM	43.1 23.3	D C	LTS LTS
14	Lick Mill Boulevard/ Tasman Drive	Santa Clara	Partial Mitigation: Reconfigure northbound and southbound approaches to two left-turn lanes, one through lane, and one right-turn lane. Change phasing on northbound/southbound approaches from split to protected. Add a second westbound left-turn lane.	Yes	100%		AM PM	154.9 115.7	F F	SU SU
15	Renaissance Drive/Tasman Drive	San José ^b	No feasible mitigation (no right-of-way is available). Off-setting Mitigation: Light-rail operations capital improvements.**	No	Pay North San José fee or fair- share contribution of off-setting mitigation	x	AM PM	--- ---	--- ---	SU SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
17	Rio Robles/Tasman Drive	San José ^b	Widen the southbound approach to include one left-turn lane and one shared through/right-turn lane. Change phasing on the northbound/southbound approaches from split to protected. <u>Install crosswalk treatments that enhance visibility and traffic surveillance cameras at the intersection (but without any communications).</u>	Yes	Pay North San José fee or fair-share contribution of off-setting mitigation		AM PM	44.3 60.0	D E	SU SU
18	North 1st Street/Tasman Drive	San José ^b	No feasible mitigation (no right-of-way is available). Off-setting Mitigation: A new bus/shuttle stop (including right-of-way) is a proposed improvement at this location.**	Yes	Pay fair-share contribution of off-setting mitigation		AM PM	--- ---	--- ---	SU SU
19	Zanker Road/Tasman Drive	San José ^b	No feasible mitigation (no right-of-way is available). Off-Setting Mitigation: Light-rail operations capital improvements.	No	Pay North San José fee or fair-share contribution of off-setting mitigation	x	AM PM	--- ---	--- ---	SU SU
20	McCarthy Boulevard/Tasman Drive	Milpitas	No feasible mitigation (no right-of-way is available).	N/A	0%	x	AM PM	--- ---	--- ---	SU SU
21	Mission College Boulevard/Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a third southbound left-turn lane (VTP 2040 #X14).	Possible	% of Total Traffic		AM PM	>180 141.6	F F	SU SU
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).**	Yes	% of Total Traffic	AM PM	--- ---	--- ---	SU SU	
22	Agnew Road-De La Cruz Boulevard/Montague Expressway	Santa Clara County (CMP)	Partial Mitigation: Add a second northbound left-turn lane.	Possible	100%		AM PM	>180 >180	F F	SU SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
23	Lick Mill Boulevard/Montague Expressway	Santa Clara County	Partial Mitigation: Add a third southbound left-turn lane.	No	100%		AM	65.8	E	SU
							PM	86.1	F	SU
24	North 1st Street/ Montague Expressway	Santa Clara County (CMP) ^b	No feasible mitigation measure (no right-of-way is available). Off-setting Mitigation: Future interchange, which includes grade separation of the light rail, is planned.**	Yes	Pay North San José fee or fair- share contribution of off-setting mitigation		AM	---	---	SU
							PM	---	---	SU
25	Zanker Road/ Montague Expressway*	Santa Clara County (CMP) ^b	No feasible mitigation (no right-of-way is available). Off-setting Mitigation: HOV-type signal improvements that could support future Bus Rapid Transit facilities.**	No	Pay North San José fee or fair- share contribution of off-setting mitigation		AM	---	---	SU
							PM	---	---	SU
26	Montague Expressway/ Plumeria Drive- River Oaks Parkway	Santa Clara County ^b	Partial Mitigation: Install an eastbound right-turn overlap phase and limit northbound U-turns.	No	Pay North San José fee or fair- share contribution of alternative or off-setting mitigation		AM	110.1	F	SU
							PM	100.1	F	SU
27	Trimble Road/Montague Expressway	Santa Clara County (CMP) ^b	A "fly-over" is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). <u>The City of San José is fully responsible for implementing this improvement.</u>	Yes	0% of Total Traffic		AM	---	---	SU
							PM	---	---	SU
28	McCarthy Boulevard-O'Toole Avenue/ Montague Expressway	Santa Clara County (CMP) ^b	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	0% of Total Traffic		AM	---	---	SU
							PM	---	---	SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
29	De La Cruz Boulevard/ Trimble Road	San José (CMP) ^b	Partial Mitigation: Add a third southbound left-turn lane.	Yes	Pay North San José fee or fair-share contribution of partial mitigation		AM PM	76.0 >180	E F	SU SU
30	North 1st Street/Trimble Road	San José (CMP) ^b	Partial Mitigation: Add a second eastbound left-turn lane and add an exclusive westbound right-turn lane (North San José Deficiency Plan, January 2006).	Yes	Pay North San José fee or fair-share contribution of partial mitigation		AM PM	87.8 73.8	F E	SU SU
31	Zanker Road/Trimble Road*	San José (CMP) ^b	No feasible intersection mitigation measure was identified (no right-of-way is available). Off-setting Mitigation: Pedestrian facilities along both sides of Zanker Road between Trimble Road and Charcot Avenue.**	No	Pay North San José fee or fair-share contribution of off-setting mitigation	x	AM PM	--- ---	--- ---	SU SU
34	North 1st Street/Brokaw Road	San José (CMP) ^b	Add a third westbound left-turn lane. Off-setting Mitigation: Bicycle facilities along North 1st Street between Brokaw Road and Gish Road; continue the sidewalk on the southeast corner of the intersection to the US 101 northbound loop on-ramp.**	No	Pay North San José fee or fair-share contribution of off-setting mitigation		AM PM	140.4 136.7	F F	SU SU
36	Zanker Road/Brokaw Road*	San José (CMP) ^b	Add a second eastbound left-turn lane, a second northbound left-turn lane, and a second southbound left-turn lane (North San José Deficiency Plan, January 2006).	Possible	Pay North San José fee or fair-share contribution of partial mitigation	x	AM PM	60.9 56.9	E E	SU SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
37	Fair Oaks Avenue/Fair Oaks Way	Sunnyvale	Add a second eastbound right-turn lane.	Possible	% of Total Traffic	x	AM PM	17.9 29.2	B C	SU SU
43	Fair Oaks Avenue/Maude Avenue	Sunnyvale	Add an eastbound right-turn lane.	Yes	% of Total Traffic	x	AM PM	34.5 49.9	C D	SU SU
44	Fair Oaks Avenue/ E Arques Avenue	Sunnyvale	Partial Mitigation: Add a southbound right-turn lane (identified in the Sunnyvale Deficiency Plan).	No	% of Total Traffic	x	AM PM	33.8 74.6	C E	SU SU
45	Fair Oaks Avenue/Evelyn Avenue	Sunnyvale	Add a southbound right-turn lane.	Yes	% of Total Traffic	x	AM PM	29.3 39.2	C D	SU SU
46	Lawrence Expressway/ Sandia Avenue	Santa Clara County	Partial Mitigation: Signalize Lawrence Expressway/Bridgewood Way-Lakewood Way.	Possible	% of Total Traffic	x	AM PM	94.9 79.0	F E	SU SU
48	Lawrence Expressway/US 101 SB Ramps	Santa Clara County	Convert eastbound left-turn lane to a shared left-turn/right-turn lane.	No	100%		AM PM	21.0 53.7	C D	SU SU
49	Lawrence Expressway/ Oakmead Parkway	Santa Clara County	Grade separation of Lawrence Expressway and Oakmead Parkway.	Yes	% of Total Traffic	x	AM PM	--- ---	--- ---	SU SU
51	Lawrence Expressway/ Kifer Road	Santa Clara County	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).	Yes	% of Total Traffic	x	AM PM	--- ---	--- ---	SU SU
52	Lawrence Expressway/ Reed Avenue-Monroe Street*	Santa Clara County (CMP)	An interchange is identified at this intersection as a Tier 1B priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005).	Yes	% of Total Traffic		AM PM	--- ---	--- ---	SU SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
53	Lawrence Expressway/ Cabrillo Avenue	Santa Clara County	An interchange is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		AM PM	--- ---	--- ---	SU SU
54	Lawrence Expressway/ Benton Street	Santa Clara County	Partial Mitigation: Add a second southbound left-turn lane and a second eastbound left-turn lane.	Possible	100%		AM PM	137.3 132.6	F F	SU SU
55	Lawrence Expressway/ Homestead Road	Santa Clara County (CMP)	Add a third eastbound through lane and a third westbound through lane (Yahoo! Santa Clara Campus TIA, August 2009; City of Sunnyvale Citywide Deficiency Plan, September 2005; and City of Santa Clara Traffic Mitigation Program, June 2011).	Possible	100%		AM PM	111.9 154.5	F F	SU SU
56	Lawrence Expressway/ Pruneridge Avenue	Santa Clara County	An interchange is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		AM PM	--- ---	--- ---	SU SU
57	Great America Parkway/SR 237 WB Ramps	San José (CMP) ^b Santa Clara (CMP)	Add third westbound left-turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%		AM PM	45.8 32.8	D C	SU SU
58	Great America Parkway/SR 237 EB Ramps ^c	Santa Clara (CMP)	Add third southbound through lane (from Int. 57) and a second eastbound right-turn lane.	Yes	100%		AM PM	27.7 27.3	C C	LTS LTS
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%		AM PM	50.7 67.7	D E	LTS SU
60	Great America Parkway/Old Mountain View- Alviso Road	Santa Clara	Partial Mitigation: Add a second eastbound left-turn lane.	Yes	100%		AM PM	90.9 55.1	F E	SU SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
64	Great America Parkway/Old Glory Lane	Santa Clara	Partial Mitigation: Add a second northbound left-turn lane. Install an overlap phase for eastbound right-turning vehicles (Yahoo! Santa Clara Campus TIA, August 2009).	No	100%		AM PM	86.5 >180	F F	LTS SU
65	Great America Parkway/ Patrick Henry Drive	Santa Clara	Partial Mitigation: Add a second northbound left-turn lane and an eastbound free-right-turn lane. The eastbound right-turn lane includes the addition of a fourth southbound lane on Great America Parkway between Patrick Henry Drive and Mission College Boulevard (Yahoo! Santa Clara Campus TIA, August 2009).	Yes	100%		AM PM	23.9 119.3	C F	LTS SU
66	Great America Parkway/ Mission College Boulevard*	Santa Clara (CMP)	Partial Mitigation: Add a southbound and a westbound right-turn pocket (Yahoo! Santa Clara Campus TIA, August 2009).	Possible	100%		AM PM	74.8 111.2	E F	LTS SU
69	Bowers Avenue/ Augustine Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM PM	--- ---	--- ---	LTS SU
70	Bowers Avenue/Scott Boulevard*	Santa Clara (CMP)	Add a second southbound left-turn lane.	No	% of Total Traffic	x	AM PM	48.8 67.5	D E	LTS LTS
71	Bowers Avenue/Central Expressway	Santa Clara County (CMP)	Partial Mitigation: Add third southbound left-turn lane and third eastbound left-turn lane.	No	100%		AM PM	>180 >180	F F	SU SU
			An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).**	Yes	% of Total Traffic		AM PM	--- ---	--- ---	SU SU
72	Bowers Avenue/Kifer Road-Walsh Avenue	Santa Clara	Partial Mitigation: Add a second eastbound left-turn lane.	No	% of Total Traffic	x	AM PM	38.1 71.7	D E	LTS SU
73	Bowers Avenue/ Monroe Street	Santa Clara	Add a northbound and a southbound left-turn lane. Change the northbound and southbound from split to protected left-turn phasing	No	100%		AM PM	31.5 56.5	C E	LTS LTS

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
74	Bowers Avenue/El Camino Real*	Santa Clara (CMP)	Add a second eastbound left-turn lane.	Possible	% of Total Traffic	x	AM	66.9	E	LTS
							PM	69.4	E	LTS
75	San Tomas Expressway/ Scott Boulevard	Santa Clara County (CMP)	Partial Mitigation: A second westbound right-turn lane is identified as a Tier 1C priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009; City of Santa Clara Traffic Mitigation Program, June 2011).	No	% of Total Traffic		AM	>180	F	SU
							PM	151.9	F	SU
			An interchange is identified at the intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009). **	No	% of Total Traffic		AM	---	---	SU
							PM	---	---	SU
76	San Tomas Expressway/ Walsh Avenue	Santa Clara County	Partial Mitigation: Add a second eastbound left-turn lane.	No	100%		AM	175.4	F	SU
							PM	111.7	F	SU
77	San Tomas Expressway/ Monroe Street	Santa Clara County (CMP)	Partial Mitigation: A second northbound left-turn lane is identified at this intersection as a Tier 3 priority (Comprehensive County Expressway Planning Study Policy Advisory Board 2015 Update, March 23, 2015).	Yes	% of Total Traffic		AM	>180	F	SU
							PM	98.2	F	SU
78	San Tomas Expressway/ El Camino Real*	Santa Clara County (CMP)	An interchange is identified at the intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		AM	---	---	SU
							PM	---	---	SU
79	San Tomas Expressway/ Benton Street*	Santa Clara County	Partial Mitigation: Add a second eastbound left-turn lane.	Possible	100%		AM	140.1	F	SU
							PM	53.4	D	SU
80	San Tomas Expressway/ Homestead Road*	Santa Clara County (CMP)	Add a second eastbound left-turn lane.	Possible	% of Total Traffic	x	AM	131.9	F	SU
							PM	108.2	F	SU
82	San Tomas Expressway/ Pruneridge Avenue*	Santa Clara County	Partial Mitigation: Add a second northbound left-turn lane.	No	100%		AM	156.2	F	SU
							PM	83.0	F	SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
83	San Tomas Expressway/ Saratoga Avenue*	Santa Clara County (CMP)	Add a third eastbound left-turn lane.	Yes	% of Total Traffic		AM PM	116.2 120.7	F F	SU SU
84	Gold Street/Gold Street Connector	San José ^b	<u>Convert northbound through lane to a shared left-turn/through lane, and add a second eastbound right-turn lane. Add second northbound left-turn lane and a second eastbound right-turn lane (move pedestrian crossing to north leg of intersection).</u>	Yes	100%		AM PM	29.62 8.1 30.62 5.2	C C	SU SU
90	Lafayette Street/Calle De Luna	Santa Clara	Partial Mitigation: Reconstruct the westbound approach to include two left-turn lanes and one right-turn lane.	No	100%		AM PM	77.7 23.4	E C	SU LTS
94	Lafayette Street/Agnew Road	Santa Clara	Add a second eastbound left-turn lane and a second southbound left-turn lane.	No	100%		AM PM	43.0 52.5	D D	LTS LTS
96	Lafayette Street/Montague Expressway WB Ramps	Santa Clara	Add second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	No	100%		AM PM	47.4 34.6	D C	LTS LTS
98	Lafayette Street/Central Expressway	Santa Clara County (CMP)	Grade separation of Central Expressway and Lafayette Street.	Yes	% of Total Traffic		AM PM	--- ---	--- ---	SU SU
102	Lafayette Street/El Camino Real*	Santa Clara (CMP)	Partial Mitigation: Add a second eastbound left-turn lane.	No	% of Total Traffic	x	AM PM	92.3 65.7	F E	SU LTS
103	Lafayette Street/Lewis Street	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM PM	--- ---	--- ---	LTS SU
114	Calle Del Sol/Calle Del Luna	Santa Clara	Signalize.	Possible	100%		AM PM	13.6 12.3	B B	LTS LTS
119	De La Cruz Boulevard/ Aldo Avenue	Santa Clara	Add an eastbound overlap phase.	No	% of Total Traffic	x	AM PM	16.1 31.9	B C	LTS LTS

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h
120	De La Cruz Boulevard/ Laurelwood Road	Santa Clara	Reconfigure the northbound and southbound approaches to include one left-turn lane, one through, and one shared through/right-turn lane and change the phasing in the northbound and southbound directions from split to protected. Signal modifications to increase cycle length.	No	100%		AM	15.0	B	LTS
							PM	24.9	C	LTS
121	De La Cruz Boulevard/ Central Expressway*	Santa Clara County (CMP)	Partial Mitigation: Install second southbound right-turn lane and a third northbound left-turn lane.	Yes	% of Total Traffic		AM	>180	F	SU
							PM	>180	F	SU
122	De La Cruz Boulevard/ Reed Avenue	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%	x	AM	---	---	SU
							PM	---	---	SU
123	Great America Parkway/Gold Street Connector ^c	San José ^b Santa Clara	Add a second northbound right-turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%		AM	9.3	A	LTSS U
							PM	9.8	A	LTSS U
124	Scott Boulevard/ Central Expressway	Santa Clara County (CMP)	Partial Mitigation: Add third southbound left-turn lane.	Yes	% of Total Traffic		AM	146.9	F	SU
							PM	>180	F	SU
125	San Tomas Expressway/ Stevens Creek Boulevard*	Santa Clara County (CMP)	Add a westbound right-turn lane and add a third southbound left-turn lane.** An interchange is identified at this intersection as a Tier 2 priority (Comprehensive County Expressway Planning Study 2008 Update, March 2009).	Yes	% of Total Traffic		AM	144.4	F	SU
							PM	141.9	F	SU
				Yes	% of Total Traffic		AM	---	---	SU
							PM	---	---	SU

Table 3.3-50. Cumulative with-Project Intersection Mitigation Measures

ID	Intersection	Jurisdiction/ CMP ^a	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig? ^h

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.
- c. This intersection is not an affected intersection, but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measures will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the added traffic at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under cumulative no-project conditions and with-Project conditions. See Appendix 3.3-D.

**City-preferred mitigation option. Valid when there are two mitigation options presented.

Source: Fehr & Peers, September 2015.

Table 3.3-51. Cumulative with-Project Unsignalized Intersection LOS Results

ID	Intersection	Jurisdiction/ CMP ^a	Unsig. Type ^b	Peak Hour ^c	Existing ^d		Cumulative ^e		Cumulative with Project		Signal Warrant Met?	Project Contrib.
					Delay ^f	LOS ^g	Delay ^f	LOS ^g	Delay ^f	LOS ^g		
85	Lafayette Street/Great America Way	Santa Clara	SSSC	AM	9.6	A	11.3	B	Signalized Intersection		N/A	N/A
				PM	21.1	C	>150	F	N/A	N/A		
89	Lafayette Street/Calle Del Mundo	Santa Clara	SSSC	AM	14.1	B	23.5	C	>150	F	No	14.1
				PM	12.7	B	17.1	C	>150	F	No	12.7
108	Gold Street/Taylor Street	San José	AWSC	AM	8.4	A	10.3	B	12.6	B	N/A	8.4
				PM	8.8	A	11.9	B	18.7	C	N/A	8.8
109	Liberty Street/Taylor Street	San José	AWSC	AM	8.3	A	9.7	A	11.2	B	N/A	8.3
				PM	9.7	A	14.6	B	31.0	D	N/A	9.7
114	Calle Del Sol/Calle De Luna	Santa Clara	SSSC	AM	13.8	B	18.4	C	49.2	E	Yes	13.8
				PM	21.3	C	27.9	D	118.6	F	Yes	21.3
116	Agnew Road/Garrity Way	Santa Clara	SSSC	AM	12.9	B	13.5	B	13.5	B	N/A	12.9
				PM	14.0	B	16.5	C	21.4	C	N/A	14.0

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. SSSC = Side-Street Stop-Controlled intersection, AWSC = All-Way Stop-Controlled intersection
- c. AM = morning peak hour, PM = evening peak hour.
- d. "Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction.
- e. "Cumulative" presents the delay and LOS for intersections, using 2040 geometry and traffic volumes estimated using the VTA travel demand model.
- f. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for all-way stop-controlled intersection. For side-street stop-controlled intersections, values reported are the worst approach.
- g. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which apply the methods described in the 2000 *Highway Capacity Manual*.

Bold text indicates unacceptable operations according to the jurisdiction's LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-52. Cumulative with-Project Signalized LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				Project Contrib.
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	
8	Great America Parkway/Tasman Drive ⁱ	Santa Clara (CMP)	AM	26.0	C	128.4	F	162.5	F	0.255	64.9	19.7%
			PM	31.5	C	125.7	F	>180	F	0.580	276.3	35.9%
9	Convention Center/Tasman Drive ⁱ	Santa Clara	AM	16.2	B	125.3	F	131.0	F	0.059	39.1	23.4%
			PM	20.2	C	36.9	D	163.4	F	0.245	155.4	44.4%
10	Future Driveway (west of Centennial Boulevard)/ Tasman Drive	Santa Clara	AM	Future Signalized Intersection				13.8	B	N/A	N/A	27.4%
			PM					34.3	C	N/A	N/A	48.8%
11	Centennial Boulevard/Tasman Drive ⁱ	Santa Clara	AM	19.8	B	111.1	F	170.3	F	0.240	99.4	27.8%
			PM	19.8	B	46.1	D	>180	F	0.512	173.2	46.4%
13	Calle Del Sol/Tasman Drive ⁱ	Santa Clara	AM	10.6	B	44.0	D	123.1	F	0.289	119.4	32.2%
			PM	17.5	B	20.9	C	96.5	F	0.402	121.6	45.0%
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	AM	22.1	C	61.1	E	>180	F	0.537	207.8	33.0%
			PM	24.4	C	89.7	F	>180	F	0.658	200.8	36.6%
57	Great America Parkway/SR 237 WB Ramps	San José Santa Clara (CMP) ^k	AM	20.9	C	27.9	C	90.4	F	0.299	96.1	47.7%
			PM	18.9	B	20.0	B	42.7	D	0.361	30.9	48.4%
58	Great America Parkway/SR 237 EB Ramps	Santa Clara (CMP)	AM	10.9	B	13.3	B	61.7	E	0.420	70.8	56.3%
			PM	8.6	A	13.5	B	27.4	C	0.220	25.1	46.0%
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	AM	27.0	C	29.9	C	76.9	E	0.293	60.0	49.8%
			PM	31.4	C	59.0	E	165.9	F	0.392	161.9	37.8%
60	Great America Parkway/Old Mountain View-Alviso Road	Santa Clara	AM	19.2	B	21.9	C	45.8	D	0.355	47.1	46.5%
			PM	26.6	C	48.9	D	91.1	F	0.320	62.3	42.5%

Table 3.3-52. Cumulative with-Project Signalized LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project				
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	Δ in Crit. Delay ^h	Project Contrib.
61	Great America Parkway/Future Driveway (south of Old Mountain View-Alviso Road)	Santa Clara	AM	Future Signalized Intersection		14.9	B	N/A	N/A	39.1%		
			PM			23.6	C	N/A	N/A	44.0%		
63	Great America Parkway/Bunker Hill Lane	Santa Clara	AM	12.9	B	14.5	B	13.7	B	0.040	-3.9	22.0%
			PM	15.6	B	16.8	B	18.9	B	0.192	4.6	31.4%
84	Gold Street/Gold Street Connector	San José ^k	AM	22.7	C	24.3	C	96.7	F	0.638	84.6	49.8%
			PM	21.7	C	21.8	C	32.9	C	0.415	17.0	43.2%
85	Lafayette Street/Great America Way	Santa Clara	AM	Unsignalized Intersection			46.8	D	N/A	N/A	63.0%	
			PM				39.0	D	N/A	N/A	51.7%	
87	Lafayette Street/Future Urban Interchange	Santa Clara	AM	Future Signalized Intersection			19.8	B	N/A	N/A	57.5%	
			PM				17.9	B	N/A	N/A	57.6%	
88	Lafayette Street/Future Driveway (north of Calle Del Mundo)	Santa Clara	AM	Future Signalized Intersection			10.5	B	N/A	N/A	62.6%	
			PM				22.4	C	N/A	N/A	63.9%	
90	Lafayette Street/Calle De Luna	Santa Clara	AM	15.5	B	17.9	B	105.5	F	0.614	106.7	56.9%
			PM	19.2	B	18.5	B	26.4	C	0.379	12.4	60.0%
123	Great America Parkway/ Gold Street Connector	San José^kSanta Clara	AM	11.8	B	11.5	B	22.7	C	0.519	8.8	49.8%
			PM	13.1	B	13.8	B	12.9	B	0.089	-2.3	37.3%
1081	New Viaduct/Tasman Drive	Santa Clara	AM	Future Signalized Intersection			16.9	B	N/A	N/A	31.4%	
			PM				14.7	B	N/A	N/A	48.8%	

Table 3.3-52. Cumulative with-Project Signalized LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Peak Hour ^b	Existing ^c		Cumulative ^d		Cumulative with Project			Project Contrib.
				Delay ^e	LOS ^f	Delay ^e	LOS ^f	Delay ^e	LOS ^f	Δ in Crit. V/C ^g	

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. AM = morning peak hour, PM = evening peak hour
- c. "Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction (see Appendix 3.3-B and Appendix 3.3-D).
- d. "Cumulative" presents the delay and LOS for intersections, using 2040 geometry and traffic volumes estimated using the VTA travel demand model.
- e. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for signalized intersections.
- f. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which applies the methods described in the 2000 *Highway Capacity Manual*.
- g. Change in critical volume-to-capacity ratio between cumulative without-Project and cumulative with-Project conditions.
- h. Change in average critical movement delay between cumulative without-Project and cumulative with-Project conditions.
- i. Geometry has been modified to include the improvements for projects under construction and planned under cumulative conditions as outlined in Appendix 3.3-D.
- j. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.^k Maximum left-/right-turn lane or through-lane queuing in excess of available/potential storage at driveway entrances (intersections #10, 11, 12, 61, 62, 85, 86, and 87) during the morning and evening peak hours will most likely result in a worse LOS than calculated. These queues would require multiple traffic signal cycles to clear and could extend upstream and affect nearby intersections.
- k. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-53. Cumulative with-Project Unsignalized LOS Results for Variant Access Scheme

ID	Intersection	Jurisdiction/ CMP ^a	Unsig. Type ^b	Peak Hour ^c	Existing ^d		Cumulative ^e		Cumulative with Project		Signal Warrant Met?	Project Contribution
					Delay ^f	LOS ^g	Delay ^f	LOS ^g	Delay ^f	LOS ^g		
12	Future Driveway (east of Centennial Boulevard)/Tasman Drive	Santa Clara	SSSC	AM	Future Unsignalized				55.8	F	No	24.4%
				PM	Intersection				113.2	F	Yes	41.1%
85	Lafayette Street/Great America Way	Santa Clara	SSSC	AM	9.7	A	11.3	B	Signalized Intersection		N/A	N/A
				PM	21.4	C	>150	F			N/A	N/A
89	Lafayette Street/Calle Del Mundo	Santa Clara	SSSC	AM	14.2	B	23.5	C	>150	F	No	58.4%
				PM	12.9	B	17.1	C	>150	F	No	63.9%
114	Calle Del Sol/Calle De Luna	Santa Clara	SSSC	AM	13.9	B	18.4	C	49.2	E	No	34.9%
				PM	19.8	C	27.9	D	118.6	F	Yes	41.5%

Notes:

- a. CMP = Congestion Management Program intersection (VTA).
- b. SSSC = Side-Street Stop-Controlled intersection, AWSC = All-Way Stop-Controlled intersection
- c. AM = morning peak hour, PM = evening peak hour.
- d. "Existing" presents the delay and LOS for intersections, using existing geometry plus any approved and funded transportation projects and existing traffic counts plus project trips from projects that are currently under construction.
- e. "Cumulative" presents the delay and LOS for intersections, using 2040 geometry and traffic volumes estimated using the VTA travel demand model.
- f. Whole intersection weighted average control delay expressed in seconds per vehicle, calculated using methods described in the 2000 *Highway Capacity Manual*, with adjusted saturation flow rates to reflect Santa Clara County conditions for all-way stop-controlled intersection. For side-street stop-controlled intersections, values reported are the worst approach.
- g. LOS = Level of service. LOS calculations conducted using the TRAFFIX analysis software packages, which apply the methods described in the 2000 *Highway Capacity Manual*.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact.

Source: Fehr & Peers, September 2015.

Table 3.3-54. Cumulative with-Project Intersection Mitigation Measures – Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig ^{7h}
8	Great America Parkway/ Tasman Drive*	Santa Clara (CMP)	Partial Mitigation: Add a southbound right-turn lane and add a third westbound left-turn lane.	Yes	100%		AM	151.7	F	SU
							PM	>180	F	SU
9	Convention Center/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM	---	---	SU
							PM	---	---	SU
11	Centennial Boulevard/ Tasman Drive*	Santa Clara	No feasible mitigation (no right-of-way is available).	N/A	0%		AM	---	---	SU
							PM	---	---	SU
13	Calle Del Sol/Tasman Drive*	Santa Clara	Add a westbound right-turn lane. Reconfigure southbound approach to include two left-turn lane and one right-turn lane with overlap phase.	Yes	100%		AM	105.5	F	SU
							PM	23.2	C	LTS
14	Lick Mill Boulevard/Tasman Drive	Santa Clara	Partial Mitigation: Reconfigure northbound and southbound approaches to two left-turn lanes, one through lane, and one right-turn lane. Change phasing on northbound/southbound approaches from split to protected. Add a second westbound left-turn lane.	Yes	100%		AM	155.0	F	SU
							PM	166.6	F	SU
57	Great America Parkway/SR 237 WB Ramps	San José Santa Clara (CMP) ⁱ	Add third westbound left-turn lane and associated receiving lane under underpass. Add a second westbound right-turn lane.	Yes	100%		AM	41.4	D	SU/LTS
							PM	30.3	C	SU/LTS
58	Great America Parkway/SR 237 EB Ramps ^c	Santa Clara (CMP)	Add third southbound through lane (from Int. 57) and a second eastbound right-turn lane.	Yes	100%	c	AM	27.7	C	LTS
							PM	27.3	C	LTS
59	Great America Parkway/Yerba Buena (Great America) Way	Santa Clara	Partial Mitigation: Add a second westbound right-turn lane with an overlap phase and a second southbound left-turn lane.	Yes	100%		AM	66.2	E	SU
							PM	53.0	D	LTS

Table 3.3-54. Cumulative with-Project Intersection Mitigation Measures – Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig ^{7h}
60	Great America Parkway/ Old Mountain View-Alviso Road	Santa Clara	Partial Mitigation: Add second eastbound left-turn lane.	Possible	100%		AM	45.4	D	LTS
							PM	59.4	E	SU
84	Gold Street/Gold Street Connector	San José ⁱ	<u>Convert northbound through lane to a shared left-turn/through lane, and add a second eastbound right-turn lane. Add second northbound left- turn and a second eastbound right- turn lane (move pedestrian crossing to north leg of intersection).</u>	Yes	100%		AM	29.6 28.1	C	SU
							PM	30.6 25.2	C	SU
90	Lafayette Street/Calle De Luna	Santa Clara	Add a northbound right-turn lane and reconstruct the westbound approach to include two left-turn lanes and one right-turn lane.	No	100%		AM	33.7	C	LTS
							PM	22.9	C	LTS
114	Calle Del Sol/Calle Del Luna	Santa Clara	Signalize.	Possible	100%		AM	11.8	B	LTS
							PM	12.8	B	LTS
123	Great America Parkway/Gold Street Connector ^c	<u>San José</u> Santa Clara	Add a second northbound right-turn lane (from Int. 57 dual westbound right-turn lanes).	Yes	100%	c	AM	9.3	A	LTS SU
							PM	9.8	A	LTS SU

Table 3.3-54. Cumulative with-Project Intersection Mitigation Measures – Variant Access Scheme^a

ID	Intersection	Jurisdiction/ CMP ^b	Mitigation Measure ^d	ROW Needed? ^e	Project Responsibility ^f	Cumulative Impact Only	Peak Hour	Delay and LOS with Mitigation Measure		
								Delay ^g	LOS	Sig ^h

Notes:

- a. For the Variant Access Scheme analysis, only a subset of intersections were studied (Intersections 8, 9, 10, 11, 12, 13, 14, 57, 58, 59, 60, 61, 62, 63, 84, 85, 86, 87, 88, 89, 90, 114, 123). Cumulative impacts and mitigation measures at the other off-site intersection would be the same as with Base Access Scheme.
- b. CMP = Congestion Management Program intersection (VTA).
- c. This intersection is not an affected intersection but would need to be modified to accommodate the improvements at Intersection #57: Great America Parkway/SR 237 WB Ramps.
- d. Off-setting Mitigation: In the North San José Deficiency Plan area, off-setting local street network, transit, bicycle, and pedestrian improvements were identified to accommodate future travel growth, but not directly mitigate the intersection with the identified impact. Partial Mitigation: The proposed mitigation measure mitigates the impact at one but not the other peak hour or reduces the delay but not enough to mitigate the impact.
- e. ROW = right-of-way. "Yes" = additional right-of-way is required to construct the proposed mitigation measure. This includes relocating existing curbs and gutters. "Possible" = additional right-of-way may be needed to maintain bike lanes or transit facilities, such as bus duck-outs. "No" = the proposed mitigation measures will fit within the existing right-of-way and existing curb-to-curb widths. Curbs and gutters will not need to be relocated, but the median may need to be modified.
- f. "100%" = The cost and construction of the proposed mitigation measure is the full responsibility of the Project Developer. These are discrete mitigation measures that either fully or partially mitigate significant Project impacts. "0%" = There is no feasible mitigation measure. "% of Total Traffic" = Project Developer shall pay a fair-share contribution to the proposed mitigation measure, which is typically a larger transportation improvement, such as an expressway interchange, that has been identified in an adopted plan. "Pay North San José fee or fair-share contribution of alternative or off-setting mitigation" = The Project Developer can pay the North San José fee or a fair-share contribution for the mitigation measure or off-setting mitigation measure based on the amount of Project's percent contribution of the added traffic at the intersection.
- g. Signalized intersections: whole-intersection average control delay per vehicle (seconds). Unsignalized intersections: worst-approach average control delay per vehicle (seconds).
- h. LTS = Less than significant with mitigation, SU = significant and unavoidable. Significance determination is based on draft mitigation and responsible jurisdiction of the intersection. See mitigation list summary, which describes the mitigation in more detail.
- i. An LOS D threshold is used for study intersections within San José, including CMP designated intersections. Santa Clara County intersections in San José use an LOS E threshold.

Bold text indicates intersection operates at a deficient LOS.

Bold and highlighted indicates a significant impact (with mitigation).

* Intersection improvement identified at this intersection under cumulative no-project conditions and with-Project conditions. See Appendix 3.3-D.

Source: Fehr & Peers, September 2015.