APPENDIX 3.1-A

TRAFFIC DATA

APPENDIX 3.1-A

TRAFFIC DATA

Table 3.1-A-1
Summary of Existing and No Project Conditions
Bay Area to Merced Region

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Intercity Segment					
US-101 btwn SF and SF Airport	0.98	E	1.06	F	9%
US-101 btwn SF Airport and Redwood City	1.29	F	1.37	F	6%
US-101 btwn Redwood City and I-880	1.10	F	1.30	F	18%
US-101 btwn I-880 and San Jose	1.16	F	1.19	F	2%
US-101 btwn San Jose and Gilroy	1.21	F	0.89	D	-27%
US-101 btwn Gilroy and SR-152	0.63	B	0.70	C	11%
SR-152 btwn US-101 and I-5	1.33	F	1.21	F	-9%
SR-152 btwn I-5 and SR-99	1.53	F	1.71	F	12%
I-80 btwn SF and I-880	1.16	F	1.28	F	10%
I-80 btwn I-880 and I-5	1.15	F	1.33	F	16%
I-880 btwn I-80 and I-580	1.25	F	1.36	F	9%
I-580 btwn I-880 via I-238 and I-5	1.18	F	1.26	F	7%
I-880 btwn I-580 and Fremont/Newark	1.34	F	1.22	F	-9%
I-880 btwn Fremont/ Newark and US-101	1.31	F	1.18	F	-10%
High-Speed Train Stations					
San Francisco—Transbay Terminal	0.81	D	0.89	D	9%
San Francisco—4th Street	0.54	A	0.51	A	-7%
Millbrae	0.74	C	0.94	E	27%
Redwood City	0.65	B	0.64	B	-2%
Palo Alto	0.89	D	0.42	A	-53%
Santa Clara (O)	0.72	C	0.77	C	7%
San Jose	0.38	A	0.56	A	50%
West Oakland	0.19	A	0.26	A	36%
Oakland City Center	0.46	A	0.48	A	5%
Oakland Coliseum	0.35	A	0.47	A	34%
Union City (O)	0.59	A	0.58	A	-1%
S. Alameda (O)	0.29	A	0.56	A	89%
Morgan Hill	0.49	A	0.59	A	21%
Gilroy	0.49	A	0.74	C	52%
Los Banos	0.53	A	0.79	C	49%

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Airports					
San Francisco	1.11	F	1.20	F	8%
Oakland	1.14	F	1.26	F	11%
San Jose	1.16	F	1.22	F	5%

Table 3.1-A-2
Summary Impact Analysis/Comparison for Traffic
Bay Area to Merced Region

Location	2020 No Project		Modal Alternative		% Change from No Project	HST Alternative		% Change from No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
Intercity Segment								
US-101 btwn SF and SF Airport	1.06	F	1.06	F	0%	0.71	C	-33%
US-101 btwn SF Airport and Redwood City	1.37	F	1.14	F	-17%	1.16	F	-15%
US-101 btwn Redwood City and I-880	1.30	F	1.04	F	-20%	1.22	F	-6%
US-101 btwn I-880 and San Jose	1.19	F	0.95	E	-20%	1.08	F	-9%
US-101 btwn San Jose and Gilroy	0.89	D	0.71	C	-20%	0.86	D	-3%
US-101 btwn Gilroy and SR-152	0.70	C	0.53	A	-25%	0.66	B	-5%
SR-152 btwn US-101 and I-5	1.21	F	0.60	A	-50%	1.08	F	-10%
SR-152 btwn I-5 and SR-99	1.71	F	1.14	F	-33%	1.68	F	-2%
I-80 btwn SF and I-880	1.28	F	1.28	F	0%	1.26	F	-2%
I-80 btwn I-880 and I-5	1.33	F	1.00	E	-25%	1.32	F	0%
I-880 btwn I-80 and I-580	1.36	F	1.08	F	-20%	1.29	F	-5%
I-580 btwn I-880 via I-238 and I-5	1.26	F	1.05	F	-17%	1.24	F	-1%
I-880 btwn I-580 and Fremont/Newark	1.22	F	0.98	E	-20%	1.20	F	-2%
I-880 btwn Fremont/Newark & US-101	1.18	F	0.88	D	-25%	1.18	F	0%
High-Speed Train Stations								
San Francisco-Transbay Terminal	0.89	D	0.89	D	0%	1.01	F	13%
San Francisco-4th Street	0.51	A	0.51	A	0%	0.70	B	38%
Millbrae	0.94	E	0.94	E	0%	0.96	E	2%
Redwood City	0.64	B	0.64	B	0%	0.67	B	6%
Palo Alto	0.42	A	0.42	A	0%	0.46	A	10%
Santa Clara (O)	0.77	C	0.77	C	0%	0.90	D	17%
San Jose	0.56	A	0.56	A	0%	0.63	B	13%
West Oakland	0.26	A	0.26	A	0%	0.33	A	29%
Oakland City Center	0.48	A	0.48	A	0%	0.56	A	16%
Oakland Coliseum	0.47	A	0.47	A	0%	0.53	A	13%
Union City (O)	0.58	A	0.58	A	0%	0.61	B	5%
South Alameda (O)	0.56	A	0.56	A	0%	0.61	B	11%
Morgan Hill	0.59	A	0.59	A	0%	0.62	B	4%
Gilroy	0.74	C	0.74	C	0%	0.77	C	4%
Los Banos	0.79	C	0.79	C	0%	0.81	D	2%
Airports								
San Francisco	1.20	F	1.12	F	-6%	0.97	E	-19%
Oakland	1.26	F	1.01	F	-20%	1.18	F	-7%
San Jose	1.22	F	1.00	E	-17%	1.16	F	-4%

Table 3.1-A-3
Summary of Existing and No Project Conditions
Sacramento to Bakersfield Region

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Intercity Segment					
I-80 Yolo Causeway	1.19	F	1.15	F	-3%
I-5 btwn Hood Franklin Road & Elk Grove Boulevard	0.93	E	1.53	F	65%
I-5 North of J11 to Sacramento/San Joaquin County line	0.74	C	1.30	F	76%
I-5 North of I-205 & I-5 junction	0.74	C	0.87	D	18%
I-5 South of I-580	0.59	A	0.96	E	63%
I-5 btwn Whitworth Road & SR-33	0.40	A	0.67	B	68%
I-5 btwn SR-165 & Merced/Fresno County line	0.40	A	0.61	B	53%
I-5 btwn SR-33 & SR-145	0.44	A	0.66	B	50%
I-5 btwn Button-willow Rowlee & Lerdo Highway	0.43	A	0.78	C	81%
I-5 btwn SR-166 & SR-99	0.42	A	0.67	B	60%
SR-99 btwn Mack Road & Florin Road	1.19	F	1.51	F	27%
SR-99 btwn Collier Road & Liberty Road	0.65	B	1.01	F	55%
SR-99 btwn Ripon Road & San Joaquin/Stanislaus County line	0.96	E	1.40	F	46%
SR-99 btwn Hammett Road & San Joaquin/Stanislaus County line	0.82	D	1.57	F	91%
SR-99 South of Mitchell Road	0.68	B	0.84	D	24%
SR-99 btwn Bloss & Robin	0.45	A	0.39	A	-13%
SR-99 Sandy Mush Road to Merced/Madera County line	0.38	A	0.56	A	47%
SR-99 Herndon Avenue to Madera/Fresno County line	0.64	B	0.69	B	8%
SR-99 btwn Adams Avenue & Clovis Avenue	0.66	B	1.03	F	56%
SR-99 btwn Avenue 384 & Tulare/Fresno County line	0.62	B	0.61	B	-2%
SR-99 North of 7th Standard Road	0.50	A	0.74	C	48%
SR-99 btwn Highway 119 & Houghton Road	0.35	A	0.73	C	109%
High-Speed Train Stations					
Sacramento-Downtown	0.61	B	0.86	D	41%
Sacramento-Power Inn	0.79	C	0.79	C	0%
Stockton-Downtown	0.46	A	0.61	B	33%
Modesto–Briggsmore	0.50	A	0.64	B	28%
Modesto-Downtown	0.48	A	0.65	B	35%
Merced-Castle Air Force Base	0.40	A	0.53	A	33%
Merced-Airport	0.21	A	0.37	A	76%
Merced-Downtown	0.85	D	0.97	E	14%
Fresno-Downtown	0.35	A	0.54	A	54%
Hanford-Downtown	0.41	A	0.63	B	54%
Visalia	0.38	A	0.64	B	68%

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Bakersfield-Golden State	0.56	A	0.92	E	64%
Bakersfield-Truxtun	0.40	A	0.67	B	68%
Bakersfield-Airport	0.58	A	0.84	D	45%
Airports					
Sacramento International	0.66	B	0.88	D	33%
Modesto City-County	0.76	C	0.91	E	20%
Merced Municipal	0.11	A	0.31	A	182%
Fresno Yosemite International	0.17	A	0.37	A	118%
Visalia Municipal	0.36	A	0.62	B	72%
Bakersfield Meadows Field Kern County	0.33	A	1.09	F	230%

Table 3.1-A-4
Summary Impact Analysis/Comparison for Traffic
Sacramento to Bakersfield Region

Location	2020 No Project		Modal Alternative		% Change from No Project	HST Alternative		% Change from No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
Intercity Segment								
I-80 Yolo Causeway	1.15	F	0.92	E	-20%	1.13	F	-2%
I-5 btwn Hood Franklin Road & Elk Grove Boulevard	1.53	F	1.02	F	-33%	1.50	F	-2%
I-5 North of J11 to Sacramento/San Joaquin County line	1.30	F	0.87	D	-33%	1.28	F	-2%
I-5 North of I-205 & I-5 junction	0.87	D	0.73	C	-17%	0.86	D	-1%
I-5 South of I-580	0.96	E	0.64	B	-33%	0.89	D	-7%
I-5 btwn Whitworth Road & SR-33	0.67	B	0.45	A	-33%	0.60	A	-10%
I-5 btwn SR-165 & Merced/Fresno County line	0.61	B	0.41	A	-33%	0.53	A	-13%
I-5 btwn SR-33 & SR-145	0.66	B	0.44	A	-33%	0.58	A	-12%
I-5 btwn Button-willow Rowlee & Lerdo Highway	0.78	C	0.52	A	-33%	0.70	B	-10%
I-5 btwn SR-166 & SR-99	0.67	B	0.45	A	-33%	0.60	A	-10%
SR-99 btwn Mack Road & Florin Road	1.51	F	0.98	E	-35%	1.50	F	-1%
SR-99 btwn Collier Road & Liberty Road	1.01	F	0.58	A	-42%	1.00	E	-1%
SR-99 btwn Ripon Road & San Joaquin/ Stanislaus County line	1.40	F	0.91	E	-35%	1.38	F	-1%
SR-99 btwn Hammett Road & San Joaquin/Stanislaus County line	1.57	F	1.02	F	-35%	1.55	F	-1%
SR-99 South of Mitchell Road	0.84	D	0.55	A	-35%	0.83	D	-1%

Location	2020 No Project		Modal Alternative		% Change from No Project	HST Alternative		% Change from No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
SR-99 btwn Bloss & Robin	0.39	A	0.35	A	-35%	0.37	A	-5%
SR-99 Sandy Mush Road to Merced/ Madera County line	0.56	A	0.32	A	-42%	0.53	A	-5%
SR-99 Herndon Avenue to Madera/Fresno County line	0.69	B	0.45	A	-35%	0.68	B	-1%
SR-99 btwn Adams Avenue & Clovis Avenue	1.03	F	0.67	B	-35%	1.02	F	-1%
SR-99 btwn Avenue 384 & Tulare/Fresno County line	0.61	B	0.40	A	-35%	0.59	A	-3%
SR-99 North of 7th Standard Road	0.74	C	0.48	A	-35%	0.72	C	-3%
SR-99 btwn Highway 119 & Houghton Road	0.73	C	0.48	A	-35%	0.71	C	-3%
High-Speed Train Stations								
Sacramento-Downtown	0.86	D	0.86	D	0%	0.88	D	2%
Sacramento-Power Inn	0.79	C	0.79	C	0%	0.85	D	8%
Stockton-Downtown	0.61	B	0.61	B	0%	0.62	B	2%
Modesto—Briggsmore	0.64	B	0.64	B	0%	0.65	B	2%
Modesto-Downtown	0.65	B	0.65	B	0%	0.66	B	2%
Merced-Castle Air Force Base	0.53	A	0.53	A	0%	0.53	A	0%
Merced-Airport	0.37	A	0.37	A	0%	0.38	A	3%
Merced-Downtown	0.97	E	0.97	E	0%	0.97	E	0%
Fresno-Downtown	0.54	A	0.54	A	0%	0.55	A	2%
Hanford-Downtown	0.63	B	0.63	B	0%	0.63	B	0%
Visalia	0.64	B	0.64	B	0%	0.64	B	0%
Bakersfield-Golden State	0.92	E	0.92	E	0%	0.93	E	1%
Bakersfield-Truxtun	0.67	B	0.67	B	0%	0.68	B	1%
Bakersfield-Airport	0.84	D	0.84	D	0%	0.85	D	1%
Airports								
Sacramento International	0.88	D	0.90	D	2%	0.63	B	-28%
Modesto City-County	0.91	E	0.91	E	0%	0.90	D	-1%
Merced Municipal	0.31	A	0.31	A	0%	0.29	A	-6%
Fresno Yosemite International	0.37	A	0.38	A	3%	0.33	A	-11%
Visalia Municipal	0.62	B	0.62	B	0%	0.62	B	0%
Bakersfield Meadows Field Kern County	1.09	F	1.09	F	0%	1.05	F	-4%

Table 3.1-A-5
Summary of Existing and No Project Conditions
Bakersfield to Los Angeles Region

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Intercity Segment					
I-5 (s/o SR-138) Gorman	0.24	A	0.47	A	104%
I-5 (n/o SR-14) Santa Clarita	0.75	C	1.77	F	135%
I-5 (n/o I-405) San Fernando	1.18	F	1.95	F	65%
I-5 (Sun Valley)	1.54	F	2.53	F	65%
I-5 (Burbank)	1.96	F	3.24	F	65%
I-5 (n/o SR-134) Glendale	1.25	F	1.48	F	19%
I-5 (n/o SR-110) Los Angeles	1.37	F	1.77	F	30%
SR-14 (n/o East Avenue P) North Palmdale	0.29	A	0.91	E	217%
SR-14 (s/o SR-138) Palmadle	0.36	A	0.59	A	65%
SR-14 (n/o I-5) Santa Clarita	0.82	D	1.94	F	135%
High-Speed Train Stations					
Palmdale	0.70	C	1.20	F	71%
Sylmar	0.68	B	1.22	F	79%
Burbank Airport	0.91	E	1.52	F	67%
Burbank Downtown	0.72	C	1.36	F	89%
Los Angeles Union Station	0.94	E	1.19	F	27%
Airports					
Burbank Airport	0.85	D	1.33	F	56%

Table 3.1-A-6
Summary Impact Analysis/Comparison for Traffic
Bakersfield to Los Angeles Region

Location	2020 No Project		Modal Alternative		% Change from No Project	HST Alternative		% Change From No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
Intercity Segment								
I-5 (s/o SR-138) Gorman	0.47	A	0.47	A	0%	0.47	A	0%
I-5 (n/o SR-14) Santa Clarita	1.77	F	1.77	F	0%	1.77	F	0%
I-5 (n/o I-405) San Fernando	1.95	F	1.61	F	-18%	1.95	F	0%
I-5 (Sun Valley)	2.53	F	1.88	F	-26%	2.55	F	1%
I-5 (Burbank)	3.24	F	2.35	F	-27%	3.26	F	1%
I-5 (s/o SR-134) Glendale	1.48	F	1.25	F	-16%	1.50	F	1%
I-5 (s/o SR-110) Los Angeles	1.77	F	1.40	F	-21%	1.80	F	2%
SR-14 (n/o East Avenue P) North Palmdale	0.91	E	0.81	D	-11%	0.91	E	0%
SR-14 (s/o SR-138) Palmdale	0.59	A	0.56	A	-4%	0.59	A	1%
SR-14 (n/o I-5) Santa Clarita	1.94	F	1.70	F	-12%	1.94	F	0%
High-Speed Train Stations								
Palmdale	1.20	F	1.18	F	-2%	1.22	F	2%
Sylmar	1.22	F	1.21	F	-1%	1.24	F	2%
Burbank Airport	1.52	F	1.46	F	-4%	1.55	F	2%
Burbank Downtown	1.36	F	1.33	F	-2%	1.45	F	7%
LA Union Station	1.19	F	1.17	F	-2%	1.25	F	5%
Airports								
Burbank Airport	1.33	F	1.14	F	-14%	1.36	F	2%

Table 3.1-A-7
Summary of Existing and No Project Conditions
Los Angeles to San Diego via Inland Empire Region

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Intercity Segment					
I-10 btwn I-5 & East San Gabriel Valley	1.20	F	1.18	F	-2%
I-10 btwn East San Gabriel Valley & Ontario Airport	1.40	F	1.52	F	9%
I-10 btwn Ontario Airport & I-15	1.32	F	1.48	F	12%
I-10 btwn I-15 & I-215	1.00	E	1.19	F	19%
I-15 btwn I-10 & I-215	0.78	C	1.50	F	92%
I-215 btwn Riverside & I-15	1.15	F	1.46	F	27%
I-215 btwn I-10 & Riverside	0.51	A	1.39	F	173%
I-215 btwn I-15 & Temecula	0.27	A	0.75	C	178%
I-15 btwn Temecula to Escondido	0.66	B	1.16	F	45%
I-15 btwn Escondido to Mira Mesa	1.14	F	1.90	F	39%
I-15 btwn Mira Mesa to SR-163	1.43	F	2.01	F	41%
SR-163 btwn I-15 to I-8	1.08	F	1.31	F	21%
High-Speed Train Stations					
El Monte (1A)	0.71	C	0.81	D	14%
South El Monte (1B)	0.49	A	0.69	B	41%
City of Industry (1B)	0.52	A	0.94	E	81%
Pomona (1A)	0.67	B	0.81	D	21%
Ontario (1A)	0.54	A	0.75	C	39%
Colton (1A)	0.38	A	0.50	A	32%
University of California, Riverside (1A)	0.17	A	0.45	A	165%
San Bernardino (1C)	0.38	A	0.41	A	8%
March Air Reserves Base (1A)	0.39	A	0.56	A	44%
Temecula (2A)	0.35	A	0.53	A	51%
Escondido Rock Springs	0.72	C	0.55	A	-24%
Mira Mesa	0.73	C	0.71	C	-3%
Qualcomm	1.17	F	0.68	B	-42%
Escondido Transit Center	0.78	C	0.89	D	14%
University Towne Centre	0.62	B	0.50	A	-19%
San Diego International Airport	0.78	C	0.90	D	15%
Downtown San Diego	0.51	A	0.72	C	41%
Airports					
Ontario International Airport	0.71	C	0.63	B	-11%
San Diego International Airport	0.61	B	0.82	C	35%

Table 3.1-A-8
Summary Impact Analysis/Comparison for Traffic
Los Angeles to San Diego via Inland Empire Region

Location	2020 No Build		Modal Alternative		% Change from No Project	HST Alternative		% Change from No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
Intercity Segment								
I-10 btwn I-5 & East San Gabriel Valley	1.18	F	1.05	F	-11%	1.04	F	-12%
I-10 btwn East San Gabriel Valley & Ontario Airport	1.52	F	1.32	F	-13%	1.40	F	-8%
I-10 btwn Ontario Airport & I-15	1.48	F	1.26	F	-15%	1.39	F	-6%
I-10 btwn I-15 & I-215	1.19	F	1.02	F	-14%	1.11	F	-7%
I-15 btwn I-10 & I-215	1.50	F	1.10	F	-24%	1.49	F	-1%
I-215 btwn Riverside & I-15	1.46	F	1.18	F	-19%	1.35	F	-8%
I-215 btwn I-10 & Riverside	1.39	F	1.03	F	-26%	1.24	F	-11%
I-215 btwn I-15 & Temecula	0.75	C	0.50	A	-33%	0.66	B	-12%
I-15 btwn Temecula to Escondido	1.16	F	0.95	E	-18%	0.94	E	-19%
I-15 btwn Escondido to Mira Mesa	1.90	F	1.60	F	-16%	1.56	F	-18%
I-15 btwn Mira Mesa to SR-163	2.01	F	1.68	F	-16%	2.00	F	0%
SR-163 btwn I-15 to I-8	1.31	F	1.05	F	-20%	1.30	F	-1%
High-Speed Train Stations								
El Monte (1A)	0.81	D	0.80	C	0%	0.89	D	9%
South El Monte (1B)	0.69	B	0.69	B	0%	0.73	C	5%
City of Industry (1B)	0.94	E	0.94	E	0%	0.97	E	3%
Pomona (1A)	0.81	D	0.81	D	0%	0.81	D	0%
Ontario (1A)	0.75	C	0.75	C	0%	0.75	C	0%
Colton (1A)	0.50	A	0.50	A	0%	0.50	A	0%
University of California, Riverside (1A)	0.45	A	0.45	A	0%	0.46	A	2%
San Bernardino (1C)	0.41	A	0.41	A	0%	0.42	A	2%
March Air Reserves Base (1A)	0.56	A	0.56	A	0%	0.57	A	2%
Temecula (2A)	0.53	A	0.53	A	0%	0.56	A	5%
Escondido Rock Springs	0.55	A	0.55	A	0%	0.60	A	8%
Mira Mesa	0.71	C	0.71	C	0%	0.72	C	1%
Qualcomm	0.68	B	0.68	B	0%	0.76	C	11%
Escondido Transit Center	0.89	D	0.89	D	0%	0.95	E	6%
University Towne Centre	0.50	A	0.50	A	0%	0.56	A	11%
San Diego International Airport	0.90	D	0.90	D	0%	0.95	E	5%
Downtown San Diego	0.72	C	0.72	C	0%	0.75	C	4%
Airports								
Ontario International Airport	0.63	B	0.67	B	7%	0.61	B	-3%
San Diego International Airport	0.82	D	0.82	D	0%	0.81	D	-1%

Table 3.1-A-9
Summary Impact Analysis/Comparison for Traffic
Los Angeles to San Diego via Orange County Region

Location	2020 No Project		Modal Alternative		% Change from No Project	HST Alternative		% Change from No Project
	V/C	LOS	V/C	LOS		V/C	LOS	
Intercity Segment								
I-105 at Inglewood Ave	1.98	F	1.57	F	-21%	1.88	F	-5%
I-110 at Exposition Blvd	2.04	F	1.63	F	-20%	1.95	F	-4%
I-5 at Lakewood Blvd	1.33	F	1.10	F	-17%	1.28	F	-4%
I-5 at Artesia Blvd	1.20	F	0.99	E	-18%	1.19	F	-1%
I-5 at SR-55	1.51	F	1.29	F	-15%	1.48	F	-2%
I-5 at Alicia Pkwy	1.44	F	1.20	F	1%	1.41	F	-2%
I-5 at Camino Estrella	1.19	F	0.98	E	-18%	1.15	F	-3%
I-5 to Tamarack Ave	0.81	D	0.68	B	-16%	0.79	C	-3%
I-5 to Via De La Valle	0.99	E	0.85	D	-14%	0.98	E	-1%
I-5 at Balboa Ave	1.00	F	0.80	C	-20%	0.97	E	-3%
High-Speed Train Stations								
LAX Terminal	0.97	E	1.03	F	6%	0.98	E	1%
Norwalk (LOSSAN)	0.70	C	0.70	B	0%	0.72	C	3%
Norwalk (UPRR)	0.63	B	0.63	B	0%	0.64	B	2%
Fullerton Transit Center	0.77	C	0.77	C	0%	0.78	C	1%
Anaheim Transit Center	0.50	A	0.50	A	0%	0.52	A	4%
Santa Ana RTC	0.68	B	0.68	B	0%	0.69	B	1%
Irvine Transit Center	0.75	C	0.75	C	0%	0.78	C	4%
San Juan Capistrano	1.00	E	1.00	E	0%	1.02	F	2%
San Clemente Stations	0.53	A	0.53	A	0%	N/A	-	N/A
Oceanside Transit Center	0.46	A	0.46	A	0%	0.51	A	10%
Solana Beach	0.61	B	0.61	B	0%	0.64	B	5%
University Towne Centre	0.65	B	0.65	B	0%	0.67	B	3%
Santa Fe Depot	0.48	A	0.48	A	0%	0.49	A	2%
Airports								
Long Beach Airport	0.59	A	0.64	B	8%	0.59	A	0%

Table 3.1-A-10
Summary of Existing and No Project Conditions
Los Angeles to San Diego via Orange County Region

Location	Existing		2020 No Project		% Change from Existing
	V/C	LOS	V/C	LOS	
Intercity Segment					
I-105 at Inglewood Ave	1.18	F	1.98	F	40%
I-110 at Exposition Blvd	1.22	F	2.04	F	40%
I-5 at Lakewood Blvd	1.05	F	1.33	F	21%
I-5 at Artesia Blvd	1.04	F	1.20	F	16%
I-5 at SR-55	0.96	E	1.51	F	36%
I-5 at Alicia Pkwy	1.19	F	1.44	F	17%
I-5 at Camino Estrella	1.35	F	1.19	F	-12%
I-5 to Tamarack Ave	1.07	F	0.81	D	-24%
I-5 to Via De La Valle	1.08	F	0.99	E	-8%
I-5 at Balboa Ave	1.05	F	1.00	F	-5%
High-Speed Train Stations					
LAX Terminal	0.72	C	0.97	E	26%
Norwalk (LOSSAN)	0.71	C	0.70	C	-1%
Norwalk (UPRR)	0.61	B	0.63	B	3%
Fullerton Transit Center	0.84	D	0.77	C	-8%
Anaheim Transit Center	0.55	A	0.50	A	-9%
Santa Ana RTC	0.62	B	0.68	B	9%
Irvine Transit Center	0.72	C	0.75	C	4%
San Juan Capistrano	0.82	D	1.00	E	18%
San Clemente Stations	0.37	A	0.53	A	30%
Oceanside Transit Center	0.45	A	0.46	A	2%
Solana Beach	0.49	A	0.61	B	20%
University Towne Centre	0.68	B	0.65	B	-4%
Santa Fe Depot	0.37	A	0.48	A	23%
Airports					
Long Beach Airport	0.52	A	0.59	A	12%

DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

Level of Service and Volume-to-Capacity Ratio Definition

Level of Service[1]	Volume-to-Capacity Ratio[2]	Definition
A	0.000–0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601–0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701–0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801–0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901–1.000	POOR. Represents the maximum vehicles that intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

[1] The *volume-to-capacity (V/C) ratio* is the number of vehicles that travel on a transportation facility divided by the full vehicular capacity of that facility (the number of vehicles the facility was designed to convey).

[2] *Level of service (LOS)* is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as an acceptable service level in urban areas. The definition for each level of service for signalized intersections is based on the V/C ratio.

Source: Transportation Research Board 1980

Acronyms and Abbreviations

Btwn = between.
HST = high-speed train.
I-5 = Interstate 5.
LOS = level of service.
LOSSAN = Los Angeles to San Diego via Orange County.
n/o = north of.
RTC = Regional Transportation Center.
SF = San Francisco.
s/o = south of.
SR = Sate Route.
UPRR = Union Pacific Railroad.
US-101 = U.S. Highway 101.
V/C = Volume to capacity ration.