

APPENDIX F

BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

APPENDIX F-1

EXISTING TRAFFIC CONDITIONS

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8079	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2170
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	38.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay		

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6717	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1804
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7991	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1717
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.4
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6261	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1681
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.71
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.2
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay		

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5880	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1579
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay		

Geometric Data

Number of Lanes, In	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6067	Heavy Vehicle Adjustment Factor (fHV)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1629
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.5
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6569	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1764
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5254	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1411
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6969	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1497
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.5
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8290	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2226
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.95
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	55.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	40.0
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7515	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2018
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7839	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2105
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	57.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.4
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7274	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1953
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.4
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6265	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1682
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8746	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1879
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.8
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7345	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1972
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.5
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6625	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1779
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/20/2020
Agency	LLG Engineers	Analysis Year	Existing
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7123	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1913
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.4
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

APPENDIX F-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8139	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2186
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	55.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6717	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1804
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	29.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8025	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1724
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.5
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6558	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1761
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.7
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5913	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1588
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.68
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6073	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1631
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	25.5
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6674	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1792
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.77
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.8
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5254	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1411
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6999	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1504
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.64
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	23.6
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8382	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2251
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	55.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	40.9
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7563	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2031
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.2
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7891	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2119
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	57.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	36.9
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7384	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1983
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6265	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1682
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8956	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1924
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.9
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7448	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2000
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.2
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6681	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1794
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	8/21/2020
Agency	LLG Engineers	Analysis Year	Existing + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7162	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1923
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.6
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

APPENDIX F-III

YEAR 2045 BUILDOUT TRAFFIC CONDITIONS

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8639	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2320
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.99
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	52.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	44.1
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6916	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1857
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8173	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1756
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.1
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7192	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1931
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.5
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6496	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1744
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.6
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6553	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1760
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.0
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7427	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1994
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5820	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1563
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7638	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1641
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	63.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.0
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9349	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2510
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8190	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2199
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.94
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.3
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8143	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2187
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.93
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	56.0
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.1
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8294	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2227
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.95
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	40.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6940	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1864
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9575	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2057
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	58.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.3
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8429	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2264
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	41.4
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7323	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1966
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.5
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7469	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2006
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.85
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.6
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.7
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

APPENDIX F-IV

**YEAR 2045 BUILDOUT PLUS PROJECT
TRAFFIC CONDITIONS**

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8686	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2332
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.00
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	52.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	44.6
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6916	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1857
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8207	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1763
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.3
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7247	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1946
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	31.8
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6528	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1753
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	27.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	AM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6555	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1760
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	62.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	28.0
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7524	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2020
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	59.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	34.2
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5820	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1563
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7664	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1646
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	63.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	26.0
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9427	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2532
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.07
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8231	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2210
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.94
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	55.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.7
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	PM Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8193	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2200
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.94
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	55.7
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	39.5
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, north of Stonehill Dr	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8390	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2253
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.3
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	41.5
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB, between Stonehill Dr and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.2
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6940	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1864
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2342
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2342
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	61.5
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	30.3
Total Ramp Density Adjustment	5.8	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.2		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 NB south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	2.20
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	63.8
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9602	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2063
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2338
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2338
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.88
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	58.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	35.5
Total Ramp Density Adjustment	6.2	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	63.8		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB north of Camino Capistrano	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.50
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.5
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8518	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2287
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2355
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2355
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.97
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	54.1
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	42.3
Total Ramp Density Adjustment	4.5	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFSadj), mi/h	65.5		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, between Camino Capistrano and PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.70
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7372	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	1980
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (fLW)	0.0	Average Speed (S), mi/h	60.2
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	32.9
Total Ramp Density Adjustment	5.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	65.0		

HCS7 Basic Freeway Report

Project Information

Analyst	ML	Date	4/22/2021
Agency	LLG Engineers	Analysis Year	Year 2045 + P
Jurisdiction	I-5 SB, south of PCH	Time Period Analyzed	Saturday MD Peak Hour
Project Description	4244 Doheny Village Zoning District Overlay	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	70.0	Total Ramp Density (TRD), ramps/mi	1.83
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	64.7
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7504	Heavy Vehicle Adjustment Factor (fhv)	0.980
Peak Hour Factor	0.95	Flow Rate (Vp), pc/h/ln	2015
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2346
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (cadj), pc/h/ln	2346
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.86
Passenger Car Equivalent (Et)	2.000		

Speed and Density

Lane Width Adjustment (flw)	0.0	Average Speed (S), mi/h	59.4
Right-Side Lateral Clearance Adj. (fRLC)	0.0	Density (D), pc/mi/ln	33.9
Total Ramp Density Adjustment	5.4	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFSadj), mi/h	64.6		