

6.0 FREEWAY ANALYSIS

6.1 FREEWAY LEVEL OF SERVICE METHODOLOGY

Two CMP freeway monitoring stations in the vicinity of the study area were identified for freeway analysis. The first station is located on the I-605 freeway just north of the I-605 and SR-60 interchange. The second station is located on SR-60 to the east of the I-605 and SR-60 interchange. The mainline freeway analysis is based on methodology published in the Highway Capacity Manual (HCM) 2000 and is focused on basic mainline segments of each freeway. Basic freeway segments have uniform traffic conditions and roadway characteristics, such as the number of lanes, shoulder clearance, and grade. Freeway segments are analyzed using capacity and level of service (LOS) concepts from HCM 2000 Chapter 23 – Basic Freeway Segments. The measure used to provide an estimate of level of service is density, where density is calculated from the average vehicle flow rate per lane and the average speed. Levels of service thresholds for a basic freeway segment are summarized in Table 6.1.

Table 6.1: Level of Service Thresholds for Basic Freeway Segments

LOS	Density Range (pc/mi/ln)
A	0 – 11
B	>11 – 18
C	>18 – 26
D	> 26 – 35
E	>35 – 45
F	> 45

Source: Highway Capacity Manual (HCM) 2000 Chapter 23 – Basic Freeway Segments
pc/mi/ln = passenger cars per mile per lane

The specification of maximum densities for LOS A through D is based on the collective professional judgment of the members of the Committee on Highway Capacity and Quality of Service for the Transportation Research Board. The upper value for LOS E is the maximum density at which sustained flows at capacity are expected to occur. Failure, breakdown, congestion, and LOS F occur when queues begin to form on the freeway. Density (pc/mi/ln) tends to increase sharply within the queue and may be considerably higher than the maximum value of 45 passenger cars per mile per lane.

A capacity of 2,350 vehicles per lane per hour (vplph) corresponding to a level of service E based on Caltrans Traffic Impact Studies guidelines was used for freeway mixed-flow lanes. Freeway level of service analysis has been conducted for both AM and PM peak hour.

6.2 EXISTING CONDITIONS

Peak hour volumes for the identified locations are available from Caltrans for Year 2005. A one percent per annum growth rate was applied for 1 year to obtain existing (year 2006) volumes. Tables 6.2 and 6.3 show the existing volumes and corresponding density values and LOS.

Table 6.2: AM Peak Hour Freeway LOS Analysis – Existing Conditions

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	2005	Existing		
				Vol	Volume	Density	LOS
I-605 n/o Route 60			AM				
Northbound	4	9,400		5,894	5,953	28.8	D

Southbound	4	9,400		9,020	9,110	45.6	F
SR-60 e/o I-605			AM				
Eastbound	5	11,750		7,771	7,849	29.4	D
Westbound	5	11,750		8,555	8,641	75.8	F

Table 6.3: PM Peak Hour Freeway LOS Analysis – Existing Conditions

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	2005	Existing		
				Vol	Volume	Density	LOS
I-605 n/o Route 60			PM				
Northbound	4	9,400		8,426	8,510	52.8	F
Southbound	4	9,400		7,822	7,900	29.8	D
SR-60 e/o I-605			PM				
Eastbound	5	11,750		8,495	8,580	33.7	D
Westbound	5	11,750		8,350	8,434	27.2	D

6.3 FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2011)

Future without Project volumes for year 2011 are developed by adding the ambient growth volumes and cumulative projects volumes. Tables 6.4 and 6.5 show the Future without Project (Year 2011) volumes and corresponding density values and LOS.

Table 6.4: AM Peak Hour Freeway LOS Analysis – Future Without Project (Year 2011)

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	FNP 2011		
				Volume	Density	LOS
I-605 n/o Route 60			AM			
Northbound	4	9,400		6,349	30.7	D
Southbound	4	9,400		10,146	50.8	F
SR-60 e/o I-605			AM			
Eastbound	5	11,750		8,332	31.2	D
Westbound	5	11,750		9,178	80.6	F

Table 6.5: PM Peak Hour Freeway LOS Analysis – Future Without Project (Year 2011)

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	FNP 2011		
				Volume	Density	LOS
I-605 n/o Route 60			PM			
Northbound	4	9,400		9,165	56.9	F
Southbound	4	9,400		8,413	31.8	D
SR-60 e/o I-605			PM			
Eastbound	5	11,750		9,050	35.5	E
Westbound	5	11,750		8,896	28.6	D

6.4 FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2013)

Future without Project volumes for year 2013 are developed by adding the ambient growth volumes and cumulative projects volumes. Cumulative projects volumes for year 2013 reflect reductions due to closure of the Puente Hills Landfill. Tables 6.6 and 6.7 show the Future without Project (Year 2013) volumes and corresponding density values and LOS.

Table 6.6: AM Peak Hour Freeway LOS Analysis – Future Without Project (Year 2013)

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	FNP 2013		
				Volume	Density	LOS
I-605 n/o Route 60			AM			
Northbound	4	9,400		6,474	31.3	D
Southbound	4	9,400		10,344	51.7	F
SR-60 e/o I-605			AM			
Eastbound	5	11,750		8,347	31.3	D
Westbound	5	11,750		9,200	80.7	F

Table 6.7: PM Peak Hour Freeway LOS Analysis – Future Without Project (Year 2013)

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	FNP 2013		
				Volume	Density	LOS
I-605 n/o Route 60			PM			
Northbound	4	9,400		9,345	58.0	F
Southbound	4	9,400		8,588	32.4	D
SR-60 e/o I-05			PM			
Eastbound	5	11,750		9,281	36.4	E
Westbound	5	11,750		9,041	29.1	D

6.5 SCENARIO 1

Scenario 1 volumes include the ambient growth, new trips generated by the cumulative projects and employee trips generated by the PHIMF. Compared to the Future without Project (Year 2011) condition the LOS at two locations in this scenario remains the same. Tables 6.8 and 6.9 show the Scenario 1 volumes and the corresponding density values and LOS.

Table 6.8: AM Peak Hour Freeway LOS Analysis – Scenario 1

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	Scenario 1		
				Volume	Density	LOS
I-605 n/o Route 60			AM			
Northbound	4	9,400		6,353	30.8	D
Southbound	4	9,400		10,156	50.8	F
SR-60 e/o I-605			AM			

Eastbound	5	11,750		8,332	31.2	D
Westbound	5	11,750		9,178	80.6	F

Table 6.9: PM Peak Hour Freeway LOS Analysis – Scenario 1

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	Scenario 1		
				Volume	Density	LOS
I-605 n/o Route 60			PM			
Northbound	4	9,400		9,171	56.9	F
Southbound	4	9,400		8,419	31.8	D
SR-60 e/o I-605			PM			
Eastbound	5	11,750		9,050	35.5	E
Westbound	5	11,750		8,896	28.6	D

6.6 SCENARIO 2

Scenario 2 volumes include the ambient growth, new trips generated by the cumulative projects, and truck and employee trips generated by the PHIMF. The cumulative projects for Scenario 2 include a park that replaces the Puente Hills Landfill. Compared to the Future without Project (Year 2013) condition the LOS at two locations remains the same. Tables 6.10 and 6.11 show the Scenario 2 volumes and corresponding density values and LOS.

Table 6.10: AM Peak Hour Freeway LOS Analysis – Scenario 2

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	Scenario 2		
				Volume	Density	LOS
I-605 n/o Route 60			AM			
Northbound	4	9,400		6,478	31.4	D
Southbound	4	9,400		10,354	51.8	F
SR-60 e/o I-605			AM			
Eastbound	5	11,750		8,381	31.4	D
Westbound	5	11,750		9,234	81.0	F

Table 6.11: PM Peak Hour Freeway LOS Analysis – Scenario 2

Freeway Analysis Locations	Lanes	Capacity	Peak Hour	Scenario 2		
				Volume	Density	LOS
I-605 n/o Route 60			PM			
Northbound	4	9,400		9,351	58.0	F
Southbound	4	9,400		8,594	32.4	D
SR-60 e/o I-605			PM			
Eastbound	5	11,750		9,315	36.6	E
Westbound	5	11,750		9,075	29.2	D

Based on the Caltrans traffic impact analysis guidelines, no significant traffic impacts to freeway operations were identified for Scenario 1 or Scenario 2.

PeMS Report Description

85

	Report	California > I605-N > 717940 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dnode=VDS&content=loops&tab=det_timeseries&station_id=717940&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161457199&e_mm=10&e_dd=21&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=flow&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:44
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Flow
	Data	1,872 Lane Points
	Data Quality	91.7% Observed
	Segment Type	VDS
	Segment Name	717940
	Start Date	10/16/2006 0:00
	End Date	10/21/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Flow (Veh/1 hour)	Lane 2 Flow (Veh/1 hour)	Lane 3 Flow (Veh/1 hour)	Lane 4 Flow (Veh/1 hour)	Lane 5 Flow (Veh/1 hour)	Flow (Veh/1 hour)	# Lane Points	% Observed
10/17/2006 7:00	2073	1671	1333	1250		6327	48	100
10/17/2006 8:00	1473	1187	1037	858		4555	48	100
10/17/2006 9:00	1558	1256	1157	1092		5063	48	100
10/17/2006 10:00	1422	1228	1193	1009		4852	48	100
10/17/2006 11:00	1589	1428	1358	1218		5593	48	100
10/17/2006 12:00	1645	1375	1387	1078		5485	48	100
10/17/2006 13:00	1816	1551	1436	1260		6063	48	100
10/17/2006 14:00	1919	1583	1397	1192		6091	48	100
10/17/2006 15:00	1746	1563	1330	1122		5761	48	100
10/17/2006 16:00	1390	1286	1077	999		4752	48	100
10/17/2006 17:00	1306	1316	1224	1062		4908	48	100
10/17/2006 18:00	1295	1400	1311	1235		5241	48	100
10/17/2006 19:00	1614	1475	1247	1185		5521	48	100
10/18/2006 7:00	1809	1457	1184	1170		5620	48	100
10/18/2006 8:00	1961	1621	1390	1322		6294	48	100
10/18/2006 9:00	1743	1383	1394	1189		5709	48	100
10/18/2006 10:00	1662	1397	1378	1130		5567	48	100
10/18/2006 11:00	1647	1305	1324	1122		5398	48	100
10/18/2006 12:00	1706	1405	1361	1173		5645	48	100
10/18/2006 13:00	1620	1314	1212	1066		5212	48	100
10/18/2006 14:00	1844	1497	1296	1163		5800	48	100
10/18/2006 15:00	1310	1270	1123	1076		4779	48	100
10/18/2006 16:00	1490	1520	1276	1238		5524	48	100
10/18/2006 17:00	1282	1298	756	1228		4564	48	100
10/18/2006 18:00	1401	1369	1294	1273		5337	48	100
10/18/2006 19:00	1111	1031	918	795		3855	48	100
10/19/2006 7:00	1821	1469	1316	1025		5631	48	75
10/19/2006 8:00	1894	1513	1308	1226		5941	48	75
10/19/2006 9:00	1723	1400	1243	1109		5475	48	75
10/19/2006 10:00	1626	1385	1185	1165		5361	48	75
10/19/2006 11:00	1642	1327	1206	1172		5347	48	75
10/19/2006 12:00	1676	1358	1228	1161		5423	48	75
10/19/2006 13:00	1821	1494	1275	1234		5824	48	75
10/19/2006 14:00	1845	1567	1249	1137		5798	48	75
10/19/2006 15:00	1499	1361	1201	1046		5107	48	75
10/19/2006 16:00	1488	1429	1199	1113		5229	48	75
10/19/2006 17:00	1188	1238	1157	1224		4807	48	75
10/19/2006 18:00	1433	1433	1190	1079		5135	48	75
10/19/2006 19:00	1656	1440	1211	1208		5515	48	75
					Average 7AM	5859		
					Average 6 PM	5238		

PeMS Report Description		
	Report	California > I605-N > 717940 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dnode=VDS&content=loops&tab=det_timeseries&station_id=717940&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161457199&e_mm=10&e_dd=21&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=speed&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymin=&ymax=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:51
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Speed
	Data	1,872 Lane Points
	Data Quality	91.7% Observed
	Segment Type	VDS
	Segment Name	717940
	Start Date	10/16/2006 0:00
	End Date	10/21/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Speed (mph)	Lane 2 Speed (mph)	Lane 3 Speed (mph)	Lane 4 Speed (mph)	Lane 5 Speed (mph)	Speed (mph)	# Lane Points	% Observed
10/17/2006 7:00	73.2	70.5	59.8	65		68.1	48	100
10/17/2006 8:00	58.9	56.5	45.7	48.9		53.4	48	100
10/17/2006 9:00	67.2	64.9	44.6	56		59	48	100
10/17/2006 10:00	70.5	65.3	42.8	52.5		58.6	48	100
10/17/2006 11:00	77.9	74.5	49.2	59.5		66.1	48	100
10/17/2006 12:00	73.4	74.4	48	52.4		63.1	48	100
10/17/2006 13:00	73.9	71.9	48	62.6		64.9	48	100
10/17/2006 14:00	71.8	69	47.6	64.2		64	48	100
10/17/2006 15:00	67.2	64.1	50	62.1		61.4	48	100
10/17/2006 16:00	43.1	45.5	39.8	58.5		46.2	48	100
10/17/2006 17:00	27.9	36.9	40.9	49.3		38.2	48	100
10/17/2006 18:00	31.3	35.3	41.8	49.8		39.4	48	100
10/17/2006 19:00	70.1	67.6	59.4	62.8		65.4	48	100
10/18/2006 7:00	64.5	66.9	60.1	61.7		63.6	48	100
10/18/2006 8:00	74.5	72.2	62.9	62.4		68.8	48	100
10/18/2006 9:00	74.9	69.3	52.8	58.7		64.8	48	100
10/18/2006 10:00	75	67.5	51.7	57.5		63.8	48	100
10/18/2006 11:00	72	67.3	50	56.4		62.2	48	100
10/18/2006 12:00	69.2	62.6	50.7	58.4		60.8	48	100
10/18/2006 13:00	66.1	60.1	48.3	59.6		59.1	48	100
10/18/2006 14:00	65.2	63.4	53.5	60.5		61.2	48	100
10/18/2006 15:00	30.4	38.4	41.5	49.1		39.3	48	100
10/18/2006 16:00	36.2	44.3	47.2	58.2		45.9	48	100
10/18/2006 17:00	21.5	28.1	36	49.3		33.2	48	100
10/18/2006 18:00	36.7	40.8	47	51.7		43.8	48	100
10/18/2006 19:00	61.5	69.1	65.6	59.4		64.1	48	100
10/19/2006 7:00	64.8	64.4	57.7	53		60.9	48	75
10/19/2006 8:00	71.4	66.8	56.5	60.1		64.6	48	75
10/19/2006 9:00	71.2	68.4	54.1	50.2		62.3	48	75
10/19/2006 10:00	72.9	68.8	53.1	53.9		63.3	48	75
10/19/2006 11:00	73.6	68.5	53.8	54.6		63.7	48	75
10/19/2006 12:00	72	69.1	54.7	51.5		63	48	75
10/19/2006 13:00	72.3	69.4	56.5	58.6		65.2	48	75
10/19/2006 14:00	66.4	64.5	52.3	57.1		61	48	75
10/19/2006 15:00	47.2	52.5	50.2	51.5		50.2	48	75
10/19/2006 16:00	39.3	43.8	47	52.5		45.1	48	75
10/19/2006 17:00	22.2	27.1	44.7	48.5		35.6	48	75
10/19/2006 18:00	34.1	37.9	45.2	47.2		40.5	48	75
10/19/2006 19:00	65.1	64.8	57.8	59.6		62.2	48	75
					Average 8am	60.93333333		
					Average 6pm	41.23333333		

PeMS Report Description		
	Report	California > I605-S > 717942 (ML - 4 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dnode=VDS&content=loops&tab=det_timeseries&station_id=717942&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=flow&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on
	Report generated	2/21/2008 17:33
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Flow
	Data	1,872 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	717942
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

I-605 southbound at Peck Road, October 2006, Segment 717942							
1 hour	Lane 1 Flow (Veh/1 hour)	Lane 2 Flow (Veh/1 hour)	Lane 3 Flow (Veh/1 hour)	Lane 4 Flow (Veh/1 hour)	Flow (Veh/1 hour)	# Lane Points	% Observed
10/17/2006 7:00	1837	2029	1229	1378	6473	48	100
10/17/2006 8:00	1839	2163	1226	1435	6663	48	100
10/17/2006 9:00	1709	2143	1161	1520	6533	48	100
10/17/2006 10:00	1816	1972	1275	1271	6334	48	100
10/17/2006 11:00	1762	1980	1337	1431	6510	48	100
10/17/2006 12:00	1880	2031	1447	1440	6798	48	100
10/17/2006 13:00	1949	2035	1396	1508	6888	48	100
10/17/2006 14:00	2070	2214	1449	1523	7256	48	100
10/17/2006 15:00	2015	2181	1401	1575	7172	48	100
10/17/2006 16:00	1793	1965	1324	1437	6519	48	100
10/17/2006 17:00	1383	1632	1151	1458	5624	48	100
10/17/2006 18:00	1064	1382	1163	1354	4963	48	100
10/17/2006 19:00	1408	1671	1172	1363	5614	48	100
10/18/2006 7:00	1794	2047	1246	1439	6526	48	100
10/18/2006 8:00	1595	1938	1161	1505	6199	48	100
10/18/2006 9:00	1967	2240	1334	1449	6990	48	100
10/18/2006 10:00	1775	2053	1185	1334	6347	48	100
10/18/2006 11:00	1730	2010	1180	1401	6321	48	100
10/18/2006 12:00	1707	1806	1263	1283	6059	48	100
10/18/2006 13:00	1922	1990	1355	1494	6761	48	100
10/18/2006 14:00	2046	2080	1423	1535	7084	48	100
10/18/2006 15:00	1839	1959	1243	1429	6470	48	100
10/18/2006 16:00	1584	1854	1241	1538	6217	48	100
10/18/2006 17:00	1648	1954	1308	1590	6500	48	100
10/18/2006 18:00	1448	1542	1124	1135	5249	48	100
10/18/2006 19:00	1264	1485	1061	1093	4903	48	100
10/19/2006 7:00	1633	1755	1083	1154	5625	48	100
10/19/2006 8:00	1652	1809	1138	1197	5796	48	100
10/19/2006 9:00	1837	1939	1216	1289	6281	48	100
10/19/2006 10:00	2030	2100	1380	1414	6924	48	100
10/19/2006 11:00	1852	1952	1374	1383	6561	48	100
10/19/2006 12:00	1909	2054	1398	1436	6797	48	100
10/19/2006 13:00	1772	1774	1212	1295	6053	48	100
10/19/2006 14:00	1878	2022	1280	1473	6653	48	100
10/19/2006 15:00	1548	1904	1177	1506	6135	48	100
10/19/2006 16:00	1494	1830	1165	1444	5933	48	100
10/19/2006 17:00	1574	1920	1292	1652	6438	48	100
10/19/2006 18:00	1545	1627	1158	1257	5587	48	100
10/19/2006 19:00	1515	1654	1179	1235	5583	48	100

PeMS Report Description		
	Report	California > I605-S > 717942 (ML - 4 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dtype=VDS&content=loops&tab=det_timeseries&station_id=717942&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=speed&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on
	Report generated	2/21/2008 17:37
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Speed
	Data	1,872 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	717942
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Speed (mph)	Lane 2 Speed (mph)	Lane 3 Speed (mph)	Lane 4 Speed (mph)	Speed (mph)	# Lane Points	% Observed
10/17/2006 7:00	70.8	79.2	61.6	57.8	68.9	48	100
10/17/2006 8:00	52.6	67	41.6	44.4	53.5	48	100
10/17/2006 9:00	34.3	44.7	26.9	29	35.2	48	100
10/17/2006 10:00	64.9	73.4	42.8	44.4	59	48	100
10/17/2006 11:00	74.7	80.8	47.6	51.6	65.9	48	100
10/17/2006 12:00	74.1	81	48.7	52.7	66.2	48	100
10/17/2006 13:00	73.4	80.5	48.4	55.7	66.6	48	100
10/17/2006 14:00	69.9	79.1	49.6	53.4	65.2	48	100
10/17/2006 15:00	66.3	77.5	52.8	53.7	64.3	48	100
10/17/2006 16:00	72.9	81	55.9	57.8	68.5	48	100
10/17/2006 17:00	50.3	62.2	44.4	39.4	49.7	48	100
10/17/2006 18:00	65.2	75.5	65.8	55.2	65.5	48	100
10/17/2006 19:00	70.7	74	57	56.1	65.3	48	100
10/18/2006 7:00	64	69.2	55.5	47.4	60.3	48	100
10/18/2006 8:00	41.8	49.3	32.1	31.8	39.9	48	100
10/18/2006 9:00	60.7	69.6	42.2	45.4	56.9	48	100
10/18/2006 10:00	52.5	57.8	31.6	36.6	47	48	100
10/18/2006 11:00	42.9	53	27.5	31.2	40.6	48	100
10/18/2006 12:00	69.1	74.8	42.3	47.2	60.6	48	100
10/18/2006 13:00	75.4	80.4	46.5	54.4	66.4	48	100
10/18/2006 14:00	71.3	80.4	48.9	57.5	66.5	48	100
10/18/2006 15:00	66.7	74.3	51	54.3	63.2	48	100
10/18/2006 16:00	44.2	59.3	38.5	42	47	48	100
10/18/2006 17:00	47.5	61.2	40.3	38.7	48	48	100
10/18/2006 18:00	72.1	76.7	59.2	58.9	67.8	48	100
10/18/2006 19:00	68.8	79.5	54	57.8	66.4	48	100
10/19/2006 7:00	62.9	67.7	48.6	51	59.2	48	100
10/19/2006 8:00	62.7	70.6	45.3	54.4	60	48	100
10/19/2006 9:00	68.1	72.2	39.6	50.2	60.2	48	100
10/19/2006 10:00	73.3	75	36.4	45.6	60.8	48	100
10/19/2006 11:00	82.3	80	43.5	50.6	66.8	48	100
10/19/2006 12:00	74.4	74.1	39.2	44.7	60.8	48	100
10/19/2006 13:00	73.3	68.3	38.7	44.4	58.7	48	100
10/19/2006 14:00	62.9	64.8	37.8	40.3	53.6	48	100
10/19/2006 15:00	34.3	43.6	24.7	26.8	33.5	48	100
10/19/2006 16:00	37.5	44.8	26.9	27.4	35.2	48	100
10/19/2006 17:00	34.2	46.7	28.1	27.1	34.9	48	100
10/19/2006 18:00	76.1	80.8	57.5	59.5	69.9	48	100
10/19/2006 19:00	80.8	80.9	61.6	62.8	72.8	48	100
				Average 8am	51.13333333		
				average 6pm	67.73333333		

PeMS Report Description		
	Report	California > SR60-W > 716238 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dtype=VDS&content=loops&tab=det_timeseries&station_id=716238&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=flow&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:54
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Flow
	Data	2,340 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	716238
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Flow (Veh/1 hour)	Lane 2 Flow (Veh/1 hour)	Lane 3 Flow (Veh/1 hour)	Lane 4 Flow (Veh/1 hour)	Lane 5 Flow (Veh/1 hour)	Flow (Veh/1 hour)	# Lane Points	% Observed
10/17/2006 7:00	1265	1289	1095	714	1182	5545	60	100
10/17/2006 8:00	1449	1386	996	790	1180	5801	60	100
10/17/2006 9:00	1921	1821	1346	1185	1449	7722	60	100
10/17/2006 10:00	1767	1529	1170	1333	1332	7131	60	100
10/17/2006 11:00	1679	1463	1174	1371	1468	7155	60	100
10/17/2006 12:00	1446	1274	1001	1274	1281	6276	60	100
10/17/2006 13:00	1338	1202	951	1184	1240	5915	60	100
10/17/2006 14:00	1322	1242	949	1239	1242	5994	60	100
10/17/2006 15:00	1563	1414	1072	1324	1313	6686	60	100
10/17/2006 16:00	1674	1434	1087	1266	1216	6677	60	100
10/17/2006 17:00	1993	1840	1397	1386	1362	7978	60	100
10/17/2006 18:00	1842	1730	1146	897	1413	7028	60	100
10/17/2006 19:00	1026	1078	782	989	1134	5009	60	100
10/18/2006 7:00	1352	1353	1160	758	1286	5909	60	100
10/18/2006 8:00	1186	1082	786	647	1084	4785	60	100
10/18/2006 9:00	1763	1761	1321	1058	1352	7255	60	100
10/18/2006 10:00	1936	1763	1202	1284	1491	7676	60	100
10/18/2006 11:00	1876	1621	1164	1357	1516	7534	60	100
10/18/2006 12:00	1501	1358	1010	1385	1479	6733	60	100
10/18/2006 13:00	1526	1359	1055	1354	1393	6687	60	100
10/18/2006 14:00	1577	1384	1039	1353	1375	6728	60	100
10/18/2006 15:00	1703	1544	1145	1403	1352	7147	60	100
10/18/2006 16:00	1922	1703	1278	1428	1369	7700	60	100
10/18/2006 17:00	2009	1907	1447	1432	1205	8000	60	100
10/18/2006 18:00	1643	1586	1296	1211	1129	6865	60	100
10/18/2006 19:00	1198	1187	856	1112	1226	5579	60	100
10/19/2006 7:00	1389	1336	1082	692	1115	5614	60	100
10/19/2006 8:00	1559	1501	1204	776	1234	6274	60	100
10/19/2006 9:00	1863	1831	1413	1225	1541	7873	60	100
10/19/2006 10:00	1866	1581	1111	1394	1408	7360	60	100
10/19/2006 11:00	1761	1494	1081	1410	1485	7231	60	100
10/19/2006 12:00	1548	1325	1038	1355	1416	6682	60	100
10/19/2006 13:00	1702	1481	1101	1486	1540	7310	60	100
10/19/2006 14:00	1666	1490	1050	1433	1468	7107	60	100
10/19/2006 15:00	1587	1442	1058	1317	1259	6663	60	100
10/19/2006 16:00	1921	1693	1267	1350	1398	7629	60	100
10/19/2006 17:00	1927	1830	1499	1353	1308	7917	60	100
10/19/2006 18:00	1765	1677	1274	1301	1365	7382	60	100
10/19/2006 19:00	1126	1137	821	1054	1153	5291	60	100
					average 6pm	7091.666667		
					average 5pm	7786.666667		

PeMS Report Description		
	Report	California > SR60-W > 716238 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dnode=VDS&content=loops&tab=det_timeseries&station_id=716238&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=speed&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:55
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Speed
	Data	2,340 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	716238
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

PeMS Report Description		
	Report	California > SR60-W > 717315 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dtype=VDS&content=loops&tab=det_timeseries&station_id=717315&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=flow&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:57
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Flow
	Data	2,340 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	717315
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Flow (Veh/1 hour)	Lane 2 Flow (Veh/1 hour)	Lane 3 Flow (Veh/1 hour)	Lane 4 Flow (Veh/1 hour)	Lane 5 Flow (Veh/1 hour)	Flow (Veh/1 hour)	# Lane Points	% Observed
10/17/2006 7:00	1661	1626	1560	1394	1408	7649	60	100
10/17/2006 8:00	1589	1615	1441	1263	1337	7245	60	100
10/17/2006 9:00	1975	1831	1488	1337	1148	7779	60	100
10/17/2006 10:00	1850	1661	1200	1167	776	6654	60	100
10/17/2006 11:00	1636	1500	1109	1130	740	6115	60	100
10/17/2006 12:00	1643	1530	1156	1148	755	6232	60	100
10/17/2006 13:00	1597	1444	1136	1138	765	6080	60	100
10/17/2006 14:00	1555	1447	1145	1071	764	5982	60	100
10/17/2006 15:00	1685	1575	1239	1158	804	6461	60	100
10/17/2006 16:00	1822	1656	1374	1204	802	6858	60	100
10/17/2006 17:00	1920	1765	1413	1286	908	7292	60	100
10/17/2006 18:00	1665	1525	1263	1136	772	6361	60	100
10/17/2006 19:00	1097	1181	943	880	580	4681	60	100
10/18/2006 7:00	1706	1689	1588	1465	1429	7877	60	100
10/18/2006 8:00	1417	1392	1235	1111	1106	6261	60	100
10/18/2006 9:00	1520	1575	1381	1191	1288	6955	60	100
10/18/2006 10:00	1782	1607	1261	1144	863	6657	60	100
10/18/2006 11:00	1677	1448	1078	1045	743	5991	60	100
10/18/2006 12:00	1460	1360	1093	996	748	5657	60	100
10/18/2006 13:00	1616	1475	1154	1077	737	6059	60	100
10/18/2006 14:00	1635	1522	1162	1104	738	6161	60	100
10/18/2006 15:00	1689	1579	1260	1154	800	6482	60	100
10/18/2006 16:00	1717	1533	1253	1081	731	6315	60	100
10/18/2006 17:00	1705	1573	1314	1187	800	6579	60	100
10/18/2006 18:00	1621	1522	1260	1149	799	6351	60	100
10/18/2006 19:00	1255	1286	1015	912	540	5008	60	100
10/19/2006 7:00	1650	1661	1482	1406	1349	7548	60	100
10/19/2006 8:00	1459	1438	1276	1162	1124	6459	60	100
10/19/2006 9:00	1648	1560	1271	1182	965	6626	60	100
10/19/2006 10:00	1842	1617	1155	1186	802	6602	60	100
10/19/2006 11:00	1758	1567	1158	1115	750	6348	60	100
10/19/2006 12:00	1742	1518	1155	1120	764	6299	60	100
10/19/2006 13:00	1538	1432	1048	1017	676	5711	60	100
10/19/2006 14:00	1749	1617	1253	1107	766	6492	60	100
10/19/2006 15:00	1788	1594	1247	1149	817	6595	60	100
10/19/2006 16:00	1864	1660	1308	1211	768	6811	60	100
10/19/2006 17:00	1907	1827	1472	1351	946	7503	60	100
10/19/2006 18:00	1653	1563	1233	1113	799	6361	60	100
10/19/2006 19:00	1208	1202	938	852	516	4716	60	100

PeMS Report Description		
	Report	California > SR60-W > 717315 (ML - 5 lanes) >
	Report link	http://pems.eecs.berkeley.edu/?report_form=1&dnode=VDS&content=loops&tab=det_timeseries&station_id=717315&s_time_id=1160956800&s_mm=10&s_dd=16&s_yy=2006&s_hh=0&e_time_id=1161370799&e_mm=10&e_dd=20&e_yy=2006&e_hh=18&tod=range&tod_from=7&tod_to=20&dow_2=on&dow_3=on&dow_4=on&q=speed&q2=&gn=hour&lines=on&pts=on&grid=on&sc=auto&ymin=&ymax=&agg=on&lane1=on&lane2=on&lane3=on&lane4=on&lane5=on
	Report generated	2/21/2008 17:58
	PeMS version	ucb_pems-8.0.0
Report Parameters		
	Parameter	Value
	Quantity	Speed
	Data	2,340 Lane Points
	Data Quality	100% Observed
	Segment Type	VDS
	Segment Name	717315
	Start Date	10/16/2006 0:00
	End Date	10/20/2006 18:59
	Time of Day Restriction	Hours=7-20

1 hour	Lane 1 Speed (mph)	Lane 2 Speed (mph)	Lane 3 Speed (mph)	Lane 4 Speed (mph)	Lane 5 Speed (mph)	Speed (mph)	# Lane Points	% Observed
10/17/2006 7:00	29.6	28.3	33.2	30.9	26.7	29.7	60	100
10/17/2006 8:00	25.4	25	28.5	21.7	22.1	24.7	60	100
10/17/2006 9:00	54.6	52.1	55.8	40.8	46.1	50.6	60	100
10/17/2006 10:00	71.3	68.3	66.2	49.3	53.1	63.7	60	100
10/17/2006 11:00	73.7	70.3	66.1	50.3	55.6	65	60	100
10/17/2006 12:00	76.1	72.4	72	57	59	68.8	60	100
10/17/2006 13:00	77.4	73.1	71.1	60.1	60.9	69.9	60	100
10/17/2006 14:00	77.3	73.5	73.7	61.7	60.2	70.7	60	100
10/17/2006 15:00	73.8	72	70.1	62.3	58.7	68.7	60	100
10/17/2006 16:00	74.4	72.9	72.5	65.2	63.1	70.7	60	100
10/17/2006 17:00	73.2	73.1	71.5	66.9	63.7	70.5	60	100
10/17/2006 18:00	69.1	65	65.6	63.6	61.8	65.6	60	100
10/17/2006 19:00	75.1	70.6	66.1	68	64.8	69.6	60	100
10/18/2006 7:00	28.7	28.4	29.5	27.8	14.6	26	60	100
10/18/2006 8:00	22.4	22.2	22.6	19	10.7	19.7	60	100
10/18/2006 9:00	25.8	28.3	31.7	20.4	15.6	24.7	60	100
10/18/2006 10:00	58.6	56.9	52.9	34.1	29	49.1	60	100
10/18/2006 11:00	66.3	59.5	57.6	33.8	33.6	53.4	60	100
10/18/2006 12:00	62.2	60.8	54.6	34	42	52.7	60	100
10/18/2006 13:00	76.1	73.1	67.9	40.9	54.6	64.9	60	100
10/18/2006 14:00	74.9	74	68.9	44.7	57.3	66	60	100
10/18/2006 15:00	73.1	70.5	68.2	50.4	59.2	65.8	60	100
10/18/2006 16:00	68.1	66	65.2	46.7	60.5	62.4	60	100
10/18/2006 17:00	65.3	62.7	65.4	58.8	61.3	63	60	100
10/18/2006 18:00	68.2	64.4	65.3	60.7	57.4	64	60	100
10/18/2006 19:00	71.2	70.7	69.5	68.3	59.1	68.9	60	100
10/19/2006 7:00	30.1	28.9	27.8	28.3	21.5	27.5	60	100
10/19/2006 8:00	27.9	27.9	27.2	25.4	18.4	25.7	60	100
10/19/2006 9:00	50.2	48.8	45	39.6	26.2	43.5	60	100
10/19/2006 10:00	67.7	66.6	55.5	43.5	30.8	56.4	60	100
10/19/2006 11:00	71.2	70.6	56.2	43.9	35.1	59.2	60	100
10/19/2006 12:00	74.3	72.4	63.7	49.5	41.1	63.4	60	100
10/19/2006 13:00	69.9	65.2	62.5	49	43.6	60.5	60	100
10/19/2006 14:00	75.1	71.7	65.3	60.3	51	67	60	100
10/19/2006 15:00	72.5	68.7	67.1	65.2	57.1	67.4	60	100
10/19/2006 16:00	71.5	68.7	65.1	68.2	59.6	67.6	60	100
10/19/2006 17:00	70.1	67.9	68.1	68	64.5	68.1	60	100
10/19/2006 18:00	63.9	61.6	60.8	58.1	58.9	61.1	60	100
10/19/2006 19:00	71.3	69.6	65.2	64.7	62.3	67.4	60	100
					average 8am	23.36666667		
					average 6pm	63.56666667		