APPENDIX C

SCENARIO 3B WITH LA MEDIA ROAD

1. Scenario 3B With La Media Road Land Use Summary & Trip Generation File
2. Revised Otay Mesa 3B – 2030 Street Network Plot
3. Revised Otay Mesa CPU 2030 3B ADT Plot (With La Media Road)
4. SANDAG 2050 Regional Transportation Plan (excerpt, pg. A-17)
5. CALTRANS Ramp Meter Rate E-Mail
6. I-805 Peak Hour Volume Data
7. City Requested ADT Adjustments
8. E-Memo: OMCPU Intersection Peak Hour Turn Volumes (Method Used)
9. Buildout Recommended Lane Configurations – Alternative 3B With La Media Road
10. Buildout AM / PM Peak Hour Traffic – Alternative 3B With La Media Road
11. Intersection LOS Worksheets

Otay Mesa Buildout (3B) Land Use Summary			
Land Use	Input Vehicle Trip Generation		
	Type	Amount	Veh. Trips
Single Family	du	4,273	37,570
Multi-Family	du	14,501	116,056
Elementary school	site	7	8,295
Junior College	student	5,000	9,095
Senior High School	student	4,800	8,230
*IBT - Office	ksf	2,771	39,103
*L-R Office	ksf	362	5,760
*Heavy Industry	ksf	8,458	34,962
*IBT- Industrial Park	ksf	8,034	64,283
*IBT - Business Park	ksf	5,356	87,819
*Industrial Park	ksf	6,020	97,463
*Light Industry LGR IP	ksf	12,685	101,497
*IBT - Manufacturing	ksf	2,678	10,823
Commercial Airport	Flt	682	1,368
✔ Community Commercial	ksf	3,848	269,768
✔ Neighborhood Commercial	ksf	69	8,295
Gas Station w/fdmt	pump	27	6,710
* IBT- Warehouse	ksf	8,034	40,060
Truck Storage	acre	30	920
Warehouse or Storage	ksf	63	315
Active Park	acre	166	7,284
Cross Border Facility (CBF)	Passenger	17,225	31,205
Lodging - Hotel (BRWN FLD & CBF)	room	570	5,693
Air & Space Museum (BRWN FLD)		360	732
Restaurant (BRWN FLD)		30	12,000
Park & Ride (BRWN FLD)	Site	1	297
Solar Field (BRWN FLD)		67	5
Communication or Utility	acre	6	18
OMPOE in/out Laden	truck	2,000	8,096
OMPOE in/out unladen	truck	4,000	16,192
Church	site	5	205
Police or Fire Station	site	11	225
Other Health Care	ksf	293	14,681
Grand Total:			*1,045,025*

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* **Industrial Square footage total of 54,461,000**

✔ **Commercial square footage total of 3,917,000**

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OTAY MESA Final 2030 3B (.5 FAR)
trip generation and land use by zone

	---- Land Use ----				-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4429	101	SINGLE FAMILY	du	800.0	10080.	7034.
4429	4112	RIGHT-OF-WAY	acre	62.0	0.	0.
4429	7601	ACTIVE PARK	acre	6.0	400.	263.
4429	9101	INACTIVE USE	acre	249.7	0.	0.
4429	9710	MULTI-FAMILY(UNDER20DU/AC)	du	820.0	9348.	6563.
4429		TOTAL			19828.	13860.
4431	6102	CHURCH	acre	5.0	267.	205.
4431	7601	ACTIVE PARK	acre	11.0	733.	482.
4431	9711	GAS STATION w/FDMT(PUMP)	pump	12.0	2466.	1790.
4431	9719	OTHER HEALTH CARE(KSF)	ksf	292.7	19788.	14681.
4431		TOTAL			23254.	17158.
4443	101	SINGLE FAMILY	du	1069.0	13469.	9399.
4443	4112	RIGHT-OF-WAY	acre	47.4	0.	0.
4443	7601	ACTIVE PARK	acre	5.3	353.	232.
4443	9101	INACTIVE USE	acre	263.2	0.	0.
4443	9710	MULTI-FAMILY(UNDER20DU/AC)	du	330.0	3762.	2641.
4443		TOTAL			17584.	12273.
4450	4112	RIGHT-OF-WAY	acre	13.6	0.	0.
4450	9101	INACTIVE USE	acre	187.3	0.	0.
4450		TOTAL			0.	0.
4460	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	830.9	8226.	6648.
4460		TOTAL			8226.	6648.
4463	4112	RIGHT-OF-WAY	acre	15.8	0.	0.
4463	9101	INACTIVE USE	acre	168.4	0.	0.
4463		TOTAL			0.	0.
4464	4112	RIGHT-OF-WAY	acre	24.4	0.	0.
4464	9733	COMMUNITY COMMERCIAL (KSF)	ksf	770.9	77088.	54542.
4464		TOTAL			77088.	54542.
4467	101	SINGLE FAMILY	du	387.0	4876.	3403.
4467	4112	RIGHT-OF-WAY	acre	28.4	0.	0.
4467	7601	ACTIVE PARK	acre	7.0	466.	307.
4467	9101	INACTIVE USE	acre	132.7	0.	0.
4467	9710	MULTI-FAMILY(UNDER20DU/AC)	du	216.0	2462.	1729.
4467		TOTAL			7805.	5438.
4472	4112	RIGHT-OF-WAY	acre	40.0	0.	0.
4472	9101	INACTIVE USE	acre	238.3	0.	0.
4472	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	725.0	7177.	5801.

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OTAY MESA Final 2030 3B (.5 FAR)

trip generation and land use by zone

	---- Land Use ----				-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4472	9717	INDUSTRIAL PARK(KSF)	ksf	777.0	15540.	12739.
4472	9768	AIR&SPACE MUSEUM(BRWN FLD)	ksf	360.0	1080.	732.

4472	9770	SOLAR FIELD (BRWN FLD)	acre	66.5	7.	5.
4472		TOTAL			23804.	19277.
4479	4112	RIGHT-OF-WAY	acre	60.5	0.	0.
4479	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1960.2	19406.	15684.
4479	9734	HEAVY INDUSTRY (KSF)	ksf	1960.2	9801.	8103.
4479		TOTAL			29207.	23787.
4496	4112	RIGHT-OF-WAY	acre	6.4	0.	0.
4496	9101	INACTIVE USE	acre	54.2	0.	0.
4496	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1016.0	11582.	8131.
4496	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	33.2	5630.	3983.
4496		TOTAL			17212.	12115.
4497	4112	RIGHT-OF-WAY	acre	16.0	0.	0.
4497	9101	INACTIVE USE	acre	67.0	0.	0.
4497	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1916.6	18975.	15335.
4497		TOTAL			18975.	15335.
4499	101	SINGLE FAMILY	du	123.0	1550.	1081.
4499	4112	RIGHT-OF-WAY	acre	54.9	0.	0.
4499	7601	ACTIVE PARK	acre	4.9	326.	215.
4499	9101	INACTIVE USE	acre	32.9	0.	0.
4499	9710	MULTI-FAMILY(UNDER20DU/AC)	du	630.0	7182.	5042.
4499	9714	WAREHOUSING OR STORAGE(KSF)	ksf	63.2	385.	315.
4499		TOTAL			9443.	6653.
4505	4112	RIGHT-OF-WAY	acre	33.0	0.	0.
4505	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.
4505	7601	ACTIVE PARK	acre	15.0	999.	657.
4505	9101	INACTIVE USE	acre	21.0	0.	0.
4505	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1578.0	17989.	12629.
4505		TOTAL			21107.	14472.
4511	4112	RIGHT-OF-WAY	acre	5.7	0.	0.
4511	6806	ELEMENTARY SCHOOL	acre	2.0	4237.	2370.
4511	9733	COMMUNITY COMMERCIAL (KSF)	ksf	234.7	23470.	16606.
4511		TOTAL			27707.	18976.
4517	101	SINGLE FAMILY	du	435.0	5481.	3825.
4517	4112	RIGHT-OF-WAY	acre	78.1	0.	0.
4517	9101	INACTIVE USE	acre	64.4	0.	0.
4517		TOTAL			5481.	3825.
4520	4112	RIGHT-OF-WAY	acre	26.8	0.	0.
4520	9733	COMMUNITY COMMERCIAL (KSF)	ksf	326.7	32670.	23115.
4520		TOTAL			32670.	23115.
4521	4112	RIGHT-OF-WAY	acre	10.0	0.	0.
4521	9733	COMMUNITY COMMERCIAL (KSF)	acre	271.7	27168.	19222.
4521		TOTAL			27168.	19222.
4522	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4522	9101	INACTIVE USE	acre	24.7	0.	0.
4522	9735	IBT-WAREHOUSE (KSF)	ksf	161.6	986.	806.
4522	9736	IBT-BUSINESS PARK(KSF)	ksf	107.7	2154.	1766.
4522	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	161.6	1600.	1293.

	Land Use				Trips	
Zone	Code	Name	Type	Amount	Person	Vehicle
4522	9738	IBT-MANUFACTURING (KSF)	ksf	53.9	269.	218.
4522	9747	IBT-OFFICE(KSF-53.9;ZN 4522)	ksf	53.9	1373.	1053.
4522		TOTAL			6383.	5135.
4524	4112	RIGHT-OF-WAY	acre	20.9	0.	0.
4524	9735	IBT-WAREHOUSE (KSF)	ksf	379.4	2315.	1892.
4524	9736	IBT-BUSINESS PARK(KSF)	ksf	252.9	5059.	4147.
4524	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	379.4	3756.	3036.
4524	9738	IBT-MANUFACTURING (KSF)	ksf	126.5	632.	511.
4524	9749	IBT-OFFICE(KSF-126;ZN 4524)	ksf	126.5	2618.	2007.
4524		TOTAL			14380.	11593.
4525	4112	RIGHT-OF-WAY	acre	20.0	0.	0.
4525	9735	IBT-WAREHOUSE (KSF)	ksf	370.5	2260.	1847.
4525	9736	IBT-BUSINESS PARK(KSF)	ksf	247.0	4940.	4049.
4525	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	370.5	3668.	2964.
4525	9738	IBT-MANUFACTURING (KSF)	ksf	123.5	617.	499.
4525	9750	IBT-OFFICE(KSF-123;ZN 4525)	ksf	123.5	2569.	1969.
4525		TOTAL			14053.	11329.
4526	101	SINGLE FAMILY	du	75.0	945.	659.
4526	4112	RIGHT-OF-WAY	acre	14.6	0.	0.
4526	9101	INACTIVE USE	acre	45.0	0.	0.
4526	9710	MULTI-FAMILY(UNDER20DU/AC)	du	340.0	3876.	2721.
4526	9733	COMMUNITY COMMERCIAL (KSF)	ksf	248.3	24829.	17567.
4526		TOTAL			29650.	20948.
4527	4112	RIGHT-OF-WAY	acre	20.5	0.	0.
4527	9735	IBT-WAREHOUSE (KSF)	ksf	423.4	2583.	2111.
4527	9736	IBT-BUSINESS PARK(KSF)	ksf	282.3	5645.	4628.
4527	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	423.4	4192.	3388.
4527	9738	IBT-MANUFACTURING (KSF)	ksf	141.1	706.	570.
4527	9751	IBT-OFFICE(KSF-141;ZN 4527)	ksf	141.1	2837.	2174.
4527		TOTAL			15962.	12871.
4528	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4528	9717	INDUSTRIAL PARK(KSF)	ksf	199.6	3991.	3272.
4528	9733	COMMUNITY COMMERCIAL (KSF)	ksf	478.9	47892.	33885.
4528		TOTAL			51883.	37156.
4529	4112	RIGHT-OF-WAY	acre	17.0	0.	0.
4529	9735	IBT-WAREHOUSE (KSF)	ksf	118.7	724.	592.
4529	9736	IBT-BUSINESS PARK(KSF)	ksf	79.1	1582.	1297.
4529	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	118.7	1175.	949.
4529	9738	IBT-MANUFACTURING (KSF)	ksf	39.5	198.	160.
4529	9747	IBT-OFFICE(KSF-53.9;ZN 4522)	ksf	39.5	1009.	773.
4529		TOTAL			4687.	3771.
4530	4112	RIGHT-OF-WAY	acre	42.2	0.	0.
4530	9717	INDUSTRIAL PARK(KSF)	ksf	217.4	4347.	3564.
4530	9733	COMMUNITY COMMERCIAL (KSF)	ksf	521.7	52167.	36910.
4530		TOTAL			56515.	40474.

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Zone	Code	Land Use Name	Type	Amount	Trips Person	Trips Vehicle
4531	4112	RIGHT-OF-WAY	acre	33.2	0.	0.
4531	4113	COMMUNICATION OR UTILITY	acre	2.1	8.	6.
4531	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1128.0	11167.	9025.
4531	9734	HEAVY INDUSTRY (KSF)	ksf	149.9	749.	619.
4531		TOTAL			11925.	9651.
4532	4112	RIGHT-OF-WAY	acre	8.2	0.	0.
4532	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1337.1	13237.	10698.
4532		TOTAL			13237.	10698.
4545	4112	RIGHT-OF-WAY	acre	23.3	0.	0.
4545	9101	INACTIVE USE	acre	87.3	0.	0.
4545	9710	MULTI-FAMILY(UNDER20DU/AC)	du	381.0	4343.	3049.
4545	9717	INDUSTRIAL PARK(KSF)	ksf	778.2	15564.	12759.
4545	9733	COMMUNITY COMMERCIAL (KSF)	ksf	17.0	1699.	1202.
4545		TOTAL			21606.	17010.
4546	101	SINGLE FAMILY	du	59.0	743.	519.
4546	4112	RIGHT-OF-WAY	acre	2.9	0.	0.
4546	4113	COMMUNICATION OR UTILITY	acre	3.9	16.	12.
4546	9101	INACTIVE USE	acre	134.1	0.	0.
4546	9710	MULTI-FAMILY(UNDER20DU/AC)	du	40.0	456.	320.
4546		TOTAL			1215.	851.
4547	4112	RIGHT-OF-WAY	acre	16.6	0.	0.
4547	7601	ACTIVE PARK	acre	8.1	539.	355.
4547	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1111.0	12665.	8892.
4547	9717	INDUSTRIAL PARK(KSF)	ksf	991.9	19838.	16263.
4547	9733	COMMUNITY COMMERCIAL (KSF)	ksf	15.7	1568.	1110.
4547		TOTAL			34611.	26619.
4548	4112	RIGHT-OF-WAY	acre	18.2	0.	0.
4548	9717	INDUSTRIAL PARK(KSF)	ksf	1417.9	28358.	23247.
4548		TOTAL			28358.	23247.
4549	4112	RIGHT-OF-WAY	acre	18.2	0.	0.
4549	9101	INACTIVE USE	acre	6.4	0.	0.
4549	9706	JUNIOR COLLEGE (STUDENTS)	stu	5000.0	11500.	9095.
4549	9717	INDUSTRIAL PARK(KSF)	ksf	179.2	3585.	2939.
4549		TOTAL			15085.	12033.
4550	4112	RIGHT-OF-WAY	acre	9.3	0.	0.
4550	9735	IBT-WAREHOUSE (KSF)	ksf	200.1	1221.	998.
4550	9736	IBT-BUSINESS PARK(KSF)	ksf	133.4	2668.	2188.
4550	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	200.1	1981.	1601.
4550	9738	IBT-MANUFACTURING (KSF)	ksf	66.7	334.	270.
4550	9746	IBT-OFFICE(KSF-66.7;ZN 4550)	ksf	66.7	1614.	1237.
4550		TOTAL			7819.	6294.
4551	4112	RIGHT-OF-WAY	acre	45.0	0.	0.
4551	9735	IBT-WAREHOUSE (KSF)	ksf	502.3	3064.	2505.
4551	9736	IBT-BUSINESS PARK(KSF)	ksf	334.9	6698.	5491.
4551	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	502.3	4973.	4019.
4551	9738	IBT-MANUFACTURING (KSF)	ksf	167.4	837.	677.
4551	9753	IBT-OFFICE(KSF-166;ZN 4551)	ksf	167.4	3232.	2477.
4551		TOTAL			18804.	15168.
4558	101	SINGLE FAMILY	du	125.0	1575.	1099.
4558	4112	RIGHT-OF-WAY	acre	3.6	0.	0.
4558	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.

4558	7601	ACTIVE PARK	acre	5.2	346.	228.
4558	9101	INACTIVE USE	acre	108.3	0.	0.
4558	9710	MULTI-FAMILY(UNDER20DU/AC)	du	590.0	6726.	4722.
4558		TOTAL			10766.	7234.
4560	4112	RIGHT-OF-WAY	acre	15.2	0.	0.
4560	6806	ELEMENTARY SCHOOL	site	1.0	2119.	1185.
4560	7601	ACTIVE PARK	acre	24.2	1612.	1061.
4560	9101	INACTIVE USE	acre	145.5	0.	0.
4560	9710	MULTI-FAMILY(UNDER20DU/AC)	du	3754.0	42796.	30045.
4560		TOTAL			46526.	32291.
4561	101	SINGLE FAMILY	du	765.0	9639.	6726.
4561	4112	RIGHT-OF-WAY	acre	3.8	0.	0.
4561	6806	ELEMENTARY SCHOOL	site	2.0	4237.	2370.
4561	7601	ACTIVE PARK	acre	20.7	1379.	907.
4561	9101	INACTIVE USE	acre	166.0	0.	0.
4561	9707	L-R OFF(KSF-98;ZN4561,4578)	ksf	98.0	2156.	1653.

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trip generation and land use by zone

	---------- Land Use ----------				-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4561	9710	MULTI-FAMILY(UNDER20DU/AC)	du	2025.0	23085.	16207.
4561	9733	COMMUNITY COMMERCIAL (KSF)	ksf	47.0	4704.	3329.
4561		TOTAL			45201.	31192.
4562	4112	RIGHT-OF-WAY	acre	13.4	0.	0.
4562	7601	ACTIVE PARK	acre	39.4	2624.	1727.
4562	9101	INACTIVE USE	acre	54.3	0.	0.
4562	9717	INDUSTRIAL PARK(KSF)	ksf	1178.9	23579.	19329.
4562	9725	SENIOR HIGH SCHOOL(STUDENTS)	stu	2400.0	9120.	4115.
4562		TOTAL			35323.	25172.
4563	4112	RIGHT-OF-WAY	acre	4.9	0.	0.
4563	9735	IBT-WAREHOUSE (KSF)	ksf	1001.5	6109.	4993.
4563	9736	IBT-BUSINESS PARK(KSF)	ksf	667.6	13353.	10946.
4563	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1001.5	9915.	8013.
4563	9738	IBT-MANUFACTURING (KSF)	ksf	333.8	1669.	1349.
4563	9758	IBT-OFFICE(KSF-333;ZN 4563)	ksf	333.8	5441.	4171.
4563		TOTAL			36487.	29472.
4564	4112	RIGHT-OF-WAY	acre	3.4	0.	0.
4564	9101	INACTIVE USE	acre	38.0	0.	0.
4564	9735	IBT-WAREHOUSE (KSF)	ksf	702.9	4287.	3504.
4564	9736	IBT-BUSINESS PARK(KSF)	ksf	468.6	9372.	7683.
4564	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	702.9	6958.	5624.
4564	9738	IBT-MANUFACTURING (KSF)	ksf	234.3	1171.	947.
4564	9754	IBT-OFFICE(KSF-234;ZN 4564)	ksf	234.3	4170.	3196.
4564		TOTAL			25959.	20954.
4565	4112	RIGHT-OF-WAY	acre	19.5	0.	0.
4565	9735	IBT-WAREHOUSE (KSF)	ksf	1035.5	6317.	5163.
4565	9736	IBT-BUSINESS PARK(KSF)	ksf	690.3	13807.	11318.
4565	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1035.5	10252.	8285.
4565	9738	IBT-MANUFACTURING (KSF)	ksf	345.2	1726.	1395.
4565	9756	IBT-OFFICE(KSF-345;ZN 4565)	ksf	345.2	5592.	4286.
4565		TOTAL			37692.	30447.

4566	4112	RIGHT-OF-WAY	acre	15.2	0.	0.
4566	9735	IBT-WAREHOUSE (KSF)	ksf	844.2	5150.	4209.
4566	9736	IBT-BUSINESS PARK(KSF)	ksf	562.8	11256.	9227.
4566	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	844.2	8358.	6754.
4566	9738	IBT-MANUFACTURING (KSF)	ksf	281.4	1407.	1137.
4566	9755	IBT-OFFICE(KSF-282;ZN 4566)	ksf	281.4	4784.	3667.
4566		TOTAL			30954.	24995.
4567	4112	RIGHT-OF-WAY	acre	9.0	0.	0.
4567	9733	COMMUNITY COMMERCIAL (KSF)	ksf	95.4	9540.	6750.
4567	9735	IBT-WAREHOUSE (KSF)	ksf	208.9	1274.	1042.
4567	9736	IBT-BUSINESS PARK(KSF)	ksf	139.3	2785.	2283.
4567	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	208.9	2068.	1671.
4567	9738	IBT-MANUFACTURING (KSF)	ksf	69.6	348.	281.
4567	9746	IBT-OFFICE(KSF-66.7;ZN 4550)	ksf	69.6	1685.	1292.
4567		TOTAL			17700.	13319.

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	----- Land Use -----				-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4569	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4569	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1086.8	10760.	8696.
4569		TOTAL			10760.	8696.
4570	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4570	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1287.4	12745.	10301.
4570		TOTAL			12745.	10301.
4578	101	SINGLE FAMILY	du	435.0	5481.	3825.
4578	4112	RIGHT-OF-WAY	acre	3.8	0.	0.
4578	7601	ACTIVE PARK	acre	13.6	906.	596.
4578	9101	INACTIVE USE	acre	239.4	0.	0.
4578	9707	L-R OFF(KSF-98;ZN4561,4578)	ksf	98.0	2156.	1653.
4578	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1150.0	13110.	9204.
4578	9733	COMMUNITY COMMERCIAL (KSF)	ksf	47.0	4704.	3329.
4578		TOTAL			26357.	18606.
4580	4112	RIGHT-OF-WAY	acre	9.4	0.	0.
4580	9101	INACTIVE USE	acre	5.0	0.	0.
4580	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	83.0	822.	664.
4580	9733	COMMUNITY COMMERCIAL (KSF)	ksf	352.2	35218.	24918.
4580		TOTAL			36040.	25582.
4581	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4581	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2156.4	21349.	17254.
4581		TOTAL			21349.	17254.
4584	4112	RIGHT-OF-WAY	acre	20.0	0.	0.
4584	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	65.3	647.	523.
4584	9733	COMMUNITY COMMERCIAL (KSF)	ksf	158.5	15851.	11215.
4584	9735	IBT-WAREHOUSE (KSF)	ksf	177.1	1081.	883.
4584	9736	IBT-BUSINESS PARK(KSF)	ksf	118.1	2362.	1936.
4584	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	177.1	1754.	1417.
4584	9738	IBT-MANUFACTURING (KSF)	ksf	59.0	295.	239.
4584	9745	IBT-OFFICE(KSF-59.0;ZN 4584)	ksf	59.0	1470.	1127.
4584		TOTAL			23460.	17340.

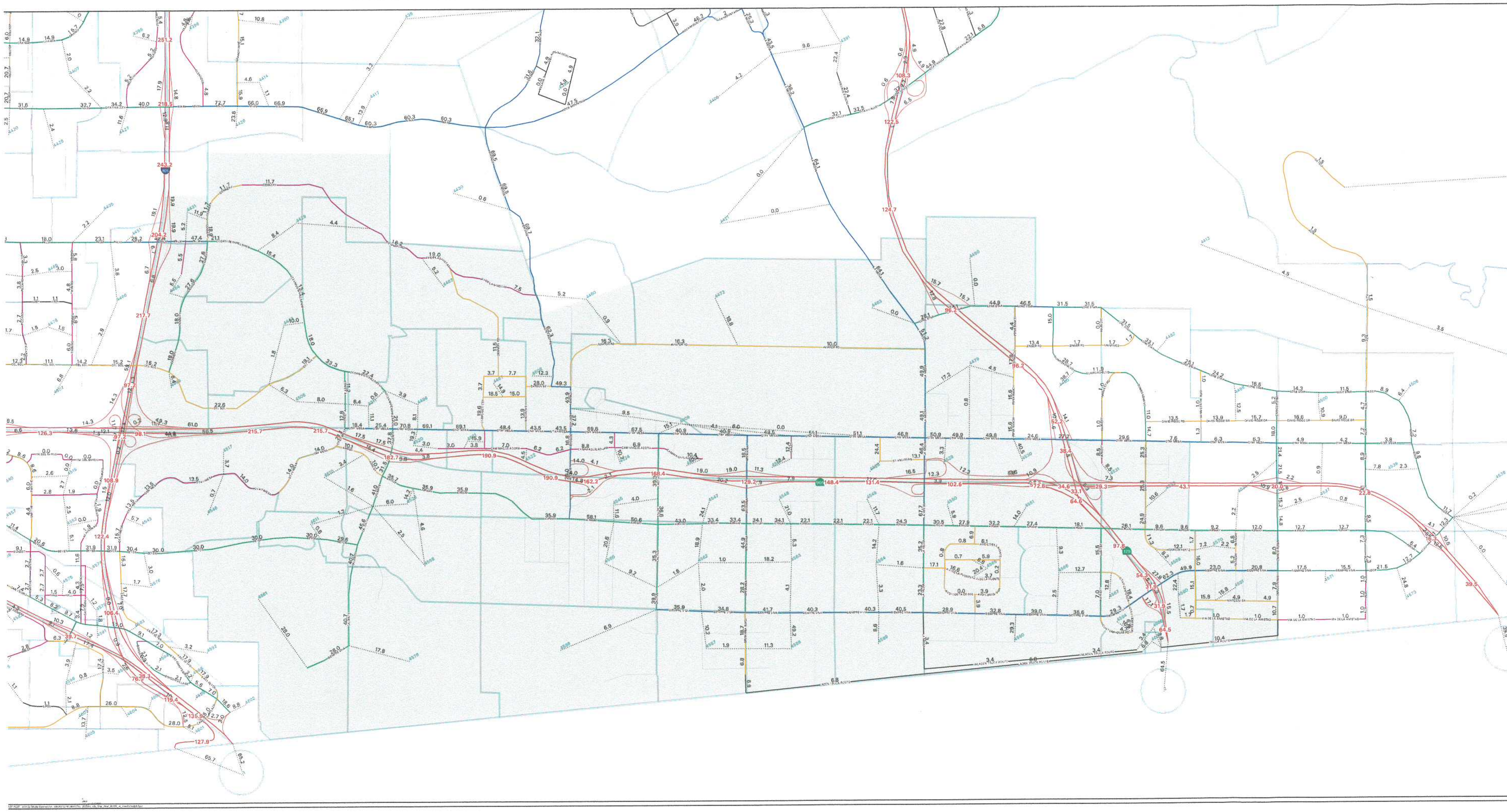
OTAY MESA Final 2030 3B (.5 FAR)
trip generation and land use by zone

Zone	Code	Name (Land Use)	Type	Amount	Person (Trips)	Vehicle (Trips)
4586	4112	RIGHT-OF-WAY	acre	7.1	0.	0.
4586	9101	INACTIVE USE	acre	257.7	0.	0.
4586	9734	HEAVY INDUSTRY (KSF)	ksf	1887.7	9438.	7803.
4586		TOTAL			9438.	7803.
4587	4112	RIGHT-OF-WAY	acre	10.9	0.	0.
4587	9734	HEAVY INDUSTRY (KSF)	ksf	3039.0	15195.	12563.
4587		TOTAL			15195.	12563.
4588	4112	RIGHT-OF-WAY	acre	6.1	0.	0.
4588	9740	CROSS BORDER FACILITY (PASS)	pass	17225.0	48230.	31205.
4588	9741	CROSS BORDER FAC-HOTEL(RM)	room	300.0	4860.	2996.
4588	9742	CROSS BORDER FAC-INDPRK(KSF)	ksf	280.0	4088.	3351.
4588	9743	CROSS BORDER FAC-GAS (PUMP)	pump	12.0	2466.	1790.
4588	9744	CROSS BORDER FAC-RETAIL(KSF)	ksf	78.5	4420.	3127.
4588	9752	IBT-OFFICE(KSF-270;ZN 4588)	ksf	269.9	4643.	3559.
4588	9759	IBT-WAREHOUSE(KSF-ZN4588)	ksf	530.0	3233.	2643.
4588	9760	IBT-BUSINESS PARK(KSF-4588)	ksf	353.4	7068.	5794.
4588	9761	IBT-INDUST PARK(KSF-4588)	ksf	530.0	5247.	4241.
4588	9762	IBT-MANUFACTURING(KSF-4588)	ksf	176.7	883.	714.
4588		TOTAL			85138.	59419.
4589	9101	INACTIVE USE	acre	53.0	0.	0.
4589	9735	IBT-WAREHOUSE (KSF)	ksf	300.2	1831.	1497.
4589	9736	IBT-BUSINESS PARK(KSF)	ksf	200.2	4003.	3282.
4589	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	300.2	2972.	2402.
4589	9738	IBT-MANUFACTURING (KSF)	ksf	100.1	500.	404.
4589	9748	IBT-OFFICE(KSF-100;ZN 4589)	ksf	100.1	2192.	1680.
4589	9771	FIRE OR POLICE STATION	acre	10.9	305.	225.
4589		TOTAL			11804.	9490.
4590	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4590	9735	IBT-WAREHOUSE (KSF)	ksf	1078.1	6576.	5375.
4590	9736	IBT-BUSINESS PARK(KSF)	ksf	718.7	14375.	11784.
4590	9737	IBT-INDUSTRIAL PARK(KSF)	ksf	1078.1	10673.	8626.
4590	9738	IBT-MANUFACTURING (KSF)	ksf	359.4	1797.	1452.
4590	9757	IBT-OFFICE(KSF-359;ZN 4590)	ksf	359.4	5786.	4435.
4590		TOTAL			39207.	31672.
4606	4001	OMPOE IN/OUT LADEN(TRUCKS)	truck	2000.0	10600.	8096.
4606		TOTAL			10600.	8096.
4607	4002	OMPOE IN/OUT UNLADEN(TRUCKS)	truck	4000.0	21200.	16192.
4607		TOTAL			21200.	16192.
4608	4112	RIGHT-OF-WAY	acre	22.0	0.	0.
4608	9101	INACTIVE USE	acre	44.0	0.	0.
4608	9710	MULTI-FAMILY(UNDER20DU/AC)	du	145.0	1653.	1160.
4608	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	108.5	1074.	868.
4608	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	35.9	6095.	4312.
4608	9734	HEAVY INDUSTRY (KSF)	ksf	1420.9	7105.	5874.
4608		TOTAL			15926.	12215.

OTAY MESA Final 2030 3B (.5 FAR)
trip generation and land use by zone

	Land Use				Trips	
Zone	Code	Name	Type	Amount	Person	Vehicle
4609	9720	TRUCK STORAGE (WRHSGSTRG)	acre	30.0	1125.	920.
4609	9726	COMMERCIAL AIRPORT (OM/FLT)	flt	682.0	2114.	1368.
4609	9733	COMMUNITY COMMERCIAL (KSF)	ksf	182.9	18290.	12941.
4609	9763	COMMERCIAL OFFICE(BRWN FLD)	ksf	165.9	3202.	2454.
4609	9764	HOTEL (BRWN FLD)	room	270.0	4374.	2697.
4609	9765	GAS STATION (BRWN FLD)	ksf	3.2	4311.	3130.
4609	9766	FAST FOOD REST (BRWN FLD)	ksf	14.3	14098.	9975.
4609	9767	HIGH T/O REST (BRWN FLD)	ksf	15.8	2861.	2025.
4609	9769	PARK & RIDE (BRWN FLD)	acre	0.7	389.	297.
4609		TOTAL			50766.	35806.
4610	4112	RIGHT-OF-WAY	acre	23.3	0.	0.
4610	9101	INACTIVE USE	acre	1.6	0.	0.
4610	9710	MULTI-FAMILY(UNDER20DU/AC)	du	110.0	1254.	880.
4610	9725	SENIOR HIGH SCHOOL(STUDENTS)	stu	2400.0	9120.	4115.
4610		TOTAL			10374.	4995.
4611	7601	ACTIVE PARK	acre	5.8	386.	254.
4611	9101	INACTIVE USE	acre	23.8	0.	0.
4611	9710	MULTI-FAMILY(UNDER20DU/AC)	du	265.0	3021.	2121.
4611		TOTAL			3407.	2375.

DRAFT - REVISED OTAY MESA CPU 2030 3B ADT PLOT - with La Media Connection



SANDAG Series 11
2030rc Network

Otay Mesa CPU Study

With .5 FAR LU
8L Toll for SR-125
& with La Media connection

Legend

- Freeway
- Prime
- Major
- Collector
- Local Collector
- Rural Collector
- Rural Light Collector
- Local
- Ramp

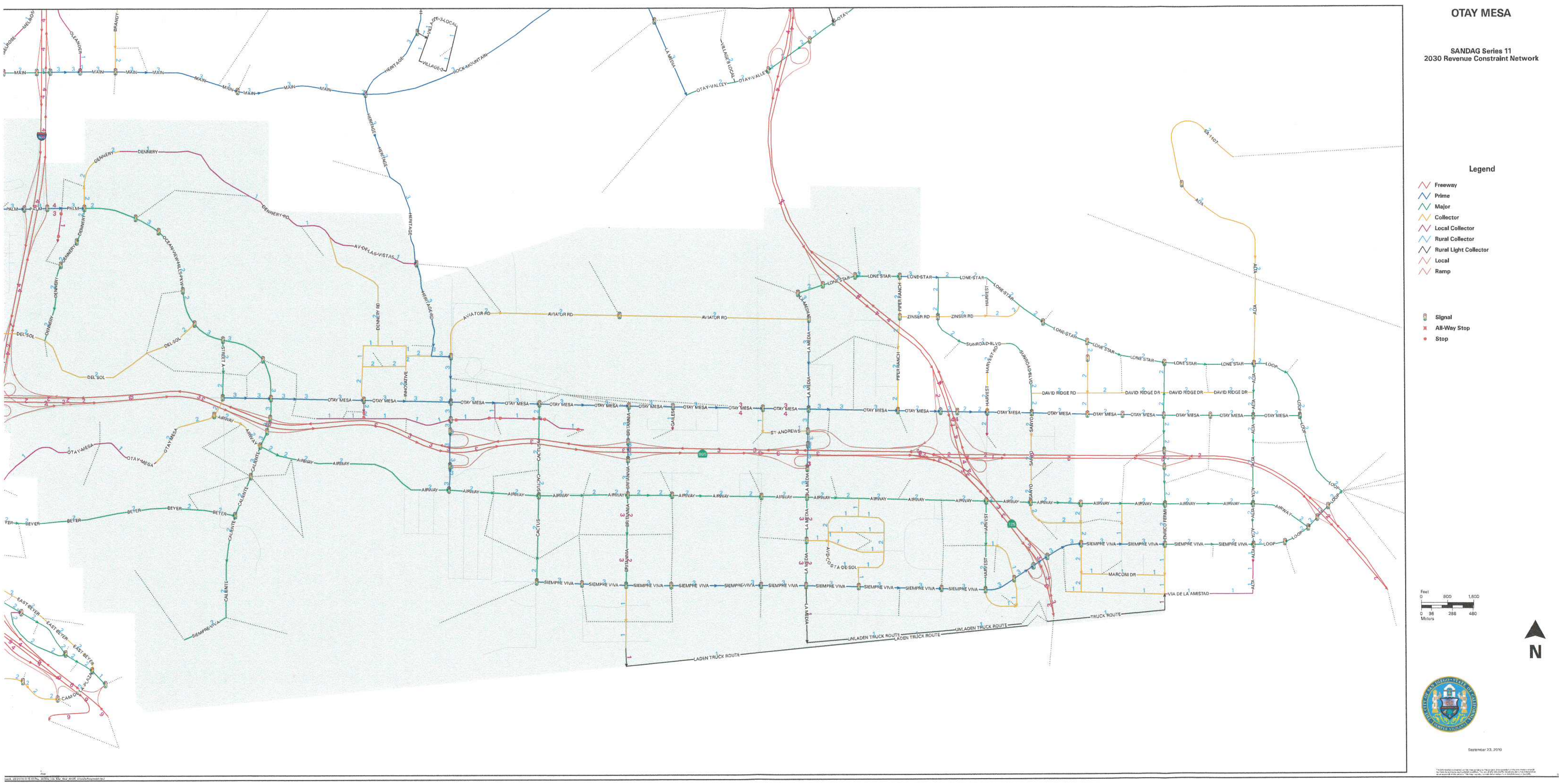
Unadjusted Volumes (1000s)

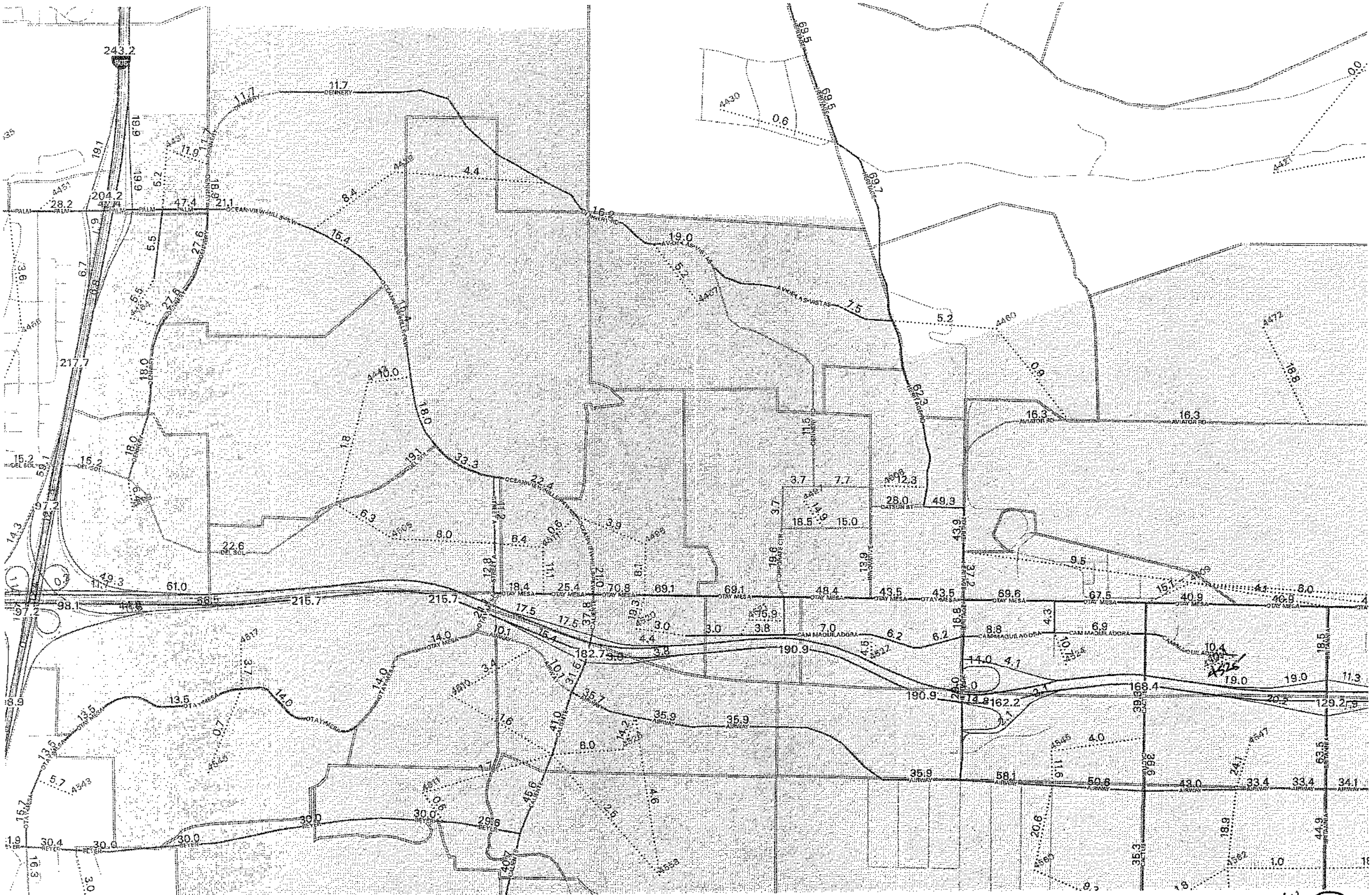
Freeway Unadjusted Volumes (1000s)

N

September 30, 2010

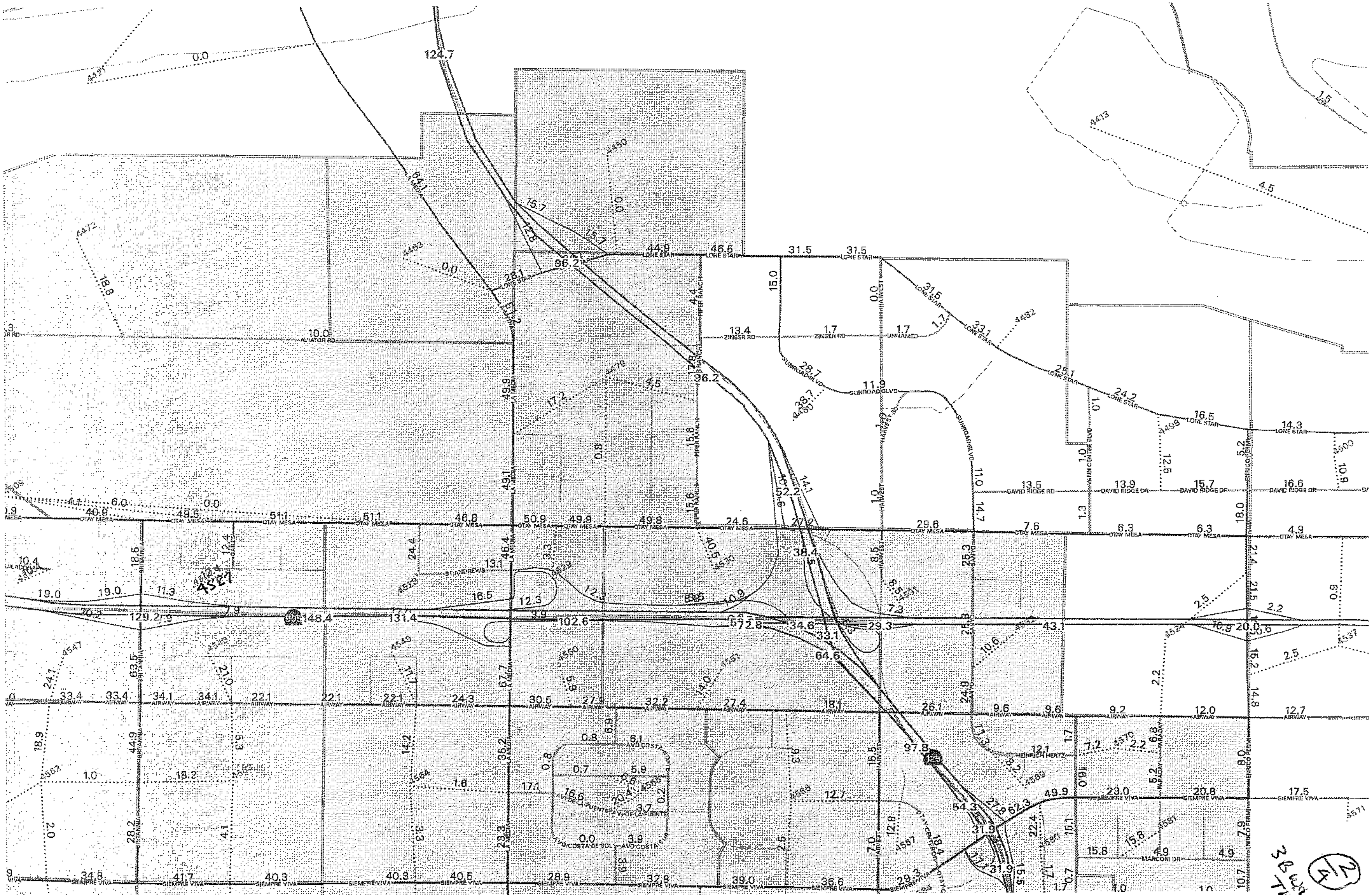
REVISED OTAY MESA 3B - 2030 Street Network



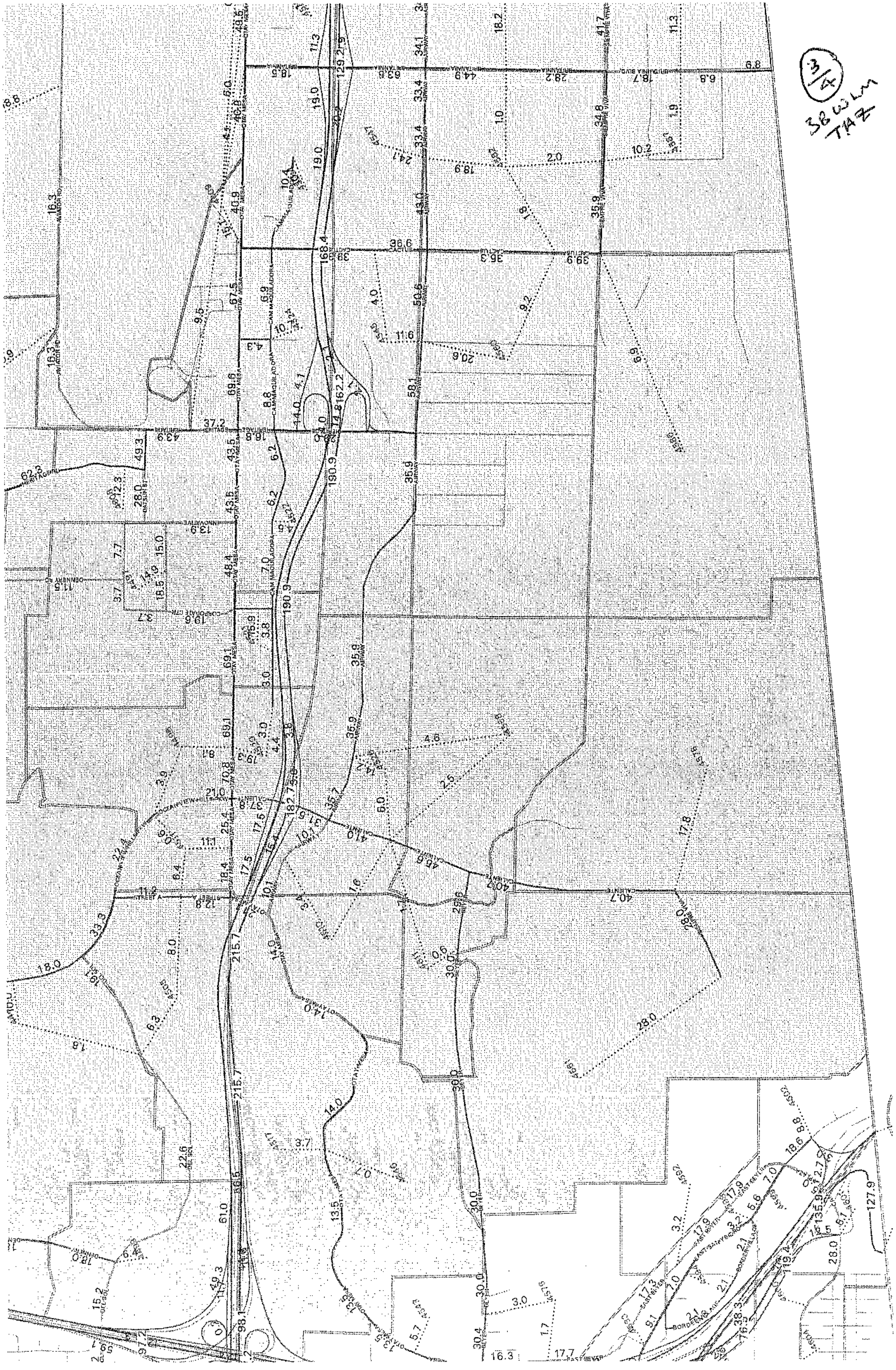


3B WITH LA MEDIA
READABLE VOLUMES & TAZ's

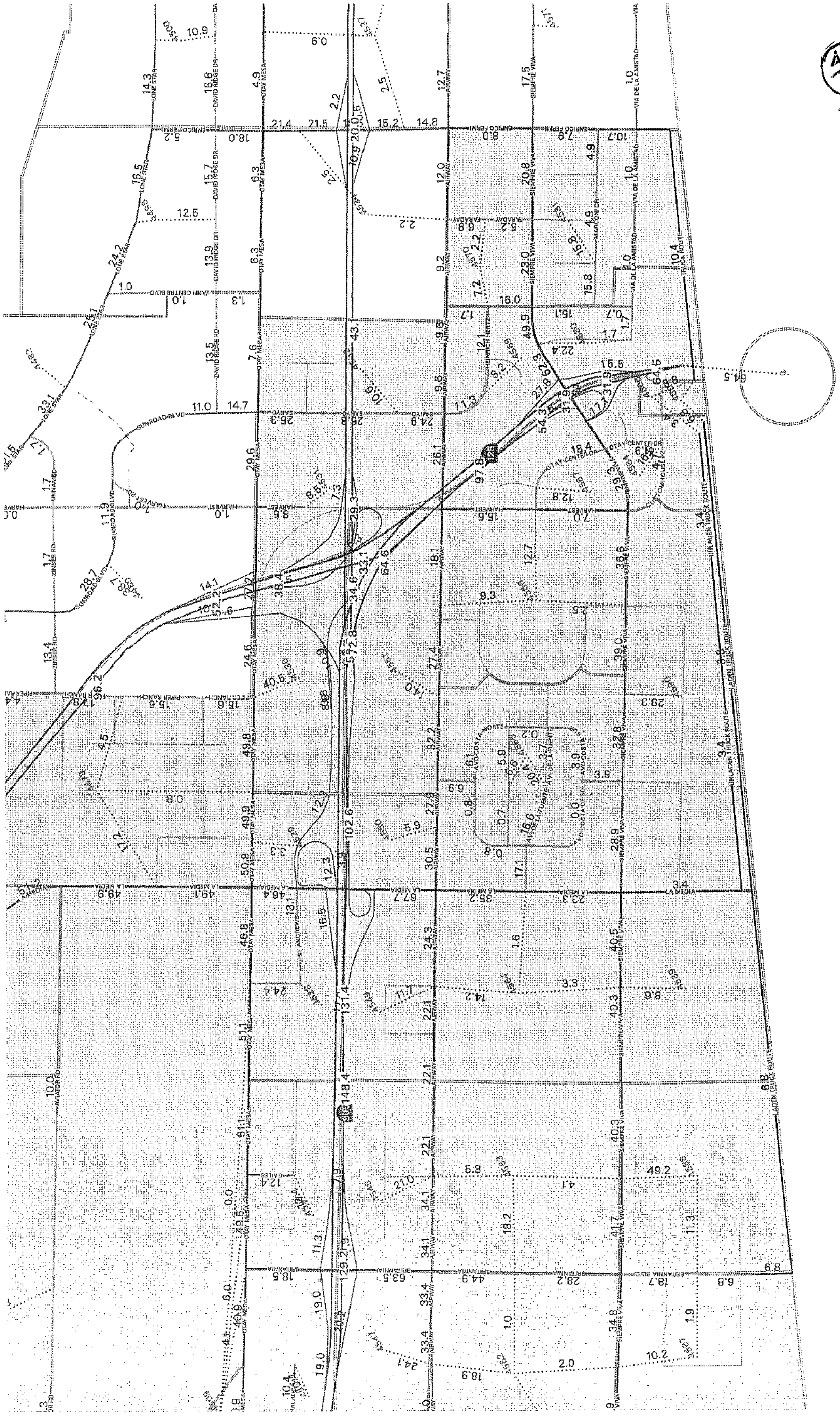
4-1


OTAY MESA
AIRWAY
SIEMPRE VIVA
LA MEDIA
HARVEST
LONE STAR
PIPER RANCH
ENRICO FERMI
BRITANNIA
DAVID RIDGE DR
SUNROAD BLVD
ZINSER RD
AVIATOR RD
OTAY CENTER DR
ST ANDREWS
SANYO
VANN CENTRE BLVD
HEINRICH HERTZ
MARCONI DR
FARADAY

2/4
3B w/LM TAZ



3/4
38WLM
T1AZ


LONE STAR
DAVID RIDGE DR
OTAY MESA
AIRWAY
SIEMPRE VIVA
VIA DE LA AMISTAD
ENRICO FERMI
VANN CENTRE BLVD
SUNROAD BLVD
SANYO
HARVEST
OTAY CENTER DR
CUSTOMHOUSE
ZINSER RD
PIPER RANCH
LA MEDIA
ST ANDREWS
BRITANNIA
AVIATOR RD
BRITANNIA BLVD
LADEN TRUCK ROUTE

4/4
3B ELM
TAZ

ADD MANAGED LANES NORTH OF SR-905

Table A.3 – Phased Highway Projects - Revenue Constrained Plan (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars) Cost	Cumulative Cost
2020	SR 94/ SR 125	South to East (Freeway Connector)				$ 139	$ 7,342
2030	I-5	SR 56	Manchester Ave	8F+2HOV	10F+4ML	$ 655	$ 7,997
2030	I-5	Palomar St	SR 15	8F	8F+2ML	$ 200	$ 8,197
2030	I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$ 40	$ 8,237
2030	I-5	Manchester Ave	Palomar Airport Rd	8F+2HOV²	10F+4ML	$ 1,230	$ 9,467
2030	I-5/SR 56	West to North (Freeway Connector)				$ 65	$ 9,532
2030	I-5/SR 56	South to East (Freeway Connector)				$ 120	$ 9,652
2030	I-15/SR 78	East to South and North to West (HOV Connectors)				$ 105	$ 9,757
2030	I-805	SR 905	Palomar St	8F	8F+4ML	$ 350	$ 10,107
2030	I-805	SR 15	Mission Valley	8F	8F+4ML	$ 230	$ 10,337
2030	I-805	Mission Valley Viaduct	SR 52	8F/10F	8F/10F+4ML	$ 637	$ 10,974
2030	SR 67	Mapleview St	Dye Rd	2C/4C	4C	$ 570	$ 11,544
2030	SR 94/ SR 125	West to North (Freeway Connector)				$ 180	$ 11,724
2030	SR 125	SR 94	I-8	8F	10F	$ 215	$ 11,939
2030	SR 241	Orange County	I-5	4T	6T	$ 58	$ 11,997
2035	I-5	Palomar Airport Rd	SR 78	8F+2HOV²	8F+4ML	$ 1,003	$ 13,000
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+4ML	$ 495	$ 13,495
2035	I-15/SR 94	South to West and East to North (HOV Connectors)				$ 80	$ 13,575
2035	SR 52	I-805	I-15	6F	6F+2ML	$ 223	$ 13,798
2040	I-5/SR 78	South to East and West to North (HOV Connectors)				$ 120	$ 13,918
2040	I-5/SR 78	North to East and West to South (HOV Connectors)				$ 120	$ 14,038
2040	I-5/SR 78	South to East (Freeway Connector)				$ 60	$ 14,098

² Project completed in two phases. See 2020 phased improvement.

2050 RTP

CALTRANS MOST RESTRICTIVE METER RATE

1

From: Douglas Hooper [douglas_hooper@dot.ca.gov]
Sent: Thursday, November 18, 2010 4:44 PM
To: sam@urbansystems.net
Subject: SR 905 ramp meter info to date

Good Afternoon Sam,

Please excuse my delay in getting back. These are the locations I have after discussing with my coworker:

EB 905
Brittania Blvd - 2 SOV lanes and 2 cars per green La Media Rd - same as above

WB 905
La Media Rd (SB) - 1 SOV and 1 HOV with 2 cars per green La Media Rd (NB) - same as above

For now I would assume the most restrictive cycling rate to be 15 sec./cycle for all the onramps.
Another one of my coworkers will be gone through this month and could ask more details then if needed.

Hope this info will suffice,

Douglas Hooper
Traffic Operations
Ramp Metering and Congestion Monitoring
Office (858) 467 - 4329
Fax (858) 467 - 3042

1. 2 SOV LANES X 2 CARS PER GREEN PER LANE = 4 CARS PER GREEN CYCLE.
2. $\frac{\text{3600 SECONDS PER HOUR}}{\text{15 SECONDS PER CYCLE}}$ = 240 CYCLES PER HOUR
3. 240 CYCLES PER HOUR X 4 CARS PER GREEN CYCLE = 960 CARS PER HOUR METER RATE

1/2
KD

PEAK HOUR VOLUME DATA

Peak hour volume data consists of hourly volume relationships and data location. The hourly volumes are expressed as a percentage of the Annual Average Daily Traffic (AADT). The percentages are shown for both the AM and the PM peak periods.

The principle data described here are the K factor, the D factor and their product (KD). The K factor is the percentage of AADT during the peak hour for both directions of travel. The D factor is the percentage of the peak hour travel in the peak direction. KD multiplied with the AADT gives the one way peak period directional flow rate or the design hourly volume (DHV). The design hourly volume is used for either Operational Analysis or Design Analysis. Refer to the 2000 Highway Capacity Manual for more details.

Following is a glossary of terms used in this listing of peak hour volume data:

Dir	Indicates direction of travel for peak volume
AADT	Annual Average Daily Traffic in vehicles per day (vpd).
AM Peak	Represents the morning peak period for traffic analysis
CS	Control Station Number, Caltrans identification number for monitoring site.
CO	County abbreviation used by Caltrans
D	D factor. The percentage of traffic in the peak direction during the peak hour. Values in this book are derived by dividing the measured PHV by the sum of both directions of travel during the peak hour.
DAY	Day of week for the peak volume.
DDHV	The directional design hour volume, in vehicles per hour (vph) DDHV=AADTxKxD. See equation (8-1) on page 8-11 of the 2000 Highway Capacity Manual.
DI	Caltrans has twelve transportation districts statewide. This abbreviation identifies the district in which the count station is located.
HR	The ending time for the peak hour volume listed. The volume observed fro 1 to 2 would be recorded as 2.

CALTRANS TRAFFIC VOLUMES
LATEST TRAFFIC YEAR SELECTED
PEAK HOUR VOLUME DATA

									AM PEAK								PM PEAK					
								1 WAY	%	%	%					1 WAY	%	%	%			
I	RTE	CO	PRE	PM	CS	LEG	YR	Dir				HR	DAY	MNTH	Dir					HR	DAY	MNTH
)4	780	SOL		2.955	339	A	07	E	3084	8.74	62.38	5.45	7 THU	SEP	W	2773	8.84	55.44	4.9	16	THU	SEP
.1	805	SD		.647	922	A	09	S	2521	6.4	67.53	4.32	9 SAT	OCT	S	3158	8.39	64.5	5.41	17	FRI	OCT
l1	805	SD		5.542	684	O	09	N	5901	7	54.13	3.79	7 WED	JAN	S	6937	7.69	57.96	4.45	15	WED	SEP
l1	805	SD		8.854	944	A	09	N	9093	7.09	64.04	4.54	7 WED	APR	S	9064	7.64	59.19	4.52	17	MON	MAY
l1	805	SD		11.10	925	B	09	N	9224	7.04	66.59	4.69	7 TUE	MAY	S	9048	7.78	59.08	4.6	15	FRI	OCT
l1	805	SD		13.51	926	B	09	N	10032	7.11	65.32	4.64	7 WED	JUN	S	9990	7.86	58.79	4.62	15	FRI	APR
l1	805	SD		14.46	966	B	09	S	10631	7.34	66.42	4.88	7 TUE	SEP	N	10402	7.96	59.95	4.77	15	FRI	JUN
l1	805	SD		16.43	927	B	09	N	8515	7.43	67.23	4.99	7 THU	MAR	S	9389	8.45	65.19	5.51	16	THU	OCT
l1	805	SD		17.65	928	A	09	N	11114	8.25	69.5	5.73	7 WED	MAY	S	10864	8.49	66.03	5.6	17	WED	MAY
l1	805	SD		23.65	929	B	09	N	7708	7.3	58.87	4.3	7 MON	JUN	S	8514	8	59.34	4.75	16	THU	MAY
l1	805	SD		24.44	683	X	09	N	9382	7.87	64.16	5.05	7 FRI	AUG	S	8478	7.63	59.78	4.56	16	THU	MAR
l1	805	SD		28.50	930	B	09	S	7753	8.12	64.93	5.27	8 WED	NOV	N	6980	7.82	60.72	4.75	17	TUE	MAY
)4	880	SCL		1.25	300	B	08	N	6889	7.62	58.69	4.47	8 TUE	JUL	S	7135	8.2	56.52	4.63	17	WED	APR
)4	880	ALA		26.61	129	A	08	S	7626	6.65	51.63	3.43	6 MON	JUN	N	7697	6.58	52.67	3.47	14	WED	JUN
l1	905	SD		3.207	932	A	09	W	2342	8.92	54.75	4.88	7 WED	DEC	E	2536	9.57	55.23	5.29	16	THU	SEP
l1	905	SD		5.164	942	A	09	E	2848	7.26	69.62	5.06	7 THU	APR	W	3188	9.62	58.87	5.66	16	FRI	FEB
l1	905	SD		11.60	125	B	09	W	1196	6.69	59.12	3.95	11 TUE	OCT	E	1615	8.33	64.06	5.34	17	FRI	SEP

"D" USE 60/40
"K" USE 8%

I=805 PEAK HOUR & DIRECTIONAL SPLIT

KD NN

From:	Huffman, Victoria [VHuffman@sandiego.gov]
Sent:	Wednesday, January 26, 2011 5:51 PM
To:	Lisa@urbansystems.net; sam@urbansystems.net
Cc:	Gonsalves, Ann
Subject:	Possible ADT Adjustments

1/7

3B w/LM ADJ.

Hi Sam,

Here's the list of TAZs with zone connector loadings that might require some segment ADT adjustment:

Adopted Community Plan: (SEE APPENDIX 'B')

4561
4586
4560
4547
4587
4588
4567
4569
4532
4497
4608 (loading okay but assume loading point is signalized as this would reduce tremendous number of U-turns at Datsun/Otay Valley Road)

Scenario 3B (both with and without La Media Rd):

SEE ATTACHED FIGURE 6-1 WITH AGREED TO CHANGES

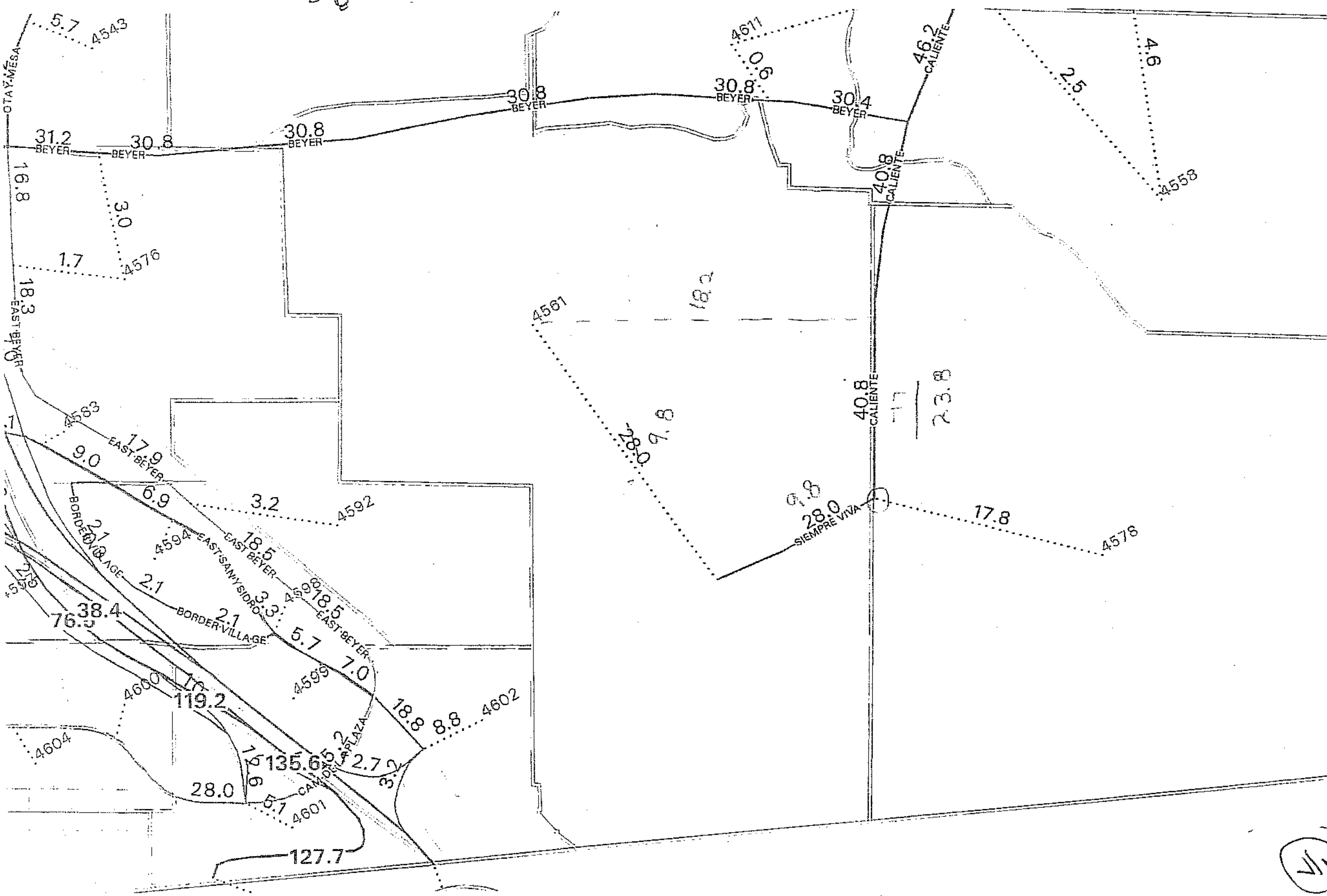
4561
4586
4587
4560
4547
4497
4569
4532
4587
4608 (loading okay but assume loading point is signalized)(DONE; DOES NOT CHANGE ADT TO THE NORTH)

As I also mentioned to you on the phone today, there are some other circulation element streets that are not shown in the forecasts which may need to be added to the proposed circulation element figures. I'll send you a figure showing these when I'm back in the office.(DONE)

Thanks,
Victoria

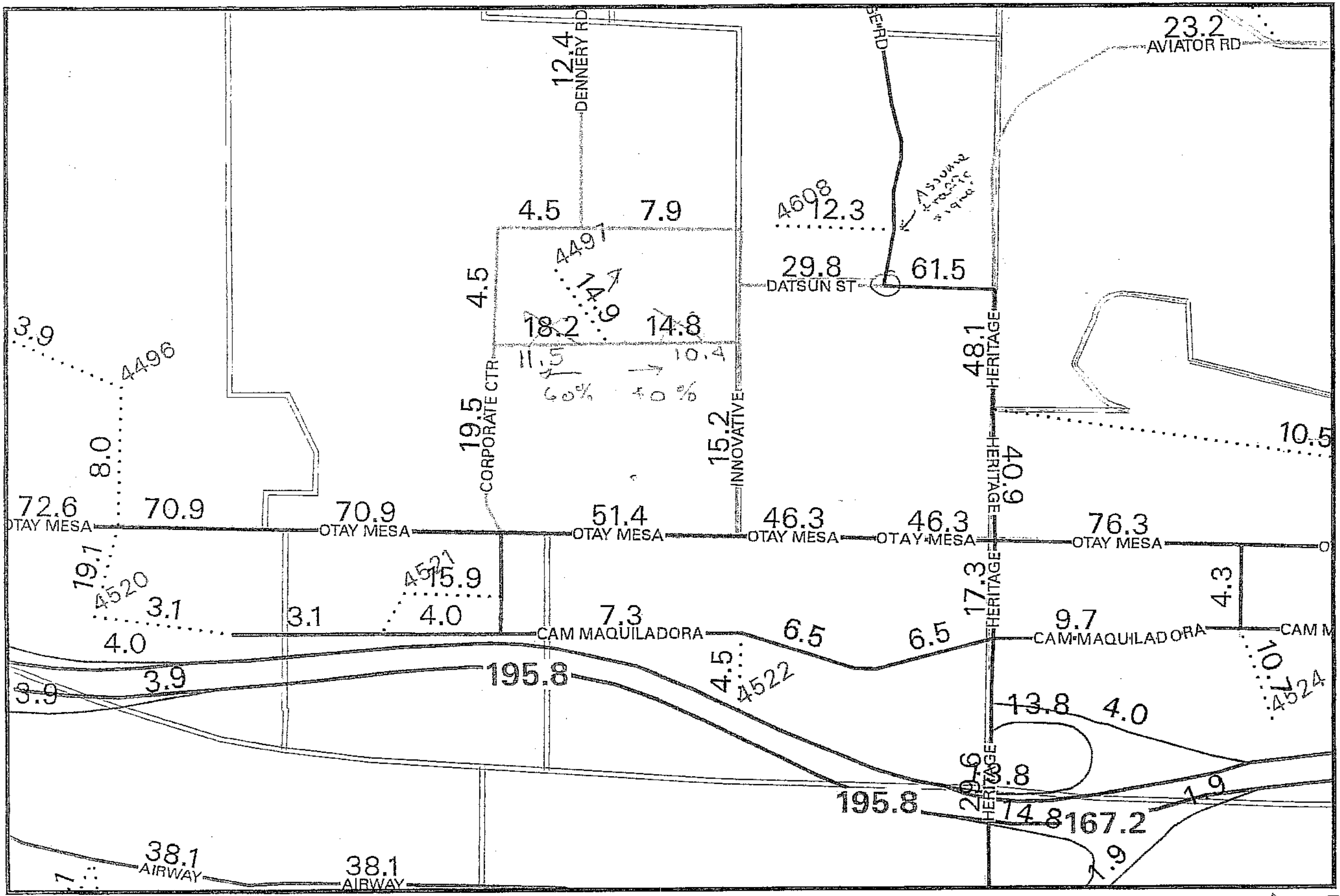
Scenario w/o La Media 3B

2/1/11



3BW ADJ 2/7

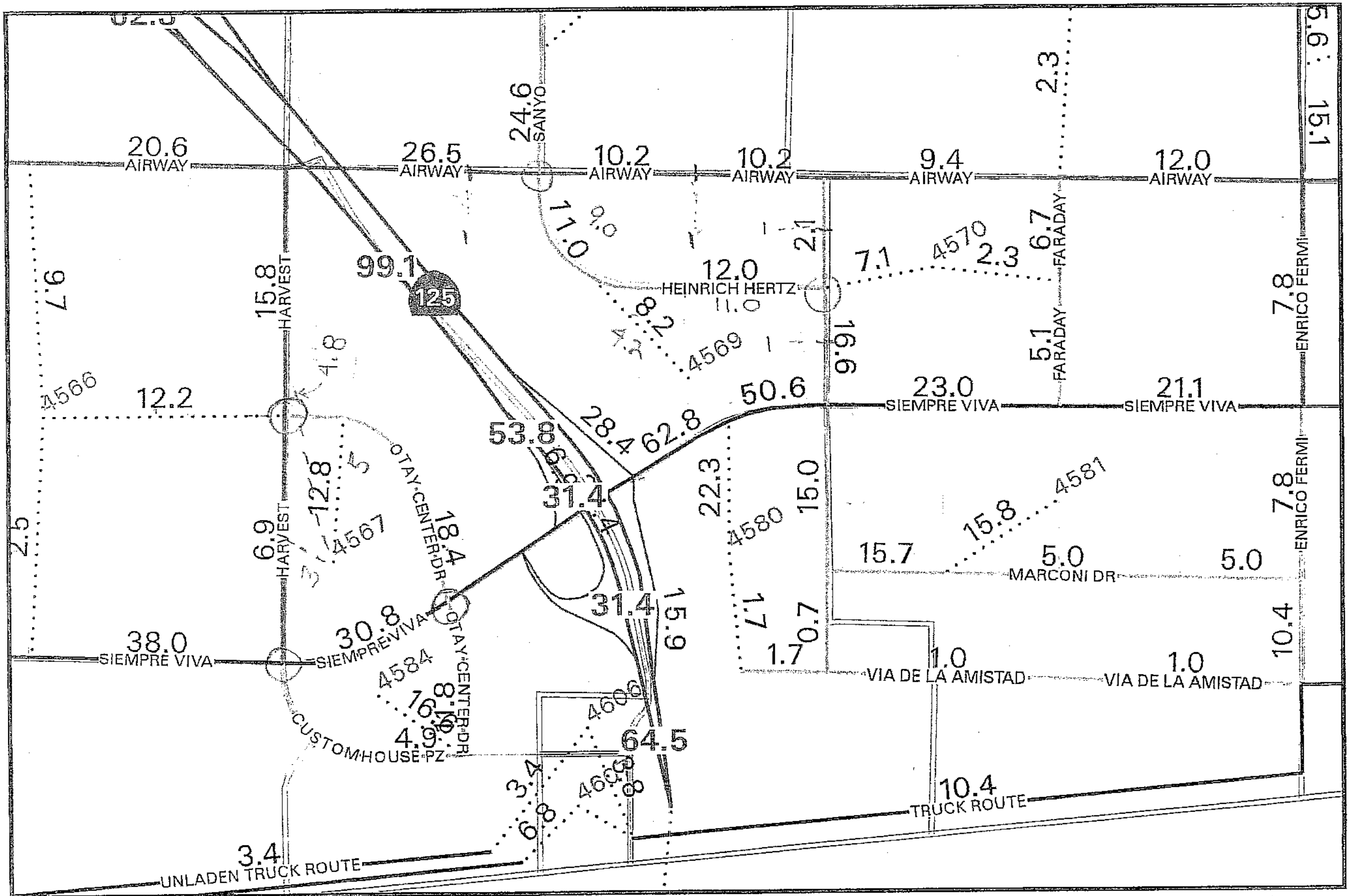
2/1/11



3BLVLM ADJ.

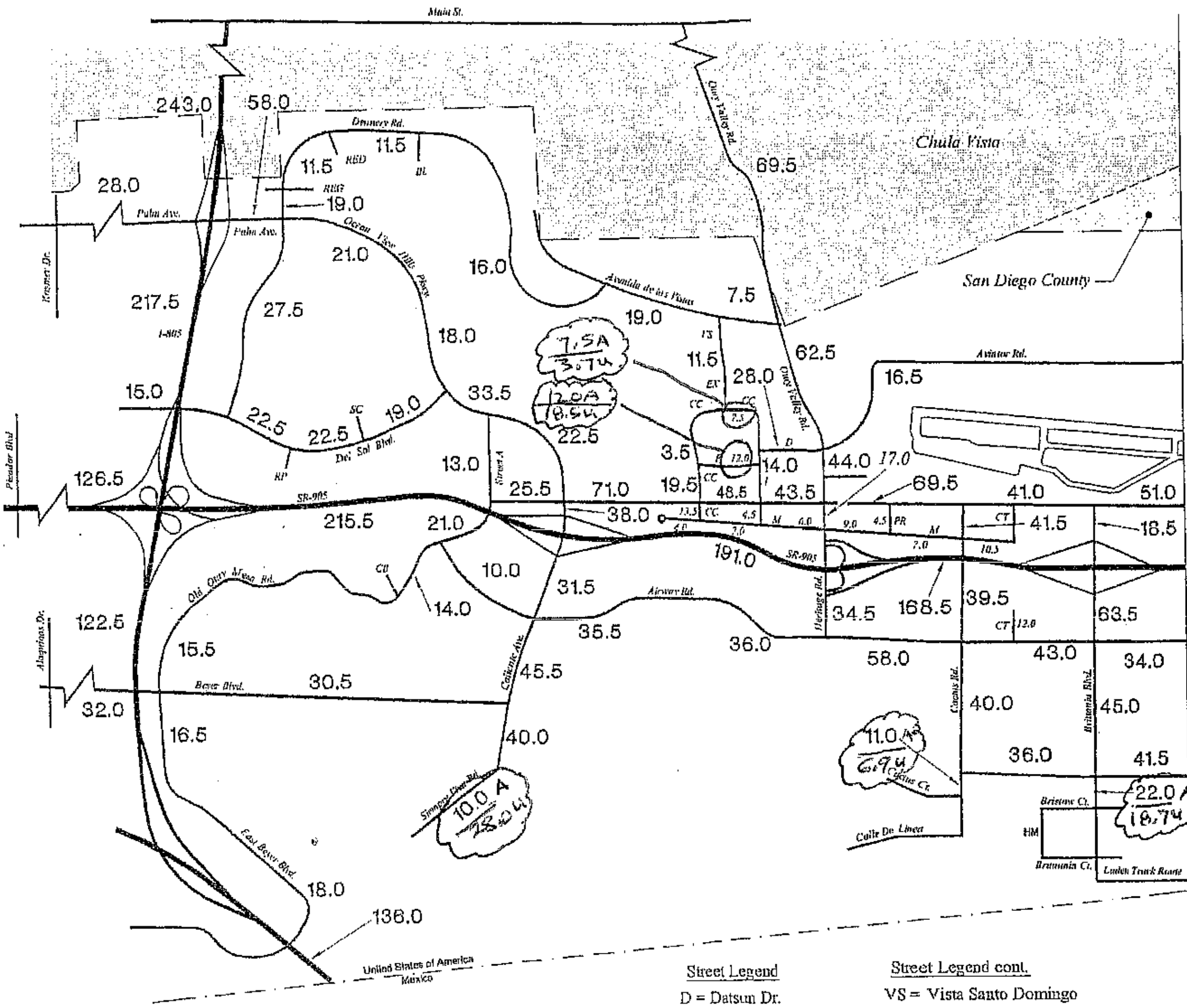
3/13

2/1/11



5/7
3BWLM ADJ.

6/7 3B W/LM ADJ.



Street Legend
D = Datsun Dr.
P = Progressive Ave.
CC = Corporate Center Dr.
I = Innovative Ave.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.
VS = Vista Santo Domingo
REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

LEGEND
XXX.X = Alternative 3B With La Media Rd. (9-30-10 Run Date, Series 11) (ADT Shown in Thousands)
— — = City of San Diego Boundary

N
NO SCALE

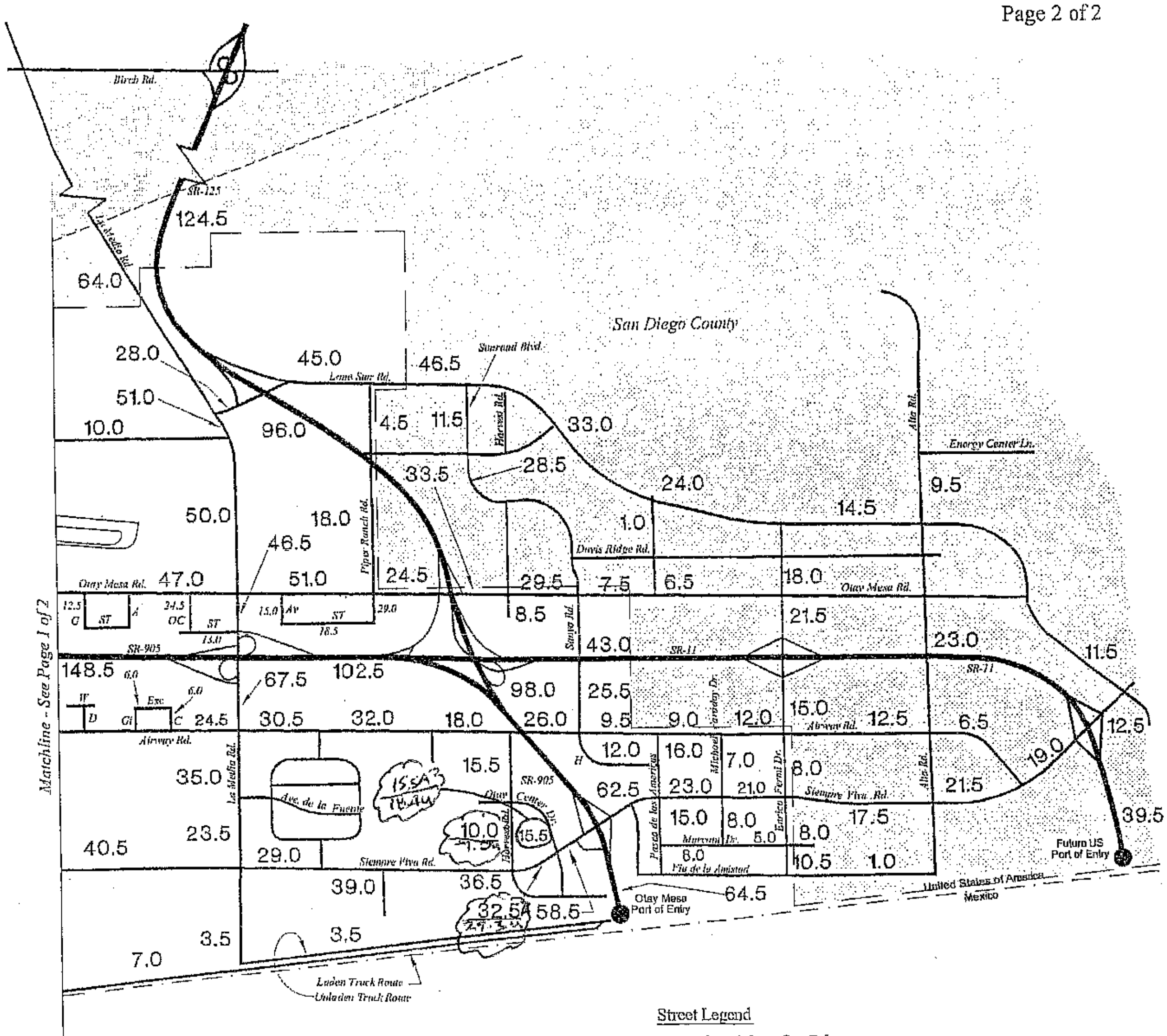
FIGURE 6-1

~~Scenario 3B With La Media Road Av~~erage Daily Traffic

WITH CITY ADJUSTMENTS SHOWN (XX)ADJUSTED (YY)UNADJUSTED

(1/7)
3BWLM ADT.

Page 2 of 2



Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.
Av = Avenida Costa Azul
W = Waterville Rd.
D = Dublin Dr.

LEGEND

XXX.X = Alternative 3B With La Media Rd. (9-30-10 Run Date, Series 11) (ADT Shown In Thousands)

— — = City of San Diego Boundary

N
NO SCALE

FIGURE 6-1

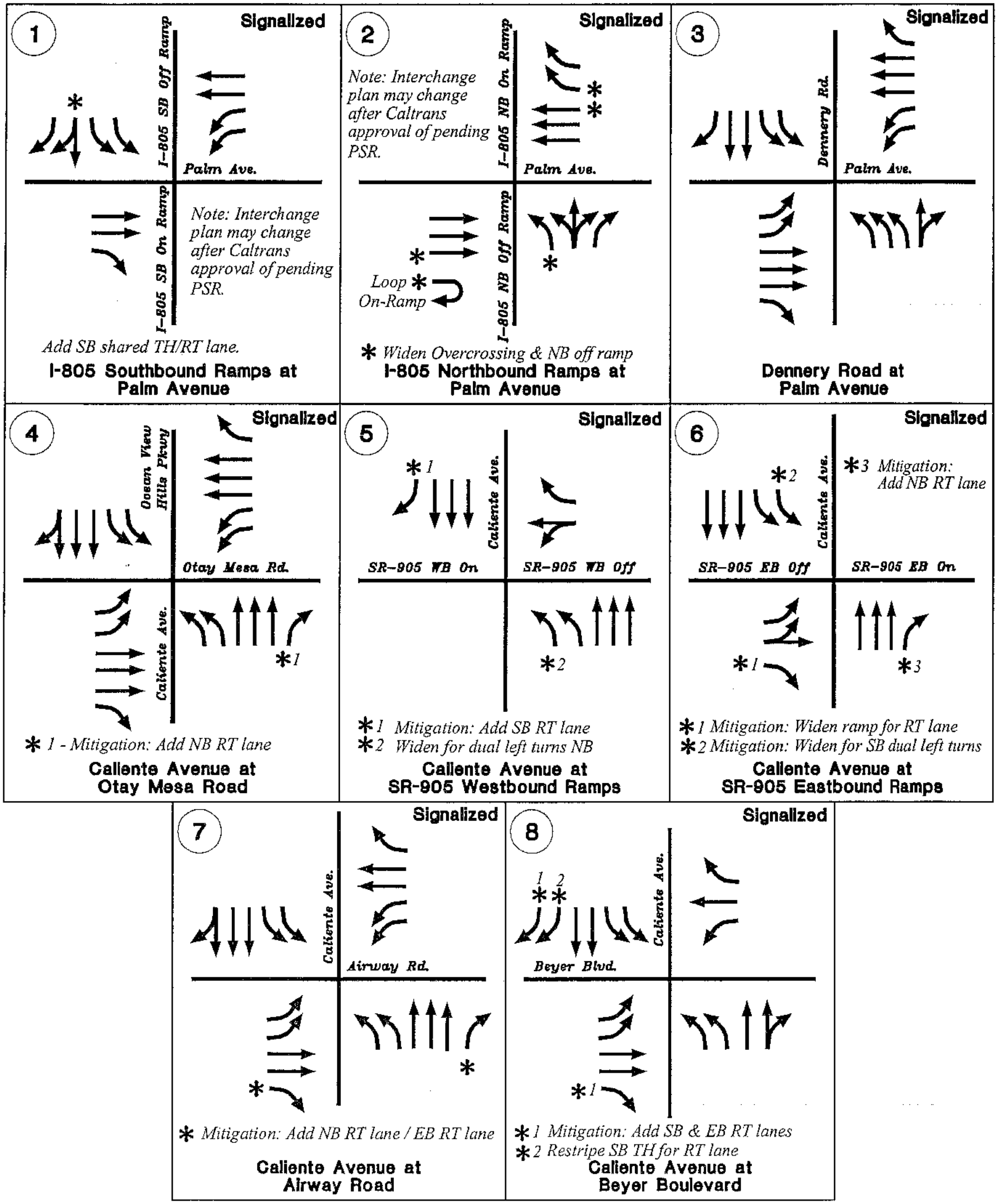
Scenario 3B With La Media ~~Road Average~~ Average Daily Traffic

WITH CITY ADJUSTMENTS SHOWN (XX) ADJUSTED (YY) UNADJUSTED

APPENDIX C - ATTACHMENT 9

Buildout Recommended Lane Configurations - Alternative 3-B

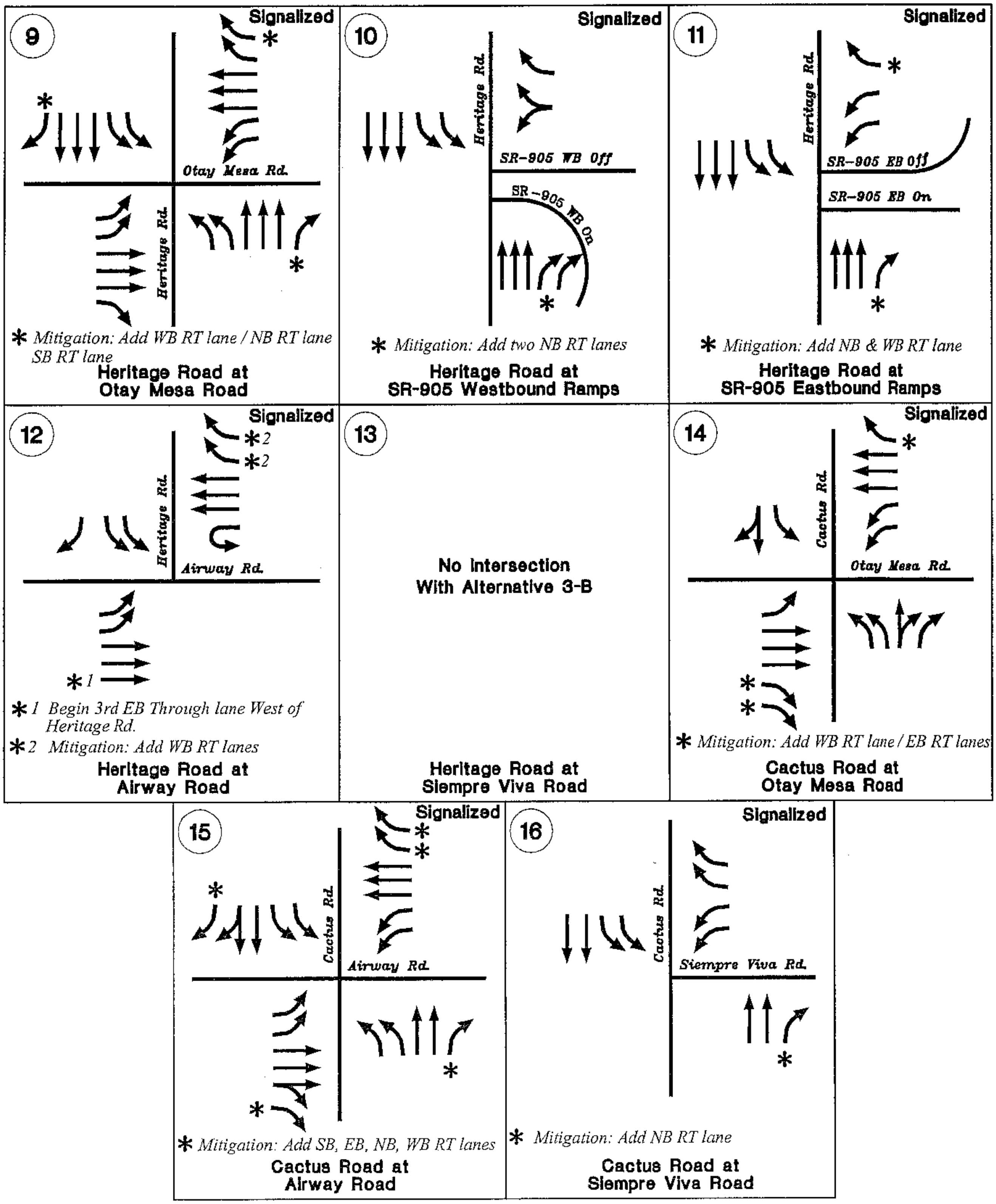
With La Media Road



APPENDIX C - ATTACHMENT 9

Buildout Recommended Lane Configurations - Alternative 3-B

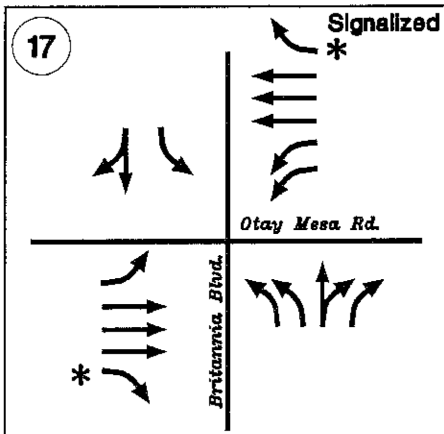
With La Media Road



APPENDIX C - ATTACHMENT 9

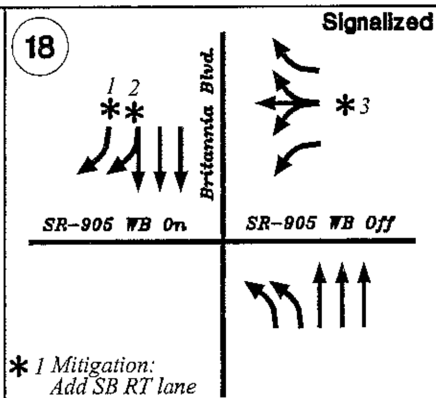
Buildout Recommended Lane Configurations - Alternative 3-B

With La Media Road



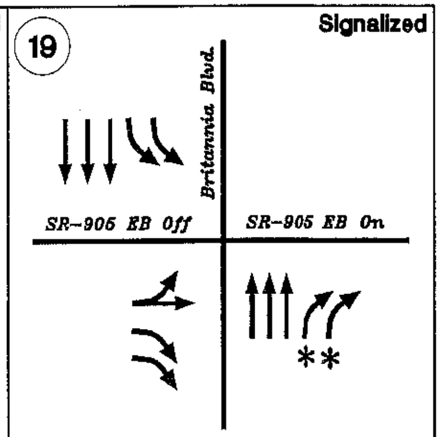
* Mitigation: Add EB & WB RT lanes

Britannia Boulevard at Otay Mesa Road



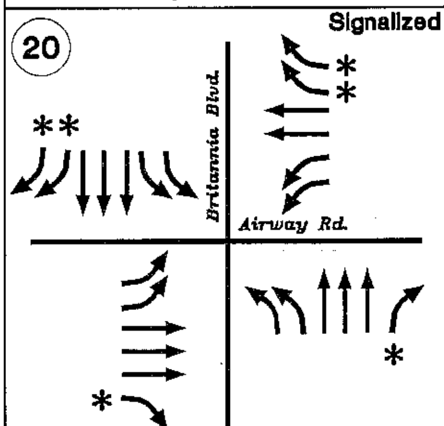
* 1 Mitigation: Add SB RT lane
* 2 Mitigation: Restripe #3 lane as shown
* 3 Mitigation: Restripe middle WB lane for LT-TH-RT

Britannia Boulevard at SR-905 Westbound Ramps



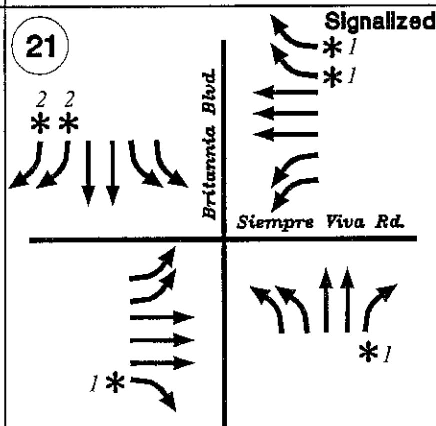
* Mitigation: Add two NB RT lanes

Britannia Boulevard at SR-905 Eastbound Ramps



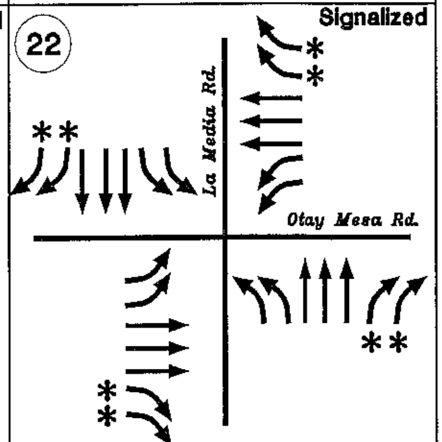
* Mitigation: Add SB RT lanes / NB RT lane / WB RT lanes / EB RT lane

Britannia Boulevard at Airway Road



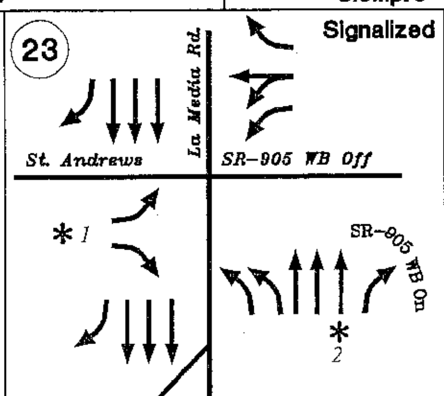
* 1 Mitigation: Add EB,WB,NB RT lanes
* 2 Add SB RT lane. Restripe #3 lane for RT.

Britannia Boulevard at Siempre Viva Road



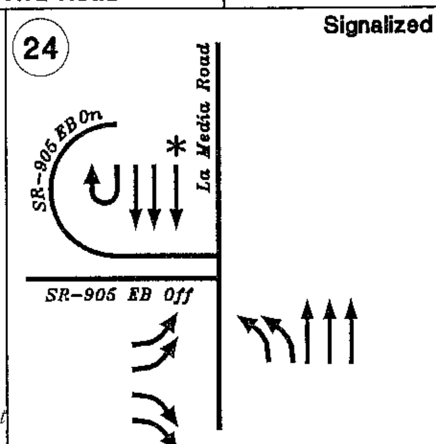
* Mitigation: Add WB, EB, NB and SB RT lanes

La Media Road at Otay Mesa Road



* 1 Mitigation: Delete EB through movement
* 2 Restripe for 3rd NB TH lane

La Media Road at SR-905 Westbound Ramps



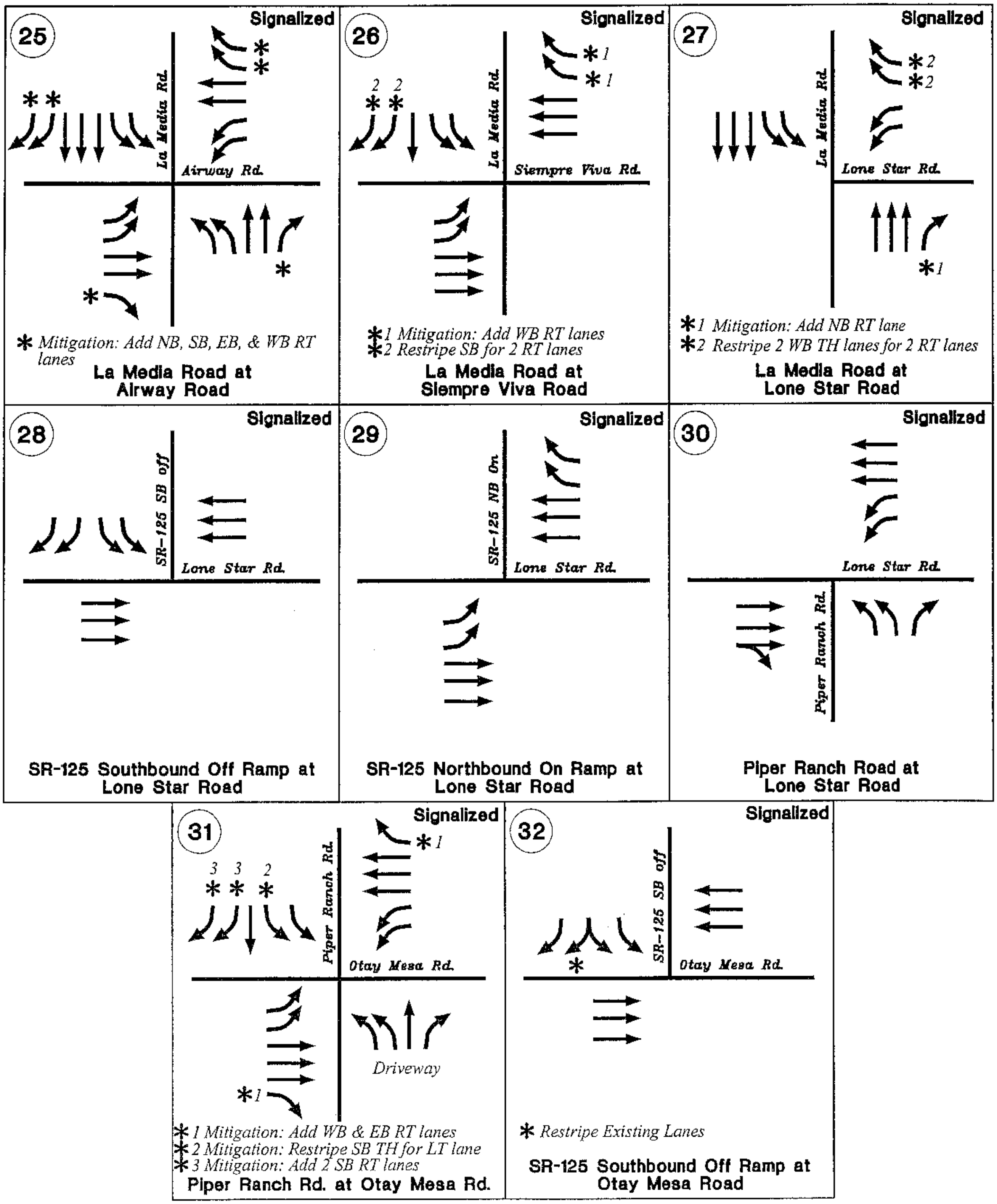
* Mitigation: Add third SB lane

La Media Road at SR-905 Eastbound Ramps

APPENDIX C - ATTACHMENT 9

Buildout Recommended Lane Configurations - Alternative 3-B

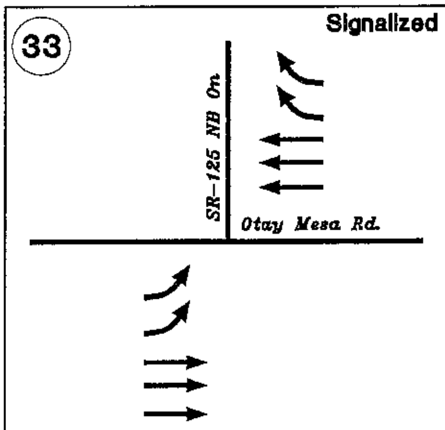
With La Media Road



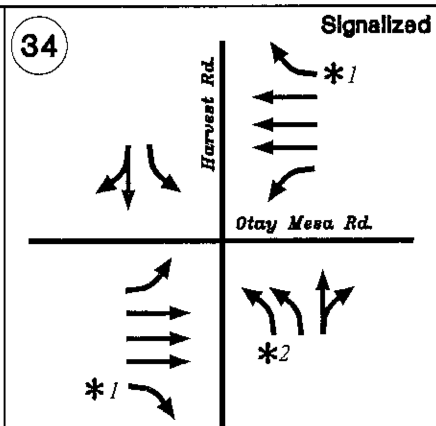
APPENDIX C - ATTACHMENT 9

Buildout Recommended Lane Configurations - Alternative 3-B

With La Media Road

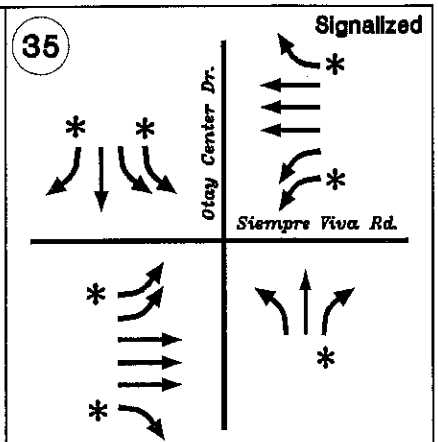


SR-125 Northbound On Ramp at Otay Mesa Road



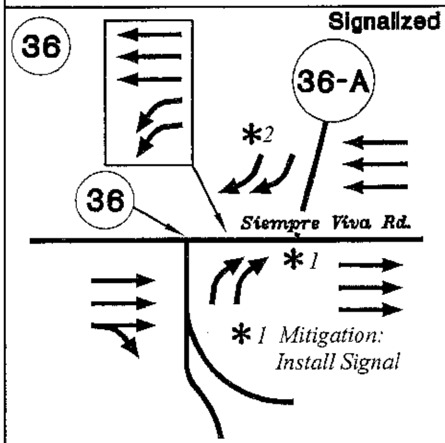
*1 Mitigation: Add EB & WB RT lanes
*2 Mitigation: Add NB LT lane

Harvest Road at Otay Mesa Road



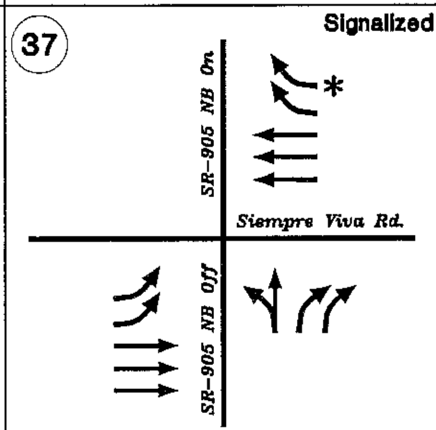
* Mitigation: Add lanes as shown

Otay Center Drive at Siempre Viva Road



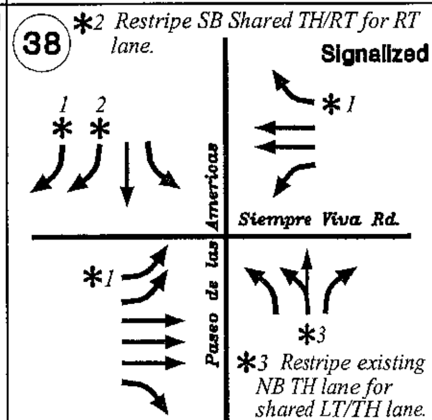
*2 Mitigation: Widen Ramp, Add RT lane

SR-905 Southbound Ramps at Siempre Viva Road



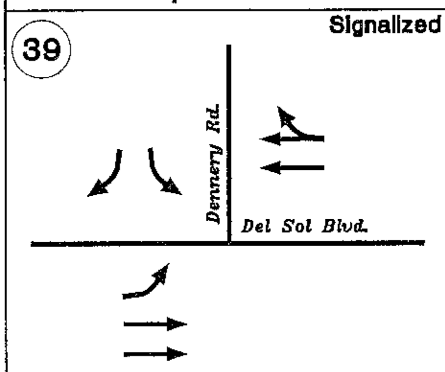
* Mitigation: Add WB RT lane

SR-905 Northbound Ramps at Siempre Viva Road

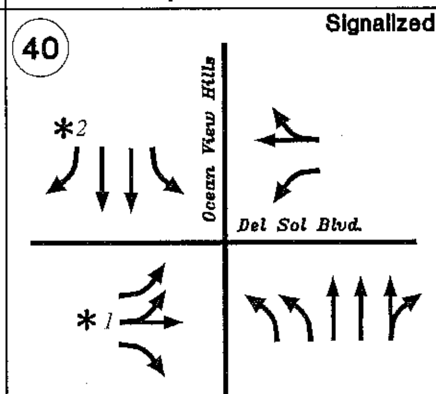


*1 Mitigation: Add EB LT lane / WB RT lane SB RT lane

Paseo de las Americas at Siempre Viva Road

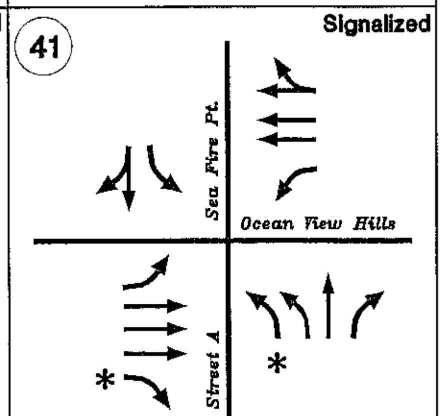


Dennery Road at Del Sol Boulevard



*1 Mitigation: Restripe for EB dual LT/TH
*2 Mitigation: Add SB RT lane

Ocean View Hills Parkway at Del Sol Boulevard



* Mitigation: Add NB LT lane & EB RT lane

Ocean View Hills Parkway at Street A

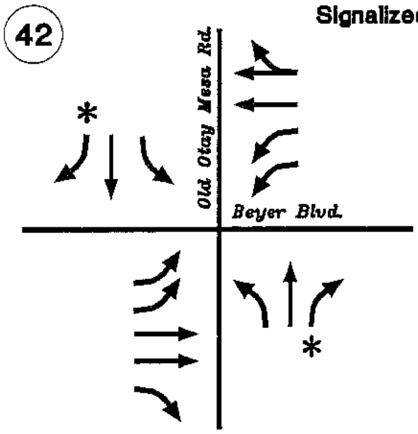
APPENDIX C - ATTACHMENT 9

Buildout Recommended Lane Configurations - Alternative 3-B

With La Media Road

42

Signalized

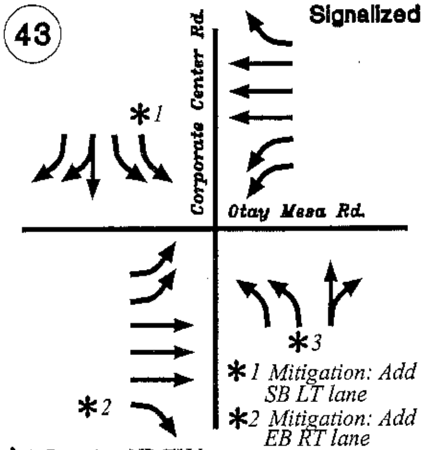


* Mitigation: Add SB & NB RT lanes

Old Otay Mesa Road at Beyer Boulevard

43

Signalized



*1 Mitigation: Add SB LT lane

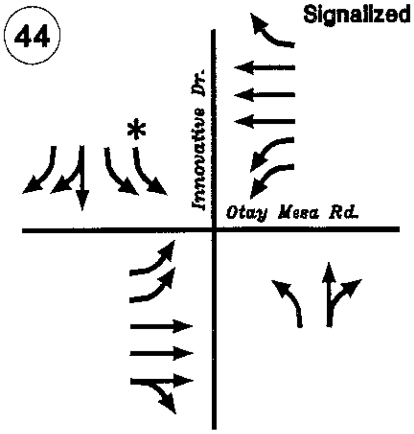
*2 Mitigation: Add EB RT lane

*3 Restripe NB TH lane

Otay Mesa Road at Corporate Center Drive

44

Signalized

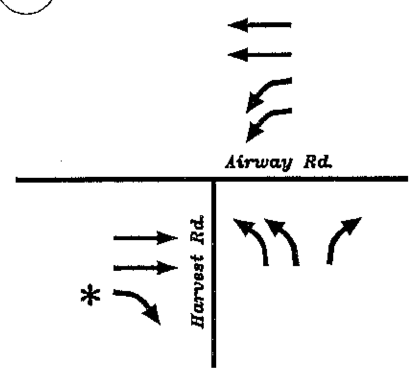


* Mitigation: Add SB LT lane

Otay Mesa Road at Innovative Drive

45

Signalized

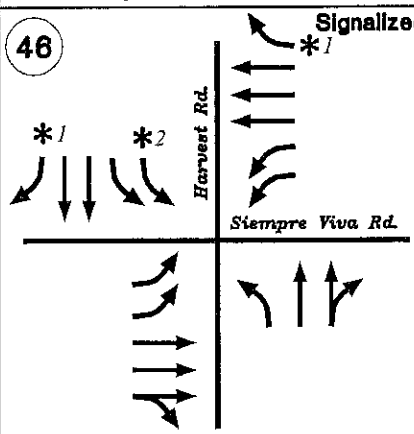


* Mitigation: Add EB RT lane

Airway Road at Harvest Road

46

Signalized



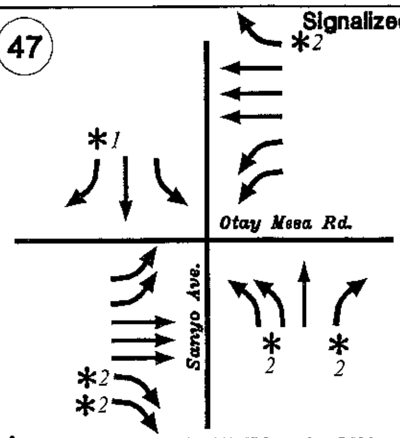
*1 Mitigation: Add WB & SB RT lanes

*2 Mitigation: Add SB LT lane

Harvest Road at Siempre Viva Road

47

Signalized



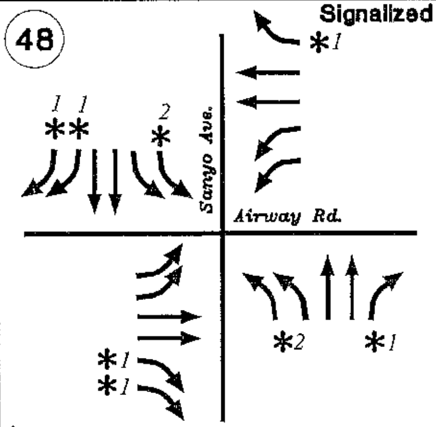
*1 Restripe shared TH/RT lane for RT lane

*2 Mitigation: Add NB RT lane, restripe for dual left / Add EB & WB RT lanes

Otay Mesa Road at Sanyo Ave.

48

Signalized



*1 Mitigation:Add SB, EB, NB, WB RT lanes

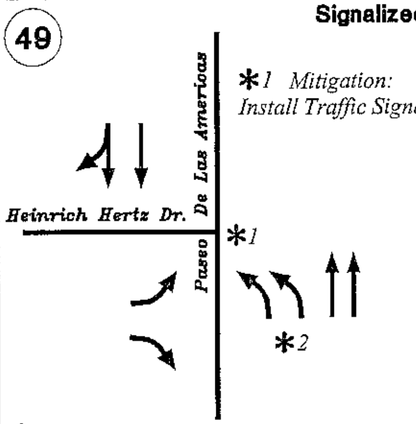
*2 Add NB & SB LT lanes

Airway Road at Sanyo Ave.

49

Signalized

*1 Mitigation: Install Traffic Signal

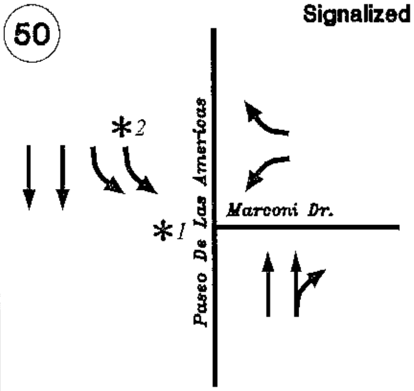


*2 Mitigation: Widen NB for dual left turns

Paseo De Las Americas at Heinrich Hertz Drive

50

Signalized



*1 Mitigation: Install Traffic Signal

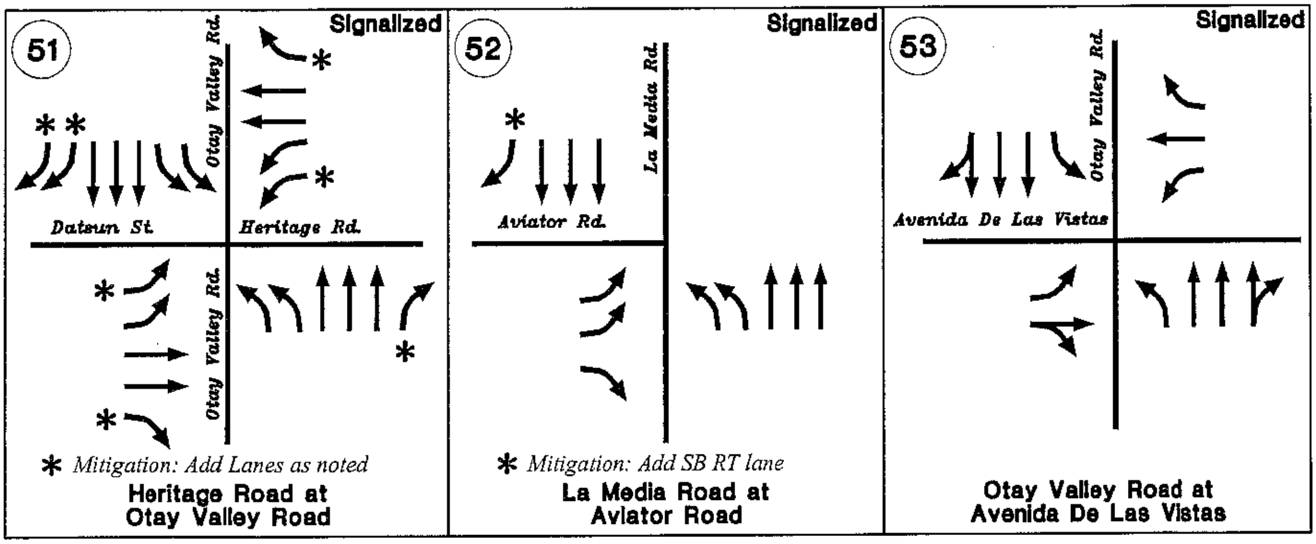
*2 Mitigation: Widen for SB dual LT lanes

Paseo De Las Americas at Marconi Drive

APPENDIX C - ATTACHMENT 9

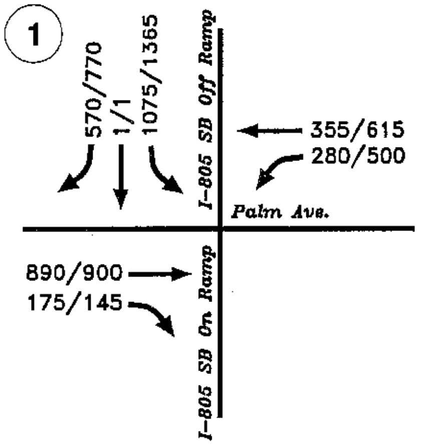
Buildout Recommended Lane Configurations - Alternative 3-B

With La Media Road

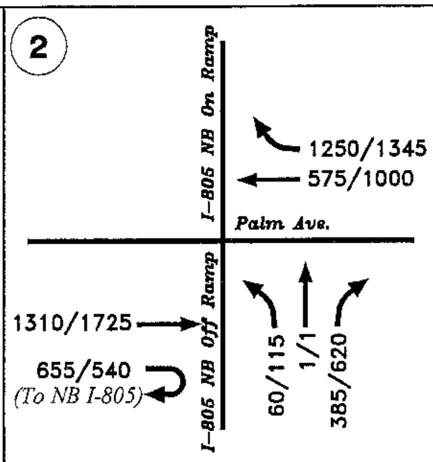


Buildout AM/PM Peak Hour Traffic - Alternative 3-B

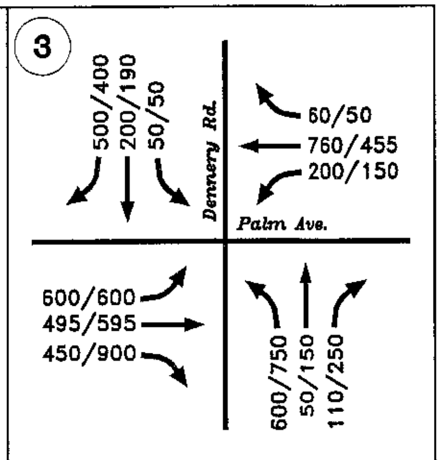
With La Media Road



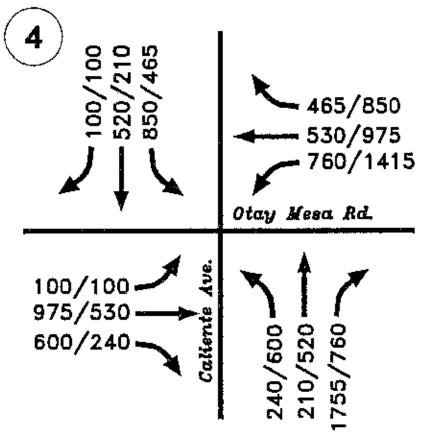
I-805 Southbound Ramps at Palm Avenue



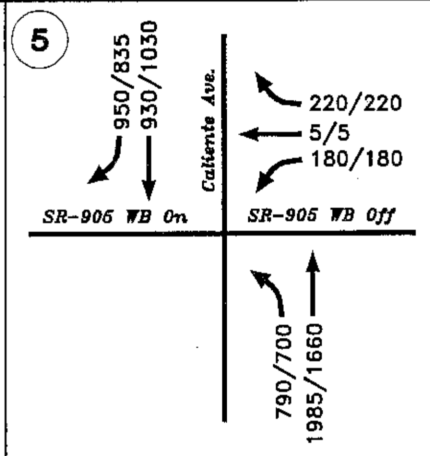
I-805 Northbound Ramps at Palm Avenue



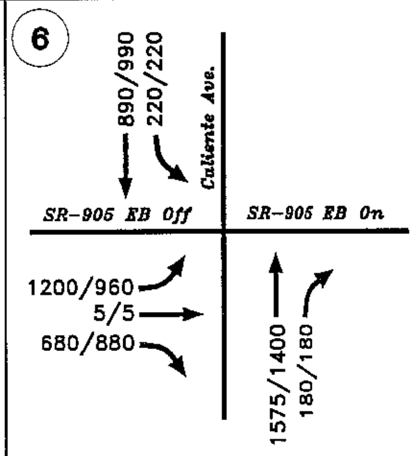
Dennery Road at Palm Avenue



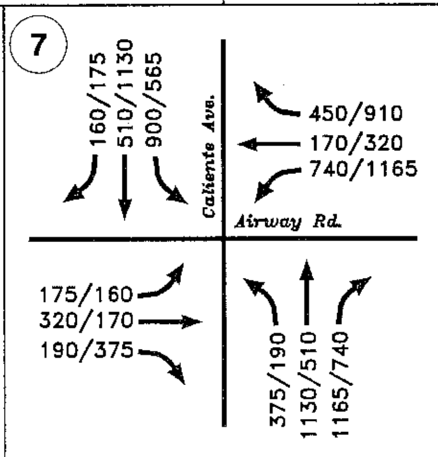
Caliente Avenue at Otay Mesa Road



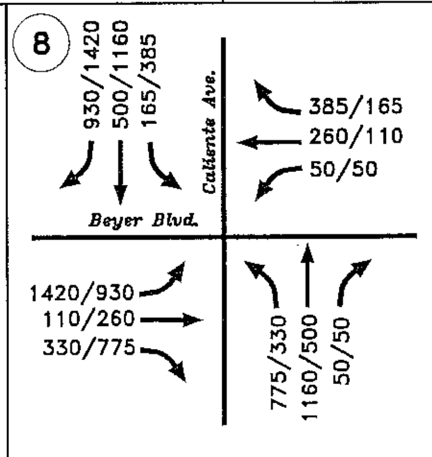
Caliente Avenue at SR-905 Westbound Ramps



Caliente Avenue at SR-905 Eastbound Ramps



Caliente Avenue at Airway Road

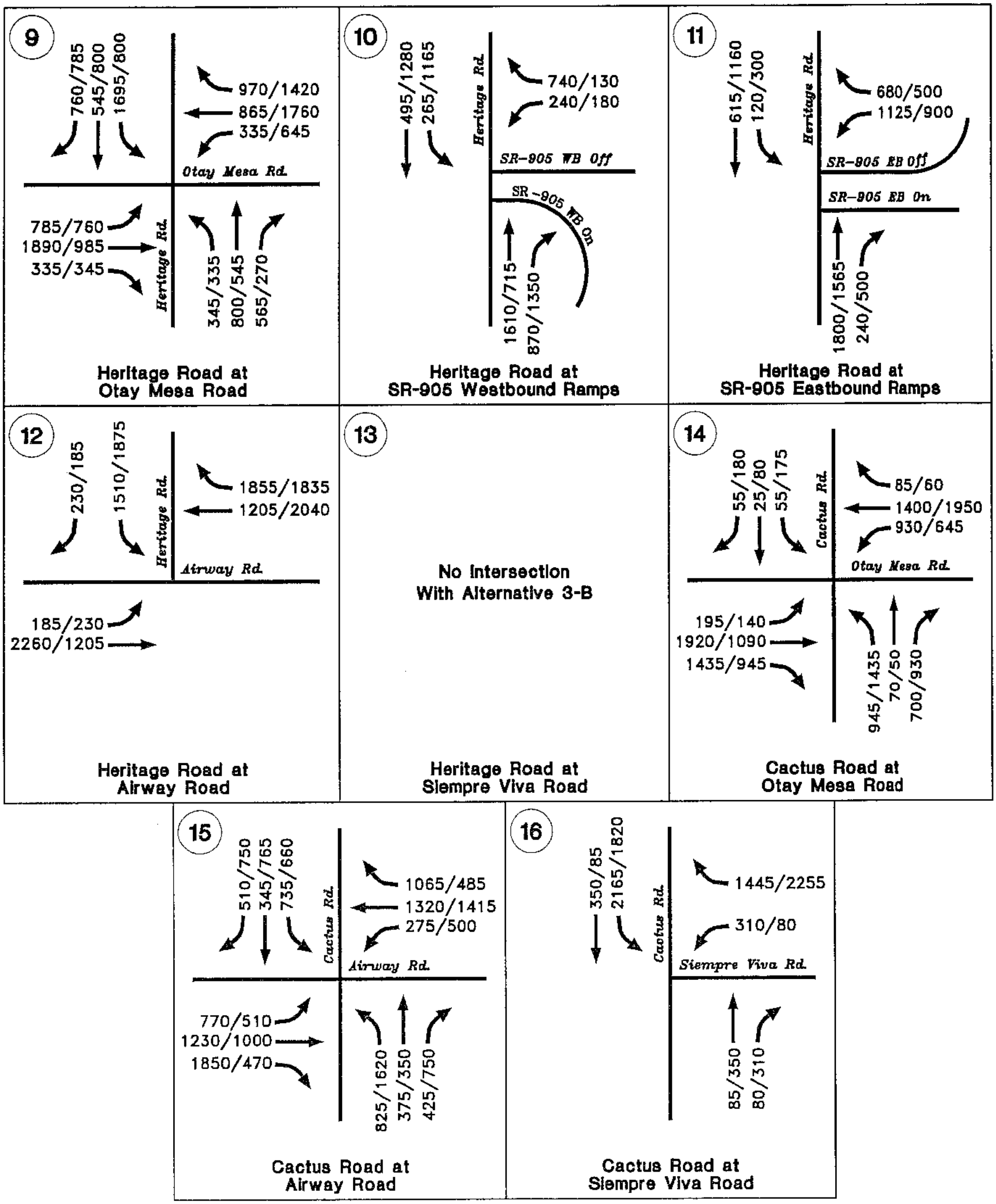


Caliente Avenue at Beyer Boulevard

APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

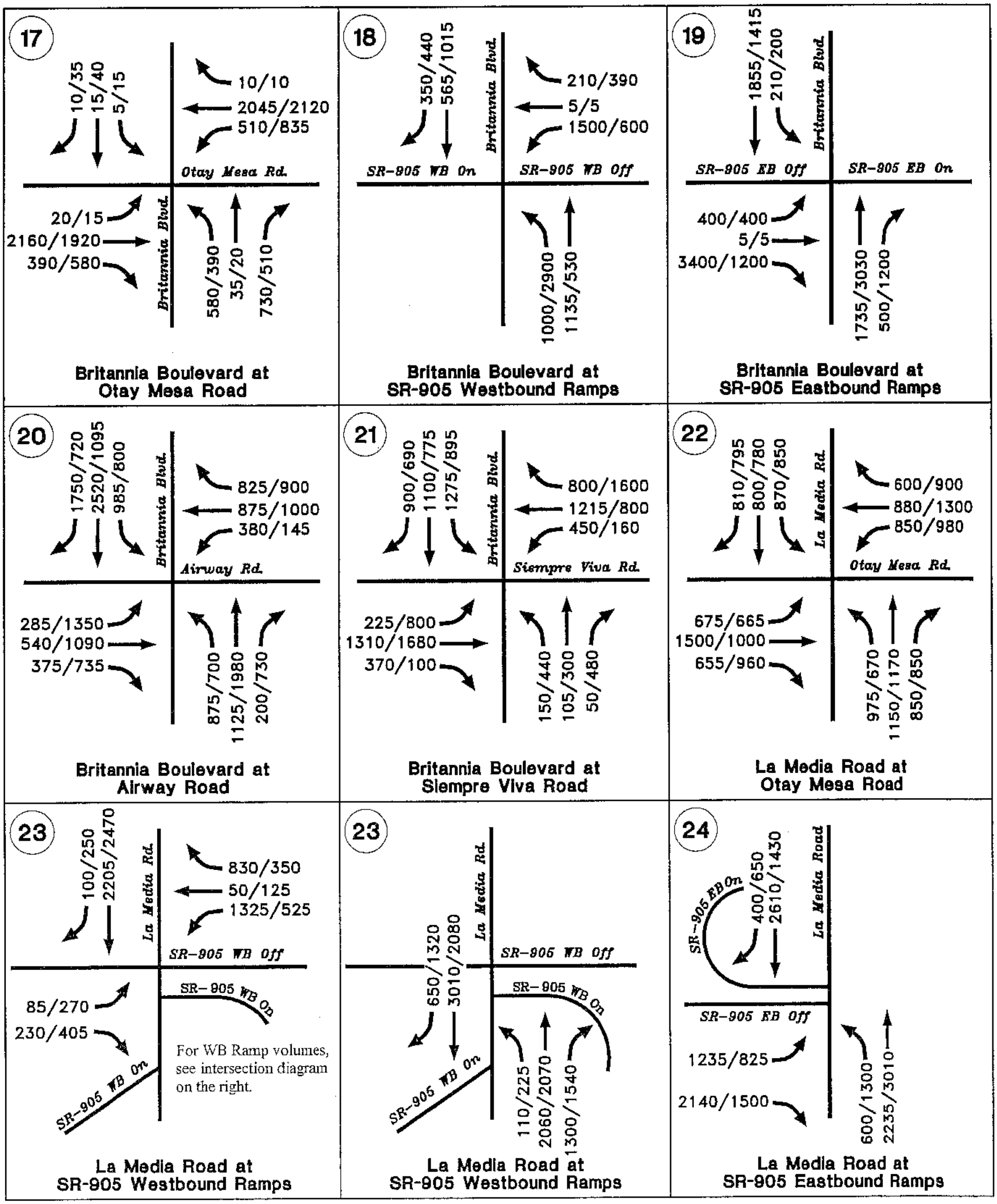
With La Media Road



APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

With La Media Road



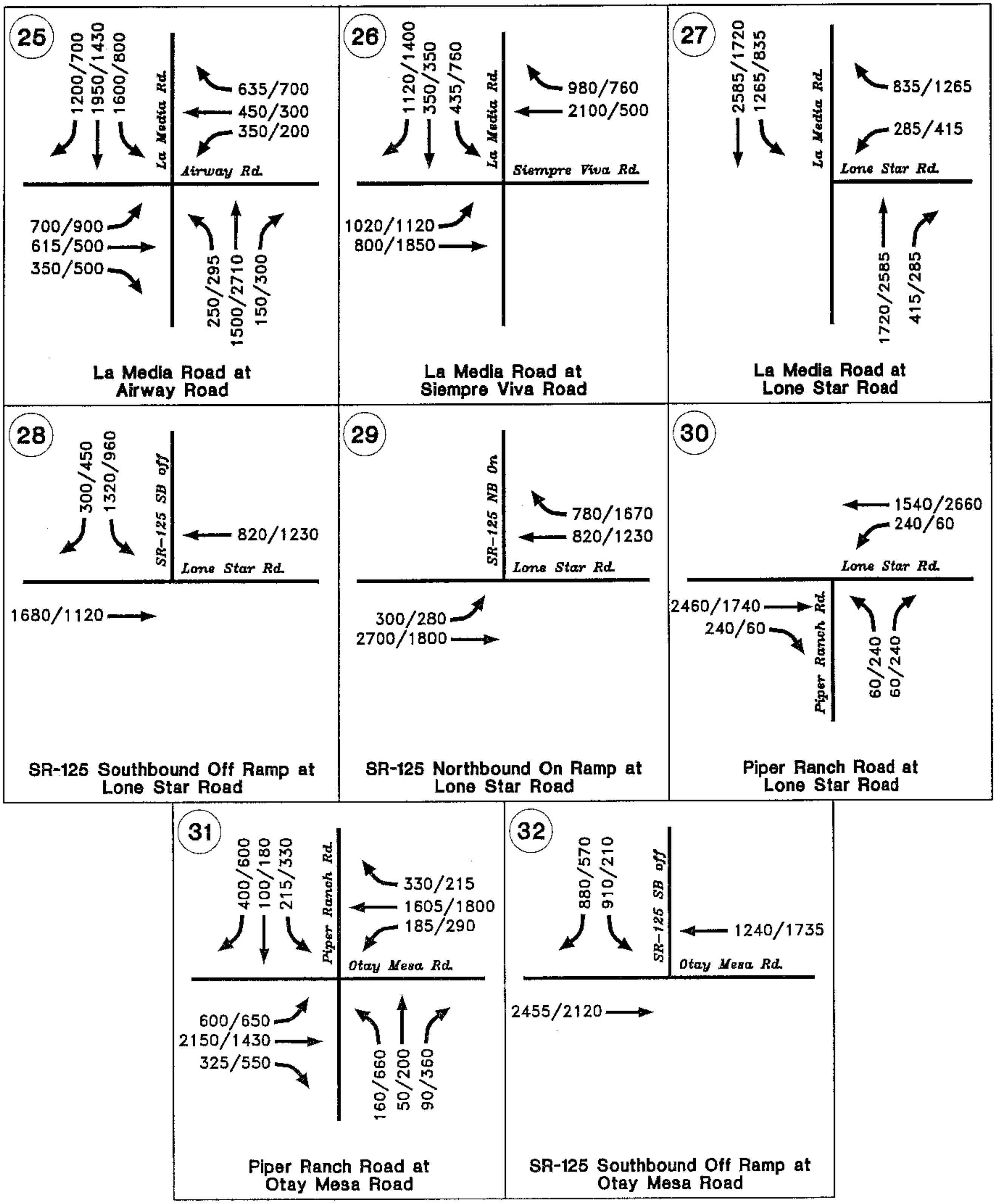
(9-30-10 Run Date)

Revised (7-29-11)

APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

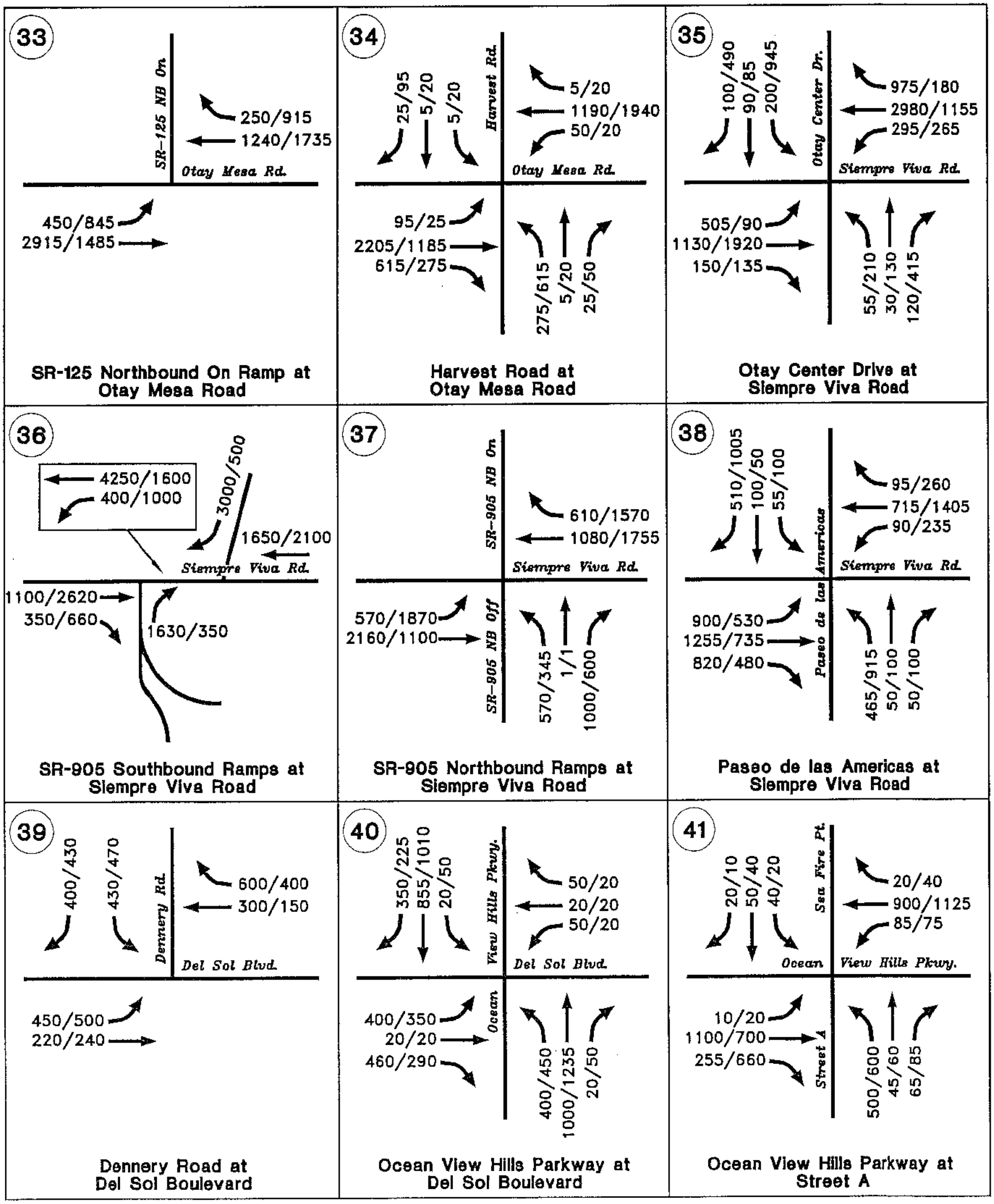
With La Media Road



APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

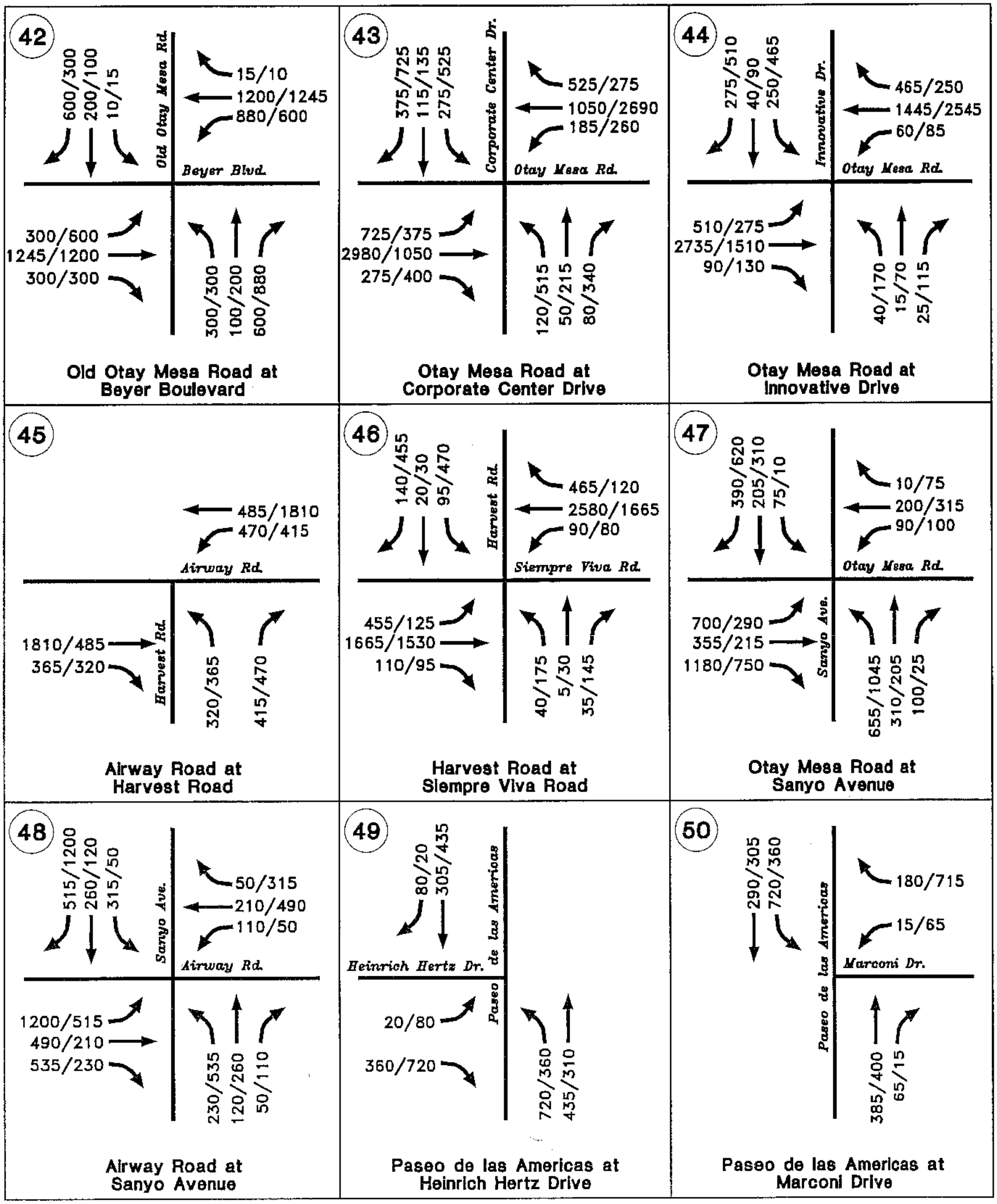
With La Media Road



APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

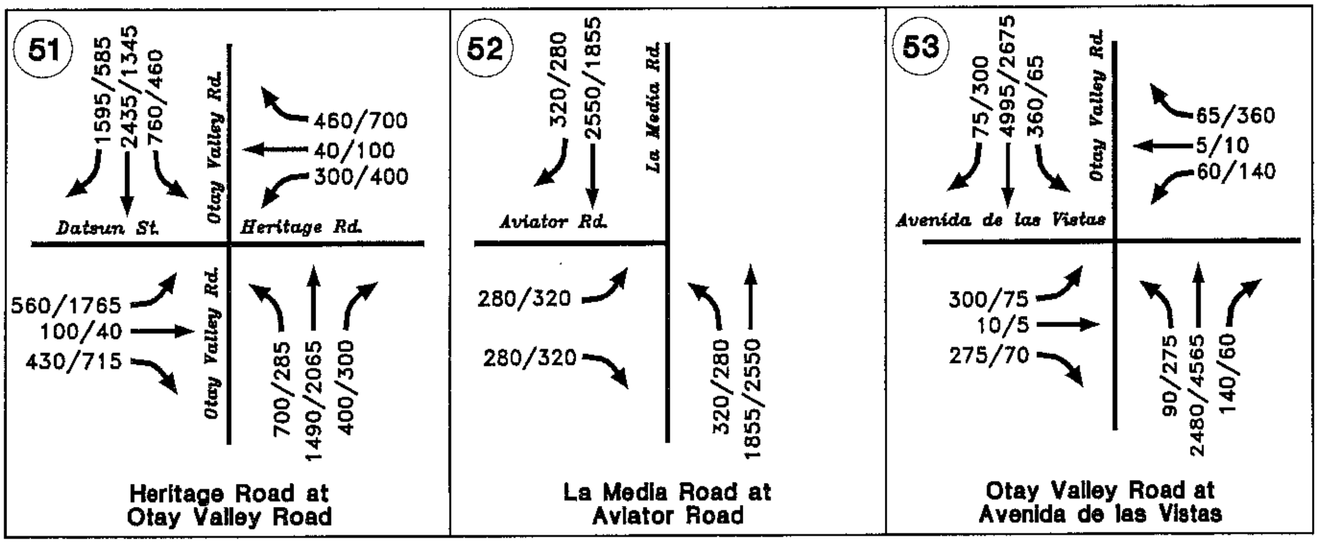
With La Media Road



APPENDIX C - ATTACHMENT 10

Buildout AM/PM Peak Hour Traffic - Alternative 3-B

With La Media Road



(9-30-10 Run Date)

Revised (7-29-11)

1-A
NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	03/04/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 /ALT.3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	0	0	0	1	1	1
Lane group		T	R	L	T					L	LTR	R
Volume (vph)		890	175	280	355					1075	1	570
% Heavy veh		2	2	2	2					2	2	2
PHF		0.95	0.95	0.95	0.95					0.95	0.95	0.95
Actuated (P/A)		A	A	A	A					A	A	A
Startup lost time		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Arrival type		5	5	5	5					5	5	5
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0				10			10		150
Lane Width		12.0	12.0	12.0	12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0					0	0	0
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 45.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		937	184	295	374					679	564	332
Lane group cap.		887	405	859	2022					664	652	594
v/c ratio		1.06	0.45	0.34	0.18					1.02	0.87	0.56
Green ratio		0.25	0.25	0.25	0.54					0.38	0.38	0.38
Unif. delay d1		45.0	38.1	36.9	14.0					37.5	34.7	29.7
Delay factor k		0.50	0.11	0.11	0.11					0.50	0.39	0.16
Increm. delay d2		46.2	0.8	0.2	0.0					40.8	11.7	1.2
PF factor		0.778	0.778	0.778	0.212					0.600	0.600	0.600
Control delay		81.2	30.4	29.0	3.0					63.3	32.5	19.0
Lane group LOS		F	C	C	A					E	C	B
Apprch. delay	72.9			14.5						42.9		
Approach LOS	E			B						D		
Intersec. delay	47.2			Intersection LOS						D		

1-A

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3-B WITH LA MEDIA AM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T					L	LTR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		937	184	295	374					679	564	332
Satflow per lane		1862	1620	1770	1960					1770	1738	1583
Capacity/lane		887	405	859	2022					664	652	594
Flow ratio		0.26	0.11	0.09	0.10					0.38	0.32	0.21
v/c ratio		1.06	0.45	0.34	0.18					1.02	0.87	0.56
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.67	1.67	1.67
PF factor		1.00	0.85	0.83	0.23					1.00	0.88	0.73
Q_1		16.4	4.4	3.4	0.8					22.6	15.4	6.4
k_B		0.5	0.5	0.5	0.8					0.6	0.6	0.6
Q_2		7.6	0.4	0.3	0.2					8.4	3.2	0.7
Q avg.		24.0	4.8	3.7	1.0					31.0	18.5	7.1
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	2.0	2.0	2.1					1.6	1.7	1.9
BOQ, $Q_{\%}$		39.8	9.4	7.3	2.0					49.8	31.7	13.6
Queue Storage Ratio												
Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

1-P
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 /ALT.3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	0	0	0	1	1	1
Lane group		T	R	L	T					L	LTR	R
Volume (vph)		900	145	500	615					1365	1	770
% Heavy veh		2	2	2	2					2	2	2
PHF		0.95	0.95	0.95	0.95					0.95	0.95	0.95
Actuated (P/A)		A	A	A	A					A	A	A
Startup lost time		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Arrival type		5	5	5	5					5	5	5
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0				10			10	5	150
Lane Width		12.0	12.0	12.0	12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0					0	0	0
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 25.0	G = 35.0	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		947	153	526	647					805	796	490
Lane group cap.		920	420	636	1797					787	766	679
v/c ratio		1.03	0.36	0.83	0.36					1.02	1.04	0.72
Green ratio		0.26	0.26	0.19	0.48					0.44	0.44	0.44
Unif. delay d1		50.0	40.9	52.9	22.0					37.5	37.5	30.7
Delay factor k		0.50	0.11	0.37	0.11					0.50	0.50	0.28
Increm. delay d2		37.4	0.5	8.9	0.1					38.0	43.1	3.8
PF factor		0.767	0.767	0.848	0.381					0.467	0.467	0.467
Control delay		75.8	31.9	53.8	8.5					55.5	60.6	18.1
Lane group LOS		E	C	D	A					E	E	B
Apprch. delay	69.7			28.8						48.7		
Approach LOS	E			C						D		
Intersec. delay	48.6			Intersection LOS						D		

I-P
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M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3-B WITH LA MEDIA PM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T					L	LTR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		947	153	526	647					805	796	490
Satflow per lane		1862	1621	1770	1960					1770	1724	1528
Capacity/lane		920	420	636	1797					787	766	679
Flow ratio		0.27	0.09	0.15	0.17					0.45	0.46	0.32
v/c ratio		1.03	0.36	0.83	0.36					1.02	1.04	0.72
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.67	1.67	1.67
PF factor		1.00	0.82	0.96	0.44					1.00	1.00	0.68
Q_1		18.6	3.9	9.4	3.5					30.2	29.9	10.2
k_B		0.6	0.5	0.5	0.8					0.8	0.7	0.7
Q_2		6.9	0.3	1.7	0.5					10.0	10.7	1.7
Q avg.		25.5	4.2	11.1	4.0					40.1	40.6	11.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.6	2.0	1.8	2.0					1.6	1.6	1.8
BOQ, $Q_{\%}$		42.0	8.2	20.3	7.9					62.8	63.4	21.6
Queue Storage Ratio												
Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

I-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	03/07/12	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 /ALT.3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	0	0	0	2	1	1
Lane group		T	R	L	T					L	TR	R
Volume (vph)		900	145	500	615					1365	1	770
% Heavy veh		2	2	2	2					2	2	2
PHF		0.95	0.95	0.95	0.95					0.95	0.95	0.95
Actuated (P/A)		A	A	A	A					A	A	A
Startup lost time		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Arrival type		5	5	5	5					5	5	5
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0				10			10	5	0
Lane Width		12.0	12.0	12.0	12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0					0	0	0
Unit Extension		3.0	3.0	3.0	3.0					3.0	3.0	3.0

Phasing	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 20.0	G = 40.0	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 135.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		947	153	526	647					1437	406	406
Lane group cap.		1051	481	509	1797					1528	680	679
v/c ratio		0.90	0.32	1.03	0.36					0.94	0.60	0.60
Green ratio		0.30	0.30	0.15	0.48					0.44	0.44	0.44
Unif. delay d1		45.6	36.9	57.5	22.0					35.8	28.4	28.4
Delay factor k		0.42	0.11	0.50	0.11					0.45	0.19	0.19
Increm. delay d2		10.6	0.4	48.8	0.1					11.7	1.4	1.5
PF factor		0.719	0.719	0.884	0.381					0.467	0.467	0.467
Control delay		43.4	26.9	99.6	8.5					28.4	14.7	14.7
Lane group LOS		D	C	F	A					C	B	B
Apprch. delay	41.1			49.3						23.5		
Approach LOS	D			D						C		
Intersec. delay	34.5			Intersection LOS						C		

HCS2000™ Version 4.1f

1-P
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3-B WITH LA MEDIA PM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T					L	TR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		947	153	500	647					1437	406	406
Satflow per lane		1862	1624	1770	1960					1770	1529	1528
Capacity/lane		1043	478	531	1812					1516	675	674
Flow ratio		0.27	0.09	0.15	0.17					0.42	0.27	0.27
v/c ratio		0.91	0.32	0.94	0.36					0.95	0.60	0.60
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.67	1.67	1.67
PF factor		0.95	0.78	0.99	0.43					0.91	0.62	0.62
Q_1		17.2	3.5	9.5	3.4					24.3	7.3	7.3
k_B		0.6	0.6	0.4	0.9					0.8	0.7	0.7
Q_2		3.8	0.3	2.7	0.5					6.2	1.0	1.0
Q avg.		21.1	3.8	12.3	3.9					30.5	8.3	8.3
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	2.0	1.8	2.0					1.6	1.9	1.9
BOQ, $Q_{\%}$		35.5	7.5	22.1	7.8					49.2	15.6	15.6
Queue Storage Ratio												
Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/11/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ ALT. 3BW LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	0	2	1	0	1	1	0	0	0
Lane group	L	T			T	R		LTR	R			
Volume (vph)	655	1310			575	1250	60	1	385			
% Heavy veh	2	2			2	2	2	2	2			
PHF	0.99	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	200	10		0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 25.0	G = 50.0	G =	G =	G = 31.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	662	1379			605	1105		185	284			
Lane group cap.	716	2458			1555	645		427	409			
v/c ratio	0.92	0.56			0.39	1.71		0.43	0.69			
Green ratio	0.21	0.66			0.42	0.42		0.26	0.26			
Unif. delay d1	46.6	11.1			24.4	35.0		37.2	40.2			
Delay factor k	0.44	0.16			0.11	0.50		0.11	0.26			
Increm. delay d2	17.8	0.3			0.2	327.5		0.7	5.0			
PF factor	0.825	0.146			0.524	0.763		0.768	0.768			
Control delay	56.2	1.9			12.9	354.2		29.2	35.9			
Lane group LOS	E	A			B	F		C	D			
Apprch. delay	19.5			233.5			33.3					
Approach LOS	B			F			C					
Intersec. delay	107.7			Intersection LOS						F		

2-A
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R		LTR	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	662	1379			605	1105		185	284			
Satflow per lane	1770	1960			1960	1549		1651	1583			
Capacity/lane	716	2458			1555	645		427	409			
Flow ratio	0.19	0.37			0.16	0.71		0.11	0.18			
v/c ratio	0.92	0.56			0.39	1.71		0.43	0.69			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.44			1.67	1.33		1.67	1.67			
PF factor	0.98	0.20			0.60	1.00		0.84	0.90			
Q_1	10.9	2.6			4.4	36.8		4.3	7.7			
k_B	0.5	1.0			0.7	0.6		0.5	0.5			
Q_2	3.0	1.2			0.5	59.0		0.4	1.0			
Q avg.	13.9	3.8			4.9	95.8		4.7	8.7			

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.8	2.0			2.0	1.5		2.0	1.9			
BOQ, $Q_{\%}$	24.6	7.5			9.6	144		9.2	16.3			

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9	24.9			24.9	24.9		24.9	24.9			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

2-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/12	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ ALT. 3BW LM/WITH M

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	1	0	3	2	1	1	1	0	0	0
Lane group		T	R		T	R	L	LTR	R			
Volume (vph)		1310	655		575	1250	60	1	385			
% Heavy veh		2	2		2	2	2	2	2			
PHF		0.95	0.95		0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)		A	A		A	A	A	A	A			
Startup lost time		2.0	2.0		2.0	2.0	2.0	2.0	2.0			
Ext. eff. green		2.0	2.0		2.0	2.0	2.0	2.0	2.0			
Arrival type		5	5		5	5	5	5	5			
Unit Extension		3.0	3.0		3.0	3.0	3.0	3.0	3.0			
Ped/Bike/RTOR Volume	0	0	0	10	5	200	10		0	10		
Lane Width		12.0	12.0		12.0	12.0	12.0	12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0		0	0	0	0	0			
Unit Extension		3.0	3.0		3.0	3.0	3.0	3.0	3.0			

Phasing	Thru & RT	02	03	04	NB Only	06	07	08
Timing	G = 50.0	G =	G =	G =	G = 31.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 91.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1379	689		605	1105	44	141	284			
Lane group cap.		2935	916		2935	1490	603	549	539			
v/c ratio		0.47	0.75		0.21	0.74	0.07	0.26	0.53			
Green ratio		0.55	0.55		0.55	0.55	0.34	0.34	0.34			
Unif. delay d1		12.5	15.7		10.4	15.6	20.3	21.7	24.1			
Delay factor k		0.11	0.31		0.11	0.30	0.11	0.11	0.13			
Increm. delay d2		0.1	3.5		0.0	2.0	0.1	0.2	1.0			
PF factor		0.187	0.187		0.187	0.187	0.656	0.656	0.656			
Control delay		2.4	6.5		2.0	4.9	13.3	14.5	16.8			
Lane group LOS		A	A		A	A	B	B	B			
Apprch. delay	3.8			3.9			15.8					
Approach LOS	A			A			B					
Intersec. delay	5.2			Intersection LOS						A		

2-A w MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT. 3B WITH LA MEDIA AM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R		T	R	L	LTR	R			
Init. queue/lane		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Flow rate/lane		1379	689		605	1105	44	141	284			
Satflow per lane		1960	1667		1960	1532	1770	1611	1583			
Capacity/lane		2935	916		2935	1490	603	549	539			
Flow ratio		0.26	0.41		0.11	0.41	0.02	0.09	0.18			
v/c ratio		0.47	0.75		0.21	0.74	0.07	0.26	0.53			
I factor		1.000	1.000		1.000	1.000	1.000	1.000	1.000			
Arrival type		5	5		5	5	5	5	5			
Platoon ratio		1.67	1.67		1.67	1.67	1.67	1.67	1.67			
PF factor		0.24	0.35		0.20	0.35	0.67	0.70	0.77			
Q_1		1.9	4.7		0.6	4.1	0.5	1.8	4.4			
k_B		0.7	0.7		0.7	0.6	0.5	0.5	0.5			
Q_2		0.6	1.9		0.2	1.7	0.0	0.2	0.5			
Q avg.		2.5	6.6		0.8	5.8	0.5	2.0	5.0			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	1.9		2.1	1.9	2.1	2.0	2.0			
BOQ, $Q_{\%}$		5.1	12.6		1.6	11.3	1.1	4.0	9.7			
Queue Storage Ratio												
Q spacing		24.9	24.9		24.9	24.9	24.9	24.9	24.9			
Q storage		0	0		0	0	0	0	0			
Avg. R_Q												
95% $R_{Q\%}$												

2 P
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/11/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ ALT. 3B-WITH LM/NO

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	0	2	1	0	1	1	0	0	0
Lane group	L	T			T	R		LTR	R			
Volume (vph)	540	1725			1000	1345	115	1	620			
% Heavy veh	2	2			2	2	2	2	2			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	200	10		0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 25.0	G = 50.0	G =	G =	G = 31.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	568	1816			1053	1205		448	327			
Lane group cap.	716	2458			1555	645		423	409			
v/c ratio	0.79	0.74			0.68	1.87		1.06	0.80			
Green ratio	0.21	0.66			0.42	0.42		0.26	0.26			
Unif. delay d1	45.0	13.6			28.4	35.0		44.5	41.6			
Delay factor k	0.34	0.30			0.25	0.50		0.50	0.34			
Increm. delay d2	6.1	1.2			1.2	396.6		60.3	10.8			
PF factor	0.825	0.146			0.524	0.842		0.768	0.768			
Control delay	43.3	3.2			16.1	426.1		94.4	42.7			
Lane group LOS	D	A			B	F		F	D			
Apprch. delay	12.8			234.9			72.6					
Approach LOS	B			F			E					
Intersec. delay	113.9			Intersection LOS						F		

HCS2000™ Version 4.1f

2-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B with LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R		LTR	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	568	1816			1053	1205		448	327			
Satflow per lane	1770	1960			1960	1549		1637	1583			
Capacity/lane	716	2458			1555	645		423	409			
Flow ratio	0.16	0.49			0.28	0.78		0.27	0.21			
v/c ratio	0.79	0.74			0.68	1.87		1.06	0.80			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.44			1.67	1.22		1.67	1.67			
PF factor	0.95	0.25			0.71	1.00		1.00	0.93			
Q_1	8.8	5.3			10.6	40.2		14.9	9.5			
k_B	0.5	1.0			0.7	0.6		0.5	0.5			
Q_2	1.5	2.5			1.5	71.3		7.0	1.6			
Q avg.	10.3	7.9			12.1	111.5		22.0	11.1			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.8	1.9			1.8	1.5		1.7	1.8			
BOQ, $Q_{\%}$	18.9	14.9			21.9	167		36.8	20.3			
Queue Storage Ratio												
Q spacing	24.9	24.9			24.9	24.9		24.9	24.9			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

2-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/12	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ ALT. 3B-WITH LA ME

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	1	0	3	2	1	1	1	0	0	0
Lane group		T	R		T	R	L	LTR	R			
Volume (vph)		1725	540		1000	1345	115	1	620			
% Heavy veh		2	2		2	2	2	2	2			
PHF		0.95	0.95		0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)		A	A		A	A	A	A	A			
Startup lost time		2.0	2.0		2.0	2.0	2.0	2.0	2.0			
Ext. eff. green		2.0	2.0		2.0	2.0	2.0	2.0	2.0			
Arrival type		5	5		5	5	5	5	5			
Unit Extension		3.0	3.0		3.0	3.0	3.0	3.0	3.0			
Ped/Bike/RTOR Volume	0	0	0	10	5	200	10		0	10		
Lane Width		12.0	12.0		12.0	12.0	12.0	12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0		0	0	0	0	0			
Unit Extension		3.0	3.0		3.0	3.0	3.0	3.0	3.0			

Phasing	Thru & RT	02	03	04	NB Only	06	07	08
Timing	G = 50.0	G =	G =	G =	G = 31.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 90.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1816	568		1053	1205	61	387	327			
Lane group cap.		2967	926		2967	1507	610	556	545			
v/c ratio		0.61	0.61		0.35	0.80	0.10	0.70	0.60			
Green ratio		0.56	0.56		0.56	0.56	0.34	0.34	0.34			
Unif. delay d1		13.5	13.5		11.1	16.0	20.0	25.4	24.4			
Delay factor k		0.20	0.20		0.11	0.34	0.11	0.26	0.19			
Increm. delay d2		0.4	1.2		0.1	3.2	0.1	3.8	1.8			
PF factor		0.167	0.167		0.167	0.167	0.650	0.650	0.650			
Control delay		2.6	3.5		1.9	5.8	13.1	20.3	17.7			
Lane group LOS		A	A		A	A	B	C	B			
Apprch. delay	2.8			4.0			18.6					
Approach LOS	A			A			B					
Intersec. delay	5.6			Intersection LOS						A		

2-P
W.
MIT.

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA PM PEAK HOUR/WITH MIT.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R		T	R	L	LTR	R			
Init. queue/lane		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Flow rate/lane		1816	568		1053	1205	61	387	327			
Satflow per lane		1960	1667		1960	1532	1770	1614	1583			
Capacity/lane		2967	926		2967	1507	610	556	545			
Flow ratio		0.34	0.34		0.20	0.44	0.03	0.24	0.21			
v/c ratio		0.61	0.61		0.35	0.80	0.10	0.70	0.60			
I factor		1.000	1.000		1.000	1.000	1.000	1.000	1.000			
Arrival type		5	5		5	5	5	5	5			
Platoon ratio		1.67	1.67		1.67	1.67	1.67	1.67	1.67			
PF factor		0.25	0.25		0.20	0.36	0.67	0.82	0.79			
Q_1		2.8	2.4		1.1	4.8	0.7	6.9	5.3			
k_B		0.7	0.7		0.7	0.6	0.5	0.5	0.5			
Q_2		1.1	1.0		0.4	2.3	0.1	1.1	0.7			
Q avg.		4.0	3.5		1.5	7.1	0.7	7.9	6.0			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	2.0		2.1	1.9	2.1	1.9	1.9			
BOQ, $Q_{\%}$		7.9	6.9		3.0	13.5	1.5	14.9	11.6			
Queue Storage Ratio												
Q spacing		24.9	24.9		24.9	24.9	24.9	24.9	24.9			
Q storage		0	0		0	0	0	0	0			
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

3A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AVE./DENNERY ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/11/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK	Analysis Year	YEAR 2030/ALT-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	3	1	0	2	2	1
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	600	495	450	200	760	60	600	150	110	50	200	500
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.90	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	50	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 29.0	G = 35.0	G =	G =	G = 16.0	G = 21.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	521	474	211	800	67	632	221		53	211	526
Lane group cap.	831	1558	721	831	1558	450	843	247		601	498	572
v/c ratio	0.76	0.33	0.66	0.25	0.51	0.15	0.75	0.89		0.09	0.42	0.92
Green ratio	0.24	0.29	0.47	0.24	0.29	0.29	0.17	0.13		0.17	0.13	0.38
Unif. delay d1	42.3	33.4	24.6	36.8	35.4	31.5	47.0	51.2		41.5	47.8	35.8
Delay factor k	0.31	0.11	0.23	0.11	0.12	0.11	0.30	0.42		0.11	0.11	0.44
Increm. delay d2	4.1	0.1	2.2	0.2	0.3	0.2	3.8	31.2		0.1	0.6	20.2
PF factor	0.788	0.725	0.417	0.788	0.725	0.725	0.859	0.897		0.859	0.897	0.600
Control delay	37.4	24.3	12.5	29.1	26.0	23.0	44.1	77.1		35.7	43.4	41.7
Lane group LOS	D	C	B	C	C	C	D	E		D	D	D
Apprch. delay	26.0			26.4			52.7			41.7		
Approach LOS	C			C			D			D		
Intersec. delay	34.2			Intersection LOS						C		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA AM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Flow rate/lane	632	521	474	211	800	67	632	221		53	211	526
Satflow per lane	1770	1960	1545	1770	1960	1543	1769	1854		1770	1960	1525
Capacity/lane	831	1558	721	831	1558	450	843	247		601	498	572
Flow ratio	0.18	0.10	0.31	0.06	0.15	0.04	0.13	0.12		0.02	0.06	0.34
v/c ratio	0.76	0.33	0.66	0.25	0.51	0.15	0.75	0.89		0.09	0.42	0.92
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67		1.67	1.67	1.67
PF factor	0.93	0.78	0.59	0.82	0.82	0.75	0.95	0.99		0.87	0.93	0.92
Q_1	9.3	3.9	7.2	2.4	6.7	1.2	7.0	7.2		0.7	3.1	15.5
k_B	0.5	0.6	0.7	0.5	0.6	0.5	0.4	0.4		0.4	0.4	0.6
Q_2	1.4	0.3	1.2	0.2	0.6	0.1	1.1	1.9		0.0	0.3	4.0
Q avg.	10.7	4.2	8.4	2.6	7.3	1.3	8.1	9.1		0.7	3.4	19.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.8	2.0	1.9	2.0	1.9	2.1	1.9	1.9		2.1	2.0	1.7
BOQ, $Q_{\%}$	19.7	8.3	15.8	5.2	13.9	2.7	15.3	16.9		1.4	6.8	33.1

Queue Storage Ratio

Q spacing												
Q storage												
Avg. R_Q												
95% $R_{Q\%}$												

3-P
N
MT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AVE./DENNERY ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/11/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK	Analysis Year	YEAR 2030/ALT-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	3	1	0	2	2	1
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	600	595	900	150	455	50	750	150	250	50	190	400
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.90	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	75	10		0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 25.0	G = 37.0	G =	G =	G = 25.0	G = 29.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	626	947	158	479	56	789	342		53	200	421
Lane group cap.	636	1464	755	636	1464	422	1035	328		738	691	586
v/c ratio	0.99	0.43	1.25	0.25	0.33	0.13	0.76	1.04		0.07	0.29	0.72
Green ratio	0.19	0.27	0.49	0.19	0.27	0.27	0.21	0.19		0.21	0.19	0.37
Unif. delay d1	54.9	40.3	34.5	47.0	39.1	36.9	49.8	55.0		42.3	47.4	36.5
Delay factor k	0.50	0.11	0.50	0.11	0.11	0.11	0.31	0.50		0.11	0.11	0.28
Increm. delay d2	34.0	0.2	125.2	0.2	0.1	0.1	3.4	61.2		0.0	0.2	4.3
PF factor	0.848	0.748	0.475	0.848	0.748	0.748	0.818	0.848		0.818	0.848	0.608
Control delay	80.6	30.4	141.6	40.1	29.4	27.8	44.1	107.9		34.6	40.4	26.4
Lane group LOS	F	C	F	D	C	C	D	F		C	D	C
Apprch. delay	92.5			31.7			63.4			31.2		
Approach LOS	F			C			E			C		
Intersec. delay	67.8			Intersection LOS						E		

3P
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M17

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA PM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Flow rate/lane	632	626	947	158	479	56	789	342		53	200	421
Satflow per lane	1770	1960	1544	1770	1960	1541	1769	1770		1770	1960	1583
Capacity/lane	636	1464	755	636	1464	422	1035	328		738	691	586
Flow ratio	0.18	0.12	0.61	0.05	0.09	0.04	0.16	0.19		0.02	0.05	0.27
v/c ratio	0.99	0.43	1.25	0.25	0.33	0.13	0.76	1.04		0.07	0.29	0.72
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Platoon ratio	1.67	1.67	1.55	1.67	1.67	1.67	1.67	1.67		1.67	1.67	1.67
PF factor	1.00	0.82	1.00	0.88	0.80	0.77	0.94	1.00		0.83	0.88	0.80
Q_1	12.1	5.8	35.5	2.3	4.2	1.2	9.6	12.8		0.7	3.0	10.9
k_B	0.5	0.6	0.7	0.5	0.6	0.5	0.5	0.5		0.5	0.5	0.6
Q_2	4.2	0.4	27.2	0.1	0.3	0.1	1.4	5.4		0.0	0.2	1.5
Q avg.	16.3	6.2	62.7	2.4	4.5	1.3	11.0	18.2		0.7	3.2	12.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.9	1.5	2.0	2.0	2.1	1.8	1.7		2.1	2.0	1.8
BOQ, $Q_\%$	28.4	12.0	95.3	4.9	8.8	2.7	20.0	31.2		1.5	6.4	22.3

Queue Storage Ratio

Q spacing												
Q storage												
Avg. R_Q												
95% $R_{Q\%}$												

4-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	100	975	600	760	530	465	240	210	1755	850	520	100
% Heavy veh	2	2	2	5	2	2	2	2	5	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	105	1026	526	800	558	489	253	2068		895	652	
Lane group cap.	344	926	664	1031	2030	991	802	757		802	898	
v/c ratio	0.31	1.11	0.79	0.78	0.27	0.49	0.32	2.73		1.12	0.73	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17		0.23	0.17	
Unif. delay d1	62.7	62.0	36.7	47.9	32.2	14.2	47.6	62.0		57.5	58.6	
Delay factor k	0.11	0.50	0.34	0.33	0.11	0.11	0.11	0.50		0.50	0.29	
Increm. delay d2	0.5	63.8	6.5	3.8	0.1	0.4	0.2	783.1		68.6	3.0	
PF factor	0.926	0.860	0.490	0.714	0.591	0.139	0.797	0.860		0.797	0.860	
Control delay	58.5	117.1	24.5	38.0	19.1	2.4	38.2	836.4		114.4	53.4	
Lane group LOS	E	F	C	D	B	A	D	F		F	D	
Apprch. delay	84.0			22.9			749.4			88.7		
Approach LOS	F			C			F			F		
Intersec. delay	279.2			Intersection LOS						F		

HCS2000™ Version 4.1f

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT 3B WITH LA MEDIA AM /NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	105	1026	526	800	558	489	253	2068		895	652	
Satflow per lane	1770	1960	1532	1769	1960	1549	1770	1602		1770	1902	
Capacity/lane	344	926	664	1031	2030	991	802	757		802	898	
Flow ratio	0.03	0.19	0.34	0.23	0.10	0.32	0.07	0.47		0.26	0.13	
v/c ratio	0.31	1.11	0.79	0.78	0.27	0.49	0.32	2.73		1.12	0.73	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67		1.67	1.67	
PF factor	0.95	1.00	0.75	0.89	0.64	0.18	0.84	1.00		1.00	0.95	
Q_1	2.0	15.7	14.2	14.0	3.8	1.9	3.8	31.6		19.2	9.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.6	0.4		0.6	0.5	
Q_2	0.1	7.6	2.4	2.0	0.3	0.9	0.3	60.9		9.4	1.2	
Q avg.	2.1	23.3	16.7	15.9	4.1	2.8	4.0	92.6		28.5	10.1	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.7	1.7	1.7	2.0	2.0	2.0	1.5		1.6	1.8	
BOQ, $Q_{\%}$	4.3	38.8	29.0	27.8	8.0	5.7	8.0	139		46.3	18.6	

Queue Storage Ratio

Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9		24.9	24.9	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

4-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	SAN DIEGO/WITH MIT
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	100	975	600	760	530	465	240	210	1755	850	520	100
% Heavy veh	2	2	2	5	2	2	2	2	5	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 25.0	G = 26.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	105	1026	526	800	558	489	253	221	1847	895	652	
Lane group cap.	344	961	675	1008	2030	991	802	926	746	802	898	
v/c ratio	0.31	1.07	0.78	0.79	0.27	0.49	0.32	0.24	2.48	1.12	0.73	
Green ratio	0.10	0.18	0.44	0.29	0.38	0.64	0.23	0.17	0.50	0.23	0.17	
Unif. delay d1	62.7	61.5	35.8	48.8	32.2	14.2	47.6	53.5	37.5	57.5	58.6	
Delay factor k	0.11	0.50	0.33	0.34	0.11	0.11	0.11	0.11	0.50	0.50	0.29	
Increm. delay d2	0.5	48.9	5.8	4.4	0.1	0.4	0.2	0.1	668.2	68.6	3.0	
PF factor	0.926	0.854	0.476	0.723	0.591	0.139	0.797	0.860	1.000	0.797	0.860	
Control delay	58.5	101.4	22.9	39.8	19.1	2.4	38.2	46.1	705.7	114.4	53.4	
Lane group LOS	E	F	C	D	B	A	D	D	F	F	D	
Apprch. delay	73.7			23.6			570.1			88.7		
Approach LOS	E			C			F			F		
Intersec. delay	220.6			Intersection LOS						F		

4-A
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT 3B WITH LA MEDIA AM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	105	1026	526	800	558	489	253	221	1847	895	652	
Satflow per lane	1770	1960	1534	1769	1960	1549	1770	1960	1491	1770	1902	
Capacity/lane	344	961	675	1008	2030	991	802	926	746	802	898	
Flow ratio	0.03	0.19	0.34	0.23	0.10	0.32	0.07	0.04	1.24	0.26	0.13	
v/c ratio	0.31	1.07	0.78	0.79	0.27	0.49	0.32	0.24	2.48	1.12	0.73	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67	1.00	1.67	1.67	
PF factor	0.95	1.00	0.73	0.91	0.64	0.18	0.84	0.89	1.00	1.00	0.95	
Q_1	2.0	15.7	13.6	14.3	3.8	1.9	3.8	2.6	77.0	19.2	9.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.6	0.5	0.8	0.6	0.5	
Q_2	0.1	6.6	2.3	2.1	0.3	0.9	0.3	0.2	138.9	9.4	1.2	
Q avg.	2.1	22.2	16.0	16.4	4.1	2.8	4.0	2.7	215.9	28.5	10.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.7	1.7	1.7	2.0	2.0	2.0	2.0	1.5	1.6	1.8	
BOQ, $Q_{\%}$	4.3	37.3	27.9	28.5	8.0	5.7	8.0	5.5	324	46.3	18.6	
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

4-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	100	530	240	1415	975	850	600	520	760	465	210	100
% Heavy veh	2	2	2	5	2	2	2	2	5	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	105	558	147	1489	1026	895	632	1347		489	326	
Lane group cap.	344	926	664	1031	2030	991	802	812		802	871	
v/c ratio	0.31	0.60	0.22	1.44	0.51	0.90	0.79	1.66		0.61	0.37	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17		0.23	0.17	
Unif. delay d1	62.7	57.2	26.6	52.5	35.7	23.0	54.0	62.0		51.4	54.8	
Delay factor k	0.11	0.19	0.11	0.50	0.11	0.42	0.33	0.50		0.20	0.11	
Increm. delay d2	0.5	1.1	0.2	205.4	0.2	11.4	5.3	302.0		1.4	0.3	
PF factor	0.926	0.860	0.490	0.714	0.591	0.139	0.797	0.860		0.797	0.860	
Control delay	58.5	50.3	13.2	242.9	21.3	14.6	48.3	355.3		42.3	47.4	
Lane group LOS	E	D	B	F	C	B	D	F		D	D	
Apprch. delay	44.7			116.3			257.3			44.4		
Approach LOS	D			F			F			D		
Intersec. delay	139.5			Intersection LOS						F		

4-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT 3B WITH LA MEDIA PM PEAK /NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	105	558	147	1489	1026	895	632	1347		489	326	
Satflow per lane	1770	1960	1532	1769	1960	1549	1770	1718		1770	1845	
Capacity/lane	344	926	664	1031	2030	991	802	812		802	871	
Flow ratio	0.03	0.10	0.10	0.43	0.19	0.58	0.18	0.29		0.14	0.06	
v/c ratio	0.31	0.60	0.22	1.44	0.51	0.90	0.79	1.66		0.61	0.37	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67		1.67	1.67	
PF factor	0.95	0.93	0.53	1.00	0.70	0.41	0.94	1.00		0.90	0.90	
Q_1	2.0	7.3	2.0	31.9	8.4	13.1	11.9	20.6		8.4	4.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.6	0.5		0.6	0.5	
Q_2	0.1	0.7	0.2	31.5	0.8	5.8	1.8	25.6		0.8	0.3	
Q avg.	2.1	8.0	2.2	63.4	9.2	19.0	13.7	46.2		9.2	4.2	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.9	2.0	1.5	1.9	1.7	1.8	1.5		1.9	2.0	
BOQ, $Q_{\%}$	4.3	15.1	4.5	96.2	17.2	32.4	24.4	71.4		17.1	8.4	
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9		24.9	24.9	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

4-P w MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	SAN DIEGO/WITH MIT
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	100	530	240	1415	975	850	600	520	760	465	210	100
% Heavy veh	2	2	2	5	2	2	2	2	5	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	105	558	147	1489	1026	895	632	547	800	489	326	
Lane group cap.	344	926	664	1031	2030	991	802	926	755	802	871	
v/c ratio	0.31	0.60	0.22	1.44	0.51	0.90	0.79	0.59	1.06	0.61	0.37	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17	0.51	0.23	0.17	
Unif. delay d1	62.7	57.2	26.6	52.5	35.7	23.0	54.0	57.1	37.0	51.4	54.8	
Delay factor k	0.11	0.19	0.11	0.50	0.11	0.42	0.33	0.18	0.50	0.20	0.11	
Increm. delay d2	0.5	1.1	0.2	205.4	0.2	11.4	5.3	1.0	49.7	1.4	0.3	
PF factor	0.926	0.860	0.490	0.714	0.591	0.139	0.797	0.860	0.315	0.797	0.860	
Control delay	58.5	50.3	13.2	242.9	21.3	14.6	48.3	50.1	61.4	42.3	47.4	
Lane group LOS	E	D	B	F	C	B	D	D	E	D	D	
Apprch. delay	44.7			116.3			54.1			44.4		
Approach LOS	D			F			D			D		
Intersec. delay	82.1			Intersection LOS						F		

4-P w MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT 3B WITH LA MEDIA PM PEAK /WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	105	558	147	1489	1026	895	632	547	800	489	326	
Satflow per lane	1770	1960	1532	1769	1960	1549	1770	1960	1491	1770	1845	
Capacity/lane	344	926	664	1031	2030	991	802	926	755	802	871	
Flow ratio	0.03	0.10	0.10	0.43	0.19	0.58	0.18	0.10	0.54	0.14	0.06	
v/c ratio	0.31	0.60	0.22	1.44	0.51	0.90	0.79	0.59	1.06	0.61	0.37	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67	1.67	1.67	1.67	
PF factor	0.95	0.93	0.53	1.00	0.70	0.41	0.94	0.93	1.00	0.90	0.90	
Q_1	2.0	7.3	2.0	31.9	8.4	13.1	11.9	7.1	33.3	8.4	4.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.6	0.5	0.8	0.6	0.5	
Q_2	0.1	0.7	0.2	31.5	0.8	5.8	1.8	0.7	12.1	0.8	0.3	
Q avg.	2.1	8.0	2.2	63.4	9.2	19.0	13.7	7.8	45.5	9.2	4.2	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.9	2.0	1.5	1.9	1.7	1.8	1.9	1.5	1.9	2.0	
BOQ, $Q_{\%}$	4.3	15.1	4.5	96.2	17.2	32.4	24.4	14.8	70.4	17.1	8.4	

Queue Storage Ratio

Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

5A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B/WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	3	0	0	3	0
Lane group					LT	R	L	T			TR	
Volume (vph)				180	5	220	790	1985			930	950
% Heavy veh				5	5	5	5	5			5	5
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	
Arrival type					5	5	5	5			5	
Unit Extension					3.0	3.0	3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10			10		0				10	5	350
Lane Width					12.0	12.0	12.0	12.0			12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	
Unit Extension					3.0	3.0	3.0	3.0			3.0	

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 57.0	G = 50.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					194	232	832	2089			1611	
Lane group cap.					246	890	700	1853			1718	
v/c ratio					0.79	0.26	1.19	1.13			0.94	
Green ratio					0.14	0.58	0.41	0.36			0.36	
Unif. delay d1					58.0	14.6	41.5	45.0			43.5	
Delay factor k					0.34	0.11	0.50	0.50			0.45	
Increm. delay d2					15.7	0.2	98.8	64.9			10.4	
PF factor					0.889	0.119	0.542	0.630			0.630	
Control delay					67.2	1.9	121.3	93.2			37.8	
Lane group LOS					E	A	F	F			D	
Apprch. delay				31.6			101.2			37.8		
Approach LOS				C			F			D		
Intersec. delay	74.6			Intersection LOS						E		

5-A
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LAMEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LT	R	L	T			TR	
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	
Flow rate/lane					194	232	832	2089			1611	
Satflow per lane					1725	1538	1719	1904			1765	
Capacity/lane					246	890	700	1853			1718	
Flow ratio					0.11	0.15	0.48	0.40			0.33	
v/c ratio					0.79	0.26	1.19	1.13			0.94	
I factor					1.000	1.000	1.000	1.000			1.000	
Arrival type					5	5	5	5			5	
Platoon ratio					1.67	1.64	1.67	1.67			1.67	
PF factor					0.97	0.13	1.00	1.00			0.95	
Q_1					7.1	0.6	32.4	29.8			21.1	
k_B					0.4	0.8	0.7	0.7			0.7	
Q_2					1.2	0.3	20.2	15.2			5.1	
Q avg.					8.3	0.9	52.6	45.0			26.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.1	1.5	1.5			1.6	
BOQ, $Q_{\%}$					15.6	1.9	80.6	69.7			42.9	
Queue Storage Ratio												
Q spacing					24.9	24.9	24.9	24.9			24.9	
Q storage					0	0	0	0			0	
Avg. R_Q												
95% $R_{Q\%}$												

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5-A
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	SAN DIEGO/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B/WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	2	3	0	0	3	1
Lane group					LT	R	L	T			T	R
Volume (vph)				180	5	220	790	1985			930	950
% Heavy veh				5	5	5	5	5			5	5
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					5	5	5	5			5	5
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	350
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 50.0	G = 57.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					194	232	832	2089			979	632
Lane group cap.					246	813	1192	2113			2113	613
v/c ratio					0.79	0.29	0.70	0.99			0.46	1.03
Green ratio					0.14	0.53	0.36	0.41			0.41	0.41
Unif. delay d1					58.0	18.3	38.5	41.2			30.3	41.5
Delay factor k					0.34	0.11	0.26	0.49			0.11	0.50
Increm. delay d2					15.7	0.2	1.8	16.9			0.2	44.5
PF factor					0.889	0.253	0.630	0.542			0.542	0.542
Control delay					67.2	4.8	26.1	39.2			16.6	67.0
Lane group LOS					E	A	C	D			B	E
Apprch. delay				33.2			35.5			36.4		
Approach LOS				C			D			D		
Intersec. delay	35.6			Intersection LOS						D		

5-A
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LAMEDIA AM PEAK HOUR/WITH MIT.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LT	R	L	T			T	R
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					194	232	832	2089			979	632
Satflow per lane					1725	1538	1719	1904			1904	1505
Capacity/lane					246	813	1192	2113			2113	613
Flow ratio					0.11	0.15	0.25	0.40			0.19	0.42
v/c ratio					0.79	0.29	0.70	0.99			0.46	1.03
I factor					1.000	1.000	1.000	1.000			1.000	1.000
Arrival type					5	5	5	5			5	5
Platoon ratio					1.67	1.67	1.67	1.67			1.67	1.67
PF factor					0.97	0.29	0.81	0.98			0.64	1.00
Q_1					7.1	1.4	11.5	29.1			6.5	24.6
k_B					0.4	0.8	0.7	0.8			0.8	0.7
Q_2					1.2	0.3	1.5	8.1			0.7	8.6
Q avg.					8.3	1.8	13.0	37.1			7.2	33.1
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.0	1.8	1.6			1.9	1.6
BOQ, $Q_{\%}$					15.6	3.6	23.3	58.5			13.7	52.9
Queue Storage Ratio												
Q spacing					24.9	24.9	24.9	24.9			24.9	24.9
Q storage					0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

5-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B/WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	3	0	0	3	0
Lane group					LT	R	L	T			TR	
Volume (vph)				180	5	220	700	1660			1030	835
% Heavy veh				5	5	5	5	5			5	5
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	
Arrival type					5	5	5	5			5	
Unit Extension					3.0	3.0	3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10			10		0				10	5	350
Lane Width					12.0	12.0	12.0	12.0			12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	
Unit Extension					3.0	3.0	3.0	3.0			3.0	

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 57.0	G = 50.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					194	232	737	1747			1595	
Lane group cap.					246	890	700	1853			1742	
v/c ratio					0.79	0.26	1.05	0.94			0.92	
Green ratio					0.14	0.58	0.41	0.36			0.36	
Unif. delay d1					58.0	14.6	41.5	43.6			43.0	
Delay factor k					0.34	0.11	0.50	0.46			0.43	
Increm. delay d2					15.7	0.2	48.8	10.4			8.0	
PF factor					0.889	0.119	0.542	0.630			0.630	
Control delay					67.2	1.9	71.3	37.8			35.1	
Lane group LOS					E	A	E	D			D	
Apprch. delay				31.6			47.8			35.1		
Approach LOS				C			D			D		
Intersec. delay	41.8			Intersection LOS						D		

S-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LAMEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LT	R	L	T			TR	
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	
Flow rate/lane					194	232	737	1747			1595	
Satflow per lane					1725	1538	1719	1904			1790	
Capacity/lane					246	890	700	1853			1742	
Flow ratio					0.11	0.15	0.43	0.34			0.33	
v/c ratio					0.79	0.26	1.05	0.94			0.92	
I factor					1.000	1.000	1.000	1.000			1.000	
Arrival type					5	5	5	5			5	
Platoon ratio					1.67	1.64	1.67	1.67			1.67	
PF factor					0.97	0.13	1.00	0.95			0.93	
Q_1					7.1	0.6	28.7	23.0			20.2	
k_B					0.4	0.8	0.7	0.7			0.7	
Q_2					1.2	0.3	10.8	5.5			4.5	
Q avg.					8.3	0.9	39.5	28.5			24.7	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.1	1.6	1.6			1.7	
BOQ, $Q_{\%}$					15.6	1.9	61.9	46.3			40.8	
Queue Storage Ratio												
Q spacing					24.9	24.9	24.9	24.9			24.9	
Q storage					0	0	0	0			0	
Avg. R_Q												
95% $R_{Q\%}$												

5-P
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	SAN DIEGO/WITH MIT.
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B/WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	2	3	0	0	3	1
Lane group					LT	R	L	T			T	R
Volume (vph)				180	5	220	700	1660			1030	835
% Heavy veh				5	5	5	5	5			5	5
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					5	5	5	5			5	5
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	350
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 57.0	G = 50.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					194	232	737	1747			1084	511
Lane group cap.					246	890	1359	1853			1853	536
v/c ratio					0.79	0.26	0.54	0.94			0.58	0.95
Green ratio					0.14	0.58	0.41	0.36			0.36	0.36
Unif. delay d1					58.0	14.6	31.6	43.6			36.6	43.9
Delay factor k					0.34	0.11	0.14	0.46			0.18	0.46
Increm. delay d2					15.7	0.2	0.4	10.4			0.5	27.5
PF factor					0.889	0.119	0.542	0.630			0.630	0.630
Control delay					67.2	1.9	17.6	37.8			23.5	55.1
Lane group LOS					E	A	B	D			C	E
Apprch. delay				31.6			31.8			33.6		
Approach LOS				C			C			C		
Intersec. delay	32.5			Intersection LOS						C		

HCS2000™ Version 4.1f

5-P
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LAMEDIA PM PEAK HOUR/WITH MIT.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					*LT*	*R*	*L*	*T*			*T*	*R*
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					194	232	737	1747			1084	511
Satflow per lane					1725	1538	1719	1904			1904	1502
Capacity/lane					246	890	1359	1853			1853	536
Flow ratio					0.11	0.15	0.22	0.34			0.21	0.34
v/c ratio					0.79	0.26	0.54	0.94			0.58	0.95
I factor					1.000	1.000	1.000	1.000			1.000	1.000
Arrival type					5	5	5	5			5	5
Platoon ratio					1.67	1.64	1.67	1.67			1.67	1.67
PF factor					0.97	0.13	0.67	0.95			0.76	0.96
Q_1					7.1	0.6	7.5	23.0			9.6	18.6
k_B					0.4	0.8	0.7	0.7			0.7	0.6
Q_2					1.2	0.3	0.8	5.5			1.0	4.9
Q avg.					8.3	0.9	8.3	28.5			10.6	23.5
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.1	1.9	1.6			1.8	1.7
BOQ, $Q_{\%}$					15.6	1.9	15.6	46.3			19.3	39.1
Queue Storage Ratio												
Q spacing					24.9	24.9	24.9	24.9			24.9	24.9
Q storage					0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

6-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 AM PEAK	Analysis Year	YEAR 2030 /ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	0	0	0	3	0	1	3	0
Lane group	L	LTR						TR		L	T	
Volume (vph)	1200	5	680					1575	180	220	890	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0						2.0		2.0	2.0	
Ext. eff. green	2.0	2.0						2.0		2.0	2.0	
Arrival type	3	3						5		5	5	
Unit Extension	3.0	3.0						3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10			10	5	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0						0		0	0	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 51.0	G =	G =	G =	G = 20.0	G = 46.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	932						1847		232	937	
Lane group cap.	644	592						1719		252	2667	
v/c ratio	1.47	1.57						1.07		0.92	0.35	
Green ratio	0.39	0.39						0.35		0.15	0.54	
Unif. delay d1	39.5	39.5						42.0		54.2	17.1	
Delay factor k	0.50	0.50						0.50		0.44	0.11	
Increm. delay d2	220.1	266.5						44.8		36.1	0.1	
PF factor	1.000	1.000						0.635		0.879	0.222	
Control delay	259.6	306.0						71.5		83.7	3.9	
Lane group LOS	F	F						E		F	A	
Apprch. delay	282.6						71.5			19.7		
Approach LOS	F						E			B		
Intersec. delay	140.2			Intersection LOS						F		

6-A
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT-3B WITH LA MEDIA AM PEAK HOUR/NO MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	LTR						TR		L	T	
Init. queue/lane	0.0	0.0						0.0		0.0	0.0	
Flow rate/lane	947	932						1847		232	937	
Satflow per lane	1641	1509						1783		1641	1818	
Capacity/lane	644	592						1719		252	2667	
Flow ratio	0.58	0.62						0.38		0.14	0.19	
v/c ratio	1.47	1.57						1.07		0.92	0.35	
I factor	1.000	1.000						1.000		1.000	1.000	
Arrival type	3	3						5		5	5	
Platoon ratio	1.00	1.00						1.67		1.67	1.67	
PF factor	1.00	1.00						1.00		0.99	0.26	
Q_1	34.2	33.7						24.5		8.2	1.9	
k_B	0.7	0.6						0.7		0.4	0.8	
Q_2	39.8	44.2						10.9		2.3	0.5	
Q avg.	74.0	77.8						35.4		10.4	2.3	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.5	1.5						1.6		1.8	2.0	
BOQ, $Q_{\%}$	112	117						56.1		19.2	4.7	

Queue Storage Ratio

Q spacing	24.9	24.9						24.9		24.9	24.9	
Q storage	0	0						0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

6-A w MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 AM PEAK	Analysis Year	YEAR 2030 /ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	3	1	2	3	0
Lane group	L	LT	R					T	R	L	T	
Volume (vph)	1200	5	680					1575	180	220	890	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type	3	3	3					5	5	5	5	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10			10	5	0			
Lane Width	12.0	12.0	12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0	0	0	0	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 57.0	G =	G =	G =	G = 19.0	G = 41.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	636	611					1658	189	232	937	
Lane group cap.	720	722	631					1562	452	466	2438	
v/c ratio	0.88	0.88	0.97					1.06	0.42	0.50	0.38	
Green ratio	0.44	0.44	0.44					0.32	0.32	0.15	0.49	
Unif. delay d1	33.3	33.4	35.6					44.5	35.1	51.1	20.7	
Delay factor k	0.40	0.41	0.48					0.50	0.11	0.11	0.11	
Increm. delay d2	11.9	12.2	28.0					41.1	0.6	0.8	0.1	
PF factor	1.000	1.000	1.000					0.693	0.693	0.886	0.354	
Control delay	45.3	45.6	63.6					71.9	24.9	46.1	7.4	
Lane group LOS	D	D	E					E	C	D	A	
Apprch. delay	51.3						67.1			15.1		
Approach LOS	D						E			B		
Intersec. delay	48.6			Intersection LOS						D		

6-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT-3B WITH LA MEDIA AM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*LT*	*R*					*T*	*R*	*L*	*T*	
Init. queue/lane	*0.0*	*0.0*	*0.0*					*0.0*	*0.0*	*0.0*	*0.0*	
Flow rate/lane	*632*	*636*	*611*					*1658*	*189*	*232*	*937*	
Satflow per lane	*1641*	*1646*	*1438*					*1818*	*1432*	*1641*	*1818*	
Capacity/lane	*720*	*722*	*631*					*1562*	*452*	*466*	*2438*	
Flow ratio	*0.39*	*0.39*	*0.42*					*0.33*	*0.13*	*0.07*	0.19	
v/c ratio	*0.88*	*0.88*	*0.97*					*1.06*	*0.42*	*0.50*	*0.38*	
I factor	*1.000*	*1.000*	*1.000*					*1.000*	*1.000*	*1.000*	*1.000*	
Arrival type	*3*	*3*	*3*					*5*	*5*	*5*	*5*	
Platoon ratio	*1.00*	*1.00*	*1.00*					*1.67*	*1.67*	*1.67*	*1.67*	
PF factor	*1.00*	*1.00*	*1.00*					*1.00*	*0.77*	*0.93*	*0.42*	
Q_1	*20.8*	*21.0*	*21.5*					*22.0*	*4.1*	*3.7*	*3.2*	
k_B	*0.7*	*0.7*	*0.7*					*0.6*	*0.5*	*0.4*	*0.8*	
Q_2	*3.8*	*3.9*	*5.9*					*9.4*	*0.4*	*0.4*	*0.5*	
Q avg.	*24.6*	*24.9*	*27.4*					*31.3*	*4.5*	*4.1*	*3.7*	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	*1.7*	*1.7*	*1.6*					*1.6*	*2.0*	*2.0*	*2.0*	
BOQ, $Q_{\%}$	*40.7*	*41.0*	*44.8*					*50.3*	*8.9*	*8.0*	*7.4*	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	*24.9*	*24.9*	*24.9*					*24.9*	*24.9*	*24.9*	*24.9*	
Q storage	*0*	*0*	*0*					*0*	*0*	*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

6-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 PM PEAK	Analysis Year	YEAR 2030 /3B WITH LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	0	0	0	3	0	1	3	0
Lane group	L	LTR						TR		L	T	
Volume (vph)	960	5	880					1400	180	220	990	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0						2.0		2.0	2.0	
Ext. eff. green	2.0	2.0						2.0		2.0	2.0	
Arrival type	3	3						5		5	5	
Unit Extension	3.0	3.0						3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10			10	5	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0						0		0	0	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 53.0	G =	G =	G =	G = 28.0	G = 46.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1011	826						1663		232	1042	
Lane group cap.	621	544						1592		328	2760	
v/c ratio	1.63	1.52						1.04		0.71	0.38	
Green ratio	0.38	0.38						0.33		0.20	0.56	
Unif. delay d1	43.5	43.5						47.0		52.2	17.4	
Delay factor k	0.50	0.50						0.50		0.27	0.11	
Increm. delay d2	289.9	242.6						35.2		6.9	0.1	
PF factor	1.000	1.000						0.674		0.833	0.161	
Control delay	333.4	286.1						66.8		50.3	2.9	
Lane group LOS	F	F						E		D	A	
Apprch. delay	312.1						66.8			11.5		
Approach LOS	F						E			B		
Intersec. delay	146.5			Intersection LOS						F		

6-P

N MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description 3B-W LM PM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	LTR						TR		L	T	
Init. queue/lane	0.0	0.0						0.0		0.0	0.0	
Flow rate/lane	1011	826						1663		232	1042	
Satflow per lane	1641	1437						1779		1641	1818	
Capacity/lane	621	544						1592		328	2760	
Flow ratio	0.62	0.57						0.34		0.14	0.21	
v/c ratio	1.63	1.52						1.04		0.71	0.38	
I factor	1.000	1.000						1.000		1.000	1.000	
Arrival type	3	3						5		5	5	
Platoon ratio	1.00	1.00						1.67		1.67	1.67	
PF factor	1.00	1.00						1.00		0.94	0.20	
Q_1	39.3	32.1						23.7		7.9	1.6	
k_B	0.7	0.6						0.7		0.5	0.9	
Q_2	50.4	37.0						8.9		1.0	0.5	
Q avg.	89.8	69.1						32.6		8.9	2.2	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$	1.5	1.5						1.6		1.9	2.0	
BOQ, $Q_{\%}$	135	105						52.1		16.6	4.4	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing	24.9	24.9						24.9		24.9	24.9	
Q storage	0	0						0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

6-P
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 PM PEAK	Analysis Year	YEAR 2030 /3B WITH LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	3	1	2	3	0
Lane group	L	LT	R					T	R	L	T	
Volume (vph)	960	5	880					1400	180	220	990	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type	3	3	3					5	5	5	5	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	10			10	5	0			
Lane Width	12.0	12.0	12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0	0	0	0	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 62.0	G =	G =	G =	G = 25.0	G = 40.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	556	460	821					1474	189	232	1042	
Lane group cap.	727	729	637					1415	409	569	2441	
v/c ratio	0.76	0.63	1.29					1.04	0.46	0.41	0.43	
Green ratio	0.44	0.44	0.44					0.29	0.29	0.18	0.49	
Unif. delay d1	32.9	30.2	39.0					50.0	41.1	50.9	22.8	
Delay factor k	0.32	0.21	0.50					0.50	0.11	0.11	0.11	
Increm. delay d2	4.9	1.8	141.6					35.5	0.8	0.5	0.1	
PF factor	1.000	1.000	1.000					0.733	0.733	0.855	0.352	
Control delay	37.7	31.9	180.6					72.2	31.0	44.0	8.1	
Lane group LOS	D	C	F					E	C	D	A	
Apprch. delay	100.1						67.5			14.7		
Approach LOS	F						E			B		
Intersec. delay	66.0			Intersection LOS						E		

6-P
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MT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *3B-W LM PM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	LT	R					T	R	L	T	
Init. queue/lane	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Flow rate/lane	556	460	821					1474	189	232	1042	
Satflow per lane	1641	1646	1438					1818	1430	1641	1818	
Capacity/lane	727	729	637					1415	409	569	2441	
Flow ratio	0.34	0.28	0.57					0.30	0.13	0.07	0.21	
v/c ratio	0.76	0.63	1.29					1.04	0.46	0.41	0.43	
I factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	
Arrival type	3	3	3					5	5	5	5	
Platoon ratio	1.00	1.00	1.00					1.67	1.67	1.67	1.67	
PF factor	1.00	1.00	1.00					1.00	0.82	0.90	0.43	
Q_1	18.2	13.8	31.9					21.0	4.9	3.7	4.1	
k_B	0.7	0.7	0.7					0.6	0.5	0.4	0.8	
Q_2	2.2	1.2	25.7					7.9	0.4	0.3	0.6	
Q avg.	20.4	15.1	57.7					29.0	5.4	4.0	4.7	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.8	1.5					1.6	1.9	2.0	2.0	
BOQ, $Q_{\%}$	34.6	26.5	87.9					46.9	10.5	7.9	9.2	

Queue Storage Ratio

Q spacing	24.9	24.9	24.9					24.9	24.9	24.9	24.9	
Q storage	0	0	0					0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

7-A
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	2	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	175	320	190	740	170	450	375	1130	1165	900	510	160
% Heavy veh	5	5	5	10	5	10	5	10	10	10	10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	184	537		779	179	474	395	2415		947	705	
Lane group cap.	477	725		455	777	612	715	1323		683	1405	
v/c ratio	0.39	0.74		1.71	0.23	0.77	0.55	1.83		1.39	0.50	
Green ratio	0.14	0.21		0.14	0.21	0.43	0.21	0.29		0.21	0.29	
Unif. delay d1	54.4	51.4		60.0	45.5	34.2	49.0	49.5		55.0	41.0	
Delay factor k	0.11	0.30		0.50	0.11	0.32	0.15	0.50		0.50	0.11	
Increm. delay d2	0.5	4.1		329.7	0.2	6.2	0.9	374.4		182.9	0.3	
PF factor	0.889	0.818		0.889	0.818	0.500	0.818	0.724		0.818	0.724	
Control delay	48.9	46.1		383.0	37.3	23.3	41.0	410.2		227.9	30.0	
Lane group LOS	D	D		F	D	C	D	F		F	C	
Apprch. delay	46.8			220.7			358.3			143.5		
Approach LOS	D			F			F			F		
Intersec. delay	240.9			Intersection LOS						F		

7-A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LAMEDIA AM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	184	537		779	179	474	395	2415		947	705	
Satflow per lane	1719	1777		1641	1904	1427	1719	1657		1641	1761	
Capacity/lane	477	725		455	777	612	715	1323		683	1405	
Flow ratio	0.05	0.16		0.24	0.05	0.33	0.12	0.53		0.30	0.15	
v/c ratio	0.39	0.74		1.71	0.23	0.77	0.55	1.83		1.39	0.50	
I factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67	1.67	1.67	1.67		1.67	1.67	
PF factor	0.92	0.94		1.00	0.85	0.75	0.90	1.00		1.00	0.82	
Q_1	3.1	9.6		15.6	2.6	11.8	6.3	34.5		18.9	6.8	
k_B	0.4	0.5		0.4	0.5	0.7	0.5	0.6		0.5	0.6	
Q_2	0.2	1.3		21.7	0.2	2.1	0.6	51.4		18.6	0.6	
Q avg.	3.3	10.9		37.3	2.7	13.8	6.9	85.8		37.5	7.4	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.8		1.6	2.0	1.8	1.9	1.5		1.6	1.9	
BOQ, $Q_\%$	6.6	19.9		58.8	5.5	24.6	13.2	129		59.1	14.0	
Queue Storage Ratio												
Q spacing	24.9	24.9		24.9	24.9	24.9	24.9	24.9		24.9	24.9	
Q storage	0	0		0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

7-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	175	320	190	740	170	450	375	1130	1165	900	510	160
% Heavy veh	5	5	5	10	5	10	5	10	10	10	10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	184	337	200	779	179	474	395	1189	1226	947	705	
Lane group cap.	477	777	641	455	777	612	715	1451	624	683	1405	
v/c ratio	0.39	0.43	0.31	1.71	0.23	0.77	0.55	0.82	1.96	1.39	0.50	
Green ratio	0.14	0.21	0.43	0.14	0.21	0.43	0.21	0.29	0.44	0.21	0.29	
Unif. delay d1	54.4	47.6	26.4	60.0	45.5	34.2	49.0	46.1	39.5	55.0	41.0	
Delay factor k	0.11	0.11	0.11	0.50	0.11	0.32	0.15	0.36	0.50	0.50	0.11	
Increm. delay d2	0.5	0.4	0.3	329.7	0.2	6.2	0.9	3.9	439.9	182.9	0.3	
PF factor	0.889	0.818	0.500	0.889	0.818	0.500	0.818	0.724	0.915	0.818	0.724	
Control delay	48.9	39.4	13.5	383.0	37.3	23.3	41.0	37.2	476.1	227.9	30.0	
Lane group LOS	D	D	B	F	D	C	D	D	F	F	C	
Apprch. delay	34.6			220.7			229.2			143.5		
Approach LOS	C			F			F			F		
Intersec. delay	184.8			Intersection LOS						F		

7-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LAMEDIA AM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	*R*	*L*	*TR*	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	184	337	200	779	179	474	395	1189	1226	947	705	
Satflow per lane	1719	1904	1495	1641	1904	1427	1719	1818	1432	1641	1761	
Capacity/lane	477	777	641	455	777	612	715	1451	624	683	1405	
Flow ratio	0.05	0.09	0.13	0.24	0.05	0.33	0.12	0.24	0.86	0.30	0.15	
v/c ratio	0.39	0.43	0.31	1.71	0.23	0.77	0.55	0.82	1.96	1.39	0.50	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.11	1.67	1.67	
PF factor	0.92	0.88	0.56	1.00	0.85	0.75	0.90	0.92	1.00	1.00	0.82	
Q_1	3.1	5.2	2.9	15.6	2.6	11.8	6.3	14.5	47.7	18.9	6.8	
k_B	0.4	0.5	0.7	0.4	0.5	0.7	0.5	0.6	0.7	0.5	0.6	
Q_2	0.2	0.4	0.3	21.7	0.2	2.1	0.6	2.3	76.6	18.6	0.6	
Q avg.	3.3	5.6	3.2	37.3	2.7	13.8	6.9	16.8	124.3	37.5	7.4	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.9	2.0	1.6	2.0	1.8	1.9	1.7	1.5	1.6	1.9	
BOQ, $Q_{\%}$	6.6	10.9	6.4	58.8	5.5	24.6	13.2	29.2	186	59.1	14.0	
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

7-P N MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	2	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	160	170	375	1165	320	910	190	510	740	565	1130	175
% Heavy veh	5	5	5	10	5	10	5	10	10	10	10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 31.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	168	574		1226	337	958	200	1316		595	1373	
Lane group cap.	715	682		683	777	612	715	981		683	1077	
v/c ratio	0.23	0.84		1.80	0.43	1.57	0.28	1.34		0.87	1.27	
Green ratio	0.21	0.21		0.21	0.21	0.43	0.21	0.22		0.21	0.22	
Unif. delay d1	45.5	52.7		55.0	47.6	40.0	46.0	54.5		53.1	54.5	
Delay factor k	0.11	0.38		0.50	0.11	0.50	0.11	0.50		0.40	0.50	
Increm. delay d2	0.2	9.3		363.6	0.4	262.3	0.2	160.6		11.8	131.0	
PF factor	0.818	0.818		0.818	0.818	0.689	0.818	0.810		0.818	0.810	
Control delay	37.4	52.5		408.6	39.4	289.9	37.8	204.7		55.3	175.2	
Lane group LOS	D	D		F	D	F	D	F		E	F	
Apprch. delay	49.1			314.1			182.7			138.9		
Approach LOS	D			F			F			F		
Intersec. delay	204.3			Intersection LOS						F		

7-P N MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LAMEDIA PM PEAK HOUR/NO MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	168	574		1226	337	958	200	1316		595	1373	
Satflow per lane	1719	1672		1641	1904	1427	1719	1627		1641	1785	
Capacity/lane	715	682		683	777	612	715	981		683	1077	
Flow ratio	0.05	0.18		0.38	0.09	0.67	0.06	0.30		0.19	0.28	
v/c ratio	0.23	0.84		1.80	0.43	1.57	0.28	1.34		0.87	1.27	
I factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67	1.42	1.67	1.67		1.67	1.67	
PF factor	0.85	0.96		1.00	0.88	1.00	0.85	1.00		0.97	1.00	
Q_1	2.3	10.8		24.5	5.2	37.3	2.8	18.8		11.1	19.6	
k_B	0.5	0.5		0.5	0.5	0.7	0.5	0.5		0.5	0.5	
Q_2	0.1	2.0		36.1	0.4	45.0	0.2	17.1		2.3	15.7	
Q avg.	2.5	12.8		60.6	5.6	82.3	3.0	35.9		13.4	35.3	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.8		1.5	1.9	1.5	2.0	1.6		1.8	1.6	
BOQ, $Q_{\%}$	5.0	22.9		92.1	10.9	124	6.1	56.8		23.9	55.9	
Queue Storage Ratio												
Q spacing	24.9	24.9		24.9	24.9	24.9	24.9	24.9		24.9	24.9	
Q storage	0	0		0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

7-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	160	170	375	1165	320	910	190	510	740	565	1130	175
% Heavy veh	5	5	5	10	5	10	5	10	10	10	10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 31.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	168	179	395	1226	337	958	200	537	779	595	1373	
Lane group cap.	715	777	641	683	777	612	715	1097	622	683	1077	
v/c ratio	0.23	0.23	0.62	1.80	0.43	1.57	0.28	0.49	1.25	0.87	1.27	
Green ratio	0.21	0.21	0.43	0.21	0.21	0.43	0.21	0.22	0.44	0.21	0.22	
Unif. delay d1	45.5	45.5	31.1	55.0	47.6	40.0	46.0	47.6	39.5	53.1	54.5	
Delay factor k	0.11	0.11	0.20	0.50	0.11	0.50	0.11	0.11	0.50	0.40	0.50	
Increm. delay d2	0.2	0.2	1.8	363.6	0.4	262.3	0.2	0.3	126.5	11.8	131.0	
PF factor	0.818	0.818	0.500	0.818	0.818	0.689	0.818	0.810	0.485	0.818	0.810	
Control delay	37.4	37.3	17.3	408.6	39.4	289.9	37.8	38.9	145.6	55.3	175.2	
Lane group LOS	D	D	B	F	D	F	D	D	F	E	F	
Apprch. delay	26.7			314.1			93.6			138.9		
Approach LOS	C			F			F			F		
Intersec. delay	181.9			Intersection LOS						F		

7-P
W.
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LAMEDIA PM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*T*	*R*	*L*	*T*	*R*	*L*	*T*	*R*	*L*	*TR*	
Init. queue/lane	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	
Flow rate/lane	*168*	*179*	*395*	*1226*	*337*	*958*	*200*	*537*	*779*	*595*	*1373*	
Satflow per lane	*1719*	*1904*	*1495*	*1641*	*1904*	*1427*	*1719*	*1818*	*1428*	*1641*	*1785*	
Capacity/lane	*715*	*777*	*641*	*683*	*777*	*612*	*715*	*1097*	*622*	*683*	*1077*	
Flow ratio	*0.05*	*0.05*	*0.26*	*0.38*	*0.09*	*0.67*	*0.06*	*0.11*	*0.55*	*0.19*	0.28	
v/c ratio	*0.23*	*0.23*	*0.62*	*1.80*	*0.43*	*1.57*	*0.28*	*0.49*	*1.25*	*0.87*	*1.27*	
I factor	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	
Arrival type	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	
Platoon ratio	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.42*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	
PF factor	*0.85*	*0.85*	*0.66*	*1.00*	*0.88*	*1.00*	*0.85*	*0.88*	*1.00*	*0.97*	*1.00*	
Q_1	*2.3*	*2.6*	*7.8*	*24.5*	*5.2*	*37.3*	*2.8*	*5.9*	*30.3*	*11.1*	*19.6*	
k_B	*0.5*	*0.5*	*0.7*	*0.5*	*0.5*	*0.7*	*0.5*	*0.5*	*0.7*	*0.5*	*0.5*	
Q_2	*0.1*	*0.2*	*1.1*	*36.1*	*0.4*	*45.0*	*0.2*	*0.5*	*22.5*	*2.3*	*15.7*	
Q avg.	*2.5*	*2.7*	*8.9*	*60.6*	*5.6*	*82.3*	*3.0*	*6.4*	*52.8*	*13.4*	*35.3*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*	*2.0*	*1.9*	*1.5*	*1.9*	*1.5*	*2.0*	*1.9*	*1.5*	*1.8*	*1.6*	
BOQ, $Q_{\%}$	*5.0*	*5.5*	*16.6*	*92.1*	*10.9*	*124*	*6.1*	*12.3*	*80.9*	*23.9*	*55.9*	
Queue Storage Ratio												
Q spacing	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	*24.9*	
Q storage	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN-DIEGO/NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	1	1	2	2	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	1420	110	330	50	260	385	775	1160	50	165	500	930
% Heavy veh	10	2	2	2	2	2	2	2	2	2	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 15.0	G =	G =	G = 30.0	G = 49.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1495	463		53	274	353	816	1274		174	1505	
Lane group cap.	786	319		437	196	150	687	1211		687	1475	
v/c ratio	1.90	1.45		0.12	1.40	2.35	1.19	1.05		0.25	1.02	
Green ratio	0.25	0.10		0.25	0.10	0.10	0.20	0.33		0.20	0.33	
Unif. delay d1	56.5	67.5		43.9	67.5	67.5	60.0	50.5		50.6	50.5	
Delay factor k	0.50	0.50		0.11	0.50	0.50	0.50	0.50		0.11	0.50	
Increm. delay d2	410.7	219.9		0.1	207.0	629.2	98.7	40.7		0.2	28.7	
PF factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control delay	467.2	287.4		44.0	274.5	696.7	158.7	91.2		50.8	79.2	
Lane group LOS	F	F		D	F	F	F	F		D	E	
Apprch. delay	424.7			475.7			117.5			76.2		
Approach LOS	F			F			F			E		
Intersec. delay	238.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	1	1	1	2	2	0	2	2	2
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	1420	110	330	50	260	385	775	1160	50	165	500	930
% Heavy veh	10	2	2	2	2	2	2	2	2	2	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	3	3	3	3	3	3	3	3		3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 15.0	G =	G =	G = 30.0	G = 49.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1495	116	347	53	274	353	816	1274		174	526	979
Lane group cap.	786	373	504	437	196	504	687	1211		687	1219	1517
v/c ratio	1.90	0.31	0.69	0.12	1.40	0.70	1.19	1.05		0.25	0.43	0.65
Green ratio	0.25	0.10	0.33	0.25	0.10	0.33	0.20	0.33		0.20	0.33	0.61
Unif. delay d1	56.5	62.7	43.3	43.9	67.5	43.5	60.0	50.5		50.6	39.6	19.1
Delay factor k	0.50	0.11	0.26	0.11	0.50	0.27	0.50	0.50		0.11	0.11	0.22
Increm. delay d2	410.7	0.5	3.9	0.1	207.0	4.3	98.7	40.7		0.2	0.2	1.0
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
Control delay	467.2	63.2	47.2	44.0	274.5	47.8	158.7	91.2		50.8	39.8	20.0
Lane group LOS	F	E	D	D	F	D	F	F		D	D	C
Apprch. delay	368.8			138.8			117.5			29.4		
Approach LOS	F			F			F			C		
Intersec. delay	173.5			Intersection LOS						F		

8-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	1	1	2	2	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	930	260	775	50	110	165	330	500	50	385	1160	1420
% Heavy veh	10	2	2	2	2	2	2	2	2	2	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3	3	3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 15.0	G =	G =	G = 30.0	G = 49.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	979	1090		53	116	121	347	579		405	2716	
Lane group cap.	786	319		437	196	504	687	1200		687	1514	
v/c ratio	1.25	3.42		0.12	0.59	0.24	0.51	0.48		0.59	1.79	
Green ratio	0.25	0.10		0.25	0.10	0.33	0.20	0.33		0.20	0.33	
Unif. delay d1	56.5	67.5		43.9	64.6	36.2	53.4	40.4		54.4	50.5	
Delay factor k	0.50	0.50		0.11	0.18	0.11	0.11	0.11		0.18	0.50	
Increm. delay d2	121.1	1096		0.1	4.7	0.2	0.6	0.3		1.3	359.9	
PF factor	1.000	1.000		1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Control delay	177.6	1163		44.0	69.3	36.5	54.0	40.7		55.8	410.4	
Lane group LOS	F	F		D	E	D	D	D		E	F	
Apprch. delay	696.8			51.0			45.7			364.4		
Approach LOS	F			D			D			F		
Intersec. delay	411.5			Intersection LOS						F		

8-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	1	1	1	2	2	0	2	2	2
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	930	260	775	50	110	165	330	500	50	385	1160	1420
% Heavy veh	10	2	2	2	2	2	2	2	2	2	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	3	3	3	3	3	3	3	3		3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 15.0	G =	G =	G = 30.0	G = 49.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	979	274	816	53	116	121	347	579		405	1221	1495
Lane group cap.	786	373	504	437	196	504	687	1200		687	1219	1517
v/c ratio	1.25	0.73	1.62	0.12	0.59	0.24	0.51	0.48		0.59	1.00	0.99
Green ratio	0.25	0.10	0.33	0.25	0.10	0.33	0.20	0.33		0.20	0.33	0.61
Unif. delay d1	56.5	65.6	50.0	43.9	64.6	36.2	53.4	40.4		54.4	50.5	28.9
Delay factor k	0.50	0.29	0.50	0.11	0.18	0.11	0.11	0.11		0.18	0.50	0.49
Increm. delay d2	121.1	7.4	287.6	0.1	4.7	0.2	0.6	0.3		1.3	26.2	19.6
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000
Control delay	177.6	72.9	337.6	44.0	69.3	36.5	54.0	40.7		55.8	76.7	48.5
Lane group LOS	F	E	F	D	E	D	D	D		E	E	D
Apprch. delay	226.8			51.0			45.7			60.5		
Approach LOS	F			D			D			E		
Intersec. delay	111.6			Intersection LOS						F		

9-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	0.	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	785	1890	335	335	865	1060	345	800	565	1695	545	760
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 48.0	G = 34.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	826	1989	353	353	911	1116	363	1437		1784	1374	
Lane group cap.	425	991	789	425	991	789	1020	1040		1020	1007	
v/c ratio	1.94	2.01	0.45	0.83	0.92	1.41	0.36	1.38		1.75	1.36	
Green ratio	0.13	0.20	0.55	0.13	0.20	0.55	0.32	0.23		0.32	0.23	
Unif. delay d1	65.0	60.0	19.9	63.3	58.8	33.5	39.1	58.0		51.0	58.0	
Delay factor k	0.50	0.50	0.11	0.37	0.44	0.50	0.11	0.50		0.50	0.50	
Increm. delay d2	433.1	456.8	0.4	13.0	13.2	194.0	0.2	177.8		341.1	170.4	
PF factor	0.897	0.833	0.174	0.897	0.833	0.735	0.686	0.805		0.686	0.805	
Control delay	491.5	506.8	3.9	69.9	62.3	218.6	27.1	224.5		376.1	217.1	
Lane group LOS	F	F	A	E	E	F	C	F		F	F	
Apprch. delay	446.7			136.7			184.7			306.9		
Approach LOS	F			F			F			F		
Intersec. delay	289.6			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	826	1989	353	353	911	1116	363	1437		1784	1374	
Satflow per lane	1641	1818	1426	1641	1818	1426	1641	1684		1641	1630	
Capacity/lane	425	991	789	425	991	789	1020	1040		1020	1007	
Flow ratio	0.26	0.40	0.25	0.11	0.18	0.78	0.11	0.31		0.56	0.31	
v/c ratio	1.94	2.01	0.45	0.83	0.92	1.41	0.36	1.38		1.75	1.36	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.21	1.67	1.67		1.67	1.67	
PF factor	1.00	1.00	0.22	0.98	0.98	1.00	0.75	1.00		1.00	1.00	
Q_1	17.7	30.4	1.9	7.2	13.4	46.5	4.5	22.0		38.3	21.0	
k_B	0.4	0.5	0.8	0.4	0.5	0.8	0.6	0.5		0.6	0.5	
Q_2	26.6	46.9	0.7	1.4	3.1	43.5	0.3	20.0		50.6	18.6	
Q avg.	44.3	77.3	2.6	8.6	16.5	90.0	4.8	41.9		88.8	39.6	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6	1.5	2.0	1.9	1.7	1.5	2.0	1.6		1.5	1.6	
BOQ, $Q_{\%}$	68.8	117	5.2	16.1	28.7	135	9.4	65.4		134	62.1	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

9-A
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	785	1890	335	335	865	1060	345	800	565	1695	545	760
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 48.0	G = 34.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	826	1989	353	353	911	1116	363	842	595	1784	574	800
Lane group cap.	425	991	789	425	991	1397	1020	1123	561	1020	1123	561
v/c ratio	1.94	2.01	0.45	0.83	0.92	0.80	0.36	0.75	1.06	1.75	0.51	1.43
Green ratio	0.13	0.20	0.55	0.13	0.20	0.55	0.32	0.23	0.39	0.32	0.23	0.39
Unif. delay d1	65.0	60.0	19.9	63.3	58.8	26.8	39.1	54.0	45.5	51.0	50.7	45.5
Delay factor k	0.50	0.50	0.11	0.37	0.44	0.34	0.11	0.30	0.50	0.50	0.12	0.50
Increm. delay d2	433.1	456.8	0.4	13.0	13.2	3.4	0.2	2.9	55.1	341.1	0.4	201.9
PF factor	0.897	0.833	0.174	0.897	0.833	0.174	0.686	0.805	0.568	0.686	0.805	0.568
Control delay	491.5	506.8	3.9	69.9	62.3	8.1	27.1	46.3	80.9	376.1	41.2	227.7
Lane group LOS	F	F	A	E	E	A	C	D	F	F	D	F
Apprch. delay	446.7			38.0			53.9			277.7		
Approach LOS	F			D			D			F		
Intersec. delay	236.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	826	1989	353	353	911	1116	363	842	595	1784	574	800
Satflow per lane	1641	1818	1426	1641	1818	1426	1641	1818	1427	1641	1818	1427
Capacity/lane	425	991	789	425	991	1397	1020	1123	561	1020	1123	561
Flow ratio	0.26	0.40	0.25	0.11	0.18	0.44	0.11	0.17	0.42	0.56	0.12	0.56
v/c ratio	1.94	2.01	0.45	0.83	0.92	0.80	0.36	0.75	1.06	1.75	0.51	1.43
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.22	0.98	0.98	0.37	0.75	0.93	1.00	1.00	0.88	1.00
Q_1	17.7	30.4	1.9	7.2	13.4	7.7	4.5	11.2	24.8	38.3	6.7	33.3
k_B	0.4	0.5	0.8	0.4	0.5	0.8	0.6	0.6	0.7	0.6	0.6	0.7
Q_2	26.6	46.9	0.7	1.4	3.1	2.8	0.3	1.5	9.5	50.6	0.6	31.9
Q avg.	44.3	77.3	2.6	8.6	16.5	10.6	4.8	12.7	34.3	88.8	7.3	65.3

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.5	2.0	1.9	1.7	1.8	2.0	1.8	1.6	1.5	1.9	1.5
BOQ, $Q_{\%}$	68.8	117	5.2	16.1	28.7	19.4	9.4	22.7	54.4	134	13.9	99.0

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	760	985	345	645	1760	1420	335	545	270	800	800	785
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 48.0	G = 34.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	800	1037	363	679	1853	1495	353	858		842	1668	
Lane group cap.	425	991	789	425	991	789	1020	1056		1020	1024	
v/c ratio	1.88	1.05	0.46	1.60	1.87	1.89	0.35	0.81		0.83	1.63	
Green ratio	0.13	0.20	0.55	0.13	0.20	0.55	0.32	0.23		0.32	0.23	
Unif. delay d1	65.0	60.0	20.1	65.0	60.0	33.5	39.0	55.0		47.1	58.0	
Delay factor k	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.35		0.36	0.50	
Increm. delay d2	405.9	41.5	0.4	279.8	395.3	407.4	0.2	4.9		5.7	287.5	
PF factor	0.897	0.833	0.174	0.897	0.833	1.000	0.686	0.805		0.686	0.805	
Control delay	464.2	91.5	3.9	338.2	445.3	440.9	27.0	49.2		38.0	334.2	
Lane group LOS	F	F	A	F	F	F	C	D		D	F	
Apprch. delay	212.6			425.6			42.7			234.8		
Approach LOS	F			F			D			F		
Intersec. delay	283.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	800	1037	363	679	1853	1495	353	858		842	1668	
Satflow per lane	1641	1818	1426	1641	1818	1426	1641	1711		1641	1658	
Capacity/lane	425	991	789	425	991	789	1020	1056		1020	1024	
Flow ratio	0.25	0.21	0.25	0.21	0.37	1.05	0.11	0.18		0.26	0.37	
v/c ratio	1.88	1.05	0.46	1.60	1.87	1.89	0.35	0.81		0.83	1.63	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.00	1.67	1.67		1.67	1.67	
PF factor	1.00	1.00	0.23	1.00	1.00	1.00	0.75	0.95		0.90	1.00	
Q_1	17.1	15.8	2.0	14.5	28.3	62.3	4.3	11.7		15.0	25.5	
k_B	0.4	0.5	0.8	0.4	0.5	0.8	0.6	0.5		0.6	0.5	
Q_2	24.9	6.1	0.7	17.3	40.7	89.9	0.3	1.9		2.5	30.9	
Q avg.	42.0	21.9	2.7	31.9	69.0	152.2	4.6	13.6		17.5	56.4	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.7	2.0	1.6	1.5	1.5	2.0	1.8		1.7	1.5	
BOQ, $Q_{\%}$	65.5	36.8	5.5	51.1	104	228	9.1	24.3		30.2	86.1	

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	760	985	345	645	1760	1420	335	545	270	800	800	785
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 48.0	G = 34.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	800	1037	363	679	1853	1495	353	574	284	842	842	826
Lane group cap.	425	991	789	425	991	1397	1020	1123	561	1020	1123	561
v/c ratio	1.88	1.05	0.46	1.60	1.87	1.07	0.35	0.51	0.51	0.83	0.75	1.47
Green ratio	0.13	0.20	0.55	0.13	0.20	0.55	0.32	0.23	0.39	0.32	0.23	0.39
Unif. delay d1	65.0	60.0	20.1	65.0	60.0	33.5	39.0	50.7	34.5	47.1	54.0	45.5
Delay factor k	0.50	0.50	0.11	0.50	0.50	0.50	0.11	0.12	0.11	0.36	0.30	0.50
Increm. delay d2	405.9	41.5	0.4	279.8	395.3	45.3	0.2	0.4	0.8	5.7	2.9	222.1
PF factor	0.897	0.833	0.174	0.897	0.833	0.250	0.686	0.805	0.568	0.686	0.805	0.584
Control delay	464.2	91.5	3.9	338.2	445.3	53.7	27.0	41.2	20.3	38.0	46.3	248.7
Lane group LOS	F	F	A	F	F	D	C	D	C	D	D	F
Apprch. delay	212.6			281.8			32.2			110.1		
Approach LOS	F			F			C			F		
Intersec. delay	192.8			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	800	1037	363	679	1853	1495	353	574	284	842	842	826
Satflow per lane	1641	1818	1426	1641	1818	1426	1641	1818	1427	1641	1818	1427
Capacity/lane	425	991	789	425	991	1397	1020	1123	561	1020	1123	561
Flow ratio	0.25	0.21	0.25	0.21	0.37	0.59	0.11	0.12	0.20	0.26	0.17	0.58
v/c ratio	1.88	1.05	0.46	1.60	1.87	1.07	0.35	0.51	0.51	0.83	0.75	1.47
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.61	1.67	1.67	1.67	1.67	1.67	1.64
PF factor	1.00	1.00	0.23	1.00	1.00	1.00	0.75	0.88	0.68	0.90	0.93	1.00
Q_1	17.1	15.8	2.0	14.5	28.3	35.2	4.3	6.7	6.1	15.0	11.2	34.4
k_B	0.4	0.5	0.8	0.4	0.5	0.8	0.6	0.6	0.7	0.6	0.6	0.7
Q_2	24.9	6.1	0.7	17.3	40.7	13.3	0.3	0.6	0.7	2.5	1.5	35.1
Q avg.	42.0	21.9	2.7	31.9	69.0	48.5	4.6	7.3	6.8	17.5	12.7	69.5
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.7	2.0	1.6	1.5	1.5	2.0	1.9	1.9	1.7	1.8	1.5
BOQ, $Q_{\%}$	65.5	36.8	5.5	51.1	104	74.7	9.1	13.9	12.9	30.2	22.7	105
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905WBHER30A3BWLM/NO MIT.
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	0	2	0	3	0	2	3	0
Lane group					LR	R		TR		L	T	
Volume (vph)				240		740		1610	870	265	495	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time					2.0	2.0		2.0		2.0	2.0	
Ext. eff. green					2.0	2.0		2.0		2.0	2.0	
Arrival type					5	5		5		5	5	
Unit Extension					3.0	3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		300	10	5	0			
Lane Width					12.0	12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0		0		0	0	
Unit Extension					3.0	3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 20.0	G = 60.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 123.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					387	329		2611		279	521	
Lane group cap.					407	634		2273		518	3383	
v/c ratio					0.95	0.52		1.15		0.54	0.15	
Green ratio					0.24	0.24		0.49		0.16	0.68	
Unif. delay d1					45.8	40.3		31.5		47.3	6.9	
Delay factor k					0.46	0.12		0.50		0.14	0.11	
Increm. delay d2					32.2	0.8		72.6		1.1	0.0	
PF factor					0.785	0.785		0.365		0.871	0.158	
Control delay					68.1	32.4		84.1		42.3	1.1	
Lane group LOS					E	C		F		D	A	
Apprch. delay				51.7			84.1			15.5		
Approach LOS				D			F			B		
Intersec. delay	65.1			Intersection LOS						E		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LR	R		TR		L	T	
Init. queue/lane					0.0	0.0		0.0		0.0	0.0	
Flow rate/lane					387	329		2611		279	521	
Satflow per lane					1669	1468		1710		1641	1818	
Capacity/lane					407	634		2273		518	3383	
Flow ratio					0.23	0.13		0.56		0.09	0.11	
v/c ratio					0.95	0.52		1.15		0.54	0.15	
I factor					1.000	1.000		1.000		1.000	1.000	
Arrival type					5	5		5		5	5	
Platoon ratio					1.67	1.67		1.67		1.67	1.39	
PF factor					0.98	0.87		1.00		0.93	0.17	
Q_1					12.8	4.7		32.7		4.2	0.4	
k_B					0.5	0.4		0.7		0.4	0.9	
Q_2					3.8	0.5		20.0		0.4	0.2	
Q avg.					16.5	5.2		52.7		4.6	0.6	

Percentile Back of Queue (95th percentile)

$f_{B\%}$					1.7	1.9		1.5		2.0	2.1	
BOQ, $Q_{\%}$					28.8	10.2		80.8		9.0	1.2	

Queue Storage Ratio

Q spacing					25.0	25.0		25.0		25.0	25.0	
Q storage					0	0		0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

10-A
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905WBHER30A3BWLM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	0	2	0	3	2	2	3	0
Lane group					LR	R		T	R	L	T	
Volume (vph)				240		740		1610	870	265	495	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time					2.0	2.0		2.0	2.0	2.0	2.0	
Ext. eff. green					2.0	2.0		2.0	2.0	2.0	2.0	
Arrival type					5	5		5	5	5	5	
Unit Extension					3.0	3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		300	10	5	0			
Lane Width					12.0	12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0		0	0	0	0	
Unit Extension					3.0	3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 20.0	G = 60.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 123.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					387	329		1695	916	279	521	
Lane group cap.					407	634		2416	1225	518	3383	
v/c ratio					0.95	0.52		0.70	0.75	0.54	0.15	
Green ratio					0.24	0.24		0.49	0.49	0.16	0.68	
Unif. delay d1					45.8	40.3		24.5	25.4	47.3	6.9	
Delay factor k					0.46	0.12		0.27	0.30	0.14	0.11	
Increm. delay d2					32.2	0.8		0.9	2.6	1.1	0.0	
PF factor					0.785	0.785		0.365	0.365	0.871	0.158	
Control delay					68.1	32.4		9.9	11.9	42.3	1.1	
Lane group LOS					E	C		A	B	D	A	
Apprch. delay				51.7			10.6			15.5		
Approach LOS				D			B			B		
Intersec. delay	18.7			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LR	R		T	R	L	T	
Init. queue/lane					0.0	0.0		0.0	0.0	0.0	0.0	
Flow rate/lane					387	329		1695	916	279	521	
Satflow per lane					1669	1468		1818	1419	1641	1818	
Capacity/lane					407	634		2416	1225	518	3383	
Flow ratio					0.23	0.13		0.34	0.36	0.09	0.11	
v/c ratio					0.95	0.52		0.70	0.75	0.54	0.15	
I factor					1.000	1.000		1.000	1.000	1.000	1.000	
Arrival type					5	5		5	5	5	5	
Platoon ratio					1.67	1.67		1.67	1.67	1.67	1.39	
PF factor					0.98	0.87		0.56	0.59	0.93	0.17	
Q_1					12.8	4.7		9.3	8.4	4.2	0.4	
k_B					0.5	0.4		0.8	0.7	0.4	0.9	
Q_2					3.8	0.5		1.7	1.8	0.4	0.2	
Q avg.					16.5	5.2		11.0	10.2	4.6	0.6	

Percentile Back of Queue (95th percentile)

$f_{B\%}$					1.7	1.9		1.8	1.8	2.0	2.1	
BOQ, $Q_{\%}$					28.8	10.2		20.1	18.8	9.0	1.2	

Queue Storage Ratio

Q spacing					25.0	25.0		25.0	25.0	25.0	25.0	
Q storage					0	0		0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

10-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905WBHER30P3BWLM/NO MIT.
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	0	2	0	3	0	2	3	0
Lane group					LR	R		TR		L	T	
Volume (vph)				180		130		715	1350	1165	1280	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time					2.0	2.0		2.0		2.0	2.0	
Ext. eff. green					2.0	2.0		2.0		2.0	2.0	
Arrival type					5	5		5		5	5	
Unit Extension					3.0	3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		300	10	5	0			
Lane Width					12.0	12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0		0		0	0	
Unit Extension					3.0	3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 50.0	G = 47.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					189	0		2174		1226	1347	
Lane group cap.					266	400		1591		1226	3848	
v/c ratio					0.71	0.00		1.37		1.00	0.35	
Green ratio					0.15	0.15		0.36		0.38	0.78	
Unif. delay d1					52.3	46.5		41.5		40.0	4.4	
Delay factor k					0.27	0.11		0.50		0.50	0.11	
Increm. delay d2					8.5	0.0		169.0		25.7	0.1	
PF factor					0.879	1.000		0.622		0.583	0.224	
Control delay					54.5	46.5		194.8		49.0	1.1	
Lane group LOS					D	D		F		D	A	
Apprch. delay				54.5			194.8			23.9		
Approach LOS				D			F			C		
Intersec. delay	100.4			Intersection LOS						F		

10-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LR	R		TR		L	T	
Init. queue/lane					0.0	0.0		0.0		0.0	0.0	
Flow rate/lane					189	0		2174		1226	1347	
Satflow per lane					1732	1468		1615		1641	1818	
Capacity/lane					266	400		1591		1226	3848	
Flow ratio					0.11	0.00		0.49		0.38	0.27	
v/c ratio					0.71	0.00		1.37		1.00	0.35	
I factor					1.000	1.000		1.000		1.000	1.000	
Arrival type					5	5		5		5	5	
Platoon ratio					1.67	1.00		1.67		1.67	1.22	
PF factor					0.96	1.00		1.00		1.00	0.24	
Q_1					6.2	0.0		28.8		22.8	1.3	
k_B					0.4	0.4		0.6		0.7	1.1	
Q_2					0.9	0.0		28.9		7.2	0.6	
Q avg.					7.1	0.0		57.7		30.0	1.9	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.1		1.5		1.6	2.0	
BOQ, $Q_{\%}$					13.5	0.0		88.0		48.3	3.9	
Queue Storage Ratio												
Q spacing					25.0	25.0		25.0		25.0	25.0	
Q storage					0	0		0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

10-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905WBHER30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	0	2	0	3	2	2	3	0
Lane group					LR	R		T	R	L	T	
Volume (vph)				180		130		715	1350	1165	1280	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time					2.0	2.0		2.0	2.0	2.0	2.0	
Ext. eff. green					2.0	2.0		2.0	2.0	2.0	2.0	
Arrival type					5	5		5	5	5	5	
Unit Extension					3.0	3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		300	10	5	0			
Lane Width					12.0	12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0		0	0	0	0	
Unit Extension					3.0	3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 50.0	G = 47.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					189	0		753	1421	1226	1347	
Lane group cap.					266	400		1791	1387	1226	3848	
v/c ratio					0.71	0.00		0.42	1.02	1.00	0.35	
Green ratio					0.15	0.15		0.36	0.55	0.38	0.78	
Unif. delay d1					52.3	46.5		31.2	29.0	40.0	4.4	
Delay factor k					0.27	0.11		0.11	0.50	0.50	0.11	
Increm. delay d2					8.5	0.0		0.2	30.6	25.7	0.1	
PF factor					0.879	1.000		0.622	0.172	0.583	0.224	
Control delay					54.5	46.5		19.6	35.6	49.0	1.1	
Lane group LOS					D	D		B	D	D	A	
Apprch. delay				54.5			30.1			23.9		
Approach LOS				D			C			C		
Intersec. delay	27.8			Intersection LOS						C		

10-P w MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					LR	R		T	R	L	T	
Init. queue/lane					0.0	0.0		0.0	0.0	0.0	0.0	
Flow rate/lane					189	0		753	1421	1226	1347	
Satflow per lane					1732	1468		1818	1415	1641	1818	
Capacity/lane					266	400		1791	1387	1226	3848	
Flow ratio					0.11	0.00		0.15	0.57	0.38	0.27	
v/c ratio					0.71	0.00		0.42	1.02	1.00	0.35	
I factor					1.000	1.000		1.000	1.000	1.000	1.000	
Arrival type					5	5		5	5	5	5	
Platoon ratio					1.67	1.00		1.67	1.67	1.67	1.22	
PF factor					0.96	1.00		0.71	1.00	1.00	0.24	
Q_1					6.2	0.0		5.3	29.0	22.8	1.3	
k_B					0.4	0.4		0.7	0.7	0.7	1.1	
Q_2					0.9	0.0		0.5	9.9	7.2	0.6	
Q avg.					7.1	0.0		5.8	38.9	30.0	1.9	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.1		1.9	1.6	1.6	2.0	
BOQ, $Q_{\%}$					13.5	0.0		11.2	61.0	48.3	3.9	
Queue Storage Ratio												
Q spacing					25.0	25.0		25.0	25.0	25.0	25.0	
Q storage					0	0		0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

11-A
N
W/T

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905EBHER30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	0	0	3	0	2	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				1125		680		1800	240	120	615	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0	2.0			2.0		2.0	2.0	
Ext. eff. green				2.0	2.0			2.0		2.0	2.0	
Arrival type				5	5			5		5	5	
Unit Extension				3.0	3.0			3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0	12.0			12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0			0		0	0	
Unit Extension				3.0	3.0			3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 67.0	G =	G =	G =	G = 15.0	G = 55.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				971	929			2148		126	647	
Lane group cap.				733	710			1779		319	2443	
v/c ratio				1.32	1.31			1.21		0.39	0.26	
Green ratio				0.45	0.45			0.37		0.10	0.49	
Unif. delay d1				41.5	41.5			47.5		63.2	22.1	
Delay factor k				0.50	0.50			0.50		0.11	0.11	
Increm. delay d2				155.5	148.8			98.9		0.8	0.1	
PF factor				0.511	0.495			0.614		0.926	0.351	
Control delay				176.7	169.4			128.1		59.4	7.8	
Lane group LOS				F	F			F		E	A	
Apprch. delay				173.1			128.1			16.2		
Approach LOS				F			F			B		
Intersec. delay	127.9			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	LR			TR		L	T	
Init. queue/lane				0.0	0.0			0.0		0.0	0.0	
Flow rate/lane				971	929			2148		126	647	
Satflow per lane				1641	1590			1781		1641	1818	
Capacity/lane				733	710			1779		319	2443	
Flow ratio				0.59	0.58			0.44		0.04	0.13	
v/c ratio				1.32	1.31			1.21		0.39	0.26	
I factor				1.000	1.000			1.000		1.000	1.000	
Arrival type				5	5			5		5	5	
Platoon ratio				1.61	1.63			1.67		1.67	1.67	
PF factor				1.00	1.00			1.00		0.95	0.39	
Q_1				40.5	38.7			32.8		2.4	2.2	
k_B				0.8	0.8			0.7		0.3	0.9	
Q_2				32.6	30.3			20.4		0.2	0.3	
Q avg.				73.1	69.0			53.2		2.6	2.6	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.5	1.5			1.5		2.0	2.0	
BOQ, $Q_\%$				110	104			81.5		5.2	5.2	
Queue Storage Ratio												
Q spacing				25.0	25.0			25.0		25.0	25.0	
Q storage				0	0			0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

11-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905EBHER30A3BWLM/WITH
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	1	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				1125		680		1800	240	120	615	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 67.0	G =	G =	G =	G = 15.0	G = 55.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				1184		716		1895	253	126	647	
Lane group cap.				1424		842		1816	1217	319	2443	
v/c ratio				0.83		0.85		1.04	0.21	0.39	0.26	
Green ratio				0.45		0.57		0.37	0.85	0.10	0.49	
Unif. delay d1				36.5		26.6		47.5	2.1	63.2	22.1	
Delay factor k				0.37		0.38		0.50	0.11	0.11	0.11	
Increm. delay d2				4.3		8.3		33.5	0.1	0.8	0.1	
PF factor				0.462		0.117		0.614	0.326	0.926	0.351	
Control delay				21.2		11.4		62.6	0.8	59.4	7.8	
Lane group LOS				C		B		E	A	E	A	
Apprch. delay				17.5			55.4			16.2		
Approach LOS				B			E			B		
Intersec. delay	34.2			Intersection LOS						C		

11A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L		R		T	R	L	T	
Init. queue/lane				0.0		0.0		0.0	0.0	0.0	0.0	
Flow rate/lane				1184		716		1895	253	126	647	
Satflow per lane				1641		1468		1818	1437	1641	1818	
Capacity/lane				1424		842		1816	1217	319	2443	
Flow ratio				0.37		0.49		0.38	0.18	0.04	0.13	
v/c ratio				0.83		0.85		1.04	0.21	0.39	0.26	
I factor				1.000	1.000	1.000		1.000	1.000	1.000	1.000	
Arrival type				5		5		5	5	5	5	
Platoon ratio				1.67		1.66		1.67	1.12	1.67	1.67	
PF factor				0.76		0.31		1.00	0.33	0.95	0.39	
Q_1				17.0		7.8		29.0	0.7	2.4	2.2	
k_B				0.8		0.8		0.7	1.1	0.3	0.9	
Q_2				3.2		3.9		10.0	0.3	0.2	0.3	
Q avg.				20.2		11.6		39.0	0.9	2.6	2.6	

Percentile Back of Queue (95th percentile)

$f_{B\%}$				1.7		1.8		1.6	2.1	2.0	2.0	
BOQ, $Q_{\%}$				34.2		21.1		61.1	1.9	5.2	5.2	

Queue Storage Ratio

Q spacing				25.0		25.0		25.0	25.0	25.0	25.0	
Q storage				0		0		0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

115-P
NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905EBHER30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	0	0	3	0	2	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				900		500		1565	500	300	1160	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0	2.0			2.0		2.0	2.0	
Ext. eff. green				2.0	2.0			2.0		2.0	2.0	
Arrival type				5	5			5		5	5	
Unit Extension				3.0	3.0			3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0	12.0			12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0			0		0	0	
Unit Extension				3.0	3.0			3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 67.0	G =	G =	G =	G = 15.0	G = 55.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				777	696			2173		316	1221	
Lane group cap.				733	712			1740		319	2443	
v/c ratio				1.06	0.98			1.25		0.99	0.50	
Green ratio				0.45	0.45			0.37		0.10	0.49	
Unif. delay d1				41.5	40.8			47.5		67.4	25.6	
Delay factor k				0.50	0.48			0.50		0.49	0.11	
Increm. delay d2				50.3	28.1			117.0		47.7	0.2	
PF factor				0.462	0.462			0.614		0.926	0.351	
Control delay				69.5	46.9			146.1		110.1	9.1	
Lane group LOS				E	D			F		F	A	
Apprch. delay				58.8			146.1			29.9		
Approach LOS				E			F			C		
Intersec. delay	86.8			Intersection LOS						F		

11-P
NM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	LR			TR		L	T	
Init. queue/lane				0.0	0.0			0.0		0.0	0.0	
Flow rate/lane				777	696			2173		316	1221	
Satflow per lane				1641	1593			1742		1641	1818	
Capacity/lane				733	712			1740		319	2443	
Flow ratio				0.47	0.44			0.46		0.10	0.25	
v/c ratio				1.06	0.98			1.25		0.99	0.50	
I factor				1.000	1.000			1.000		1.000	1.000	
Arrival type				5	5			5		5	5	
Platoon ratio				1.67	1.67			1.67		1.67	1.67	
PF factor				1.00	0.96			1.00		1.00	0.45	
Q_1				32.4	27.3			33.2		6.7	5.6	
k_B				0.8	0.8			0.7		0.3	0.9	
Q_2				11.9	7.2			23.0		2.4	0.9	
Q avg.				44.2	34.5			56.2		9.1	6.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.6	1.6			1.5		1.9	1.9	
BOQ, $Q_{\%}$				68.6	54.7			85.8		17.0	12.5	
Queue Storage Ratio												
Q spacing				25.0	25.0			25.0		25.0	25.0	
Q storage				0	0			0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

11-P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/05/11	Jurisdiction	905EBHER30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	1	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				900		500		1565	500	300	1160	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 67.0	G =	G =	G =	G = 15.0	G = 55.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				947		526		1647	526	316	1221	
Lane group cap.				1424		842		1816	1217	319	2443	
v/c ratio				0.67		0.62		0.91	0.43	0.99	0.50	
Green ratio				0.45		0.57		0.37	0.85	0.10	0.49	
Unif. delay d1				32.7		21.3		45.1	2.8	67.4	25.6	
Delay factor k				0.24		0.21		0.43	0.11	0.49	0.11	
Increm. delay d2				1.2		1.5		7.1	0.2	47.7	0.2	
PF factor				0.462		0.117		0.614	0.326	0.926	0.351	
Control delay				16.3		4.0		34.7	1.2	110.1	9.1	
Lane group LOS				B		A		C	A	F	A	
Apprch. delay				11.9			26.6			29.9		
Approach LOS				B			C			C		
Intersec. delay	23.4			Intersection LOS						C		

11-P
WM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L		R		T	R	L	T	
Init. queue/lane				0.0		0.0		0.0	0.0	0.0	0.0	
Flow rate/lane				947		526		1647	526	316	1221	
Satflow per lane				1641		1468		1818	1437	1641	1818	
Capacity/lane				1424		842		1816	1217	319	2443	
Flow ratio				0.30		0.36		0.33	0.37	0.10	0.25	
v/c ratio				0.67		0.62		0.91	0.43	0.99	0.50	
I factor				1.000	1.000	1.000		1.000	1.000	1.000	1.000	
Arrival type				5		5		5	5	5	5	
Platoon ratio				1.67		1.66		1.67	1.12	1.67	1.67	
PF factor				0.64		0.19		0.92	0.35	1.00	0.45	
Q_1				10.3		2.7		21.9	1.9	6.7	5.6	
k_B				0.8		0.8		0.7	1.1	0.3	0.9	
Q_2				1.5		1.4		4.5	0.8	2.4	0.9	
Q avg.				11.7		4.1		26.5	2.7	9.1	6.5	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.8		2.0		1.6	2.0	1.9	1.9	
BOQ, $Q_{\%}$				21.3		8.0		43.3	5.4	17.0	12.5	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0		25.0		25.0	25.0	25.0	25.0	
Q storage				0		0		0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

12A
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	HERAIR30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	0	1
Lane group	L	T			TR					L		R
Volume (vph)	185	2260			1205	1855				1510		230
% Heavy veh	10	10			10	10				10		10
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	5	5			5					5		5
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 10.0	G = 80.0	G =	G =	G = 47.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	195	2379			3221					1589		242
Lane group cap.	212	3104			2373					999		583
v/c ratio	0.92	0.77			1.36					1.59		0.42
Green ratio	0.07	0.63			0.53					0.31		0.41
Unif. delay d1	69.6	20.1			35.0					51.5		31.8
Delay factor k	0.44	0.32			0.50					0.50		0.11
Increm. delay d2	31.7	0.8			162.8					270.5		0.5
PF factor	0.952	0.134			0.643					0.696		0.543
Control delay	98.0	3.5			185.3					306.4		17.7
Lane group LOS	F	A			F					F		B
Apprch. delay	10.7			185.3						268.2		
Approach LOS	B			F						F		
Intersec. delay	146.3			Intersection LOS						F		

12A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			TR					L		R
Init. queue/lane	0.0	0.0			0.0					0.0		0.0
Flow rate/lane	195	2379			3221					1589		242
Satflow per lane	1641	1818			1633					1641		1433
Capacity/lane	212	3104			2373					999		583
Flow ratio	0.06	0.48			0.72					0.50		0.17
v/c ratio	0.92	0.77			1.36					1.59		0.42
I factor	0.700	0.700			0.700					1.000	1.000	1.000
Arrival type	5	5			5					5		5
Platoon ratio	1.67	1.52			1.31					1.67		1.67
PF factor	1.00	0.26			1.00					1.00		0.63
Q_1	4.1	6.7			49.3					34.1		4.5
k_B	0.2	0.7			0.6					0.6		0.7
Q_2	1.0	2.2			41.0					39.6		0.5
Q avg.	5.1	8.9			90.3					73.7		5.0

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.9			1.5					1.5		2.0
BOQ, $Q_{\%}$	10.0	16.6			136					111		9.8

Queue Storage Ratio

Q spacing	25.0	25.0			25.0					25.0		25.0
Q storage	0	0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

12A
w
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	HERAIR30A3BWLM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	185	2260			1205	1855				1510		230
% Heavy veh	10	10			10	10				10		10
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				5		5
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 17.0	G = 70.0	G =	G =	G = 50.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	195	2379			1268	1953				1589		242
Lane group cap.	361	3005			2311	2095				1062		679
v/c ratio	0.54	0.79			0.55	0.93				1.50		0.36
Green ratio	0.11	0.61			0.47	0.83				0.33		0.47
Unif. delay d1	62.8	22.3			28.7	9.3				50.0		25.0
Delay factor k	0.14	0.34			0.15	0.45				0.50		0.11
Increm. delay d2	1.6	1.5			0.3	8.3				228.3		0.3
PF factor	0.915	0.127			0.417	0.300				0.667		0.401
Control delay	59.1	4.4			12.2	11.1				261.6		10.4
Lane group LOS	E	A			B	B				F		B
Apprch. delay	8.5			11.5						228.4		
Approach LOS	A			B						F		
Intersec. delay	62.6			Intersection LOS						E		

12-A
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R				L		R
Init. queue/lane	0.0	0.0			0.0	0.0				0.0		0.0
Flow rate/lane	195	2379			1268	1953				1589		242
Satflow per lane	1641	1818			1818	1420				1641		1434
Capacity/lane	361	3005			2311	2095				1062		679
Flow ratio	0.06	0.48			0.26	0.78				0.50		0.17
v/c ratio	0.54	0.79			0.55	0.93				1.50		0.36
I factor	1.000	1.000			1.000	1.000				1.000	1.000	1.000
Arrival type	5	5			5	5				5		5
Platoon ratio	1.67	1.57			1.67	1.14				1.67		1.67
PF factor	0.96	0.27			0.54	0.58				1.00		0.46
Q_1	3.8	7.3			7.5	20.1				34.1		3.0
k_B	0.3	1.0			0.8	1.0				0.7		0.7
Q_2	0.4	3.4			1.0	8.0				35.9		0.4
Q avg.	4.2	10.7			8.5	28.1				69.9		3.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.8			1.9	1.6				1.5		2.0
BOQ, $Q_{\%}$	8.2	19.6			16.0	45.6				106		6.7
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0				25.0		25.0
Q storage	0	0			0	0				0		0
Avg. R_Q												
95% $R_{Q\%}$												

12-P
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	HERAIR30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	0	1
Lane group	L	T			TR					L		R
Volume (vph)	230	1205			2040	1835				1875		185
% Heavy veh	10	10			10	10				10		10
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	5	5			5					5		5
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	0	0	10			10	10	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 10.0	G = 59.0	G =	G =	G = 68.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	242	1268			4079					1974		195
Lane group cap.	212	2410			1803					1445		784
v/c ratio	1.14	0.53			2.26					1.37		0.25
Green ratio	0.07	0.49			0.39					0.45		0.55
Unif. delay d1	70.0	26.6			45.5					41.0		17.8
Delay factor k	0.50	0.13			0.50					0.50		0.11
Increm. delay d2	105.2	0.2			569.8					169.3		0.2
PF factor	0.952	0.368			0.956					0.557		0.196
Control delay	171.8	10.0			613.3					192.1		3.7
Lane group LOS	F	A			F					F		A
Apprch. delay	35.9			613.3						175.2		
Approach LOS	D			F						F		
Intersec. delay	378.4			Intersection LOS						F		

12-P

N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			TR					L		R
Init. queue/lane	0.0	0.0			0.0					0.0		0.0
Flow rate/lane	242	1268			4079					1974		195
Satflow per lane	1641	1818			1683					1641		1435
Capacity/lane	212	2410			1803					1445		784
Flow ratio	0.08	0.26			0.89					0.62		0.14
v/c ratio	1.14	0.53			2.26					1.37		0.25
I factor	1.000	1.000			1.000					1.000	1.000	1.000
Arrival type	5	5			5					5		5
Platoon ratio	1.67	1.67			1.07					1.53		1.67
PF factor	1.00	0.48			1.00					1.00		0.22
Q_1	5.2	6.4			62.4					42.3		0.9
k_B	0.2	0.9			0.7					0.8		0.8
Q_2	3.1	0.9			105.8					36.7		0.3
Q avg.	8.3	7.3			168.2					79.0		1.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9	1.9			1.5					1.5		2.1
BOQ, $Q_{\%}$	15.6	13.9			252					119		2.5
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0					25.0		25.0
Q storage	0	0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

12P
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	HERAIR30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	230	1205			2040	1835				1875		185
% Heavy veh	10	10			10	10				10		10
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				5		5
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				10	0	0	10			10	10	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 10.0	G = 59.0	G =	G =	G = 68.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	242	1268			2147	1932				1974		195
Lane group cap.	212	2410			1948	2258				1445		784
v/c ratio	1.14	0.53			1.10	0.86				1.37		0.25
Green ratio	0.07	0.49			0.39	0.88				0.45		0.55
Unif. delay d1	70.0	26.6			45.5	4.4				41.0		17.8
Delay factor k	0.50	0.13			0.50	0.39				0.50		0.11
Increm. delay d2	105.2	0.2			54.4	3.5				169.3		0.2
PF factor	0.952	0.368			0.568	0.417				0.557		0.196
Control delay	171.8	10.0			80.2	5.3				192.1		3.7
Lane group LOS	F	A			F	A				F		A
Apprch. delay	35.9			44.7						175.2		
Approach LOS	D			D						F		
Intersec. delay	79.5			Intersection LOS						E		

12-P
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R				L		R
Init. queue/lane	0.0	0.0			0.0	0.0				0.0		0.0
Flow rate/lane	242	1268			2147	1932				1974		195
Satflow per lane	1641	1818			1818	1450				1641		1435
Capacity/lane	212	2410			1948	2258				1445		784
Flow ratio	0.08	0.26			0.43	0.75				0.62		0.14
v/c ratio	1.14	0.53			1.10	0.86				1.37		0.25
I factor	1.000	1.000			1.000	1.000				1.000	1.000	1.000
Arrival type	5	5			5	5				5		5
Platoon ratio	1.67	1.67			1.67	1.08				1.53		1.67
PF factor	1.00	0.48			1.00	0.55				1.00		0.22
Q_1	5.2	6.4			32.8	12.1				42.3		0.9
k_B	0.2	0.9			0.8	1.1				0.8		0.8
Q_2	3.1	0.9			14.4	5.2				36.7		0.3
Q avg.	8.3	7.3			47.2	17.4				79.0		1.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9	1.9			1.5	1.7				1.5		2.1
BOQ, $Q_{\%}$	15.6	13.9			72.9	30.0				119		2.5
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0				25.0		25.0
Q storage	0	0			0	0				0		0
Avg. R_Q												
95% $R_{Q\%}$												

13

No Intersection
With Alternative 3-B

Heritage Road at
Siempre Viva Road

14-A
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	12/07/10	Jurisdiction	OMCAC30A3BWLMNM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	195	1920	1435	930	1400	85	945	70	700	55	25	55
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	205	3532		979	1563		995	74	737	58	84	
Lane group cap.	361	1376		701	1470		850	485	696	164	157	
v/c ratio	0.57	2.57		1.40	1.06		1.17	0.15	1.06	0.35	0.54	
Green ratio	0.22	0.30		0.22	0.30		0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	52.1	52.5		58.5	52.5		55.0	42.0	38.5	63.0	64.2	
Delay factor k	0.16	0.50		0.50	0.50		0.50	0.11	0.50	0.11	0.14	
Increm. delay d2	2.1	707.2		187.1	42.3		89.3	0.1	50.8	1.3	3.6	
PF factor	0.812	0.900		0.812	0.714		0.758	0.758	0.368	0.926	0.926	
Control delay	44.5	754.5		234.6	79.8		130.9	32.0	64.9	59.6	63.0	
Lane group LOS	D	F		F	E		F	C	E	E	E	
Apprch. delay	715.5			139.4			99.9			61.6		
Approach LOS	F			F			F			E		
Intersec. delay	391.1			Intersection LOS						F		

14-A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	12/07/10	Jurisdiction	OMCAC30A3BWLMWM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	2	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	195	1920	1435	930	1400	85	945	70	700	55	25	55
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	205	2021	1511	979	1474	89	995	74	737	58	84	
Lane group cap.	361	1486	1498	701	1486	564	850	485	696	164	157	
v/c ratio	0.57	1.36	1.01	1.40	0.99	0.16	1.17	0.15	1.06	0.35	0.54	
Green ratio	0.22	0.30	0.60	0.22	0.30	0.40	0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	52.1	52.5	30.0	58.5	52.3	28.8	55.0	42.0	38.5	63.0	64.2	
Delay factor k	0.16	0.50	0.50	0.50	0.49	0.11	0.50	0.11	0.50	0.11	0.14	
Increm. delay d2	2.1	166.5	25.4	187.1	21.4	0.1	89.3	0.1	50.8	1.3	3.6	
PF factor	0.812	0.714	0.143	0.812	0.714	0.556	0.758	0.758	0.368	0.926	0.926	
Control delay	44.5	204.0	29.7	234.6	58.7	16.1	130.9	32.0	64.9	59.6	63.0	
Lane group LOS	D	F	C	F	E	B	F	C	E	E	E	
Apprch. delay	124.7			125.0			99.9			61.6		
Approach LOS	F			F			F			E		
Intersec. delay	118.3			Intersection LOS						F		

T4P
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMCAC30P3BWLMNM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	2030 ALT.-3B W/ LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	140	1090	945	645	1950	60	1435	50	930	175	80	180
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	147	2142		679	2116		1511	53	979	184	273	
Lane group cap.	361	1366		701	1477		850	485	696	164	157	
v/c ratio	0.41	1.57		0.97	1.43		1.78	0.11	1.41	1.12	1.74	
Green ratio	0.22	0.30		0.22	0.30		0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	50.1	52.5		58.0	52.5		55.0	41.5	38.5	67.5	67.5	
Delay factor k	0.11	0.50		0.48	0.50		0.50	0.11	0.50	0.50	0.50	
Increm. delay d2	0.8	259.2		26.3	198.6		354.7	0.1	191.5	106.8	357.6	
PF factor	0.812	0.714		0.812	0.714		0.758	0.758	0.632	0.926	0.926	
Control delay	41.4	296.7		73.4	236.1		396.4	31.6	215.8	169.3	420.1	
Lane group LOS	D	F		E	F		F	C	F	F	F	
Apprch. delay	280.3			196.6			319.3			319.1		
Approach LOS	F			F			F			F		
Intersec. delay	265.8			Intersection LOS						F		

14P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMCAC30P3BWLMWM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	2030 ALT.-3B WI LM/WITH M

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	2	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	140	1090	945	645	1950	60	1435	50	930	175	80	180
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	147	1147	995	679	2053	63	1511	53	979	184	273	
Lane group cap.	361	1486	1498	701	1486	422	850	485	696	164	157	
v/c ratio	0.41	0.77	0.66	0.97	1.38	0.15	1.78	0.11	1.41	1.12	1.74	
Green ratio	0.22	0.30	0.60	0.22	0.30	0.30	0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	50.1	47.8	20.0	58.0	52.5	38.5	55.0	41.5	38.5	67.5	67.5	
Delay factor k	0.11	0.32	0.24	0.48	0.50	0.11	0.50	0.11	0.50	0.50	0.50	
Increm. delay d2	0.8	2.6	1.1	26.3	176.0	0.2	354.7	0.1	191.5	106.8	357.6	
PF factor	0.812	0.714	0.125	0.812	0.714	0.714	0.758	0.758	0.632	0.926	0.926	
Control delay	41.4	36.7	3.6	73.4	213.5	27.6	396.4	31.6	215.8	169.3	420.1	
Lane group LOS	D	D	A	E	F	C	F	C	F	F	F	
Apprch. delay	22.6			175.3			319.3			319.1		
Approach LOS	C			F			F			F		
Intersec. delay	185.5			Intersection LOS						F		

15-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	AIRCAC30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	770	1230	1850	275	1320	1065	825	375	425	735	345	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	50
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 22.0	G = 55.0	G =	G =	G = 32.0	G = 23.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	811	3242		289	2510		868	842		774	847	
Lane group cap.	467	1629		467	1677		680	479		680	475	
v/c ratio	1.74	1.99		0.62	1.50		1.28	1.76		1.14	1.78	
Green ratio	0.15	0.37		0.15	0.37		0.21	0.15		0.21	0.15	
Unif. delay d1	64.0	47.5		60.1	47.5		59.0	63.5		59.0	63.5	
Delay factor k	0.50	0.50		0.20	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	340.3	447.8		2.5	226.7		135.6	349.5		79.3	360.8	
PF factor	0.885	0.825		0.885	0.614		0.819	0.879		0.819	0.879	
Control delay	397.0	487.0		55.7	255.9		184.0	405.4		127.6	416.7	
Lane group LOS	F	F		E	F		F	F		F	F	
Apprch. delay	469.0			235.2			293.0			278.7		
Approach LOS	F			F			F			F		
Intersec. delay	344.9			Intersection LOS						F		

15-A
W
MT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	AIRCAC30A3BWLM/WITH
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	2	1	2	2	1
Lane group	L	TR	R	L	T	R	L	T	R	L	TR	R
Volume (vph)	770	1230	1850	275	1320	1065	825	375	425	735	345	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	50
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 22.0	G = 55.0	G =	G =	G = 32.0	G = 23.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	811	2268	974	289	1389	1121	868	395	447	774	605	242
Lane group cap.	467	1671	518	467	1816	1536	680	531	473	680	491	217
v/c ratio	1.74	1.36	1.88	0.62	0.76	0.73	1.28	0.74	0.95	1.14	1.23	1.12
Green ratio	0.15	0.37	0.37	0.15	0.37	0.61	0.21	0.15	0.33	0.21	0.15	0.15
Unif. delay d1	64.0	47.5	47.5	60.1	41.8	20.3	59.0	60.7	48.7	59.0	63.5	63.5
Delay factor k	0.50	0.50	0.50	0.20	0.32	0.29	0.50	0.30	0.46	0.50	0.50	0.50
Increm. delay d2	340.3	164.8	403.4	2.5	2.0	1.8	135.6	5.6	28.0	79.3	121.2	95.5
PF factor	0.885	0.614	0.782	0.885	0.614	0.129	0.819	0.879	0.667	0.819	0.879	1.000
Control delay	397.0	193.9	440.6	55.7	27.7	4.4	184.0	59.0	60.5	127.6	177.1	159.0
Lane group LOS	F	F	F	E	C	A	F	E	E	F	F	F
Apprch. delay	293.8			21.3			122.8			150.8		
Approach LOS	F			C			F			F		
Intersec. delay	167.4			Intersection LOS						F		

15-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	AIRCAC30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	510	1000	470	500	1415	485	1620	350	750	660	765	750
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	50
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 22.0	G = 55.0	G =	G =	G = 32.0	G = 23.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	537	1548		526	2000		1705	1157		695	1542	
Lane group cap.	467	1716		467	1736		680	464		680	484	
v/c ratio	1.15	0.90		1.13	1.15		2.51	2.49		1.02	3.19	
Green ratio	0.15	0.37		0.15	0.37		0.21	0.15		0.21	0.15	
Unif. delay d1	64.0	45.0		64.0	47.5		59.0	63.5		59.0	63.5	
Delay factor k	0.50	0.42		0.50	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	89.7	7.1		81.0	75.5		682.7	678.5		40.2	989.1	
PF factor	0.885	0.614		0.885	0.614		0.819	0.879		0.819	0.879	
Control delay	146.4	34.7		137.6	104.7		731.0	734.3		88.5	1045	
Lane group LOS	F	C		F	F		F	F		F	F	
Apprch. delay	63.4			111.6			732.4			747.8		
Approach LOS	E			F			F			F		
Intersec. delay	430.8			Intersection LOS						F		

15-P
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas.
Date Performed	03/06/11	Jurisdiction	AIRCAC30P3BWLM/WITH
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	2	1	2	2	1
Lane group	L	TR	R	L	T	R	L	T	R	L	TR	R
Volume (vph)	510	1000	470	500	1415	485	1620	350	750	660	765	750
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	50
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 22.0	G = 55.0	G =	G =	G = 32.0	G = 23.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	537	1300	248	526	1489	511	1705	368	789	695	1173	369
Lane group cap.	467	1751	518	467	1816	1536	680	531	473	680	500	217
v/c ratio	1.15	0.74	0.48	1.13	0.82	0.33	2.51	0.69	1.67	1.02	2.35	1.70
Green ratio	0.15	0.37	0.37	0.15	0.37	0.61	0.21	0.15	0.33	0.21	0.15	0.15
Unif. delay d1	64.0	41.3	36.5	64.0	43.0	14.1	59.0	60.2	50.0	59.0	63.5	63.5
Delay factor k	0.50	0.30	0.11	0.50	0.36	0.11	0.50	0.26	0.50	0.50	0.50	0.50
Increm. delay d2	89.7	1.7	0.7	81.0	3.1	0.1	682.7	3.9	309.9	40.2	611.9	334.2
PF factor	0.885	0.614	0.614	0.885	0.614	0.129	0.819	0.879	0.667	0.819	0.879	1.000
Control delay	146.4	27.1	23.1	137.6	29.5	2.0	731.0	56.8	343.2	88.5	667.7	397.7
Lane group LOS	F	C	C	F	C	A	F	E	F	F	F	F
Apprch. delay	57.4			46.5			537.4			443.3		
Approach LOS	E			D			F			F		
Intersec. delay	284.9			Intersection LOS						F		

16-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./CACTUS ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SIEMPCAC30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				310		1445		85	80	2165	350	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10		0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 90.0	G = 10.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 142.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				326		1521		173		2279	368	
Lane group cap.				673		2270		226		2020	2536	
v/c ratio				0.48		0.67		0.77		1.13	0.15	
Green ratio				0.21		0.87		0.07		0.63	0.73	
Unif. delay d1				49.2		2.7		64.8		26.0	5.7	
Delay factor k				0.11		0.24		0.32		0.50	0.11	
Increm. delay d2				0.6		0.8		14.5		64.7	0.0	
PF factor				0.821		0.394		0.949		0.431	0.187	
Control delay				41.0		1.9		76.1		75.9	1.1	
Lane group LOS				D		A		E		E	A	
Apprch. delay				8.8			76.1			65.5		
Approach LOS				A			E			E		
Intersec. delay	43.4			Intersection LOS						D		

HCS2000™ Version 4.1f

16-A
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MLT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./CACTUS ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SIEMPCAC30A3BWLM/WITH
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	2	1	2	2	0
Lane group				L		R		T	R	L	T	
Volume (vph)				310		1445		85	80	2165	350	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10		0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 90.0	G = 10.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 142.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				326		1521		89	84	2279	368	
Lane group cap.				673		2270		244	455	2020	2536	
v/c ratio				0.48		0.67		0.36	0.18	1.13	0.15	
Green ratio				0.21		0.87		0.07	0.31	0.63	0.73	
Unif. delay d1				49.2		2.7		63.0	35.9	26.0	5.7	
Delay factor k				0.11		0.24		0.11	0.11	0.50	0.11	
Increm. delay d2				0.6		0.8		0.9	0.2	64.7	0.0	
PF factor				0.821		0.394		0.949	0.701	0.431	0.187	
Control delay				41.0		1.9		60.7	25.3	75.9	1.1	
Lane group LOS				D		A		E	C	E	A	
Apprch. delay				8.8			43.5			65.5		
Approach LOS				A			D			E		
Intersec. delay	42.2			Intersection LOS						D		

16-P
N
MT

SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SIEMPRE VIVA RD./CACTUS ROAD*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*03/06/11*	Jurisdiction	*SIEMPCAC30P3BWLMNM*
Time Period	*PM PEAK HOUR*	Analysis Year	*YEAR 2030 ALT.-3B WITH LM*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				80		2255		350	310	1820	85	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10		0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 73.0	G = 30.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				84		2374		694		1916	89	
Lane group cap.				744		1941		644		1551	2470	
v/c ratio				0.11		1.22		1.08		1.24	0.04	
Green ratio				0.23		0.75		0.20		0.49	0.71	
Unif. delay d1				45.3		19.0		60.0		38.5	6.3	
Delay factor k				0.11		0.50		0.50		0.50	0.11	
Increm. delay d2				0.1		105.2		58.2		111.7	0.0	
PF factor				0.797		0.882		0.833		0.449	0.174	
Control delay				36.2		122.0		108.2		129.0	1.1	
Lane group LOS				D		F		F		F	A	
Apprch. delay				119.1			108.2			123.3		
Approach LOS				F			F			F		
Intersec. delay	119.2			Intersection LOS						F		

16-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./CACTUS ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SIEMPCAC30P3BWLMWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	2	1	2	2	0
Lane group				L		R		T	R	L	T	
Volume (vph)				80		2255		350	310	1820	85	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10		0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 73.0	G = 30.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				84		2374		368	326	1916	89	
Lane group cap.				744		1941		692	675	1551	2470	
v/c ratio				0.11		1.22		0.53	0.48	1.24	0.04	
Green ratio				0.23		0.75		0.20	0.46	0.49	0.71	
Unif. delay d1				45.3		19.0		53.7	28.1	38.5	6.3	
Delay factor k				0.11		0.50		0.13	0.11	0.50	0.11	
Increm. delay d2				0.1		105.2		0.8	0.5	111.7	0.0	
PF factor				0.797		0.882		0.833	0.432	0.449	0.174	
Control delay				36.2		122.0		45.6	12.7	129.0	1.1	
Lane group LOS				D		F		D	B	F	A	
Apprch. delay				119.1			30.1			123.3		
Approach LOS				F			C			F		
Intersec. delay	108.7			Intersection LOS						F		

17-A

N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMBRIT30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	20	2160	390	510	2045	10	580	35	730	5	15	10
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 25.0	G = 60.0	G =	G = 30.0	G = 8.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	2685		537	2164		611	383	422	5	27	
Lane group cap.	55	1936		722	2969		637	306	332	88	91	
v/c ratio	0.38	1.39		0.74	0.73		0.96	1.25	1.27	0.06	0.30	
Green ratio	0.03	0.40		0.23	0.60		0.20	0.20	0.23	0.05	0.05	
Unif. delay d1	71.0	45.0		53.9	21.3		59.4	60.0	57.5	67.4	68.3	
Delay factor k	0.11	0.50		0.30	0.29		0.47	0.50	0.50	0.11	0.11	
Increm. delay d2	4.4	177.4		4.2	0.9		25.8	137.4	143.6	0.3	1.8	
PF factor	0.977	0.556		0.805	0.125		0.833	0.833	0.797	0.962	0.962	
Control delay	73.7	202.4		47.6	3.6		75.3	187.4	189.4	65.2	67.6	
Lane group LOS	E	F		D	A		E	F	F	E	E	
Apprch. delay	201.4			12.3			139.6			67.2		
Approach LOS	F			B			F			E		
Intersec. delay	113.5			Intersection LOS						F		

17-A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	21	2685		537	2164		611	383	422	5	27	
Satflow per lane	1641	1776		1641	1816		1641	1528	1422	1641	1707	
Capacity/lane	55	1936		722	2969		637	306	332	88	91	
Flow ratio	0.01	0.55		0.17	0.44		0.19	0.25	0.30	0.00	0.02	
v/c ratio	0.38	1.39		0.74	0.73		0.96	1.25	1.27	0.06	0.30	
I factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5		5	5		5	5	5	5	5	
Platoon ratio	1.67	1.67		1.67	1.58		1.67	1.67	1.67	1.67	1.67	
PF factor	0.99	1.00		0.93	0.23		0.99	1.00	1.00	0.96	0.97	
Q_1	0.8	41.0		9.9	5.4		12.8	16.0	17.6	0.2	1.1	
k_B	0.2	0.8		0.5	1.0		0.5	0.5	0.5	0.2	0.2	
Q_2	0.1	36.9		1.4	2.5		3.6	11.5	13.2	0.0	0.1	
Q avg.	0.9	78.0		11.3	7.9		16.4	27.5	30.8	0.2	1.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.1	1.5		1.8	1.9		1.7	1.6	1.6	2.1	2.1	
BOQ, $Q_{\%}$	2.0	118		20.6	14.8		28.5	44.8	49.5	0.4	2.4	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	
Q storage	0	0		0	0		0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

17-A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMBRIT30A3BWLM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	20	2160	390	510	2045	10	580	35	730	5	15	10
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10		0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 5.0	G = 25.0	G = 60.0	G =	G = 30.0	G = 8.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	2274	411	537	2153	11	611	383	422	5	27	
Lane group cap.	55	1981	587	722	2972	566	637	306	332	88	91	
v/c ratio	0.38	1.15	0.70	0.74	0.72	0.02	0.96	1.25	1.27	0.06	0.30	
Green ratio	0.03	0.40	0.40	0.23	0.60	0.40	0.20	0.20	0.23	0.05	0.05	
Unif. delay d1	71.0	45.0	37.5	53.9	21.2	27.2	59.4	60.0	57.5	67.4	68.3	
Delay factor k	0.11	0.50	0.27	0.30	0.29	0.11	0.47	0.50	0.50	0.11	0.11	
Increm. delay d2	4.4	73.0	3.7	4.2	0.9	0.0	25.8	137.4	143.6	0.3	1.8	
PF factor	0.977	0.556	0.556	0.805	0.125	0.556	0.833	0.833	0.797	0.962	0.962	
Control delay	73.7	98.0	24.5	47.6	3.6	15.1	75.3	187.4	189.4	65.2	67.6	
Lane group LOS	E	F	C	D	A	B	E	F	F	E	E	
Apprch. delay	86.6			12.4			139.6			67.2		
Approach LOS	F			B			F			E		
Intersec. delay	68.2			Intersection LOS						E		

17-A
WM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	21	2274	411	537	2153	11	611	383	422	5	27	
Satflow per lane	1641	1818	1468	1641	1818	1414	1641	1528	1422	1641	1707	
Capacity/lane	55	1981	587	722	2972	566	637	306	332	88	91	
Flow ratio	0.01	0.46	0.28	0.17	0.43	0.01	0.19	0.25	0.30	0.00	0.02	
v/c ratio	0.38	1.15	0.70	0.74	0.72	0.02	0.96	1.25	1.27	0.06	0.30	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.58	1.67	1.67	1.67	1.67	1.67	1.67	
PF factor	0.99	1.00	0.75	0.93	0.23	0.56	0.99	1.00	1.00	0.96	0.97	
Q_1	0.8	34.8	10.7	9.9	5.3	0.2	12.8	16.0	17.6	0.2	1.1	
k_B	0.2	0.8	0.7	0.5	1.0	0.7	0.5	0.5	0.5	0.2	0.2	
Q_2	0.1	17.9	1.5	1.4	2.4	0.0	3.6	11.5	13.2	0.0	0.1	
Q avg.	0.9	52.6	12.2	11.3	7.7	0.2	16.4	27.5	30.8	0.2	1.1	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.1	1.5	1.8	1.8	1.9	2.1	1.7	1.6	1.6	2.1	2.1	
BOQ, $Q_{\%}$	2.0	80.7	22.0	20.6	14.6	0.4	28.5	44.8	49.5	0.4	2.4	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMBRIT30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	15	1920	580	835	2120	10	390	20	510	15	40	35
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	150	10		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 10.0	G = 25.0	G = 55.0	G =	G = 23.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	16	2632		879	2243		411	210	190	16	79	
Lane group cap.	109	1753		829	2804		489	233	217	164	169	
v/c ratio	0.15	1.50		1.06	0.80		0.84	0.90	0.88	0.10	0.47	
Green ratio	0.07	0.37		0.26	0.57		0.15	0.15	0.15	0.10	0.10	
Unif. delay d1	66.0	47.5		55.5	25.8		61.7	62.4	62.1	61.3	63.7	
Delay factor k	0.11	0.50		0.50	0.34		0.38	0.42	0.40	0.11	0.11	
Increm. delay d2	0.6	228.7		48.5	1.7		12.4	33.9	30.5	0.3	2.0	
PF factor	0.952	0.614		0.766	0.128		0.879	0.879	0.879	0.926	0.926	
Control delay	63.5	257.8		91.0	5.0		66.7	88.7	85.1	57.1	61.0	
Lane group LOS	E	F		F	A		E	F	F	E	E	
Apprch. delay	256.7			29.2			76.7			60.4		
Approach LOS	F			C			E			E		
Intersec. delay	125.7			Intersection LOS						F		

17-P

N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	16	2632		879	2243		411	210	190	16	79	
Satflow per lane	1641	1754		1641	1816		1641	1518	1412	1641	1690	
Capacity/lane	109	1753		829	2804		489	233	217	164	169	
Flow ratio	0.01	0.55		0.28	0.45		0.13	0.14	0.13	0.01	0.05	
v/c ratio	0.15	1.50		1.06	0.80		0.84	0.90	0.88	0.10	0.47	
I factor	1.000	1.000		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5		5	5		5	5	5	5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.67	1.67	1.67	1.67	
PF factor	0.96	1.00		1.00	0.29		0.98	0.98	0.98	0.93	0.96	
Q_1	0.6	40.3		18.8	7.8		8.3	8.5	7.6	0.6	3.0	
k_B	0.2	0.7		0.6	1.0		0.4	0.4	0.4	0.3	0.3	
Q_2	0.0	42.4		7.5	3.4		1.6	2.1	1.7	0.0	0.3	
Q avg.	0.6	82.7		26.3	11.2		10.0	10.5	9.3	0.6	3.3	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.1	1.5		1.6	1.8		1.8	1.8	1.9	2.1	2.0	
BOQ, $Q_{\%}$	1.3	125		43.1	20.3		18.4	19.3	17.3	1.2	6.5	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	
Q storage	0	0		0	0		0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

17- P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMBRIT30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	15	1920	580	835	2120	10	390	20	510	15	40	35
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	150	10		0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	WB Only	Thru & RT	04	NB Only	SB Only	07	08
Timing	G = 10.0	G = 25.0	G = 55.0	G =	G = 23.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	16	2021	611	879	2232	11	411	210	190	16	79	
Lane group cap.	109	1816	812	829	2807	659	489	233	217	164	169	
v/c ratio	0.15	1.11	0.75	1.06	0.80	0.02	0.84	0.90	0.88	0.10	0.47	
Green ratio	0.07	0.37	0.55	0.26	0.57	0.47	0.15	0.15	0.15	0.10	0.10	
Unif. delay d1	66.0	47.5	25.6	55.5	25.6	21.5	61.7	62.4	62.1	61.3	63.7	
Delay factor k	0.11	0.50	0.31	0.50	0.34	0.11	0.38	0.42	0.40	0.11	0.11	
Increm. delay d2	0.6	59.2	4.0	48.5	1.7	0.0	12.4	33.9	30.5	0.3	2.0	
PF factor	0.952	0.614	0.174	0.766	0.128	0.417	0.879	0.879	0.879	0.926	0.926	
Control delay	63.5	88.4	8.5	91.0	5.0	9.0	66.7	88.7	85.1	57.1	61.0	
Lane group LOS	E	F	A	F	A	A	E	F	F	E	E	
Apprch. delay	69.8			29.2			76.7			60.4		
Approach LOS	E			C			E			E		
Intersec. delay	51.5			Intersection LOS						D		

  Version 4.1f

17-P
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow rate/lane	16	2021	611	879	2232	11	411	210	190	16	79	
Satflow per lane	1641	1818	1468	1641	1818	1413	1641	1518	1412	1641	1690	
Capacity/lane	109	1816	812	829	2807	659	489	233	217	164	169	
Flow ratio	0.01	0.41	0.42	0.28	0.45	0.01	0.13	0.14	0.13	0.01	0.05	
v/c ratio	0.15	1.11	0.75	1.06	0.80	0.02	0.84	0.90	0.88	0.10	0.47	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	
PF factor	0.96	1.00	0.33	1.00	0.28	0.42	0.98	0.98	0.98	0.93	0.96	
Q_1	0.6	30.9	6.5	18.8	7.6	0.1	8.3	8.5	7.6	0.6	3.0	
k_B	0.2	0.7	0.8	0.6	1.0	0.7	0.4	0.4	0.4	0.3	0.3	
Q_2	0.0	14.2	2.3	7.5	3.3	0.0	1.6	2.1	1.7	0.0	0.3	
Q avg.	0.6	45.1	8.8	26.3	10.9	0.1	10.0	10.5	9.3	0.6	3.3	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.1	1.5	1.9	1.6	1.8	2.1	1.8	1.8	1.9	2.1	2.0	
BOQ, $Q_{\%}$	1.3	69.8	16.4	43.1	19.9	0.2	18.4	19.3	17.3	1.2	6.5	
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

18A
NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	2	1
Lane group				L	TR	R	L	T			TR	R
Volume (vph)				1500	5	210	1000	1135			565	350
% Heavy veh				10	10	10	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				5	5	5	5	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 42.0	G = 25.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				1579	5	221	1053	1195			687	276
Lane group cap.				703	779	629	956	2512			601	247
v/c ratio				2.25	0.01	0.35	1.10	0.48			1.14	1.12
Green ratio				0.43	0.43	0.43	0.30	0.51			0.18	0.18
Unif. delay d1				40.0	22.9	26.9	49.0	22.4			57.5	57.5
Delay factor k				0.50	0.11	0.11	0.50	0.11			0.50	0.50
Increm. delay d2				565.3	0.0	0.3	61.0	0.1			83.0	92.5
PF factor				1.000	0.500	0.500	0.714	0.314			0.855	1.000
Control delay				605.3	11.5	13.8	96.0	7.2			132.1	150.0
Lane group LOS				F	B	B	F	A			F	F
Apprch. delay				531.2			48.8			137.2		
Approach LOS				F			D			F		
Intersec. delay	239.4			Intersection LOS						F		

18A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B-AM-WITH LA MEDIA-SR905WB RAMPS/BRITANNIA BLVD/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	TR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				1579	5	221	1053	1195			687	276
Satflow per lane				1641	1818	1468	1641	1818			1767	1384
Capacity/lane				703	779	629	956	2512			601	247
Flow ratio				0.96	0.00	0.15	0.33	0.24			0.20	0.20
v/c ratio				2.25	0.01	0.35	1.10	0.48			1.14	1.12
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.00	1.67	1.67	1.67	1.67			1.67	1.00
PF factor				1.00	0.50	0.57	1.00	0.40			1.00	1.00
Q_1				61.4	0.1	3.3	21.1	4.4			14.0	10.7
k_B				0.7	0.8	0.7	0.6	0.9			0.5	0.4
Q_2				110.8	0.0	0.4	10.2	0.8			8.1	5.9
Q avg.				172.2	0.1	3.6	31.2	5.2			22.1	16.6

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.5	2.1	2.0	1.6	2.0			1.7	1.7
BOQ, $Q_{\%}$				258	0.1	7.3	50.2	10.1			37.1	28.9

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

18A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			TR	R
Volume (vph)				1500	5	210	1000	1135			565	350
% Heavy veh				10	10	10	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				5	5	5	5	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 42.0	G = 25.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				790	794	221	1053	1195			761	202
Lane group cap.				703	742	629	956	2512			845	247
v/c ratio				1.12	1.07	0.35	1.10	0.48			0.90	0.82
Green ratio				0.43	0.43	0.43	0.30	0.51			0.18	0.18
Unif. delay d1				40.0	40.0	26.9	49.0	22.4			56.3	55.3
Delay factor k				0.50	0.50	0.11	0.50	0.11			0.42	0.36
Increm. delay d2				73.3	53.4	0.3	61.0	0.1			12.7	19.0
PF factor				0.500	0.500	0.500	0.714	0.314			0.855	1.000
Control delay				93.3	73.4	13.8	96.0	7.2			60.8	74.3
Lane group LOS				F	E	B	F	A			E	E
Apprch. delay				74.8			48.8			63.7		
Approach LOS				E			D			E		
Intersec. delay	61.0			Intersection LOS						E		

18 ft
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-AM-WITH LA MEDIA-SR905WB RAMPS/BRITANNIA BLVD/WITH M*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	LTR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				790	794	221	1053	1195			761	202
Satflow per lane				1641	1732	1468	1641	1818			1736	1384
Capacity/lane				703	742	629	956	2512			845	247
Flow ratio				0.48	0.46	0.15	0.33	0.24			0.16	0.15
v/c ratio				1.12	1.07	0.35	1.10	0.48			0.90	0.82
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.67	1.67	1.67			1.67	1.00
PF factor				1.00	1.00	0.57	1.00	0.40			0.98	1.00
Q_1				30.7	30.9	3.3	21.1	4.4			10.4	7.6
k_B				0.7	0.8	0.7	0.6	0.9			0.4	0.4
Q_2				15.5	12.5	0.4	10.2	0.8			2.5	1.4
Q avg.				46.2	43.4	3.6	31.2	5.2			12.9	9.0

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.5	1.6	2.0	1.6	2.0			1.8	1.9
BOQ, $Q_{\%}$				71.5	67.4	7.3	50.2	10.1			23.1	16.7

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

18-8

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	2	1
Lane group				L	TR	R	L	T			TR	R
Volume (vph)				600	5	390	2900	530			1015	440
% Heavy veh				10	10	10	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				5	5	5	5	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 50.0	G = 42.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				632	108	308	3053	558			1114	417
Lane group cap.				410	390	367	1138	3396			1030	422
v/c ratio				1.54	0.28	0.84	2.68	0.16			1.08	0.99
Green ratio				0.25	0.25	0.25	0.36	0.69			0.30	0.30
Unif. delay d1				52.5	42.3	49.8	45.0	7.8			49.0	48.8
Delay factor k				0.50	0.11	0.37	0.50	0.11			0.50	0.49
Increm. delay d2				255.6	0.4	15.8	759.8	0.0			52.8	40.6
PF factor				0.778	0.778	0.778	1.000	0.159			0.714	1.000
Control delay				296.4	33.3	54.5	804.8	1.3			87.8	89.3
Lane group LOS				F	C	D	F	A			F	F
Apprch. delay				198.2			680.6			88.2		
Approach LOS				F			F			F		
Intersec. delay	452.4			Intersection LOS						F		

18P
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-PM-WITH LA MEDIA-SR905WB RAMPS/BRITANNIA BLVD/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	TR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				632	108	308	3053	558			1114	417
Satflow per lane				1641	1559	1468	1641	1818			1803	1406
Capacity/lane				410	390	367	1138	3396			1030	422
Flow ratio				0.39	0.07	0.21	0.96	0.11			0.32	0.30
v/c ratio				1.54	0.28	0.84	2.68	0.16			1.08	0.99
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.67	1.00	1.39			1.67	1.00
PF factor				1.00	0.82	0.95	1.00	0.17			1.00	1.00
Q_1				24.6	2.8	10.7	61.1	0.5			22.8	16.1
k_B				0.5	0.5	0.5	0.7	1.0			0.6	0.5
Q_2				29.2	0.2	2.0	124.4	0.2			10.1	5.0
Q avg.				53.8	3.0	12.8	185.5	0.7			32.9	21.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.5	2.0	1.8	1.5	2.1			1.6	1.7
BOQ, $Q_{\%}$				82.3	6.0	22.9	278	1.4			52.5	35.6

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

18-P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			TR	R
Volume (vph)				600	5	390	2900	530			1015	440
% Heavy veh				10	10	10	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				5	5	5	5	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 50.0	G = 42.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				379	361	308	3053	558			1299	232
Lane group cap.				410	421	367	1138	3396			1435	422
v/c ratio				0.92	0.86	0.84	2.68	0.16			0.91	0.55
Green ratio				0.25	0.25	0.25	0.36	0.69			0.30	0.30
Unif. delay d1				51.2	50.1	49.8	45.0	7.8			47.1	41.1
Delay factor k				0.44	0.39	0.37	0.50	0.11			0.43	0.15
Increm. delay d2				26.6	16.0	15.8	759.8	0.0			8.5	1.5
PF factor				0.778	0.778	0.778	1.000	0.159			0.714	1.000
Control delay				66.4	55.0	54.5	804.8	1.3			42.1	42.6
Lane group LOS				E	D	D	F	A			D	D
Apprch. delay				59.0			680.6			42.2		
Approach LOS				E			F			D		
Intersec. delay	417.5			Intersection LOS						F		

18-P
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-PM-WITH LA MEDIA-SR905WB RAMPS/BRITANNIA BLVD/WITH M*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L	LTR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				379	361	308	3053	558			1299	232
Satflow per lane				1641	1682	1468	1641	1818			1756	1406
Capacity/lane				410	421	367	1138	3396			1435	422
Flow ratio				0.23	0.21	0.21	0.96	0.11			0.27	0.17
v/c ratio				0.92	0.86	0.84	2.68	0.16			0.91	0.55
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.67	1.00	1.39			1.67	1.00
PF factor				0.97	0.95	0.95	1.00	0.17			0.95	1.00
Q_1				14.0	12.7	10.7	61.1	0.5			16.9	7.6
k_B				0.5	0.5	0.5	0.7	1.0			0.6	0.5
Q_2				3.4	2.4	2.0	124.4	0.2			3.7	0.6
Q avg.				17.4	15.2	12.8	185.5	0.7			20.6	8.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.7	1.8	1.8	1.5	2.1			1.7	1.9
BOQ, $Q_{\%}$				30.1	26.7	22.9	278	1.4			34.8	15.4
Queue Storage Ratio												
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

19-A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B AM WITH LA MEDIA - ---SR905EB RAMPS/BRITANNIA/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R					TR		L	T	
Init. queue/lane		0.0	0.0					0.0		0.0	0.0	
Flow rate/lane		426	3263					2352		221	1953	
Satflow per lane		1733	1468					1747		1641	1818	
Capacity/lane		890	1334					1587		212	2113	
Flow ratio		0.25	1.26					0.49		0.07	0.39	
v/c ratio		0.48	2.45					1.48		1.04	0.92	
I factor		1.000	1.000					1.000		1.000	1.000	
Arrival type		5	5					5		5	5	
Platoon ratio		1.67	1.00					1.67		1.67	1.67	
PF factor		0.38	1.00					1.00		1.00	0.89	
Q_1		4.3	76.8					36.0		4.7	25.1	
k_B		0.9	0.8					0.7		0.2	0.8	
Q_2		0.8	137.6					37.1		2.1	5.6	
Q avg.		5.1	214.4					73.1		6.8	30.7	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	1.5					1.5		1.9	1.6	
BOQ, $Q_{\%}$		10.0	322					110		13.1	49.3	
Queue Storage Ratio												
Q spacing		25.0	25.0					25.0		25.0	25.0	
Q storage		0	0					0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

19-A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBBRIT30A3BWLM/WM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	2	0	0	0	0	3	2	2	3	0
Lane group		LT	R					T	R	L	T	
Volume (vph)	400	5	3400					1735	500	210	1855	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time		2.0	2.0					2.0	2.0	2.0	2.0	
Ext. eff. green		2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type		5	5					5	5	5	5	
Unit Extension		3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	110		300	10			10	5	0			
Lane Width		12.0	12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0					0	0	0	0	
Unit Extension		3.0	3.0					3.0	3.0	3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 77.0	G =	G =	G =	G = 10.0	G = 50.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		426	3263					1826	526	221	1953	
Lane group cap.		890	1334					1651	831	212	2113	
v/c ratio		0.48	2.45					1.11	0.63	1.04	0.92	
Green ratio		0.51	0.51					0.33	0.33	0.07	0.43	
Unif. delay d1		23.5	36.5					50.0	42.2	70.0	40.7	
Delay factor k		0.11	0.50					0.50	0.21	0.50	0.44	
Increm. delay d2		0.4	653.0					57.2	1.6	73.4	7.5	
PF factor		0.297	1.000					0.667	0.667	0.952	0.504	
Control delay		7.4	689.5					90.5	29.7	140.0	28.0	
Lane group LOS		A	F					F	C	F	C	
Apprch. delay	610.7						76.9			39.4		
Approach LOS	F						E			D		
Intersec. delay	306.7			Intersection LOS						F		

19-A
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B AM WITH LA MEDIA - ---SR905EB RAMPS/BRITANNIA/WITH M

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R					T	R	L	T	
Init. queue/lane		0.0	0.0					0.0	0.0	0.0	0.0	
Flow rate/lane		426	3263					1826	526	221	1953	
Satflow per lane		1733	1468					1818	1409	1641	1818	
Capacity/lane		890	1334					1651	831	212	2113	
Flow ratio		0.25	1.26					0.37	0.21	0.07	0.39	
v/c ratio		0.48	2.45					1.11	0.63	1.04	0.92	
I factor		1.000	1.000					1.000	1.000	1.000	1.000	
Arrival type		5	5					5	5	5	5	
Platoon ratio		1.67	1.00					1.67	1.67	1.67	1.67	
PF factor		0.38	1.00					1.00	0.81	1.00	0.89	
Q_1		4.3	76.8					27.9	8.5	4.7	25.1	
k_B		0.9	0.8					0.7	0.6	0.2	0.8	
Q_2		0.8	137.6					12.6	1.0	2.1	5.6	
Q avg.		5.1	214.4					40.5	9.5	6.8	30.7	

Percentile Back of Queue (95th percentile)

$f_{B\%}$		2.0	1.5					1.6	1.9	1.9	1.6	
BOQ, $Q_{\%}$		10.0	322					63.3	17.6	13.1	49.3	

Queue Storage Ratio

Q spacing		25.0	25.0					25.0	25.0	25.0	25.0	
Q storage		0	0					0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

19-P
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBBRIT30P3BWLMNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	2	0	0	0	0	3	0	2	3	0
Lane group		LT	R					TR		L	T	
Volume (vph)	400	5	1200					3030	1200	200	1415	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time		2.0	2.0					2.0		2.0	2.0	
Ext. eff. green		2.0	2.0					2.0		2.0	2.0	
Arrival type		5	5					5		5	5	
Unit Extension		3.0	3.0					3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		300	10			10	5	0			
Lane Width		12.0	12.0					12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0					0		0	0	
Unit Extension		3.0	3.0					3.0		3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 40.0	G =	G =	G =	G = 10.0	G = 77.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		426	947					4452		211	1489	
Lane group cap.		495	743					2594		228	3219	
v/c ratio		0.86	1.27					1.72		0.93	0.46	
Green ratio		0.29	0.29					0.55		0.07	0.65	
Unif. delay d1		47.4	50.0					31.5		64.6	12.3	
Delay factor k		0.39	0.50					0.50		0.44	0.11	
Increm. delay d2		14.3	133.9					324.0		39.7	0.1	
PF factor		0.733	0.733					0.992		0.949	0.143	
Control delay		49.0	170.6					355.2		101.0	1.9	
Lane group LOS		D	F					F		F	A	
Apprch. delay	132.9						355.2			14.2		
Approach LOS	F						F			B		
Intersec. delay	237.6			Intersection LOS						F		

19-P
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA - ---SR905EB RAMPS/BRITANNIA/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R					TR		L	T	
Init. queue/lane		0.0	0.0					0.0		0.0	0.0	
Flow rate/lane		426	947					4452		211	1489	
Satflow per lane		1733	1468					1731		1641	1818	
Capacity/lane		495	743					2594		228	3219	
Flow ratio		0.25	0.36					0.94		0.07	0.30	
v/c ratio		0.86	1.27					1.72		0.93	0.46	
I factor		1.000	1.000					1.000		1.000	1.000	
Arrival type		5	5					5		5	5	
Platoon ratio		1.67	1.67					1.01		1.67	1.46	
PF factor		0.94	1.00					1.00		1.00	0.18	
Q_1		14.7	20.8					63.5		4.2	1.9	
k_B		0.6	0.5					0.9		0.2	1.0	
Q_2		2.8	16.6					87.3		1.4	0.8	
Q avg.		17.5	37.5					150.8		5.5	2.7	

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.7	1.6					1.5		1.9	2.0	
BOQ, $Q_{\%}$		30.2	59.0					226		10.7	5.5	

Queue Storage Ratio

Q spacing		25.0	25.0					25.0		25.0	25.0	
Q storage		0	0					0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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19P
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M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBBRIT30P3BWLMWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	2	0	0	0	0	3	2	2	3	0
Lane group		LT	R					T	R	L	T	
Volume (vph)	400	5	1200					3030	1200	200	1415	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time		2.0	2.0					2.0	2.0	2.0	2.0	
Ext. eff. green		2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type		5	5					5	5	5	5	
Unit Extension		3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10		300	10			10	5	0			
Lane Width		12.0	12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0					0	0	0	0	
Unit Extension		3.0	3.0					3.0	3.0	3.0	3.0	

Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 40.0	G =	G =	G =	G = 10.0	G = 77.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		426	947					3189	1263	211	1489	
Lane group cap.		495	743					2724	1383	228	3219	
v/c ratio		0.86	1.27					1.17	0.91	0.93	0.46	
Green ratio		0.29	0.29					0.55	0.55	0.07	0.65	
Unif. delay d1		47.4	50.0					31.5	28.5	64.6	12.3	
Delay factor k		0.39	0.50					0.50	0.43	0.44	0.11	
Increm. delay d2		14.3	133.9					81.1	9.5	39.7	0.1	
PF factor		0.733	0.733					0.418	0.185	0.949	0.143	
Control delay		49.0	170.6					94.3	14.8	101.0	1.9	
Lane group LOS		D	F					F	B	F	A	
Apprch. delay	132.9						71.7			14.2		
Approach LOS	F						E			B		
Intersec. delay	69.9			Intersection LOS						E		

19P
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA - ---SR905EB RAMPS/BRITANNIA/WITH M*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*LT*	*R*					*T*	*R*	*L*	*T*	
Init. queue/lane		*0.0*	*0.0*					*0.0*	*0.0*	*0.0*	*0.0*	
Flow rate/lane		*426*	*947*					*3189*	*1263*	*211*	*1489*	
Satflow per lane		*1733*	*1468*					*1818*	*1421*	*1641*	*1818*	
Capacity/lane		*495*	*743*					*2724*	*1383*	*228*	*3219*	
Flow ratio		*0.25*	*0.36*					*0.64*	*0.50*	*0.07*	0.30	
v/c ratio		*0.86*	*1.27*					*1.17*	*0.91*	*0.93*	*0.46*	
I factor		*1.000*	*1.000*					*1.000*	*1.000*	*1.000*	*1.000*	
Arrival type		*5*	*5*					*5*	*5*	*5*	*5*	
Platoon ratio		*1.67*	*1.67*					*1.48*	*1.67*	*1.67*	*1.46*	
PF factor		*0.94*	*1.00*					*1.00*	*0.56*	*1.00*	*0.18*	
Q_1		*14.7*	*20.8*					*45.5*	*14.1*	*4.2*	*1.9*	
k_B		*0.6*	*0.5*					*0.9*	*0.8*	*0.2*	*1.0*	
Q_2		*2.8*	*16.6*					*26.3*	*5.1*	*1.4*	*0.8*	
Q avg.		*17.5*	*37.5*					*71.8*	*19.2*	*5.5*	*2.7*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.7*	*1.6*					*1.5*	*1.7*	*1.9*	*2.0*	
BOQ, $Q_{\%}$		*30.2*	*59.0*					*108*	*32.8*	*10.7*	*5.5*	
Queue Storage Ratio												
Q spacing		*25.0*	*25.0*					*25.0*	*25.0*	*25.0*	*25.0*	
Q storage		*0*	*0*					*0*	*0*	*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

20 A
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/15/11	Jurisdiction	AIRBRIT30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	285	540	375	380	875	825	875	1050	200	985	2520	1750
% Heavy veh	10	10	5	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	300	963		400	1789		921	1316		1037	4495	
Lane group cap.	531	715		531	483		680	1670		680	1596	
v/c ratio	0.56	1.35		0.75	3.70		1.35	0.79		1.52	2.82	
Green ratio	0.17	0.15		0.17	0.15		0.21	0.35		0.21	0.35	
Unif. delay d1	57.5	63.5		59.6	63.5		59.0	44.0		59.0	49.0	
Delay factor k	0.16	0.50		0.31	0.50		0.50	0.33		0.50	0.50	
Increm. delay d2	1.4	165.3		6.0	1222		169.0	2.6		243.7	819.1	
PF factor	0.867	0.879		0.867	0.879		0.819	0.646		0.819	1.000	
Control delay	51.2	221.1		57.7	1278		217.4	31.1		292.0	868.1	
Lane group LOS	D	F		E	F		F	C		F	F	
Apprch. delay	180.8			1055			107.8			760.1		
Approach LOS	F			F			F			F		
Intersec. delay	622.3			Intersection LOS						F		

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20 A NM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-AM WITH LA MEDIA-AIRWAY RD./BRITANNIA BLVD./NO M IT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*TR*		*L*	*TR*		*L*	*TR*		*L*	*TR*	
Init. queue/lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*	
Flow rate/lane	*300*	*963*		*400*	*1789*		*921*	*1316*		*1037*	*4495*	
Satflow per lane	*1641*	*1711*		*1641*	*1654*		*1641*	*1767*		*1641*	*1690*	
Capacity/lane	*531*	*715*		*531*	*483*		*680*	*1670*		*680*	*1596*	
Flow ratio	*0.09*	*0.21*		*0.12*	*0.57*		*0.29*	*0.27*		*0.32*	0.98	
v/c ratio	*0.56*	*1.35*		*0.75*	*3.70*		*1.35*	*0.79*		*1.52*	*2.82*	
I factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	
Arrival type	*5*	*5*		*5*	*5*		*5*	*5*		*5*	*5*	
Platoon ratio	*1.67*	*1.67*		*1.67*	*1.67*		*1.67*	*1.67*		*1.67*	*1.00*	
PF factor	*0.93*	*1.00*		*0.96*	*1.00*		*1.00*	*0.86*		*1.00*	*1.00*	
Q_1	*5.5*	*14.7*		*7.8*	*39.1*		*19.8*	*15.6*		*22.2*	*68.8*	
k_B	*0.4*	*0.4*		*0.4*	*0.4*		*0.5*	*0.7*		*0.5*	*0.7*	
Q_2	*0.5*	*12.8*		*1.1*	*86.3*		*17.2*	*2.3*		*24.2*	*134.2*	
Q avg.	*6.0*	*27.5*		*8.9*	*125.4*		*37.0*	*17.9*		*46.5*	*202.9*	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	*1.9*	*1.6*		*1.9*	*1.5*		*1.6*	*1.7*		*1.5*	*1.5*	
BOQ, $Q_{\%}$	*11.6*	*44.9*		*16.7*	*188*		*58.3*	*30.8*		*71.8*	*304*	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*	*25.0*		*25.0*	*25.0*	
Q storage	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/15/11	Jurisdiction	AIRBRIT30A3BWLM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	2	2	2	3	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	285	540	375	380	875	825	875	1050	200	985	2520	1750
% Heavy veh	10	10	5	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	300	568	395	400	921	868	921	1105	211	1037	2653	1842
Lane group cap.	531	759	594	531	531	1004	680	1717	785	680	1717	1368
v/c ratio	0.56	0.75	0.66	0.75	1.73	0.86	1.35	0.64	0.27	1.52	1.55	1.35
Green ratio	0.17	0.15	0.40	0.17	0.15	0.40	0.21	0.35	0.55	0.21	0.35	0.55
Unif. delay d1	57.5	60.7	36.8	59.6	63.5	41.3	59.0	41.2	18.1	59.0	49.0	34.0
Delay factor k	0.16	0.30	0.24	0.31	0.50	0.39	0.50	0.22	0.11	0.50	0.50	0.50
Increm. delay d2	1.4	4.1	2.8	6.0	338.3	8.0	169.0	0.8	0.2	243.7	248.2	160.9
PF factor	0.867	0.879	0.556	0.867	0.879	0.556	0.819	0.646	0.196	0.819	0.646	1.000
Control delay	51.2	57.5	23.3	57.7	394.2	30.9	217.4	27.5	3.7	292.0	279.9	194.9
Lane group LOS	D	E	C	E	F	C	F	C	A	F	F	F
Apprch. delay	45.3			188.6			103.4			253.9		
Approach LOS	D			F			F			F		
Intersec. delay	187.7			Intersection LOS						F		

20-A
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-AM WITH LA MEDIA-AIRWAY RD./BRITANNIA BLVD./WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	300	568	395	400	921	868	921	1105	211	1037	2653	1842
Satflow per lane	1641	1818	1486	1641	1818	1419	1641	1818	1436	1641	1818	1414
Capacity/lane	531	759	594	531	531	1004	680	1717	785	680	1717	1368
Flow ratio	0.09	0.11	0.27	0.12	0.27	0.35	0.29	0.22	0.15	0.32	0.54	0.74
v/c ratio	0.56	0.75	0.66	0.75	1.73	0.86	1.35	0.64	0.27	1.52	1.55	1.35
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.00
PF factor	0.93	0.96	0.73	0.96	1.00	0.86	1.00	0.80	0.22	1.00	1.00	1.00
Q_1	5.5	8.0	9.9	7.8	20.1	16.0	19.8	11.3	1.0	22.2	40.5	43.3
k_B	0.4	0.4	0.7	0.4	0.4	0.7	0.5	0.7	0.8	0.5	0.7	0.8
Q_2	0.5	1.1	1.3	1.1	26.6	3.2	17.2	1.2	0.3	24.2	44.8	36.4
Q avg.	6.0	9.1	11.1	8.9	46.7	19.2	37.0	12.6	1.3	46.5	85.3	79.7
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9	1.9	1.8	1.9	1.5	1.7	1.6	1.8	2.1	1.5	1.5	1.5
BOQ, $Q_{\%}$	11.6	17.0	20.3	16.7	72.2	32.8	58.3	22.6	2.7	71.8	128	120
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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20-8
N
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/15/11	Jurisdiction	AIRBRIT30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1350	1090	735	145	1000	900	700	1980	730	800	1095	720
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1421	1921		153	2000		737	2852		842	1911	
Lane group cap.	531	703		531	484		680	1637		680	1600	
v/c ratio	2.68	2.73		0.29	4.13		1.08	1.74		1.24	1.19	
Green ratio	0.17	0.15		0.17	0.15		0.21	0.35		0.21	0.35	
Unif. delay d1	62.5	63.5		54.7	63.5		59.0	49.0		59.0	49.0	
Delay factor k	0.50	0.50		0.11	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	759.6	783.7		0.3	1414		59.4	336.6		119.5	93.9	
PF factor	0.867	0.879		0.867	0.909		0.819	0.695		0.819	0.646	
Control delay	813.8	839.5		47.7	1472		107.8	370.6		167.9	125.6	
Lane group LOS	F	F		D	F		F	F		F	F	
Apprch. delay	828.6			1371			316.7			138.5		
Approach LOS	F			F			F			F		
Intersec. delay	611.5			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-PM WITH LA MEDIA-AIRWAY RD./BRITANNIA BLVD./NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	1421	1921		153	2000		737	2852		842	1911	
Satflow per lane	1641	1682		1641	1658		1641	1733		1641	1694	
Capacity/lane	531	703		531	484		680	1637		680	1600	
Flow ratio	0.45	0.42		0.05	0.63		0.23	0.60		0.26	0.41	
v/c ratio	2.68	2.73		0.29	4.13		1.08	1.74		1.24	1.19	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.50		1.67	1.57		1.67	1.67	
PF factor	1.00	1.00		0.90	1.00		1.00	1.00		1.00	1.00	
Q_1	30.5	29.4		2.5	43.8		15.8	43.6		18.0	29.2	
k_B	0.4	0.4		0.4	0.4		0.5	0.7		0.5	0.7	
Q_2	57.9	56.5		0.2	100.0		7.0	57.3		12.5	17.6	
Q avg.	88.4	85.9		2.7	143.8		22.8	100.9		30.6	46.8	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.5		2.0	1.5		1.7	1.5		1.6	1.5	
BOQ, $Q_{\%}$	133	129		5.5	216		38.0	152		49.2	72.3	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/15/11	Jurisdiction	AIRBRIT30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	2	2	2	3	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1350	1090	735	145	1000	900	700	1980	730	800	1095	720
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1421	1147	774	153	1053	947	737	2084	768	842	1153	758
Lane group cap.	531	759	568	531	531	1004	680	1717	785	680	1717	1368
v/c ratio	2.68	1.51	1.36	0.29	1.98	0.94	1.08	1.21	0.98	1.24	0.67	0.55
Green ratio	0.17	0.15	0.40	0.17	0.15	0.40	0.21	0.35	0.55	0.21	0.35	0.55
Unif. delay d1	62.5	63.5	45.0	54.7	63.5	43.4	59.0	49.0	33.1	59.0	41.7	22.1
Delay factor k	0.50	0.50	0.50	0.11	0.50	0.46	0.50	0.50	0.48	0.50	0.24	0.15
Increm. delay d2	759.6	236.8	174.3	0.3	449.1	16.5	59.4	101.8	26.7	119.5	1.0	0.5
PF factor	0.867	0.879	0.556	0.867	0.879	0.556	0.819	0.646	0.196	0.819	0.646	1.000
Control delay	813.8	292.7	199.3	47.7	504.9	40.6	107.8	133.5	33.2	167.9	28.0	22.6
Lane group LOS	F	F	F	D	F	D	F	F	C	F	C	C
Apprch. delay	492.6			268.2			106.7			69.3		
Approach LOS	F			F			F			E		
Intersec. delay	236.4			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-PM WITH LA MEDIA-AIRWAY RD./BRITANNIA BLVD./WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	1421	1147	774	153	1053	947	737	2084	768	842	1153	758
Satflow per lane	1641	1818	1419	1641	1818	1419	1641	1818	1436	1641	1818	1414
Capacity/lane	531	759	568	531	531	1004	680	1717	785	680	1717	1368
Flow ratio	0.45	0.23	0.55	0.05	0.30	0.38	0.23	0.42	0.53	0.26	0.23	0.30
v/c ratio	2.68	1.51	1.36	0.29	1.98	0.94	1.08	1.21	0.98	1.24	0.67	0.55
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.00
PF factor	1.00	1.00	1.00	0.90	1.00	0.93	1.00	1.00	0.84	1.00	0.81	1.00
Q_1	30.5	17.5	32.3	2.5	23.0	20.0	15.8	31.9	26.2	18.0	12.2	11.6
k_B	0.4	0.4	0.7	0.4	0.4	0.7	0.5	0.7	0.8	0.5	0.7	0.8
Q_2	57.9	19.1	28.1	0.2	35.2	5.0	7.0	20.2	7.8	12.5	1.4	1.0
Q avg.	88.4	36.6	60.3	2.7	58.3	25.0	22.8	52.1	34.0	30.6	13.5	12.6

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.5	1.6	1.5	2.0	1.5	1.6	1.7	1.5	1.6	1.6	1.8	1.8
BOQ, $Q_{\%}$	133	57.8	91.7	5.5	88.8	41.2	38.0	79.9	54.1	49.2	24.1	22.6

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	SIEMBRIT3BAWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	225	1310	370	450	1215	800	150	105	50	1275	1100	900
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 38.0	G =	G =	G = 36.0	G = 38.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	237	1768		474	2121		158	164		1342	2105	
Lane group cap.	425	1206		425	1167		765	827		765	963	
v/c ratio	0.56	1.47		1.12	1.82		0.21	0.20		1.75	2.19	
Green ratio	0.13	0.25		0.13	0.25		0.24	0.25		0.24	0.25	
Unif. delay d1	60.9	56.0		65.0	56.0		45.6	44.0		57.0	56.0	
Delay factor k	0.15	0.50		0.50	0.50		0.11	0.11		0.50	0.50	
Increm. delay d2	1.6	214.3		78.8	371.3		0.1	0.1		344.8	537.1	
PF factor	0.897	0.774		0.897	0.774		0.789	0.774		0.789	0.774	
Control delay	56.3	257.6		137.2	414.6		36.1	34.2		389.8	580.4	
Lane group LOS	E	F		F	F		D	C		F	F	
Apprch. delay	233.8			363.9			35.1			506.2		
Approach LOS	F			F			D			F		
Intersec. delay	378.7			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	SIEMBRIT3BAWLM/WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	225	1310	370	450	1215	800	150	105	50	1275	1100	900
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 38.0	G =	G =	G = 36.0	G = 38.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	237	1379	389	474	1279	842	158	111	53	1342	1158	947
Lane group cap.	425	1255	754	425	1255	1311	765	877	601	765	643	1063
v/c ratio	0.56	1.10	0.52	1.12	1.02	0.64	0.21	0.13	0.09	1.75	1.80	0.89
Green ratio	0.13	0.25	0.53	0.13	0.25	0.53	0.24	0.25	0.42	0.24	0.25	0.42
Unif. delay d1	60.9	56.0	23.1	65.0	56.0	25.4	45.6	43.2	26.2	57.0	56.0	40.3
Delay factor k	0.15	0.50	0.12	0.50	0.50	0.22	0.11	0.11	0.11	0.50	0.50	0.41
Increm. delay d2	1.6	56.9	0.6	78.8	30.3	1.1	0.1	0.1	0.1	344.8	366.6	9.6
PF factor	0.897	0.774	0.258	0.897	0.774	0.258	0.789	0.774	0.517	0.789	0.774	1.000
Control delay	56.3	100.3	6.6	137.2	73.6	7.6	36.1	33.5	13.6	389.8	409.9	49.9
Lane group LOS	E	F	A	F	E	A	D	C	B	F	F	D
Apprch. delay	76.9			63.8			31.5			303.2		
Approach LOS	E			E			C			F		
Intersec. delay	164.3			Intersection LOS						F		

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NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	SIEMBRIT3BPWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	800	1680	100	160	800	1600	440	300	480	895	775	690
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 24.0	G = 38.0	G =	G =	G = 30.0	G = 40.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	842	1873		168	2526		463	821		942	1542	
Lane group cap.	510	1242		510	1108		637	824		637	1016	
v/c ratio	1.65	1.51		0.33	2.28		0.73	1.00		1.48	1.52	
Green ratio	0.16	0.25		0.16	0.25		0.20	0.27		0.20	0.27	
Unif. delay d1	63.0	56.0		55.9	56.0		56.2	54.9		60.0	55.0	
Delay factor k	0.50	0.50		0.11	0.50		0.29	0.50		0.50	0.50	
Increm. delay d2	301.6	232.8		0.4	578.8		4.2	30.4		223.9	238.1	
PF factor	0.873	0.774		0.873	0.781		0.833	0.758		0.833	0.758	
Control delay	356.6	276.2		49.2	622.5		51.0	72.0		273.9	279.7	
Lane group LOS	F	F		D	F		D	E		F	F	
Apprch. delay	301.1			586.8			64.4			277.5		
Approach LOS	F			F			E			F		
Intersec. delay	345.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	SIEMBRIT3BPWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	2	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	800	1680	100	160	800	1600	440	300	480	895	775	690
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 24.0	G = 38.0	G =	G =	G = 30.0	G = 40.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	842	1768	105	168	842	1684	463	316	505	942	816	726
Lane group cap.	510	1255	696	510	1255	1211	637	923	658	637	677	1165
v/c ratio	1.65	1.41	0.15	0.33	0.67	1.39	0.73	0.34	0.77	1.48	1.21	0.62
Green ratio	0.16	0.25	0.49	0.16	0.25	0.49	0.20	0.27	0.46	0.20	0.27	0.46
Unif. delay d1	63.0	56.0	21.3	55.9	50.4	38.5	56.2	44.4	33.8	60.0	55.0	30.7
Delay factor k	0.50	0.50	0.11	0.11	0.24	0.50	0.29	0.11	0.32	0.50	0.50	0.21
Increm. delay d2	301.6	188.8	0.1	0.4	1.4	180.9	4.2	0.2	5.5	223.9	106.0	1.0
PF factor	0.873	0.774	0.368	0.873	0.774	0.616	0.833	0.758	0.432	0.833	0.758	1.000
Control delay	356.6	232.1	7.9	49.2	40.4	204.6	51.0	33.8	20.1	273.9	147.7	31.7
Lane group LOS	F	F	A	D	D	F	D	C	C	F	F	C
Apprch. delay	262.0			143.6			34.6			161.6		
Approach LOS	F			F			C			F		
Intersec. delay	168.3			Intersection LOS						F		

22-A
N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	OMLM30A3BWLM/NO MIT
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030 - ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	675	1500	655	850	880	600	975	1150	850	870	800	810
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	711	2268		895	1558		1026	2106		916	1695	
Lane group cap.	637	945		637	918		744	1069		744	1053	
v/c ratio	1.12	2.40		1.41	1.70		1.38	1.97		1.23	1.61	
Green ratio	0.20	0.20		0.20	0.20		0.23	0.23		0.23	0.23	
Unif. delay d1	60.0	60.0		60.0	60.0		57.5	57.5		57.5	57.5	
Delay factor k	0.50	0.50		0.50	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	72.0	633.2		191.6	318.4		179.0	439.9		115.6	278.8	
PF factor	0.833	0.833		0.833	0.833		0.797	0.797		0.797	0.797	
Control delay	122.0	683.2		241.6	368.4		224.8	485.8		161.5	324.6	
Lane group LOS	F	F		F	F		F	F		F	F	
Apprch. delay	549.3			322.1			400.3			267.4		
Approach LOS	F			F			F			F		
Intersec. delay	391.8			Intersection LOS						F		

22-A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *AM PEAK HOUR / WITH LA MEDIA / OM-LM/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	711	2268		895	1558		1026	2106		916	1695	
Satflow per lane	1641	1735		1641	1685		1641	1681		1641	1656	
Capacity/lane	637	945		637	918		744	1069		744	1053	
Flow ratio	0.22	0.48		0.28	0.34		0.32	0.46		0.29	0.38	
v/c ratio	1.12	2.40		1.41	1.70		1.38	1.97		1.23	1.61	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.67		1.67	1.67	
PF factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Q_1	15.3	34.7		19.2	23.8		22.0	32.2		19.6	25.9	
k_B	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Q_2	7.6	61.6		18.0	30.4		19.9	48.7		13.3	30.8	
Q avg.	22.9	96.3		37.2	54.2		41.9	80.9		33.0	56.8	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.5		1.6	1.5		1.6	1.5		1.6	1.5	
BOQ, $Q_{\%}$	38.2	145		58.6	82.9		65.3	122		52.6	86.6	
Queue Storage Ratio												
Q spacing	24.9	24.9		24.9	24.9		24.9	24.9		24.9	24.9	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

22-A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	OMLM30A3BWLM/WITH MIT
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030 - ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	2	2	3	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	675	1500	655	850	880	600	975	1150	850	870	800	810
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10		0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	711	1579	689	895	926	632	1026	1211	895	916	842	853
Lane group cap.	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
v/c ratio	1.12	1.59	0.57	1.41	0.93	0.54	1.38	1.05	0.76	1.23	0.73	0.72
Green ratio	0.20	0.20	0.47	0.20	0.20	0.47	0.23	0.23	0.47	0.23	0.23	0.47
Unif. delay d1	60.0	60.0	29.0	60.0	59.0	28.5	57.5	57.5	33.0	57.5	53.1	32.2
Delay factor k	0.50	0.50	0.16	0.50	0.45	0.14	0.50	0.50	0.31	0.50	0.29	0.28
Increm. delay d2	72.0	271.8	0.6	191.6	15.3	0.5	179.0	39.8	2.9	115.6	2.4	2.2
PF factor	0.833	0.833	0.417	0.833	0.833	0.417	0.797	0.797	0.417	0.797	0.797	0.417
Control delay	122.0	321.8	12.7	241.6	64.5	12.4	224.8	85.7	16.7	161.5	44.7	15.6
Lane group LOS	F	F	B	F	E	B	F	F	B	F	D	B
Apprch. delay	202.6			115.7			111.5			76.2		
Approach LOS	F			F			F			E		
Intersec. delay	128.5			Intersection LOS						F		

22-A
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *AM PEAK HOUR / WITH LA MEDIA / OM-LM/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	711	1579	689	895	926	632	1026	1211	895	916	842	853
Satflow per lane	1641	1818	1468	1641	1818	1425	1641	1818	1429	1641	1818	1429
Capacity/lane	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
Flow ratio	0.22	0.32	0.26	0.28	0.19	0.25	0.32	0.24	0.35	0.29	0.17	0.34
v/c ratio	1.12	1.59	0.57	1.41	0.93	0.54	1.38	1.05	0.76	1.23	0.73	0.72
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.55	1.00	0.98	0.54	1.00	1.00	0.66	1.00	0.92	0.63
Q_1	15.3	24.1	6.5	19.2	13.7	5.7	22.0	18.5	11.4	19.6	11.0	10.2
k_B	0.5	0.5	0.7	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Q_2	7.6	28.3	1.0	18.0	3.4	0.8	19.9	7.0	2.1	13.3	1.4	1.8
Q avg.	22.9	52.4	7.4	37.2	17.1	6.5	41.9	25.5	13.5	33.0	12.4	11.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.5	1.9	1.6	1.7	1.9	1.6	1.6	1.8	1.6	1.8	1.8
BOQ, $Q_{\%}$	38.2	80.4	14.1	58.6	29.6	12.5	65.3	41.9	24.0	52.6	22.3	21.6
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMLM30P3BWLM/NO MIT
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030 - ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	665	1000	960	980	1300	900	670	1170	850	850	780	795
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	700	2064		1032	2315		705	2127		895	1658	
Lane group cap.	637	918		637	918		744	1070		744	1053	
v/c ratio	1.10	2.25		1.62	2.52		0.95	1.99		1.20	1.57	
Green ratio	0.20	0.20		0.20	0.20		0.23	0.23		0.23	0.23	
Unif. delay d1	60.0	60.0		60.0	60.0		56.6	57.5		57.5	57.5	
Delay factor k	0.50	0.50		0.50	0.50		0.46	0.50		0.50	0.50	
Increm. delay d2	65.8	565.3		286.2	688.0		21.2	447.9		103.9	263.1	
PF factor	0.833	0.833		0.833	0.833		0.797	0.797		0.797	0.797	
Control delay	115.8	615.3		336.2	738.0		66.3	493.7		149.8	309.0	
Lane group LOS	F	F		F	F		E	F		F	F	
Apprch. delay	488.8			614.1			387.3			253.2		
Approach LOS	F			F			F			F		
Intersec. delay	448.0			Intersection LOS						F		

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N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *2030 3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*TR*		*L*	*TR*		*L*	*TR*		*L*	*TR*	
Init. queue/lane	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*	
Flow rate/lane	*700*	*2064*		*1032*	*2315*		*705*	*2127*		*895*	*1658*	
Satflow per lane	*1641*	*1684*		*1641*	*1684*		*1641*	*1682*		*1641*	*1656*	
Capacity/lane	*637*	*918*		*637*	*918*		*744*	*1070*		*744*	*1053*	
Flow ratio	*0.22*	*0.45*		*0.32*	*0.50*		*0.22*	*0.46*		*0.28*	0.37	
v/c ratio	*1.10*	*2.25*		*1.62*	*2.52*		*0.95*	*1.99*		*1.20*	*1.57*	
I factor	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	
Arrival type	*5*	*5*		*5*	*5*		*5*	*5*		*5*	*5*	
Platoon ratio	*1.67*	*1.67*		*1.67*	*1.67*		*1.67*	*1.67*		*1.67*	*1.67*	
PF factor	*1.00*	*1.00*		*1.00*	*1.00*		*0.98*	*1.00*		*1.00*	*1.00*	
Q_1	*15.0*	*31.5*		*22.1*	*35.4*		*14.6*	*32.5*		*19.2*	*25.3*	
k_B	*0.5*	*0.5*		*0.5*	*0.5*		*0.5*	*0.5*		*0.5*	*0.5*	
Q_2	*7.1*	*53.4*		*26.6*	*64.8*		*3.8*	*49.6*		*12.1*	*29.1*	
Q avg.	*22.1*	*84.9*		*48.7*	*100.2*		*18.4*	*82.1*		*31.3*	*54.5*	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	*1.7*	*1.5*		*1.5*	*1.5*		*1.7*	*1.5*		*1.6*	*1.5*	
BOQ, $Q_{\%}$	*37.0*	*128*		*75.0*	*150*		*31.6*	*124*		*50.2*	*83.3*	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	*24.9*	*24.9*		*24.9*	*24.9*		*24.9*	*24.9*		*24.9*	*24.9*	
Q storage	*0*	*0*		*0*	*0*		*0*	*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

22-P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMLM30P3BWLM/WITH MIT
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030 - ALT-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	2	2	3	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	665	1000	960	980	1300	900	670	1170	850	850	780	795
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10		0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	700	1053	1011	1032	1368	947	705	1232	895	895	821	837
Lane group cap.	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
v/c ratio	1.10	1.06	0.83	1.62	1.38	0.80	0.95	1.07	0.76	1.20	0.71	0.71
Green ratio	0.20	0.20	0.47	0.20	0.20	0.47	0.23	0.23	0.47	0.23	0.23	0.47
Unif. delay d1	60.0	60.0	34.9	60.0	60.0	34.2	56.6	57.5	33.0	57.5	52.8	31.9
Delay factor k	0.50	0.50	0.37	0.50	0.50	0.35	0.46	0.50	0.31	0.50	0.27	0.27
Increm. delay d2	65.8	46.7	5.1	286.2	177.5	4.2	21.2	45.9	2.9	103.9	2.1	2.0
PF factor	0.833	0.833	0.417	0.833	0.833	0.417	0.797	0.797	0.417	0.797	0.797	0.417
Control delay	115.8	96.7	19.7	336.2	227.5	18.4	66.3	91.7	16.7	149.8	44.2	15.3
Lane group LOS	F	F	B	F	F	B	E	F	B	F	D	B
Apprch. delay	73.4			201.9			61.7			71.7		
Approach LOS	E			F			E			E		
Intersec. delay	107.5			Intersection LOS						F		

22-P
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *2030 3B WITH LA MEDIA PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	700	1053	1011	1032	1368	947	705	1232	895	895	821	837
Satflow per lane	1641	1818	1468	1641	1818	1425	1641	1818	1429	1641	1818	1429
Capacity/lane	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
Flow ratio	0.22	0.21	0.39	0.32	0.28	0.38	0.22	0.25	0.35	0.28	0.17	0.33
v/c ratio	1.10	1.06	0.83	1.62	1.38	0.80	0.95	1.07	0.76	1.20	0.71	0.71
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.72	1.00	1.00	0.70	0.98	1.00	0.66	1.00	0.92	0.62
Q_1	15.0	16.1	15.0	22.1	20.9	13.2	14.6	18.8	11.4	19.2	10.6	9.7
k_B	0.5	0.5	0.7	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Q_2	7.1	6.6	3.1	26.6	19.1	2.6	3.8	7.6	2.1	12.1	1.3	1.7
Q avg.	22.1	22.7	18.1	48.7	40.0	15.9	18.4	26.5	13.5	31.3	11.9	11.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.7	1.7	1.5	1.6	1.7	1.7	1.6	1.8	1.6	1.8	1.8
BOQ, $Q_\%$	37.0	37.9	31.1	75.0	62.6	27.7	31.6	43.4	24.0	50.2	21.5	20.7
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

23A

NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 WB RAMPS/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905WBLAMED30A3BWLMNO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	1	2	2	1	0	3	1
Lane group		LT	R	L	LT	R	L	T	R		T	R
Volume (vph)	85	100	130	1325	50	830	110	2060	1300		2205	100
% Heavy veh	5	5	5	10	5	10	5	10	10		10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A		A	A
Startup lost time		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type		5	5	5	5	5	5	5	5		5	3
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0	0	0	0	0		0	0
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0

Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08
Timing	G = 10.0	G = 47.0	G =	G =	G = 10.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		194	137	698	750	874	116	2168	1368		2321	105
Lane group cap.		133	220	551	585	493	238	1706	590		1946	753
v/c ratio		1.46	0.62	1.27	1.28	1.77	0.49	1.27	2.32		1.19	0.14
Green ratio		0.07	0.14	0.34	0.34	0.34	0.07	0.49	0.44		0.39	0.50
Unif. delay d1		65.0	56.5	46.5	46.5	46.5	62.5	35.5	39.0		42.5	18.8
Delay factor k		0.50	0.21	0.50	0.50	0.50	0.11	0.50	0.50		0.50	0.11
Increm. delay d2		243.0	5.4	134.0	139.6	356.0	1.6	126.6	598.7		92.1	0.1
PF factor		0.949	0.889	0.663	0.663	0.699	0.949	0.497	1.000		0.569	1.000
Control delay		304.6	55.6	164.8	170.5	388.5	60.9	144.3	637.7		116.3	18.9
Lane group LOS		F	E	F	F	F	E	F	F		F	B
Apprch. delay	201.5			250.8			326.5			112.1		
Approach LOS	F			F			F			F		
Intersec. delay	242.0			Intersection LOS						F		

23-A
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R	L	LT	R	L	T	R		T	R
Init. queue/lane		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane		194	137	698	750	874	116	2168	1368		2321	105
Satflow per lane		1862	1538	1641	1743	1468	1719	1818	1333		1818	1505
Capacity/lane		133	220	551	585	493	238	1706	590		1946	753
Flow ratio		0.10	0.09	0.43	0.43	0.60	0.03	0.63	1.03		0.47	0.07
v/c ratio		1.46	0.62	1.27	1.28	1.77	0.49	1.27	2.32		1.19	0.14
I factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type		5	5	5	5	5	5	5	5		5	3
Platoon ratio		1.67	1.67	1.67	1.67	1.60	1.67	1.52	1.00		1.67	1.00
PF factor		1.00	0.95	1.00	1.00	1.00	0.97	1.00	1.00		1.00	1.00
Q_1		7.5	4.8	27.1	29.2	34.0	2.1	44.3	53.2		33.1	2.2
k_B		0.3	0.4	0.6	0.7	0.6	0.3	0.8	0.7		0.7	0.8
Q_2		8.4	0.6	21.0	23.3	48.9	0.2	33.8	98.4		21.0	0.1
Q avg.		15.9	5.3	48.1	52.4	82.9	2.4	78.0	151.6		54.1	2.3
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	1.9	1.5	1.5	1.5	2.0	1.5	1.5		1.5	2.0
BOQ, $Q_{\%}$		27.9	10.4	74.2	80.3	125	4.8	118	227		82.8	4.7
Queue Storage Ratio												
Q spacing		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage		0	0	0	0	0	0	0	0		0	0
Avg. R_Q												
95% $R_{Q\%}$												

23A
W
M

SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SR905 WB RAMPS/LA MEDIA RD.*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*05/13/12*	Jurisdiction	*905WBLAMED30A3BWLMWITHMIT*
Time Period	*AM PEAK HOUR*	Analysis Year	*YEAR 2030 ALT.-3B WITH LM*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	T	R		T	R
Volume (vph)	85		230	1325	50	830	110	1940	1300		1945	100
% Heavy veh	5		5	10	5	10	5	10	10		10	5
PHF	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A		A	A	A	A	A	A	A		A	A
Startup lost time	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type	5		5	5	5	5	5	5	5		5	3
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0	0	0	0	0	0	0		0	0
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0

Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08
Timing	G = 10.0	G = 47.0	G =	G =	G = 10.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	89		242	698	750	874	116	2042	1368		2047	105
Lane group cap.	123		220	551	585	493	238	2441	1422		1946	753
v/c ratio	0.72		1.10	1.27	1.28	1.77	0.49	0.84	0.96		1.05	0.14
Green ratio	0.07		0.14	0.34	0.34	0.34	0.07	0.49	1.00		0.39	0.50
Unif. delay d1	63.6		60.0	46.5	46.5	46.5	62.5	30.6	0.0		42.5	18.8
Delay factor k	0.28		0.50	0.50	0.50	0.50	0.11	0.37	0.47		0.50	0.11
Increm. delay d2	18.9		90.0	134.0	139.6	356.0	1.6	2.7	15.7		35.6	0.1
PF factor	0.949		0.889	0.663	0.663	0.699	0.949	0.352	0.950		0.569	1.000
Control delay	79.3		143.3	164.8	170.5	388.5	60.9	13.5	15.7		59.8	18.9
Lane group LOS	E		F	F	F	F	E	B	B		E	B
Apprch. delay	126.1			250.8			15.9			57.8		
Approach LOS	F			F			B			E		
Intersec. delay	96.6			Intersection LOS						F		

23A
WM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*		*R*	*L*	*LT*	*R*	*L*	*T*	*R*		*T*	*R*
Init. queue/lane	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*
Flow rate/lane	*89*		*242*	*698*	*750*	*874*	*116*	*2042*	*1368*		*2047*	*105*
Satflow per lane	*1719*		*1538*	*1641*	*1743*	*1468*	*1719*	*1818*	*1422*		*1818*	*1505*
Capacity/lane	*123*		*220*	*551*	*585*	*493*	*238*	*2441*	*1422*		*1946*	*753*
Flow ratio	*0.05*		*0.16*	*0.43*	*0.43*	*0.60*	*0.03*	*0.41*	*0.96*		0.41	*0.07*
v/c ratio	*0.72*		*1.10*	*1.27*	*1.28*	*1.77*	*0.49*	*0.84*	*0.96*		*1.05*	*0.14*
I factor	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*
Arrival type	*5*		*5*	*5*	*5*	*5*	*5*	*5*	*5*		*5*	*3*
Platoon ratio	*1.67*		*1.67*	*1.67*	*1.67*	*1.60*	*1.67*	*1.67*	*1.00*		*1.67*	*1.00*
PF factor	*0.98*		*1.00*	*1.00*	*1.00*	*1.00*	*0.97*	*0.66*			*1.00*	*1.00*
Q_1	*3.3*		*9.4*	*27.1*	*29.2*	*34.0*	*2.1*	*16.6*			*29.2*	*2.2*
k_B	*0.3*		*0.4*	*0.6*	*0.7*	*0.6*	*0.3*	*0.8*	*1.1*		*0.7*	*0.8*
Q_2	*0.6*		*5.0*	*21.0*	*23.3*	*48.9*	*0.2*	*3.6*	*10.8*		*10.9*	*0.1*
Q avg.	*3.9*		*14.4*	*48.1*	*52.4*	*82.9*	*2.4*	*20.2*			*40.1*	*2.3*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*		*1.8*	*1.5*	*1.5*	*1.5*	*2.0*	*1.7*			*1.6*	*2.0*
BOQ, $Q_{\%}$	*7.8*		*25.4*	*74.2*	*80.3*	*125*	*4.8*	*34.2*			*62.8*	*4.7*
Queue Storage Ratio												
Q spacing	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*
Q storage	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

23P
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M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 WB RAMPS/LA MEDIA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905WBLAMED30P3BWLMNO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	1	2	2	1	0	3	1
Lane group		LT	R	L	LT	R	L	T	R		T	R
Volume (vph)	270	100	305	525	125	350	225	2070	1300		2470	250
% Heavy veh	5	5	5	10	5	10	5	10	10		10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A		A	A
Startup lost time		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type		5	5	5	5	5	5	5	5		5	3
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0	0	0	0	0		0	0
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0

Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G = 40.0	G =	G =	G = 12.0	G = 60.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		389	321	277	408	368	237	2179	1368		2600	263
Lane group cap.		245	328	438	476	391	267	1754	1144		1981	853
v/c ratio		1.59	0.98	0.63	0.86	0.94	0.89	1.24	1.20		1.31	0.31
Green ratio		0.13	0.21	0.27	0.27	0.27	0.08	0.51	0.81		0.40	0.57
Unif. delay d1		65.0	58.7	48.5	52.3	53.8	68.3	37.0	14.5		45.0	17.1
Delay factor k		0.50	0.48	0.21	0.39	0.45	0.41	0.50	0.50		0.50	0.11
Increm. delay d2		283.0	43.8	3.0	14.4	30.9	28.2	114.1	96.9		144.3	0.2
PF factor		0.897	0.819	0.758	0.758	0.758	0.942	0.477	1.000		0.556	1.000
Control delay		341.4	91.8	39.7	54.0	71.7	92.6	131.7	111.4		169.3	17.3
Lane group LOS		F	F	D	D	E	F	F	F		F	B
Apprch. delay	228.5			56.4			121.9			155.4		
Approach LOS	F			E			F			F		
Intersec. delay	134.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R	L	LT	R	L	T	R		T	R
Init. queue/lane		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane		389	321	277	408	368	237	2179	1368		2600	263
Satflow per lane		1838	1538	1641	1785	1468	1719	1818	1418		1818	1505
Capacity/lane		245	328	438	476	391	267	1754	1144		1981	853
Flow ratio		0.21	0.21	0.17	0.23	0.25	0.07	0.63	0.96		0.52	0.17
v/c ratio		1.59	0.98	0.63	0.86	0.94	0.89	1.24	1.20		1.31	0.31
I factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type		5	5	5	5	5	5	5	5		5	3
Platoon ratio		1.67	1.67	1.67	1.67	1.67	1.67	1.51	1.00		1.67	1.00
PF factor		1.00	0.99	0.88	0.94	0.98	0.99	1.00	1.00		1.00	1.00
Q_1		16.2	13.2	8.9	15.3	14.6	5.0	47.7	57.0		39.8	5.8
k_B		0.4	0.5	0.6	0.6	0.5	0.3	0.9	1.0		0.8	0.9
Q_2		19.0	4.0	0.9	2.7	3.7	1.3	31.9	33.2		31.3	0.4
Q avg.		35.2	17.2	9.9	18.0	18.4	6.3	79.5	90.2		71.1	6.1

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.6	1.7	1.8	1.7	1.7	1.9	1.5	1.5		1.5	1.9
BOQ, $Q_{\%}$		55.8	29.8	18.2	30.9	31.5	12.2	120	136		107	11.8

Queue Storage Ratio

Q spacing		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage		0	0	0	0	0	0	0	0		0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SR905 WB RAMPS/LA MEDIA RD.*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*03/06/11*	Jurisdiction	*905WBLAMED30P3BWLMWITHMIT*
Time Period	*PM PEAK HOUR*	Analysis Year	*YEAR 2030 ALT.-3B WITH LM*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	T	R		T	R
Volume (vph)	270		405	525	125	350	225	2070	1540		2470	250
% Heavy veh	5		5	10	5	10	5	10	10		10	5
PHF	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A		A	A	A	A	A	A	A		A	A
Startup lost time	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type	5		5	5	5	5	5	5	5		5	3
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0	0	0	0	0	0	0		0	0
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0

Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G = 40.0	G =	G =	G = 12.0	G = 60.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	284		426	277	408	368	237	2179	1621		2600	263
Lane group cap.	229		328	438	476	391	267	2510	1418		1981	853
v/c ratio	1.24		1.30	0.63	0.86	0.94	0.89	0.87	1.14		1.31	0.31
Green ratio	0.13		0.21	0.27	0.27	0.27	0.08	0.51	1.00		0.40	0.57
Unif. delay d1	65.0		59.0	48.5	52.3	53.8	68.3	32.6	0.0		45.0	17.1
Delay factor k	0.50		0.50	0.21	0.39	0.45	0.41	0.40	0.50		0.50	0.11
Increm. delay d2	139.5		155.1	3.0	14.4	30.9	28.2	3.5	73.3		144.3	0.2
PF factor	0.897		0.819	0.758	0.758	0.758	0.942	0.315	0.950		0.556	1.000
Control delay	197.9		203.5	39.7	54.0	71.7	92.6	13.8	73.3		169.3	17.3
Lane group LOS	F		F	D	D	E	F	B	E		F	B
Apprch. delay	201.2			56.4			42.3			155.4		
Approach LOS	F			E			D			F		
Intersec. delay	94.4			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*		*R*	*L*	*LT*	*R*	*L*	*T*	*R*		*T*	*R*
Init. queue/lane	*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*
Flow rate/lane	*284*		*426*	*277*	*408*	*368*	*237*	*2179*	*1621*		*2600*	*263*
Satflow per lane	*1719*		*1538*	*1641*	*1785*	*1468*	*1719*	*1818*	*1418*		*1818*	*1505*
Capacity/lane	*229*		*328*	*438*	*476*	*391*	*267*	*2510*	*1418*		*1981*	*853*
Flow ratio	*0.17*		*0.28*	*0.17*	*0.23*	*0.25*	*0.07*	*0.44*	*1.14*		0.52	*0.17*
v/c ratio	*1.24*		*1.30*	*0.63*	*0.86*	*0.94*	*0.89*	*0.87*	*1.14*		*1.31*	*0.31*
I factor	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*
Arrival type	*5*		*5*	*5*	*5*	*5*	*5*	*5*	*5*		*5*	*3*
Platoon ratio	*1.67*		*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.00*		*1.67*	*1.00*
PF factor	*1.00*		*1.00*	*0.88*	*0.94*	*0.98*	*0.99*	*0.66*			*1.00*	*1.00*
Q_1	*11.8*		*17.8*	*8.9*	*15.3*	*14.6*	*5.0*	*19.4*			*39.8*	*5.8*
k_B	*0.4*		*0.5*	*0.6*	*0.6*	*0.5*	*0.3*	*0.9*	*1.2*		*0.8*	*0.9*
Q_2	*8.5*		*14.1*	*0.9*	*2.7*	*3.7*	*1.3*	*4.5*	*32.6*		*31.3*	*0.4*
Q avg.	*20.3*		*31.8*	*9.9*	*18.0*	*18.4*	*6.3*	*23.9*			*71.1*	*6.1*

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.7*		*1.6*	*1.8*	*1.7*	*1.7*	*1.9*	*1.7*			*1.5*	*1.9*
BOQ, $Q_{\%}$	*34.4*		*51.0*	*18.2*	*30.9*	*31.5*	*12.2*	*39.6*			*107*	*11.8*

Queue Storage Ratio

Q spacing	*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*
Q storage	*0*		*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/ LA MEDIA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBLAMED30A3BWLMNO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	1235		2140				600	2235			2610	400
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 20.0	G = 52.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1300		2253				632	2353			2747	421
Lane group cap.	1319		1506				440	2596			1242	1160
v/c ratio	0.99		1.50				1.44	0.91			2.21	0.36
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.1		30.5				62.5	31.3			46.5	3.8
Delay factor k	0.49		0.50				0.50	0.43			0.50	0.11
Increm. delay d2	21.3		226.8				209.0	5.1			547.9	0.2
PF factor	1.000		1.000				0.893	0.266			0.889	0.259
Control delay	63.4		257.3				264.8	13.4			589.3	1.2
Lane group LOS	E		F				F	B			F	A
Apprch. delay	186.3						66.7			511.1		
Approach LOS	F						E			F		
Intersec. delay	255.5			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1300		2253				632	2353			2747	421
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1242	1160
Flow ratio	0.41		0.87				0.20	0.47			0.79	0.29
v/c ratio	0.99		1.50				1.44	0.91			2.21	0.36
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.67			1.20	1.18
PF factor	1.00		1.00				1.00	0.67			1.00	0.28
Q_1	26.7		51.2				13.1	21.0			58.1	1.3
k_B	0.7		0.8				0.4	0.9			0.7	1.0
Q_2	7.2		55.2				13.5	5.7			100.0	0.6
Q avg.	33.9		106.4				26.6	26.7			158.1	1.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6		1.5				1.6	1.6			1.5	2.0
BOQ, $Q_{\%}$	53.9		160				43.5	43.7			237	3.8
Queue Storage Ratio												
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/ LA MEDIA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBLAMED30A3BWLMWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	1235		2140				600	2235			2610	400
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 20.0	G = 52.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1300		2253				632	2353			2747	421
Lane group cap.	1319		1506				440	2596			1776	1160
v/c ratio	0.99		1.50				1.44	0.91			1.55	0.36
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.1		30.5				62.5	31.3			46.5	3.8
Delay factor k	0.49		0.50				0.50	0.43			0.50	0.11
Increm. delay d2	21.3		226.8				209.0	5.1			248.9	0.2
PF factor	1.000		1.000				0.893	0.266			0.627	0.259
Control delay	63.4		257.3				264.8	13.4			278.0	1.2
Lane group LOS	E		F				F	B			F	A
Apprch. delay	186.3						66.7			241.2		
Approach LOS	F						E			F		
Intersec. delay	167.4			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT. 3B WITH LA MEDIA AM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1300		2253				632	2353			2747	421
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1776	1160
Flow ratio	0.41		0.87				0.20	0.47			0.55	0.29
v/c ratio	0.99		1.50				1.44	0.91			1.55	0.36
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.67			1.67	1.18
PF factor	1.00		1.00				1.00	0.67			1.00	0.28
Q_1	26.7		51.2				13.1	21.0			40.6	1.3
k_B	0.7		0.8				0.4	0.9			0.7	1.0
Q_2	7.2		55.2				13.5	5.7			46.5	0.6
Q avg.	33.9		106.4				26.6	26.7			87.1	1.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6		1.5				1.6	1.6			1.5	2.0
BOQ, $Q_{\%}$	53.9		160				43.5	43.7			131	3.8
Queue Storage Ratio												
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

24P
NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/ LA MEDIA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBLAMED30P3BWLMNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	825		1500				1300	3010			1430	650
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		200	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 37.0	G =	G =	G =	G = 58.0	G = 42.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	868		1368				1368	3168			1505	684
Lane group cap.	786		1715				1232	3434			969	802
v/c ratio	1.10		0.80				1.11	0.92			1.55	0.85
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		18.3				46.0	19.6			54.0	27.8
Delay factor k	0.50		0.34				0.50	0.44			0.50	0.39
Increm. delay d2	64.6		2.7				61.5	4.8			254.0	8.8
PF factor	1.000		1.000				0.580	0.163			0.741	0.152
Control delay	121.1		21.1				88.2	8.0			294.0	13.1
Lane group LOS	F		C				F	A			F	B
Apprch. delay	59.9						32.2			206.2		
Approach LOS	E						C			F		
Intersec. delay	81.6			Intersection LOS						F		

2AP
N
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT. 3B WITH LA MEDIA PM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	868		1368				1368	3168			1505	684
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			969	802
Flow ratio	0.27		0.53				0.43	0.64			0.43	0.48
v/c ratio	1.10		0.80				1.11	0.92			1.55	0.85
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.37			1.67	1.67
PF factor	1.00		1.00				1.00	0.47			1.00	0.39
Q_1	18.6		23.1				29.3	19.5			32.9	9.3
k_B	0.5		0.9				0.7	1.1			0.6	0.8
Q_2	8.7		3.2				13.4	7.8			36.9	3.8
Q avg.	27.3		26.3				42.8	27.3			69.8	13.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6		1.6				1.6	1.6			1.5	1.8
BOQ, $Q_{\%}$	44.6		43.1				66.5	44.5			106	23.4

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

2AP
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/ LA MEDIA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	905EBLAMED30P3BWLMWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/ALT. 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	825		1500				1300	3010			1430	650
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		200	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 37.0	G =	G =	G =	G = 58.0	G = 42.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	868		1368				1368	3168			1505	684
Lane group cap.	786		1715				1232	3434			1387	802
v/c ratio	1.10		0.80				1.11	0.92			1.09	0.85
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		18.3				46.0	19.6			54.0	27.8
Delay factor k	0.50		0.34				0.50	0.44			0.50	0.39
Increm. delay d2	64.6		2.7				61.5	4.8			50.8	8.8
PF factor	1.000		1.000				0.580	0.163			0.741	0.152
Control delay	121.1		21.1				88.2	8.0			90.8	13.1
Lane group LOS	F		C				F	A			F	B
Apprch. delay	59.9						32.2			66.5		
Approach LOS	E						C			E		
Intersec. delay	47.5			Intersection LOS						D		

2-7p
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT. 3B WITH LA MEDIA PM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	868		1368				1368	3168			1505	684
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			1387	802
Flow ratio	0.27		0.53				0.43	0.64			0.30	0.48
v/c ratio	1.10		0.80				1.11	0.92			1.09	0.85
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.37			1.67	1.67
PF factor	1.00		1.00				1.00	0.47			1.00	0.39
Q_1	18.6		23.1				29.3	19.5			23.0	9.3
k_B	0.5		0.9				0.7	1.1			0.6	0.8
Q_2	8.7		3.2				13.4	7.8			9.8	3.8
Q avg.	27.3		26.3				42.8	27.3			32.8	13.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6		1.6				1.6	1.6			1.6	1.8
BOQ, $Q_{\%}$	44.6		43.1				66.5	44.5			52.4	23.4

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

25A

N
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDIAAIR30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	700	615	350	350	450	635	250	1500	150	1600	1950	1200
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 17.0	G =	G =	G = 43.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	1015		368	1142		263	1737		1684	3316	
Lane group cap.	361	365		361	348		914	1249		914	1697	
v/c ratio	2.04	2.78		1.02	3.28		0.29	1.39		1.84	1.95	
Green ratio	0.11	0.11		0.11	0.11		0.29	0.37		0.29	0.37	
Unif. delay d1	66.5	66.5		66.5	66.5		41.6	47.5		53.5	47.5	
Delay factor k	0.50	0.50		0.50	0.50		0.11	0.50		0.50	0.50	
Increm. delay d2	478.3	809.0		52.4	1034		0.2	180.8		383.4	431.5	
PF factor	0.915	0.915		0.915	0.915		0.732	0.614		0.732	0.811	
Control delay	539.1	869.8		113.2	1095		30.6	210.0		422.5	470.0	
Lane group LOS	F	F		F	F		C	F		F	F	
Apprch. delay	730.7			855.7			186.4			454.0		
Approach LOS	F			F			F			F		
Intersec. delay	508.2			Intersection LOS						F		

25A
NM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	737	1015		368	1142		263	1737		1684	3316	
Satflow per lane	1641	1690		1641	1612		1641	1789		1641	1699	
Capacity/lane	361	365		361	348		914	1249		914	1697	
Flow ratio	0.23	0.32		0.12	0.37		0.08	0.51		0.53	0.72	
v/c ratio	2.04	2.78		1.02	3.28		0.29	1.39		1.84	1.95	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.67		1.67	1.33	
PF factor	1.00	1.00		1.00	1.00		0.78	1.00		1.00	1.00	
Q_1	15.8	22.2		7.9	25.0		3.4	38.0		36.1	50.7	
k_B	0.3	0.3		0.3	0.3		0.6	0.7		0.6	0.7	
Q_2	24.9	43.3		3.1	52.6		0.2	34.5		50.9	75.8	
Q avg.	40.7	65.5		11.0	77.6		3.6	72.5		87.0	126.5	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6	1.5		1.8	1.5		2.0	1.5		1.5	1.5	
BOQ, $Q_{\%}$	63.6	99.3		20.0	117		7.3	110		131	190	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

25A
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M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDIAAIR30A3BWLMWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	2	2	2	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	700	615	350	350	450	635	250	1500	150	1600	1950	1200
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 17.0	G =	G =	G = 43.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	647	368	368	474	668	263	1579	158	1684	2053	1263
Lane group cap.	361	392	611	361	392	1050	914	1269	737	914	1816	1285
v/c ratio	2.04	1.65	0.60	1.02	1.21	0.64	0.29	1.24	0.21	1.84	1.13	0.98
Green ratio	0.11	0.11	0.43	0.11	0.11	0.43	0.29	0.37	0.51	0.29	0.37	0.51
Unif. delay d1	66.5	66.5	32.6	66.5	66.5	33.2	41.6	47.5	20.0	53.5	47.5	35.9
Delay factor k	0.50	0.50	0.19	0.50	0.50	0.22	0.11	0.50	0.11	0.50	0.50	0.49
Increm. delay d2	478.3	304.0	1.7	52.4	115.7	1.3	0.2	116.7	0.1	383.4	66.3	21.0
PF factor	0.915	0.915	0.490	0.915	0.915	0.490	0.732	0.614	0.297	0.732	0.614	0.297
Control delay	539.1	364.8	17.7	113.2	176.6	17.6	30.6	145.9	6.1	422.5	95.5	31.6
Lane group LOS	F	F	B	F	F	B	C	F	A	F	F	C
Apprch. delay	365.2			90.8			119.7			189.5		
Approach LOS	F			F			F			F		
Intersec. delay	191.4			Intersection LOS						F		

25h
W
M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	737	647	368	368	474	668	263	1579	158	1684	2053	1263
Satflow per lane	1641	1818	1409	1641	1818	1369	1641	1818	1436	1641	1818	1414
Capacity/lane	361	392	611	361	392	1050	914	1269	737	914	1816	1285
Flow ratio	0.23	0.19	0.26	0.12	0.14	0.28	0.08	0.46	0.11	0.53	0.41	0.50
v/c ratio	2.04	1.65	0.60	1.02	1.21	0.64	0.29	1.24	0.21	1.84	1.13	0.98
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.64	1.00	1.00	0.66	0.78	1.00	0.32	1.00	1.00	0.92
Q_1	15.8	14.1	7.5	7.9	10.3	8.1	3.4	34.5	1.2	36.1	31.4	26.9
k_B	0.3	0.4	0.7	0.3	0.4	0.7	0.6	0.7	0.8	0.6	0.7	0.8
Q_2	24.9	17.6	1.0	3.1	7.0	1.1	0.2	23.6	0.2	50.9	15.4	7.6
Q avg.	40.7	31.7	8.6	11.0	17.3	9.2	3.6	58.1	1.4	87.0	46.7	34.5

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.6	1.9	1.8	1.7	1.9	2.0	1.5	2.1	1.5	1.5	1.6
BOQ, $Q_{\%}$	63.6	50.9	16.0	20.0	30.0	17.1	7.3	88.6	2.8	131	72.2	54.8

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

25-P
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDIAAIR30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	900	500	500	200	300	700	295	2710	300	800	1430	700
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 17.0	G =	G =	G = 43.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	1052		211	1053		311	3169		842	2242	
Lane group cap.	361	354		361	340		914	1247		914	1713	
v/c ratio	2.62	2.97		0.58	3.10		0.34	2.54		0.92	1.31	
Green ratio	0.11	0.11		0.11	0.11		0.29	0.37		0.29	0.37	
Unif. delay d1	66.5	66.5		63.1	66.5		42.3	47.5		51.9	47.5	
Delay factor k	0.50	0.50		0.18	0.50		0.11	0.50		0.44	0.50	
Increm. delay d2	738.4	894.9		2.4	951.4		0.2	696.0		14.4	143.3	
PF factor	0.915	0.915		0.915	0.915		0.732	0.989		0.732	0.614	
Control delay	799.3	955.7		60.2	1012		31.2	742.9		52.3	172.5	
Lane group LOS	F	F		E	F		C	F		D	F	
Apprch. delay	881.6			853.3			679.3			139.7		
Approach LOS	F			F			F			F		
Intersec. delay	573.5			Intersection LOS						F		

25-P
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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA PM PEAK HOUR/LA MEDIA AIRWAY/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	947	1052		211	1053		311	3169		842	2242	
Satflow per lane	1641	1642		1641	1573		1641	1786		1641	1715	
Capacity/lane	361	354		361	340		914	1247		914	1713	
Flow ratio	0.30	0.34		0.07	0.35		0.10	0.93		0.26	0.48	
v/c ratio	2.62	2.97		0.58	3.10		0.34	2.54		0.92	1.31	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.02		1.67	1.67	
PF factor	1.00	1.00		0.96	1.00		0.79	1.00		0.96	1.00	
Q_1	20.3	23.0		4.1	23.0		4.2	69.3		16.8	34.3	
k_B	0.3	0.3		0.3	0.3		0.6	0.7		0.6	0.7	
Q_2	38.3	46.4		0.5	47.4		0.3	127.4		3.8	27.1	
Q avg.	58.6	69.4		4.6	70.4		4.5	196.8		20.6	61.4	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.5		2.0	1.5		2.0	1.5		1.7	1.5	
BOQ, $Q_{\%}$	89.2	105		9.0	106		8.8	295		34.9	93.3	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

25-f
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDIAAIR30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	2	2	2	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	900	500	500	200	300	700	295	2710	300	800	1430	700
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 17.0	G =	G =	G = 43.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	526	526	211	316	737	311	2853	316	842	1505	737
Lane group cap.	361	392	611	361	392	1050	914	1269	737	914	1816	1285
v/c ratio	2.62	1.34	0.86	0.58	0.81	0.70	0.34	2.25	0.43	0.92	0.83	0.57
Green ratio	0.11	0.11	0.43	0.11	0.11	0.43	0.29	0.37	0.51	0.29	0.37	0.51
Unif. delay d1	66.5	66.5	38.4	63.1	64.9	34.6	42.3	47.5	22.8	51.9	43.2	25.2
Delay factor k	0.50	0.50	0.39	0.18	0.35	0.27	0.11	0.50	0.11	0.44	0.37	0.17
Increm. delay d2	738.4	170.1	12.0	2.4	11.7	2.1	0.2	564.2	0.4	14.4	3.4	0.6
PF factor	0.915	0.915	0.490	0.915	0.915	0.490	0.732	0.911	0.297	0.732	0.614	0.297
Control delay	799.3	231.0	30.8	60.2	71.1	19.1	31.2	607.5	7.2	52.3	29.9	8.1
Lane group LOS	F	F	C	E	E	B	C	F	A	D	C	A
Apprch. delay	447.5			39.0			501.5			30.8		
Approach LOS	F			D			F			C		
Intersec. delay	283.3			Intersection LOS						F		

25 P
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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/LA MEDIA AIRWAY/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	947	526	526	211	316	737	311	2853	316	842	1505	737
Satflow per lane	1641	1818	1409	1641	1818	1369	1641	1818	1436	1641	1818	1414
Capacity/lane	361	392	611	361	392	1050	914	1269	737	914	1816	1285
Flow ratio	0.30	0.15	0.37	0.07	0.09	0.30	0.10	0.82	0.22	0.26	0.30	0.29
v/c ratio	2.62	1.34	0.86	0.58	0.81	0.70	0.34	2.25	0.43	0.92	0.83	0.57
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.15	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.81	0.96	0.98	0.69	0.79	1.00	0.37	0.96	0.87	0.41
Q_1	20.3	11.5	16.1	4.1	6.6	9.8	4.2	62.4	3.0	16.8	18.1	4.9
k_B	0.3	0.4	0.7	0.3	0.4	0.7	0.6	0.7	0.8	0.6	0.7	0.8
Q_2	38.3	10.1	3.3	0.5	1.2	1.5	0.3	105.3	0.6	3.8	2.9	1.0
Q avg.	58.6	21.6	19.4	4.6	7.8	11.3	4.5	167.7	3.6	20.6	21.1	5.9

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.5	1.7	1.7	2.0	1.9	1.8	2.0	1.5	2.0	1.7	1.7	1.9
BOQ, $Q_{\%}$	89.2	36.3	33.1	9.0	14.7	20.5	8.8	252	7.1	34.9	35.5	11.5

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

26A
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/14	Jurisdiction	LMSV30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	3	0
Lane group	L	T			TR					L	TR	
Volume (vph)	1020	800			2100	980				435	350	1120
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0					2.0	2.0	
Ext. eff. green	2.0	2.0			2.0					2.0	2.0	
Arrival type	5	5			5					5	5	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Ped/Bike/RTOR Volume				0	0	0	0			0	0	0
Lane Width	12.0	12.0			12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0	0	
Unit Extension	3.0	3.0			3.0					3.0	3.0	

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 25.0	G = 57.0	G =	G =	G = 35.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1074	842			3243					458	1547	
Lane group cap.	613	3277			2068					858	991	
v/c ratio	1.75	0.26			1.57					0.53	1.56	
Green ratio	0.19	0.66			0.44					0.27	0.27	
Unif. delay d1	52.5	9.0			36.5					40.5	47.5	
Delay factor k	0.50	0.11			0.50					0.14	0.50	
Increm. delay d2	345.1	0.0			258.1					0.7	257.4	
PF factor	0.841	0.148			0.702					0.754	0.754	
Control delay	389.3	1.4			283.7					31.2	293.3	
Lane group LOS	F	A			F					C	F	
Apprch. delay	218.8			283.7						233.4		
Approach LOS	F			F						F		
Intersec. delay	252.3			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	LMSV30A3BWLMWITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	1	2
Lane group	L	T			TR	R				L	T	R
Volume (vph)	1020	800			2100	980				435	350	1120
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Arrival type	5	5			5	5				5	5	5
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Ped/Bike/RTOR Volume				10	5	0	10			10		0
Lane Width	12.0	12.0			12.0	12.0				12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0	0	0
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 27.0	G = 55.0	G =	G =	G = 35.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1074	842			2345	898				458	368	1179
Lane group cap.	662	3277			2074	1835				858	271	1319
v/c ratio	1.62	0.26			1.13	0.49				0.53	1.36	0.89
Green ratio	0.21	0.66			0.42	0.73				0.27	0.27	0.51
Unif. delay d1	51.5	9.0			37.5	7.3				40.5	47.5	28.8
Delay factor k	0.50	0.11			0.50	0.11				0.14	0.50	0.42
Increm. delay d2	287.0	0.0			65.5	0.2				0.7	183.2	8.2
PF factor	0.825	0.148			0.511	0.186				0.754	0.754	0.312
Control delay	329.5	1.4			84.7	1.6				31.2	219.1	17.2
Lane group LOS	F	A			F	A				C	F	B
Apprch. delay	185.3			61.7						57.5		
Approach LOS	F			E						E		
Intersec. delay	93.6			Intersection LOS						F		

HCS2000™ Version 4.1f

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	LMSV30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	3	0
Lane group	L	T			TR					L	TR	
Volume (vph)	1120	1850			500	760				760	350	1400
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0					2.0	2.0	
Ext. eff. green	2.0	2.0			2.0					2.0	2.0	
Arrival type	5	5			5					5	5	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Ped/Bike/RTOR Volume				10	5	0	10			10		0
Lane Width	12.0	12.0			12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0	0	
Unit Extension	3.0	3.0			3.0					3.0	3.0	

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 37.0	G = 38.0	G =	G =	G = 42.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1179	1947			1326					800	1842	
Lane group cap.	907	3010			1296					1030	1212	
v/c ratio	1.30	0.65			1.02					0.78	1.52	
Green ratio	0.28	0.61			0.29					0.32	0.32	
Unif. delay d1	46.5	16.5			46.0					39.8	44.0	
Delay factor k	0.50	0.22			0.50					0.33	0.50	
Increm. delay d2	143.1	0.5			31.0					3.8	238.2	
PF factor	0.735	0.127			0.725					0.682	0.682	
Control delay	177.2	2.6			64.4					30.9	268.2	
Lane group LOS	F	A			E					C	F	
Apprch. delay	68.5			64.4						196.3		
Approach LOS	E			E						F		
Intersec. delay	115.3			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/10/11	Jurisdiction	LMSV30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	1	2
Lane group	L	T			T	R				L	T	R
Volume (vph)	1120	1850			500	760				760	350	1400
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Arrival type	5	5			5	5				5	5	5
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Ped/Bike/RTOR Volume				10	5	0	10			10		0
Lane Width	12.0	12.0			12.0	12.0				12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0	0	0
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 37.0	G = 38.0	G =	G =	G = 42.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1179	1947			526	800				800	368	1474
Lane group cap.	907	3010			1448	1632				1030	325	1659
v/c ratio	1.30	0.65			0.36	0.49				0.78	1.13	0.89
Green ratio	0.28	0.61			0.29	0.65				0.32	0.32	0.64
Unif. delay d1	46.5	16.5			36.4	11.5				39.8	44.0	19.6
Delay factor k	0.50	0.22			0.11	0.11				0.33	0.50	0.41
Increm. delay d2	143.1	0.5			0.2	0.2				3.8	90.7	6.3
PF factor	0.735	0.127			0.725	0.144				0.682	0.682	0.138
Control delay	177.2	2.6			26.5	1.9				30.9	120.7	9.1
Lane group LOS	F	A			C	A				C	F	A
Apprch. delay	68.5			11.7						31.2		
Approach LOS	E			B						C		
Intersec. delay	44.0			Intersection LOS						D		

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M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDLONE30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	3	0	2	3	0
Lane group				L		R		TR		L	T	
Volume (vph)				285		835		1720	415	1265	2585	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 25.0	G =	G =	G =	G = 45.0	G = 40.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 123.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				300		879		2248		1332	2721	
Lane group cap.				648		1564		1556		1166	3584	
v/c ratio				0.46		0.56		1.44		1.14	0.76	
Green ratio				0.20		0.60		0.33		0.37	0.72	
Unif. delay d1				43.1		14.7		41.5		39.0	10.4	
Delay factor k				0.11		0.16		0.50		0.50	0.31	
Increm. delay d2				0.5		0.5		203.8		74.7	1.0	
PF factor				0.830		0.126		0.679		0.615	0.181	
Control delay				36.3		2.3		232.0		98.7	2.9	
Lane group LOS				D		A		F		F	A	
Apprch. delay				11.0			232.0			34.4		
Approach LOS				B			F			C		
Intersec. delay	90.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B AM PEAK HOUR WITH LA MEDIA/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L		R		TR		L	T	
Init. queue/lane				0.0		0.0		0.0		0.0	0.0	
Flow rate/lane				300		879		2248		1332	2721	
Satflow per lane				1641		1468		1756		1641	1818	
Capacity/lane				648		1564		1556		1166	3584	
Flow ratio				0.09		0.34		0.47		0.42	0.55	
v/c ratio				0.46		0.56		1.44		1.14	0.76	
I factor				1.000	1.000	1.000		1.000		1.000	1.000	
Arrival type				5		5		5		5	5	
Platoon ratio				1.67		1.58		1.67		1.67	1.31	
PF factor				0.89		0.18		1.00		1.00	0.29	
Q_1				4.1		1.8		28.2		23.4	6.1	
k_B				0.4		0.8		0.6		0.6	1.0	
Q_2				0.4		1.0		33.6		14.3	2.9	
Q avg.				4.5		2.8		61.8		37.7	9.0	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				2.0		2.0		1.5		1.6	1.9	
BOQ, $Q_{\%}$				8.8		5.6		93.8		59.3	16.8	
Queue Storage Ratio												
Q spacing				25.0		25.0		25.0		25.0	25.0	
Q storage				0		0		0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDLONE30A3BWLMWITHMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				285		835		1720	415	1265	2585	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 25.0	G =	G =	G =	G = 45.0	G = 40.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 123.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				300		879		1811	437	1332	2721	
Lane group cap.				648		1564		1611	817	1166	3584	
v/c ratio				0.46		0.56		1.12	0.53	1.14	0.76	
Green ratio				0.20		0.60		0.33	0.57	0.37	0.72	
Unif. delay d1				43.1		14.7		41.5	16.4	39.0	10.4	
Delay factor k				0.11		0.16		0.50	0.14	0.50	0.31	
Increm. delay d2				0.5		0.5		64.6	0.7	74.7	1.0	
PF factor				0.830		0.126		0.679	0.119	0.615	0.181	
Control delay				36.3		2.3		92.8	2.7	98.7	2.9	
Lane group LOS				D		A		F	A	F	A	
Apprch. delay				11.0			75.3			34.4		
Approach LOS				B			E			C		
Intersec. delay	43.0			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM PEAK HOUR WITH LA MEDIA/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L		R		T	R	L	T	
Init. queue/lane				0.0		0.0		0.0	0.0	0.0	0.0	
Flow rate/lane				300		879		1811	437	1332	2721	
Satflow per lane				1641		1468		1818	1435	1641	1818	
Capacity/lane				648		1564		1611	817	1166	3584	
Flow ratio				0.09		0.34		0.37	0.30	0.42	0.55	
v/c ratio				0.46		0.56		1.12	0.53	1.14	0.76	
I factor				1.000	1.000	1.000		1.000	1.000	1.000	1.000	
Arrival type				5		5		5	5	5	5	
Platoon ratio				1.67		1.58		1.67	1.67	1.67	1.31	
PF factor				0.89		0.18		1.00	0.17	1.00	0.29	
Q_1				4.1		1.8		22.7	1.6	23.4	6.1	
k_B				0.4		0.8		0.6	0.7	0.6	1.0	
Q_2				0.4		1.0		13.0	0.8	14.3	2.9	
Q avg.				4.5		2.8		35.7	2.4	37.7	9.0	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				2.0		2.0		1.6	2.0	1.6	1.9	
BOQ, $Q_{\%}$				8.8		5.6		56.5	4.8	59.3	16.8	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0		25.0		25.0	25.0	25.0	25.0	
Q storage				0		0		0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDLONE30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	3	0	2	3	0
Lane group				L		R		TR		L	T	
Volume (vph)				415		1265		2585	285	835	1720	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	1	5	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 30.0	G = 62.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				437		1332		3021		879	1811	
Lane group cap.				797		1281		2158		683	3396	
v/c ratio				0.55		1.04		1.40		1.29	0.53	
Green ratio				0.25		0.49		0.44		0.21	0.69	
Unif. delay d1				45.6		35.5		39.0		55.0	10.9	
Delay factor k				0.15		0.50		0.50		0.50	0.14	
Increm. delay d2				0.8		36.1		182.8		140.0	0.2	
PF factor				0.778		0.352		0.577		0.818	0.159	
Control delay				36.3		48.6		205.4		185.0	1.9	
Lane group LOS				D		D		F		F	A	
Apprch. delay				45.6			205.4			61.7		
Approach LOS				D			F			E		
Intersec. delay	115.9			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM PEAK HOUR WITH LA MEDIA/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				*L*		*R*		*TR*		*L*	*T*	
Init. queue/lane				*0.0*		*0.0*		*0.0*		*0.0*	*0.0*	
Flow rate/lane				*437*		*1332*		*3021*		*879*	*1811*	
Satflow per lane				*1641*		*1468*		*1788*		*1641*	*1818*	
Capacity/lane				*797*		*1281*		*2158*		*683*	*3396*	
Flow ratio				*0.14*		*0.51*		*0.62*		*0.28*	0.37	
v/c ratio				*0.55*		*1.04*		*1.40*		*1.29*	*0.53*	
I factor				*1.000*	*1.000*	*1.000*		*1.000*		*1.000*	*1.000*	
Arrival type				*5*		*5*		*5*		*5*	*5*	
Platoon ratio				*1.67*		*1.67*		*1.53*		*1.67*	*1.39*	
PF factor				*0.87*		*1.00*		*1.00*		*1.00*	*0.20*	
Q_1				*6.6*		*29.2*		*43.1*		*17.6*	2.6	
k_B				*0.5*		*0.7*		*0.8*		*0.5*	*1.0*	
Q_2				*0.6*		*10.4*		*42.2*		*14.5*	1.2	
Q avg.				*7.2*		*39.6*		*85.3*		*32.1*	3.8	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				*1.9*		*1.6*		*1.5*		*1.6*	2.0	
BOQ, $Q_{\%}$				*13.8*		*62.0*		*128*		*51.4*	7.5	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				*25.0*		*25.0*		*25.0*		*25.0*	*25.0*	
Q storage				*0*		*0*		*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LAMEDLONE30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	2	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				415		1265		2585	285	835	1720	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0	2.0	2.0	2.0	
Ext. eff. green				2.0		2.0		2.0	2.0	2.0	2.0	
Arrival type				5		5		5	5	5	5	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	1	5	0			
Lane Width				12.0		12.0		12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0	0	0	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 35.0	G =	G =	G =	G = 30.0	G = 62.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				437		1332		2721	300	879	1811	
Lane group cap.				797		1281		2193	1054	683	3396	
v/c ratio				0.55		1.04		1.24	0.28	1.29	0.53	
Green ratio				0.25		0.49		0.44	0.73	0.21	0.69	
Unif. delay d1				45.6		35.5		39.0	6.5	55.0	10.9	
Delay factor k				0.15		0.50		0.50	0.11	0.50	0.14	
Increm. delay d2				0.8		36.1		112.4	0.1	140.0	0.2	
PF factor				0.778		0.352		0.470	0.184	0.818	0.159	
Control delay				36.3		48.6		130.8	1.3	185.0	1.9	
Lane group LOS				D		D		F	A	F	A	
Apprch. delay				45.6			117.9			61.7		
Approach LOS				D			F			E		
Intersec. delay	80.6			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM PEAK HOUR WITH LA MEDIA/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				*L*		*R*		*T*	*R*	*L*	*T*	
Init. queue/lane				*0.0*		*0.0*		*0.0*	*0.0*	*0.0*	*0.0*	
Flow rate/lane				*437*		*1332*		*2721*	*300*	*879*	*1811*	
Satflow per lane				*1641*		*1468*		*1818*	*1447*	*1641*	*1818*	
Capacity/lane				*797*		*1281*		*2193*	*1054*	*683*	*3396*	
Flow ratio				*0.14*		*0.51*		*0.55*	*0.21*	*0.28*	0.37	
v/c ratio				*0.55*		*1.04*		*1.24*	*0.28*	*1.29*	*0.53*	
I factor				*1.000*	*1.000*	*1.000*		*1.000*	*1.000*	*1.000*	*1.000*	
Arrival type				*5*		*5*		*5*	*5*	*5*	*5*	
Platoon ratio				*1.67*		*1.67*		*1.67*	*1.30*	*1.67*	*1.39*	
PF factor				*0.87*		*1.00*		*1.00*	*0.20*	*1.00*	*0.20*	
Q_1				*6.6*		*29.2*		*38.8*	*0.8*	*17.6*	*2.6*	
k_B				*0.5*		*0.7*		*0.8*	*0.9*	*0.5*	*1.0*	
Q_2				*0.6*		*10.4*		*27.7*	*0.4*	*14.5*	*1.2*	
Q avg.				*7.2*		*39.6*		*66.5*	*1.2*	*32.1*	*3.8*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.9*		*1.6*		*1.5*	*2.1*	*1.6*	*2.0*	
BOQ, $Q_{\%}$				*13.8*		*62.0*		*101*	*2.4*	*51.4*	*7.5*	
Queue Storage Ratio												
Q spacing				*25.0*		*25.0*		*25.0*	*25.0*	*25.0*	*25.0*	
Q storage				*0*		*0*		*0*	*0*	*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBLONE30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	2
Lane group		T			T					L		R
Volume (vph)		1680			820					1320		300
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		0
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 62.0	G =	G =	G =	G = 60.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1768			863					1389		316
Lane group cap.		2362			2362					1471		1200
v/c ratio		0.75			0.37					0.94		0.26
Green ratio		0.48			0.48					0.46		0.46
Unif. delay d1		27.7			21.5					33.4		21.5
Delay factor k		0.30			0.11					0.46		0.11
Increm. delay d2		1.4			0.1					12.6		0.1
PF factor		0.392			0.392					1.000		1.000
Control delay		12.2			8.5					46.0		21.6
Lane group LOS		B			A					D		C
Apprch. delay	12.2			8.5						41.5		
Approach LOS	B			A						D		
Intersec. delay	23.0			Intersection LOS						C		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA/SR125-SB-LONESTAR/NO MIT.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		1768			863					1389		316
Satflow per lane		1818			1818					1641		1468
Capacity/lane		2362			2362					1471		1200
Flow ratio		0.36			0.17					0.44		0.12
v/c ratio		0.75			0.37					0.94		0.26
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.67			1.67					1.00		1.00
PF factor		0.62			0.46					1.00		1.00
Q_1		11.9			3.3					24.6		3.9
k_B		0.8			0.8					0.7		0.7
Q_2		2.2			0.4					5.9		0.2
Q avg.		14.0			3.7					30.5		4.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.8			2.0					1.6		2.0
BOQ, $Q_{\%}$		24.9			7.4					49.1		8.3
Queue Storage Ratio												
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBLONE30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	2
Lane group		T			T					L		R
Volume (vph)		1120			1230					960		450
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		150
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 60.0	G =	G =	G =	G = 42.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 110.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1179			1295					1011		316
Lane group cap.		2702			2702					1217		992
v/c ratio		0.44			0.48					0.83		0.32
Green ratio		0.55			0.55					0.38		0.38
Unif. delay d1		14.9			15.4					30.8		23.9
Delay factor k		0.11			0.11					0.37		0.11
Increm. delay d2		0.1			0.1					5.0		0.2
PF factor		0.200			0.200					1.000		1.000
Control delay		3.1			3.2					35.8		24.1
Lane group LOS		A			A					D		C
Apprch. delay	3.1			3.2						33.0		
Approach LOS	A			A						C		
Intersec. delay	13.6			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B PM WITH LA MEDIA/SR125-SB-LONESTAR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		1179			1295					1011		316
Satflow per lane		1818			1818					1641		1468
Capacity/lane		2702			2702					1217		992
Flow ratio		0.24			0.26					0.32		0.12
v/c ratio		0.44			0.48					0.83		0.32
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.67			1.67					1.00		1.00
PF factor		0.25			0.26					1.00		1.00
Q_1		2.0			2.3					14.4		3.8
k_B		0.8			0.8					0.6		0.5
Q_2		0.6			0.7					2.4		0.3
Q avg.		2.6			3.0					16.8		4.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		2.0			2.0					1.7		2.0
BOQ, $Q_{\%}$		5.2			6.1					29.2		8.1

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125NBLONE30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	300	2700			820	780						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10		0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						

Phasing	EB Only	Thru & RT	03	04	05	06	07	08
Timing	G = 39.0	G = 42.0	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 90.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	316	2842			863	821						
Lane group cap.	1381	4953			2311	1213						
v/c ratio	0.23	0.57			0.37	0.68						
Green ratio	0.43	1.00			0.47	0.47						
Unif. delay d1	16.0	0.0			15.5	18.7						
Delay factor k	0.11	0.17			0.11	0.25						
Increm. delay d2	0.1	0.2			0.1	1.5						
PF factor	0.490	0.950			0.417	0.417						
Control delay	7.9	0.2			6.6	9.3						
Lane group LOS	A	A			A	A						
Apprch. delay	0.9			7.9								
Approach LOS	A			A								
Intersec. delay	3.4			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA / 125NB-LONESTAR RD.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	316	2842			863	821						
Satflow per lane	1641	1818			1818	1468						
Capacity/lane	1381	4953			2311	1213						
Flow ratio	0.10	0.57			0.17	0.32						
v/c ratio	0.23	0.57			0.37	0.68						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.67	1.67						
PF factor	0.53				0.48	0.60						
Q_1	1.3				2.5	5.4						
k_B	0.6	1.0			0.6	0.5						
Q_2	0.2	1.3			0.4	1.1						
Q avg.	1.5				2.8	6.5						
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.1				2.0	1.9						
BOQ, $Q_{\%}$	3.1				5.7	12.5						
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125NBLONE30P3BWLM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	280	1800			1230	1670						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10	5	0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						

Phasing	EB Only	Thru & RT	03	04	05	06	07	08
Timing	G = 11.0	G = 100.0	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	295	1895			1295	1758						
Lane group cap.	292	4953			4127	2105						
v/c ratio	1.01	0.38			0.31	0.84						
Green ratio	0.09	1.00			0.83	0.83						
Unif. delay d1	54.5	0.0			2.3	5.5						
Delay factor k	0.50	0.11			0.11	0.37						
Increm. delay d2	55.3	0.0			0.0	3.1						
PF factor	0.933	0.950			0.300	0.300						
Control delay	106.1	0.0			0.7	4.7						
Lane group LOS	F	A			A	A						
Apprch. delay	14.3			3.0								
Approach LOS	B			A								
Intersec. delay	7.8			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA / 125NB-LONESTAR RD.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	295	1895			1295	1758						
Satflow per lane	1641	1818			1818	1427						
Capacity/lane	292	4953			4127	2105						
Flow ratio	0.09	0.38			0.26	0.70						
v/c ratio	1.01	0.38			0.31	0.84						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.14	1.14						
PF factor	1.00				0.32	0.44						
Q_1	5.0				1.1	8.0						
k_B	0.3	1.2			1.1	0.9						
Q_2	2.3	0.7			0.5	4.0						
Q avg.	7.3				1.6	12.0						
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9				2.0	1.8						
BOQ, $Q_{\%}$	13.9				3.3	21.7						
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LONESTAR RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LONEPIPER30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		2460	240	240	1540		60		60			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 17.0	G = 70.0	G =	G =	G = 10.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2842		253	1621		63		63			
Lane group cap.		3105		492	4097		290		126			
v/c ratio		0.92		0.51	0.40		0.22		0.50			
Green ratio		0.64		0.15	0.83		0.09		0.09			
Unif. delay d1		17.4		42.7	2.4		46.4		47.6			
Delay factor k		0.43		0.12	0.11		0.11		0.11			
Increm. delay d2		4.8		0.9	0.1		0.4		3.1			
PF factor		0.138		0.878	0.289		0.933		0.933			
Control delay		7.2		38.4	0.8		43.7		47.5			
Lane group LOS		A		D	A		D		D			
Apprch. delay	7.2			5.9			45.6					
Approach LOS	A			A			D					
Intersec. delay	7.7			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM LONESTAR/PIPER RD./NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*TR*		*L*	*T*		*L*		*R*			
Init. queue/lane		0.0		0.0	0.0		0.0		0.0			
Flow rate/lane		2842		253	1621		63		63			
Satflow per lane		1788		1641	1818		1641		1386			
Capacity/lane		3101		254	4097		290		126			
Flow ratio		0.58		0.15	0.33		0.02		0.05			
v/c ratio		0.92		1.00	0.40		0.22		0.50			
I factor		1.000		1.000	1.000		1.000	1.000	1.000			
Arrival type		5		5	5		5		5			
Platoon ratio		1.49		1.67	1.15		1.67		1.67			
PF factor		0.44		1.00	0.31		0.95		0.96			
Q_1		12.3		7.7	1.5		0.9		1.8			
k_B		0.8		0.3	1.0		0.2		0.2			
Q_2		6.1		3.2	0.6		0.1		0.2			
Q avg.		18.4		10.9	2.1		0.9		2.0			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7		1.8	2.0		2.1		2.0			
BOQ, $Q_{\%}$		31.6		20.0	4.3		1.9		4.0			
Queue Storage Ratio												
Q spacing		25.0		25.0	25.0		25.0		25.0			
Q storage		0		0	0		0		0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LONESTAR RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	LONEPIPER30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		1740	60	60	2660		240		240			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 17.0	G = 70.0	G =	G =	G = 25.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 125.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1895		63	2800		253		253			
Lane group cap.		2758		433	3606		637		267			
v/c ratio		0.69		0.15	0.78		0.40		0.95			
Green ratio		0.56		0.14	0.73		0.20		0.20			
Unif. delay d1		19.7		47.6	10.6		43.5		49.4			
Delay factor k		0.26		0.11	0.33		0.11		0.46			
Increm. delay d2		0.7		0.2	1.1		0.4		40.9			
PF factor		0.152		0.895	0.184		0.833		0.833			
Control delay		3.7		42.8	3.1		36.6		82.0			
Lane group LOS		A		D	A		D		F			
Apprch. delay	3.7			3.9			59.3					
Approach LOS	A			A			E					
Intersec. delay	9.2			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM LONESTAR/PIPER RD./NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		TR		L	T		L		R			
Init. queue/lane		0.0		0.0	0.0		0.0		0.0			
Flow rate/lane		1895		63	2800		253		253			
Satflow per lane		1807		1641	1818		1641		1421			
Capacity/lane		2757		223	3606		328		284			
Flow ratio		0.38		0.04	0.56		0.15		0.18			
v/c ratio		0.69		0.28	0.78		0.77		0.89			
I factor		1.000		1.000	1.000		1.000	1.000	1.000			
Arrival type		5		5	5		5		5			
Platoon ratio		1.67		1.67	1.30		1.67		1.67			
PF factor		0.26		0.92	0.30		0.95		0.97			
Q_1		4.5		1.8	6.8		7.9		8.3			
k_B		0.8		0.3	1.0		0.4		0.4			
Q_2		1.8		0.1	3.2		1.3		2.1			
Q avg.		6.3		1.9	10.0		9.2		10.4			

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		1.9		2.0	1.8		1.9		1.8			
BOQ, $Q_{\%}$		12.0		4.0	18.4		17.0		19.1			

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		25.0		25.0	25.0		25.0		25.0			
Q storage		0		0	0		0		0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OMPIPER30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	600	2150	325	185	1605	330	160	50	90	215	100	400
% Heavy veh	10	10	5	5	10	10	5	5	5	10	5	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 55.0	G =	G =	G = 22.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	2605		195	2036		168	148		226	526	
Lane group cap.	683	1913		715	1889		270	340		258	316	
v/c ratio	0.93	1.36		0.27	1.08		0.62	0.44		0.88	1.66	
Green ratio	0.21	0.39		0.21	0.39		0.16	0.11		0.16	0.11	
Unif. delay d1	53.9	42.5		45.9	42.5		55.1	58.5		57.7	62.5	
Delay factor k	0.44	0.50		0.11	0.50		0.21	0.11		0.40	0.50	
Increm. delay d2	18.6	166.2		0.2	45.2		4.4	0.9		26.8	312.7	
PF factor	0.818	0.569		0.818	0.569		1.000	1.000		1.000	1.000	
Control delay	62.7	190.4		37.8	69.4		59.5	59.4		84.5	375.2	
Lane group LOS	E	F		D	E		E	E		F	F	
Apprch. delay	165.5			66.6			59.5			287.8		
Approach LOS	F			E			E			F		
Intersec. delay	140.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B AM WITH LA MEDIA OTAY MESA/PIPER RANCH RD/NO MIT.

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	632	2605		195	2036		168	148		226	526	
Satflow per lane	1641	1787		1719	1765		1719	1667		1641	1550	
Capacity/lane	683	1913		715	1889		270	340		258	316	
Flow ratio	0.20	0.53		0.06	0.42		0.10	0.05		0.14	0.18	
v/c ratio	0.93	1.36		0.27	1.08		0.62	0.44		0.88	1.66	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	0.98	1.00		0.85	1.00		1.00	1.00		1.00	1.00	
Q_1	12.1	37.2		2.8	29.0		6.1	2.8		8.6	10.7	
k_B	0.5	0.7		0.5	0.7		0.4	0.3		0.4	0.3	
Q_2	3.1	34.3		0.2	12.3		0.6	0.2		1.9	14.6	
Q avg.	15.2	71.5		3.0	41.3		6.7	3.0		10.5	25.3	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.8	1.5		2.0	1.6		1.9	2.0		1.8	1.6	
BOQ, $Q_\%$	26.7	108		5.9	64.5		12.9	6.1		19.3	41.7	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

31A
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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMPIPER30A3BWLMWITHMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	1	1	2	1	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	600	2150	325	185	1605	330	160	50	90	215	100	400
% Heavy veh	10	10	5	5	10	10	5	5	5	10	5	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 55.0	G =	G =	G = 22.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	2263	342	195	1689	347	168	53	95	226	105	421
Lane group cap.	683	1946	881	715	1946	842	525	204	526	501	204	889
v/c ratio	0.93	1.16	0.39	0.27	0.87	0.41	0.32	0.26	0.18	0.45	0.51	0.47
Green ratio	0.21	0.39	0.59	0.21	0.39	0.59	0.16	0.11	0.36	0.16	0.11	0.36
Unif. delay d1	53.9	42.5	15.5	45.9	39.2	15.8	52.4	57.4	30.9	53.5	59.1	34.8
Delay factor k	0.44	0.50	0.11	0.11	0.40	0.11	0.11	0.11	0.11	0.11	0.12	0.11
Increm. delay d2	18.6	79.4	0.3	0.2	4.5	0.3	0.4	0.7	0.2	0.6	2.3	0.4
PF factor	0.818	0.569	0.121	0.818	0.569	0.121	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	62.7	103.6	2.2	37.8	26.8	2.2	52.7	58.1	31.1	54.2	61.3	35.2
Lane group LOS	E	F	A	D	C	A	D	E	C	D	E	D
Apprch. delay	84.9			23.9			47.1			44.6		
Approach LOS	F			C			D			D		
Intersec. delay	57.6			Intersection LOS						E		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA OTAY MESA/PIPER RANCH RD/WITHMIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	632	2263	342	195	1689	347	168	53	95	226	105	421
Satflow per lane	1641	1818	1505	1719	1818	1437	1719	1905	1473	1641	1905	1406
Capacity/lane	683	1946	881	715	1946	842	525	204	526	501	204	889
Flow ratio	0.20	0.46	0.23	0.06	0.34	0.24	0.05	0.03	0.06	0.07	0.06	0.17
v/c ratio	0.93	1.16	0.39	0.27	0.87	0.41	0.32	0.26	0.18	0.45	0.51	0.47
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.62	1.67	1.67	1.62	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.98	1.00	0.15	0.85	0.87	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	12.1	32.3	1.1	2.8	19.3	1.1	3.0	1.9	2.5	4.1	3.9	7.1
k_B	0.5	0.7	0.8	0.5	0.7	0.8	0.4	0.3	0.6	0.4	0.3	0.6
Q_2	3.1	18.6	0.5	0.2	3.7	0.6	0.2	0.1	0.1	0.3	0.4	0.5
Q avg.	15.2	50.9	1.6	3.0	23.0	1.7	3.2	2.0	2.7	4.4	4.2	7.7

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.8	1.5	2.0	2.0	1.7	2.0	2.0	2.0	2.0	2.0	2.0	1.9
BOQ, $Q_{\%}$	26.7	78.1	3.2	5.9	38.3	3.4	6.3	4.1	5.4	8.7	8.3	14.5

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OMPIPER30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	650	1430	550	290	1800	215	660	200	360	330	180	600
% Heavy veh	10	10	5	5	10	10	5	5	5	10	5	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 45.0	G =	G =	G = 32.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	684	2084		305	2121		695	590		347	821	
Lane group cap.	455	1534		477	1562		393	572		375	538	
v/c ratio	1.50	1.36		0.64	1.36		1.77	1.03		0.93	1.53	
Green ratio	0.14	0.32		0.14	0.32		0.23	0.18		0.23	0.18	
Unif. delay d1	60.0	47.5		56.6	47.5		54.0	57.5		52.8	57.5	
Delay factor k	0.50	0.50		0.22	0.50		0.50	0.50		0.44	0.50	
Increm. delay d2	237.7	165.7		2.9	165.3		356.0	45.9		28.5	246.0	
PF factor	0.889	0.684		0.889	0.684		1.000	1.000		1.000	1.000	
Control delay	291.1	198.2		53.2	197.8		410.0	103.4		81.3	303.5	
Lane group LOS	F	F		D	F		F	F		F	F	
Apprch. delay	221.1			179.6			269.3			237.5		
Approach LOS	F			F			F			F		
Intersec. delay	218.6			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA OTAY MESA/PIPER RANCH RD./NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	684	2084		305	2121		695	590		347	821	
Satflow per lane	1641	1752		1719	1784		1719	1683		1641	1581	
Capacity/lane	455	1534		477	1562		393	572		375	538	
Flow ratio	0.21	0.44		0.09	0.44		0.40	0.18		0.21	0.27	
v/c ratio	1.50	1.36		0.64	1.36		1.77	1.03		0.93	1.53	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	1.00	1.00		0.95	1.00		1.00	1.00		1.00	1.00	
Q_1	13.7	29.8		5.5	30.3		27.0	12.0		13.2	16.8	
k_B	0.4	0.6		0.4	0.6		0.5	0.4		0.5	0.4	
Q_2	15.8	27.5		0.7	27.9		38.9	4.7		3.2	19.8	
Q avg.	29.5	57.2		6.1	58.1		65.9	16.7		16.4	36.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.5		1.9	1.5		1.5	1.7		1.7	1.6	
BOQ, $Q_{\%}$	47.7	87.3		11.8	88.6		99.9	29.1		28.6	57.7	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./PIPER RANCH RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OMPIPER30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	1	1	2	1	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	650	1430	550	290	1800	215	660	200	360	330	180	600
% Heavy veh	10	10	5	5	10	10	5	5	5	10	5	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 45.0	G =	G =	G = 32.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	684	1505	579	305	1895	226	695	211	379	347	189	632
Lane group cap.	455	1592	880	477	1592	840	763	340	532	728	340	899
v/c ratio	1.50	0.95	0.66	0.64	1.19	0.27	0.91	0.62	0.71	0.48	0.56	0.70
Green ratio	0.14	0.32	0.59	0.14	0.32	0.59	0.23	0.18	0.36	0.23	0.18	0.36
Unif. delay d1	60.0	46.3	19.5	56.6	47.5	14.3	52.6	53.1	38.8	46.8	52.4	38.6
Delay factor k	0.50	0.46	0.23	0.22	0.50	0.11	0.43	0.20	0.28	0.11	0.15	0.27
Increm. delay d2	237.7	12.0	1.8	2.9	92.2	0.2	15.1	3.5	4.5	0.5	2.0	2.5
PF factor	0.889	0.684	0.121	0.889	0.684	0.121	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	291.1	43.7	4.2	53.2	124.7	1.9	67.7	56.6	43.3	47.2	54.5	41.1
Lane group LOS	F	D	A	D	F	A	E	E	D	D	D	D
Apprch. delay	96.6			104.3			58.7			45.1		
Approach LOS	F			F			E			D		
Intersec. delay	84.8			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA OTAY MESA/PIPER RANCH RD./WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	684	1505	579	305	1895	226	695	211	379	347	189	632
Satflow per lane	1641	1818	1503	1719	1818	1434	1719	1905	1490	1641	1905	1422
Capacity/lane	455	1592	880	477	1592	840	763	340	532	728	340	899
Flow ratio	0.21	0.30	0.39	0.09	0.38	0.16	0.21	0.11	0.25	0.11	0.10	0.25
v/c ratio	1.50	0.95	0.66	0.64	1.19	0.27	0.91	0.62	0.71	0.48	0.56	0.70
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.62	1.67	1.67	1.62	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	1.00	0.96	0.20	0.95	1.00	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	13.7	20.2	3.0	5.5	27.0	0.6	13.5	7.6	12.7	6.0	6.7	11.9
k_B	0.4	0.7	0.8	0.4	0.7	0.8	0.5	0.5	0.6	0.5	0.5	0.6
Q_2	15.8	5.0	1.5	0.7	17.2	0.3	3.1	0.7	1.4	0.4	0.6	1.3
Q avg.	29.5	25.2	4.5	6.1	44.2	0.9	16.6	8.3	14.1	6.4	7.3	13.3

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.6	2.0	1.9	1.6	2.1	1.7	1.9	1.8	1.9	1.9	1.8
BOQ, $Q_{\%}$	47.7	41.5	8.9	11.8	68.6	1.8	28.9	15.6	25.1	12.4	13.8	23.7

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/OTAY MESA RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBOM30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L		R
Volume (vph)		2455			1240					910		880
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2584			1305					958		611
Lane group cap.		3255			3255					911		419
v/c ratio		0.79			0.40					1.05		1.46
Green ratio		0.66			0.66					0.29		0.29
Unif. delay d1		17.2			11.2					50.0		50.0
Delay factor k		0.34			0.11					0.50		0.50
Increm. delay d2		1.4			0.1					44.3		219.1
PF factor		0.146			0.146					1.000		1.000
Control delay		3.9			1.7					94.3		269.1
Lane group LOS		A			A					F		F
Apprch. delay	3.9			1.7						162.4		
Approach LOS	A			A						F		
Intersec. delay	48.9			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA OTAY MESA RD./125SB OFF-RAMP/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		2584			1305					958		611
Satflow per lane		1818			1818					1641		1468
Capacity/lane		3255			3255					911		419
Flow ratio		0.52			0.26					0.30		0.42
v/c ratio		0.79			0.40					1.05		1.46
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.45			1.45					1.00		1.00
PF factor		0.28			0.17					1.00		1.00
Q_1		7.5			1.5					19.2		23.8
k_B		1.0			1.0					0.6		0.5
Q_2		3.5			0.7					7.6		25.6
Q avg.		11.0			2.2					26.8		49.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.8			2.0					1.6		1.5
BOQ, $Q_{\%}$		20.0			4.4					43.8		75.9
Queue Storage Ratio												
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/OTAY MESA RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBOM30A3BWLMWITHMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		2455			1240					910		880
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0	2.0	2.0
Ext. eff. green		2.0			2.0					2.0	2.0	2.0
Arrival type		5			5					3	5	3
Unit Extension		3.0			3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0	0	0
Unit Extension		3.0			3.0					3.0	3.0	3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2584			1305					814	419	336
Lane group cap.		3255			3255					911	461	419
v/c ratio		0.79			0.40					0.89	0.91	0.80
Green ratio		0.66			0.66					0.29	0.29	0.29
Unif. delay d1		17.2			11.2					48.0	48.2	46.3
Delay factor k		0.34			0.11					0.42	0.43	0.35
Increm. delay d2		1.4			0.1					11.2	21.8	10.7
PF factor		0.146			0.146					1.000	0.733	1.000
Control delay		3.9			1.7					59.2	57.2	57.1
Lane group LOS		A			A					E	E	E
Apprch. delay	3.9			1.7						58.2		
Approach LOS	A			A						E		
Intersec. delay	19.0			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description .-3B AM WITH LA MEDIA OTAY MESA RD./125SB OFF-RAMP/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L	LR	R
Init. queue/lane		0.0			0.0					0.0	0.0	0.0
Flow rate/lane		2584			1305					814	419	336
Satflow per lane		1818			1818					1641	1612	1468
Capacity/lane		3255			3255					911	461	419
Flow ratio		0.52			0.26					0.26	0.26	0.23
v/c ratio		0.79			0.40					0.89	0.91	0.80
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3	5	3
Platoon ratio		1.45			1.45					1.00	1.67	1.00
PF factor		0.28			0.17					1.00	0.96	1.00
Q_1		7.5			1.5					15.6	15.1	12.1
k_B		1.0			1.0					0.6	0.6	0.5
Q_2		3.5			0.7					3.2	3.4	1.8
Q avg.		11.0			2.2					18.8	18.5	13.9

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.8			2.0					1.7	1.7	1.8
BOQ, $Q_{\%}$		20.0			4.4					32.2	31.7	24.8

Queue Storage Ratio

Q spacing		25.0			25.0					25.0	25.0	25.0
Q storage		0			0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/OTAY MESA RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBOM30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L		R
Volume (vph)		2120			1735					210		570
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2232			1826					221		284
Lane group cap.		3255			3255					911		419
v/c ratio		0.69			0.56					0.24		0.68
Green ratio		0.66			0.66					0.29		0.29
Unif. delay d1		15.0			13.0					38.4		44.3
Delay factor k		0.25			0.16					0.11		0.25
Increm. delay d2		0.6			0.2					0.1		4.4
PF factor		0.146			0.146					1.000		1.000
Control delay		2.8			2.1					38.5		48.7
Lane group LOS		A			A					D		D
Apprch. delay	2.8			2.1						44.2		
Approach LOS	A			A						D		
Intersec. delay	7.1			Intersection LOS						A		

32P
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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM WITH LA MEDIA OTAY MESA RD./125SB OFF-RAMP/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*T*			*T*					*L*		*R*
Init. queue/lane		*0.0*			*0.0*					*0.0*		*0.0*
Flow rate/lane		*2232*			*1826*					*221*		*284*
Satflow per lane		*1818*			*1818*					*1641*		*1468*
Capacity/lane		*3255*			*3255*					*911*		*419*
Flow ratio		*0.45*			*0.37*					*0.07*		*0.19*
v/c ratio		*0.69*			*0.56*					*0.24*		*0.68*
I factor		*1.000*			*1.000*					*1.000*	*1.000*	*1.000*
Arrival type		*5*			*5*					*3*		*3*
Platoon ratio		*1.45*			*1.45*					*1.00*		*1.00*
PF factor		*0.23*			*0.20*					*1.00*		*1.00*
Q_1		*4.6*			*2.8*					*3.4*		*9.8*
k_B		*1.0*			*1.0*					*0.6*		*0.5*
Q_2		*2.1*			*1.3*					*0.2*		*1.1*
Q avg.		*6.7*			*4.0*					*3.6*		*10.8*

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		*1.9*			*2.0*					*2.0*		*1.8*
BOQ, $Q_{\%}$		*12.8*			*8.0*					*7.1*		*19.8*

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		*25.0*			*25.0*					*25.0*		*25.0*
Q storage		*0*			*0*					*0*		*0*
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125SB OFF-RAMP/OTAY MESA RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	125SBOM30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		2120			1735					210		570
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0	2.0	2.0
Ext. eff. green		2.0			2.0					2.0	2.0	2.0
Arrival type		5			5					3	5	3
Unit Extension		3.0			3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0	0	0
Unit Extension		3.0			3.0					3.0	3.0	3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2232			1826					188	161	156
Lane group cap.		3255			3255					911	453	419
v/c ratio		0.69			0.56					0.21	0.36	0.37
Green ratio		0.66			0.66					0.29	0.29	0.29
Unif. delay d1		15.0			13.0					38.0	39.8	40.0
Delay factor k		0.25			0.16					0.11	0.11	0.11
Increm. delay d2		0.6			0.2					0.1	0.5	0.6
PF factor		0.146			0.146					1.000	0.733	1.000
Control delay		2.8			2.1					38.1	29.6	40.5
Lane group LOS		A			A					D	C	D
Apprch. delay	2.8			2.1						36.1		
Approach LOS	A			A						D		
Intersec. delay	6.2			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description .-3B PM WITH LA MEDIA OTAY MESA RD./125SB OFF-RAMP/WITH M1T

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L	LR	R
Init. queue/lane		0.0			0.0					0.0	0.0	0.0
Flow rate/lane		2232			1826					188	161	156
Satflow per lane		1818			1818					1641	1585	1468
Capacity/lane		3255			3255					911	453	419
Flow ratio		0.45			0.37					0.06	0.10	0.11
v/c ratio		0.69			0.56					0.21	0.36	0.37
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3	5	3
Platoon ratio		1.45			1.45					1.00	1.67	1.00
PF factor		0.23			0.20					1.00	0.79	1.00
Q_1		4.6			2.8					2.8	3.9	4.8
k_B		1.0			1.0					0.6	0.6	0.5
Q_2		2.1			1.3					0.1	0.3	0.3
Q avg.		6.7			4.0					3.0	4.3	5.2

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.9			2.0					2.0	2.0	2.0
BOQ, $Q_{\%}$		12.8			8.0					6.0	8.4	10.1

Queue Storage Ratio

Q spacing		25.0			25.0					25.0	25.0	25.0
Q storage		0			0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/OTAY MESA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	125NBOTAY30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	450	2915			1240	250						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10		0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						

Phasing	EB Only	Thru & RT	03	04	05	06	07	08
Timing	G = 39.0	G = 42.0	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	474	3068			1305	263						
Lane group cap.	1381	4953			2311	1213						
v/c ratio	0.34	0.62			0.56	0.22						
Green ratio	0.43	1.00			0.47	0.47						
Unif. delay d1	17.0	0.0			17.4	14.2						
Delay factor k	0.11	0.20			0.16	0.11						
Increm. delay d2	0.1	0.2			0.3	0.1						
PF factor	0.490	0.950			0.417	0.417						
Control delay	8.5	0.2			7.6	6.0						
Lane group LOS	A	A			A	A						
Apprch. delay	1.3			7.3								
Approach LOS	A			A								
Intersec. delay	3.2			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM 3B WITH LA MEDIA -125NBON RAMP/OTAY MESA RD.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	474	3068			1305	263						
Satflow per lane	1641	1818			1818	1468						
Capacity/lane	1381	4953			2311	1213						
Flow ratio	0.15	0.62			0.26	0.10						
v/c ratio	0.34	0.62			0.56	0.22						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.67	1.67						
PF factor	0.55				0.55	0.45						
Q_1	2.3				4.7	1.0						
k_B	0.6	1.0			0.6	0.5						
Q_2	0.3	1.6			0.8	0.2						
Q avg.	2.5				5.5	1.1						

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.0				1.9	2.1						
BOQ, $Q_{\%}$	5.1				10.8	2.4						

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/OTAY MESA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/14	Jurisdiction	125NBOTAY30P3BWLM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	845	1485			1735	915						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10	5	0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						

Phasing	EB Only	Thru & RT	03	04	05	06	07	08
Timing	G = 39.0	G = 42.0	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	889	1563			1826	963						
Lane group cap.	1381	4953			2311	1171						
v/c ratio	0.64	0.32			0.79	0.82						
Green ratio	0.43	1.00			0.47	0.47						
Unif. delay d1	20.0	0.0			20.3	20.8						
Delay factor k	0.22	0.11			0.34	0.36						
Increm. delay d2	1.0	0.0			1.9	4.9						
PF factor	0.490	0.950			0.417	0.417						
Control delay	10.9	0.0			10.4	13.5						
Lane group LOS	B	A			B	B						
Apprch. delay	4.0			11.5								
Approach LOS	A			B								
Intersec. delay	8.0			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B PM 3B WITH LA MEDIA -125NBON RAMP/OTAY MESA RD.*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	889	1563			1826	963						
Satflow per lane	1641	1818			1818	1418						
Capacity/lane	1381	4953			2311	1171						
Flow ratio	0.28	0.32			0.37	0.38						
v/c ratio	0.64	0.32			0.79	0.82						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.67	1.67						
PF factor	0.66				0.68	0.71						
Q_1	5.9				9.7	8.4						
k_B	0.6	1.0			0.6	0.5						
Q_2	1.0	0.5			2.1	2.2						
Q avg.	6.9				11.8	10.6						
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9				1.8	1.8						
BOQ, $Q_{\%}$	13.2				21.4	19.4						
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYHARV30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	95	2205	615	50	1190	5	275	5	25	5	5	25
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 82.0	G =	G =	G = 15.0	G = 10.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	100	2968		53	1258		289	31		5	31	
Lane group cap.	176	2785		176	2899		176	106		176	106	
v/c ratio	0.57	1.07		0.30	0.43		1.64	0.29		0.03	0.29	
Green ratio	0.11	0.59		0.11	0.59		0.11	0.07		0.11	0.07	
Unif. delay d1	59.4	29.0		57.7	16.1		62.5	61.6		56.0	61.6	
Delay factor k	0.16	0.50		0.11	0.11		0.50	0.11		0.11	0.11	
Increm. delay d2	4.3	37.8		1.0	0.1		313.1	1.5		0.1	1.5	
PF factor	0.920	0.262		0.920	0.121		1.000	1.000		1.000	1.000	
Control delay	59.0	45.4		54.0	2.0		375.6	63.2		56.0	63.2	
Lane group LOS	E	D		D	A		F	E		E	E	
Apprch. delay	45.8			4.1			345.3			62.2		
Approach LOS	D			A			F			E		
Intersec. delay	54.6			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA OTAYMESA RD./HARVEST RD./NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	100	2968		53	1258		289	31		5	31	
Satflow per lane	1641	1745		1641	1816		1641	1480		1641	1480	
Capacity/lane	176	2785		176	2899		176	106		176	106	
Flow ratio	0.06	0.62		0.03	0.25		0.18	0.02		0.00	0.02	
v/c ratio	0.57	1.07		0.30	0.43		1.64	0.29		0.03	0.29	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.52		1.67	1.62		1.00	1.00		1.00	1.00	
PF factor	0.96	1.00		0.94	0.15		1.00	1.00		1.00	1.00	
Q_1	3.6	42.3		1.8	1.5		11.2	1.1		0.2	1.1	
k_B	0.3	0.9		0.3	0.9		0.3	0.2		0.3	0.2	
Q_2	0.4	16.1		0.1	0.7		14.9	0.1		0.0	0.1	
Q avg.	4.0	58.4		1.9	2.2		26.1	1.2		0.2	1.2	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.5		2.0	2.0		1.6	2.1		2.1	2.1	
BOQ, $Q_{\%}$	7.8	89.0		3.9	4.5		42.9	2.6		0.4	2.6	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYHARV30A3BWLMWITHMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	3	1	2	1	0	1	1	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	95	2205	615	50	1190	5	275	5	25	5	5	25
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 82.0	G =	G =	G = 15.0	G = 10.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	100	2321	647	53	1253	5	289	31		5	31	
Lane group cap.	176	2901	1034	176	2901	830	341	106		176	106	
v/c ratio	0.57	0.80	0.63	0.30	0.43	0.01	0.85	0.29		0.03	0.29	
Green ratio	0.11	0.59	0.73	0.11	0.59	0.59	0.11	0.07		0.11	0.07	
Unif. delay d1	59.4	22.6	9.5	57.7	16.1	12.1	61.4	61.6		56.0	61.6	
Delay factor k	0.16	0.34	0.21	0.11	0.11	0.11	0.38	0.11		0.11	0.11	
Increm. delay d2	4.3	1.7	1.2	1.0	0.1	0.0	17.8	1.5		0.1	1.5	
PF factor	0.920	0.121	0.184	0.920	0.121	0.121	1.000	1.000		1.000	1.000	
Control delay	59.0	4.4	2.9	54.0	2.0	1.5	79.1	63.2		56.0	63.2	
Lane group LOS	E	A	A	D	A	A	E	E		E	E	
Apprch. delay	5.9			4.1			77.6			62.2		
Approach LOS	A			A			E			E		
Intersec. delay	10.7			Intersection LOS						B		

HCS2000™ Version 4.1f

3AA
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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA OTAYMESA RD./HARVEST RD./WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	100	2321	647	53	1253	5	289	31		5	31	
Satflow per lane	1641	1818	1419	1641	1818	1417	1641	1480		1641	1480	
Capacity/lane	176	2901	1034	176	2901	830	341	106		176	106	
Flow ratio	0.06	0.47	0.46	0.03	0.25	0.00	0.09	0.02		0.00	0.02	
v/c ratio	0.57	0.80	0.63	0.30	0.43	0.01	0.85	0.29		0.03	0.29	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Platoon ratio	1.67	1.62	1.30	1.67	1.62	1.62	1.00	1.00		1.00	1.00	
PF factor	0.96	0.27	0.25	0.94	0.15	0.12	1.00	1.00		1.00	1.00	
Q_1	3.6	6.9	3.1	1.8	1.5	0.0	5.7	1.1		0.2	1.1	
k_B	0.3	0.9	0.9	0.3	0.9	0.8	0.3	0.2		0.3	0.2	
Q_2	0.4	3.3	1.5	0.1	0.7	0.0	1.3	0.1		0.0	0.1	
Q avg.	4.0	10.2	4.6	1.9	2.2	0.0	6.9	1.2		0.2	1.2	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.0	1.8	2.0	2.0	2.0	2.1	1.9	2.1		2.1	2.1	
BOQ, $Q_{\%}$	7.8	18.8	9.0	3.9	4.5	0.0	13.2	2.6		0.4	2.6	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

3A P

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYHARV30P3BWLMNO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	25	1185	275	20	1940	20	615	20	50	20	20	95
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 10.0	G = 77.0	G =	G =	G = 20.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	26	1536		21	2063		647	73		21	121	
Lane group cap.	117	2630		117	2719		234	166		234	162	
v/c ratio	0.22	0.58		0.18	0.76		2.76	0.44		0.09	0.75	
Green ratio	0.07	0.55		0.07	0.55		0.14	0.11		0.14	0.11	
Unif. delay d1	61.3	20.9		61.1	24.3		60.0	58.6		52.1	60.7	
Delay factor k	0.11	0.18		0.11	0.31		0.50	0.11		0.11	0.30	
Increm. delay d2	1.0	0.3		0.7	1.3		806.1	1.9		0.2	17.2	
PF factor	0.949	0.185		0.949	0.185		1.000	1.000		1.000	1.000	
Control delay	59.1	4.2		58.7	5.8		866.1	60.4		52.3	77.9	
Lane group LOS	E	A		E	A		F	E		D	E	
Apprch. delay	5.1			6.3			784.4			74.1		
Approach LOS	A			A			F			E		
Intersec. delay	132.3			Intersection LOS						F		

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M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B PM WITH LA MEDIA OTAYMESA RD./HARVEST RD./NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	26	1536		21	2063		647	73		21	121	
Satflow per lane	1641	1755		1641	1814		1641	1551		1641	1515	
Capacity/lane	117	2630		117	2719		234	166		234	162	
Flow ratio	0.02	0.32		0.01	0.42		0.39	0.05		0.01	0.08	
v/c ratio	0.22	0.58		0.18	0.76		2.76	0.44		0.09	0.75	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	0.96	0.27		0.96	0.35		1.00	1.00		1.00	1.00	
Q_1	0.9	3.9		0.7	8.1		25.2	2.7		0.7	4.6	
k_B	0.2	0.9		0.2	0.9		0.4	0.3		0.4	0.3	
Q_2	0.1	1.2		0.1	2.6		52.2	0.2		0.0	0.8	
Q avg.	1.0	5.1		0.8	10.7		77.4	2.9		0.7	5.3	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.1	2.0		2.1	1.8		1.5	2.0		2.1	1.9	
BOQ, $Q_{\%}$	2.0	10.0		1.6	19.5		117	5.8		1.5	10.4	

Queue Storage Ratio

Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

34P
W
M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYHARV30P3BWLMWITMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	3	1	2	1	0	1	1	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	25	1185	275	20	1940	20	615	20	50	20	20	95
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 10.0	G = 60.0	G =	G =	G = 32.0	G = 20.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	26	1247	289	21	2042	21	647	73		21	121	
Lane group cap.	117	2123	980	117	2097	604	728	223		375	219	
v/c ratio	0.22	0.59	0.29	0.18	0.97	0.03	0.89	0.33		0.06	0.55	
Green ratio	0.07	0.43	0.69	0.07	0.43	0.43	0.23	0.14		0.23	0.14	
Unif. delay d1	61.3	30.5	8.3	61.1	39.2	23.2	52.3	54.0		42.2	55.8	
Delay factor k	0.11	0.18	0.11	0.11	0.48	0.11	0.41	0.11		0.11	0.15	
Increm. delay d2	1.0	0.4	0.2	0.7	14.0	0.0	13.0	0.9		0.1	3.0	
PF factor	0.949	0.500	0.163	0.949	0.500	0.500	1.000	1.000		1.000	1.000	
Control delay	59.1	15.7	1.5	58.7	33.6	11.6	65.2	54.8		42.3	58.9	
Lane group LOS	E	B	A	E	C	B	E	D		D	E	
Apprch. delay	13.8			33.6			64.2			56.4		
Approach LOS	B			C			E			E		
Intersec. delay	32.4			Intersection LOS						C		

34P
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M

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B PM WITH LA MEDIA OTAYMESA RD./HARVEST RD./WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	26	1247	289	21	2042	21	647	73		21	121	
Satflow per lane	1641	1818	1415	1641	1795	1410	1641	1564		1641	1530	
Capacity/lane	117	2123	980	117	2097	604	728	223		375	219	
Flow ratio	0.02	0.25	0.20	0.01	0.42	0.01	0.20	0.05		0.01	0.08	
v/c ratio	0.22	0.59	0.29	0.18	0.97	0.03	0.89	0.33		0.06	0.55	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Platoon ratio	1.67	1.67	1.37	1.67	1.67	1.67	1.00	1.00		1.00	1.00	
PF factor	0.96	0.64	0.18	0.96	0.96	0.51	1.00	1.00		1.00	1.00	
Q_1	0.9	8.7	0.8	0.7	27.3	0.2	12.5	2.6		0.6	4.4	
k_B	0.2	0.8	0.9	0.2	0.8	0.7	0.5	0.4		0.5	0.4	
Q_2	0.1	1.1	0.4	0.1	7.3	0.0	2.7	0.2		0.0	0.4	
Q avg.	1.0	9.8	1.2	0.8	34.7	0.3	15.2	2.7		0.7	4.8	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.1	1.8	2.1	2.1	1.6	2.1	1.8	2.0		2.1	2.0	
BOQ, $Q_\%$	2.0	18.1	2.4	1.6	55.0	0.6	26.7	5.5		1.4	9.4	
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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35A

N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./OTAY CENTER D
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/15/11	Jurisdiction	SIEMOTCR30A3BWLMNOMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WIT LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	505	1130	150	295	2980	975	55	30	120	200	90	100
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 74.0	G =	G =	G = 14.0	G = 14.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	532	1347		311	4111		58	158		211	200	
Lane group cap.	234	2566		234	2505		164	153		164	310	
v/c ratio	2.27	0.52		1.33	1.64		0.35	1.03		1.29	0.65	
Green ratio	0.14	0.53		0.14	0.53		0.10	0.10		0.10	0.10	
Unif. delay d1	60.0	21.5		60.0	33.0		58.8	63.0		63.0	60.6	
Delay factor k	0.50	0.13		0.50	0.50		0.11	0.50		0.50	0.22	
Increm. delay d2	586.5	0.2		174.4	290.3		1.3	81.7		167.0	4.6	
PF factor	0.889	0.253		0.889	0.893		1.000	1.000		1.000	1.000	
Control delay	639.8	5.6		227.8	319.8		60.1	144.7		230.0	65.2	
Lane group LOS	F	A		F	F		E	F		F	E	
Apprch. delay	185.2			313.3			122.0			149.8		
Approach LOS	F			F			F			F		
Intersec. delay	262.9			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B-WITH LA MEDIA/AM PEAK/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	532	1347		311	4111		58	158		211	200	
Satflow per lane	1641	1782		1641	1740		1641	1534		1641	1629	
Capacity/lane	234	2566		234	2505		164	153		164	310	
Flow ratio	0.32	0.28		0.19	0.87		0.04	0.10		0.13	0.06	
v/c ratio	2.27	0.52		1.33	1.64		0.35	1.03		1.29	0.65	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.10		1.00	1.00		1.00	1.00	
PF factor	1.00	0.34		1.00	1.00		1.00	1.00		1.00	1.00	
Q_1	20.7	4.3		12.1	58.7		2.1	6.1		8.2	3.9	
k_B	0.4	0.9		0.4	0.9		0.3	0.3		0.3	0.3	
Q_2	37.9	0.9		11.0	75.9		0.2	2.7		7.0	0.5	
Q avg.	58.6	5.2		23.1	134.6		2.3	8.9		15.2	4.4	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.9		1.7	1.5		2.0	1.9		1.8	2.0	
BOQ, $Q_{\%}$	89.3	10.1		38.4	202		4.6	16.6		26.8	8.8	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./OTAY CENTER D
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/15/11	Jurisdiction	SIEMOTCR30A3BWLMWITHMIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LA MEDI

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	1	1	1	2	1	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	505	1130	150	295	2980	975	55	30	120	200	90	100
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 74.0	G =	G =	G = 14.0	G = 14.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	532	1189	158	311	3137	974	58	32	126	211	95	105
Lane group cap.	455	2618	957	455	2618	957	164	182	391	319	182	391
v/c ratio	1.17	0.45	0.17	0.68	1.20	1.02	0.35	0.18	0.32	0.66	0.52	0.27
Green ratio	0.14	0.53	0.66	0.14	0.53	0.66	0.10	0.10	0.28	0.10	0.10	0.28
Unif. delay d1	60.0	20.5	8.9	57.0	33.0	23.5	58.8	57.7	40.0	60.7	59.8	39.4
Delay factor k	0.50	0.11	0.11	0.25	0.50	0.50	0.11	0.11	0.11	0.24	0.13	0.11
Increm. delay d2	97.5	0.1	0.1	4.2	93.2	33.6	1.3	0.5	0.5	5.0	2.7	0.4
PF factor	0.889	0.253	0.149	0.889	0.439	0.200	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	150.8	5.3	1.4	54.9	107.7	38.3	60.1	58.2	40.5	65.8	62.5	39.7
Lane group LOS	F	A	A	D	F	D	E	E	D	E	E	D
Apprch. delay	46.2			88.7			48.4			58.4		
Approach LOS	D			F			D			E		
Intersec. delay	74.1			Intersection LOS						E		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-WITH LA MEDIA/AM PEAK/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	532	1189	158	311	3137	974	58	32	126	211	95	105
Satflow per lane	1641	1818	1440	1641	1818	1440	1641	1818	1402	1641	1818	1402
Capacity/lane	455	2618	957	455	2618	957	164	182	391	319	182	391
Flow ratio	0.17	0.24	0.11	0.10	0.63	0.68	0.04	0.02	0.09	0.07	0.05	0.07
v/c ratio	1.17	0.45	0.17	0.68	1.20	1.02	0.35	0.18	0.32	0.66	0.52	0.27
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.43	1.67	1.50	1.40	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	1.00	0.32	0.16	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	10.6	3.4	0.4	5.7	44.8	37.9	2.1	1.1	3.9	4.0	3.5	3.2
k_B	0.4	0.9	0.9	0.4	0.9	0.9	0.3	0.3	0.5	0.3	0.3	0.5
Q_2	6.8	0.7	0.2	0.8	28.2	11.4	0.2	0.1	0.2	0.5	0.3	0.2
Q avg.	17.4	4.1	0.5	6.4	73.0	49.3	2.3	1.2	4.1	4.6	3.9	3.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	2.0	2.1	1.9	1.5	1.5	2.0	2.1	2.0	2.0	2.0	2.0
BOQ, $Q_{\%}$	30.1	8.1	1.1	12.3	110	75.9	4.6	2.5	8.2	9.0	7.6	6.7

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./OTAY CENTER D
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/15/11	Jurisdiction	SIEMOTC30P3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	90	1920	135	265	1155	180	210	130	415	945	85	490
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 52.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	95	2163		279	1405		221	574		995	605	
Lane group cap.	226	1756		226	1731		453	160		453	299	
v/c ratio	0.42	1.23		1.23	0.81		0.49	3.59		2.20	2.02	
Green ratio	0.14	0.36		0.14	0.36		0.28	0.10		0.28	0.10	
Unif. delay d1	57.2	46.5		62.5	42.1		43.9	65.0		52.5	65.0	
Delay factor k	0.11	0.50		0.50	0.35		0.11	0.50		0.50	0.50	
Increm. delay d2	1.3	109.5		137.7	3.1		0.8	1180		545.6	472.1	
PF factor	0.893	0.627		0.893	0.627		1.000	1.000		1.000	1.000	
Control delay	52.4	138.7		193.5	29.4		44.8	1245		598.1	537.1	
Lane group LOS	D	F		F	C		D	F		F	F	
Apprch. delay	135.0			56.6			911.2			575.1		
Approach LOS	F			E			F			F		
Intersec. delay	322.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B-WITH LA MEDIA-PM PEAK HOUR/NO MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	95	2163		279	1405		221	574		995	605	
Satflow per lane	1641	1797		1641	1772		1641	1549		1641	1517	
Capacity/lane	226	1756		226	1731		453	160		453	299	
Flow ratio	0.06	0.44		0.17	0.29		0.13	0.37		0.61	0.21	
v/c ratio	0.42	1.23		1.23	0.81		0.49	3.59		2.20	2.02	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	0.93	1.00		1.00	0.86		1.00	1.00		1.00	1.00	
Q_1	3.3	32.0		11.2	16.2		7.4	23.1		40.1	12.8	
k_B	0.4	0.7		0.4	0.7		0.6	0.3		0.6	0.3	
Q_2	0.3	21.9		8.2	2.6		0.5	52.2		68.8	20.6	
Q avg.	3.5	53.9		19.5	18.8		8.0	75.3		108.9	33.4	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.5		1.7	1.7		1.9	1.5		1.5	1.6	
BOQ, $Q_{\%}$	7.0	82.5		33.2	32.1		15.0	114		163	53.2	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./OTAY CENTER D
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/15/11	Jurisdiction	SIEMOTC30P3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	1	1	1	2	1	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	90	1920	135	265	1155	180	210	130	415	945	85	490
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 52.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	95	2021	142	279	1216	189	221	137	437	995	89	516
Lane group cap.	440	1776	961	440	1776	961	453	188	387	879	188	387
v/c ratio	0.22	1.14	0.15	0.63	0.68	0.20	0.49	0.73	1.13	1.13	0.47	1.33
Green ratio	0.14	0.36	0.67	0.14	0.36	0.67	0.28	0.10	0.28	0.28	0.10	0.28
Unif. delay d1	55.5	46.5	8.8	59.0	39.5	9.1	43.9	63.0	52.5	52.5	61.3	52.5
Delay factor k	0.11	0.50	0.11	0.21	0.25	0.11	0.11	0.29	0.50	0.50	0.11	0.50
Increm. delay d2	0.2	69.5	0.1	3.0	1.1	0.1	0.8	13.4	85.7	73.6	1.9	166.7
PF factor	0.893	0.627	0.151	0.893	0.627	0.151	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	49.9	98.7	1.4	55.7	25.9	1.5	44.8	76.4	138.2	126.1	63.2	219.2
Lane group LOS	D	F	A	E	C	A	D	E	F	F	E	F
Apprch. delay	90.5			28.1			101.6			152.6		
Approach LOS	F			C			F			F		
Intersec. delay	91.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-WITH LA MEDIA-PM PEAK HOUR/WITH MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	95	2021	142	279	1216	189	221	137	437	995	89	516
Satflow per lane	1641	1818	1437	1641	1818	1437	1641	1818	1404	1641	1818	1404
Capacity/lane	440	1776	961	440	1776	961	453	188	387	879	188	387
Flow ratio	0.03	0.41	0.10	0.09	0.25	0.13	0.13	0.08	0.31	0.31	0.05	0.37
v/c ratio	0.22	1.14	0.15	0.63	0.68	0.20	0.49	0.73	1.13	1.13	0.47	1.33
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.42	1.67	1.67	1.42	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.91	1.00	0.16	0.95	0.80	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	1.6	29.8	0.3	5.2	12.2	0.5	7.4	5.4	17.6	20.6	3.4	20.8
k_B	0.4	0.7	0.9	0.4	0.7	0.9	0.6	0.3	0.5	0.6	0.3	0.5
Q_2	0.1	15.5	0.2	0.6	1.5	0.2	0.5	0.8	9.3	10.9	0.3	18.0
Q avg.	1.7	45.3	0.5	5.8	13.7	0.7	8.0	6.2	26.9	31.5	3.7	38.8

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.5	2.1	1.9	1.8	2.1	1.9	1.9	1.6	1.6	2.0	1.6
BOQ, $Q_{\%}$	3.4	70.2	1.0	11.2	24.4	1.4	15.0	11.9	44.0	50.5	7.3	60.9

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SIEMPRE VIVA RD./SR-905 SB OFF*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*05/13/12*	Jurisdiction	*SR905SBSIEM30AWLM*
Time Period	*AM PEAK HOUR*	Analysis Year	*YEAR 2030 ALT.-3B WITH LA MEDI*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	0	0	2	0	0	0
Lane group		TR		L	T				R			
Volume (vph)		1100	350	400	4250				1630			
% Heavy veh		10	10	10	5				10			
PHF		0.95	0.95	0.95	0.95				0.95			
Actuated (P/A)		A	A	A	A							
Startup lost time		2.0		2.0	2.0				2.0			
Ext. eff. green		2.0		2.0	2.0				2.0			
Arrival type		5		5	5				3			
Unit Extension		3.0		3.0	3.0				3.0			
Ped/Bike/RTOR Volume	10	5	0				10		0			
Lane Width		12.0		12.0	12.0				12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0				0			
Unit Extension		3.0		3.0	3.0				3.0			

Phasing	WB Only	WB Only	Thru & RT	04	05	06	07	08
Timing	G = 32.0	G = 35.0	G = 37.0	G =	G =	G =	G =	G =
	Y = 4	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 117.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1526		421	4474				1716			
Lane group cap.		1501		872	5189				1577			
v/c ratio		1.02		0.48	0.86				1.09			
Green ratio		0.32		0.27	1.00				0.61			
Unif. delay d1		40.0		35.6	0.0				23.0			
Delay factor k		0.50		0.11	0.39				0.50			
Increm. delay d2		27.5		0.4	1.7				50.7			
PF factor		0.692		0.749	0.950				1.000			
Control delay		55.1		27.1	1.7				73.7			
Lane group LOS		E		C	A				E			
Apprch. delay	55.1			3.8			73.7					
Approach LOS	E			A			E					
Intersec. delay	28.2			Intersection LOS						C		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-WITH LA MEDIA AM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*TR*		*L*	*T*				*R*			
Init. queue/lane		*0.0*		*0.0*	*0.0*				*0.0*			
Flow rate/lane		*1526*		*421*	*4474*				*1716*			
Satflow per lane		*1741*		*1641*	*1904*				*1468*			
Capacity/lane		*1501*		*872*	*5189*				*1577*			
Flow ratio		*0.32*		*0.13*	*0.86*				*0.66*			
v/c ratio		*1.02*		*0.48*	*0.86*				*1.09*			
I factor		*1.000*		*1.000*	*1.000*			*1.000*	*1.000*			
Arrival type		*5*		*5*	*5*				*3*			
Platoon ratio		*1.67*		*1.67*	*1.00*				*1.00*			
PF factor		*1.00*		*0.83*					*1.00*			
Q_1		*18.2*		*4.9*					*31.5*			
k_B		*0.6*		*0.5*	*1.2*				*0.8*			
Q_2		*6.9*		*0.5*	*6.3*				*15.7*			
Q avg.		*25.1*		*5.3*					*47.2*			

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$		*1.6*		*1.9*					*1.5*			
BOQ, $Q_{\%}$		*41.3*		*10.4*					*72.8*			

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing		*25.0*		*25.0*	*25.0*				*25.0*			
Q storage		*0*		*0*	*0*				*0*			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SIEMPRE VIVA RD./SR-905 SB OFF*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*05/13/12*	Jurisdiction	*SAN DIEGO*
Time Period	*PM PEAK HOUR*	Analysis Year	*YEAR 2030 ALT.-3B WITH LM*

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	0	0	2	0	0	0
Lane group		TR		L	T				R			
Volume (vph)		2620	660	1000	1600				350			
% Heavy veh		10	10	10	5				10			
PHF		0.95	0.95	0.95	0.95				0.95			
Actuated (P/A)		A	A	A	A							
Startup lost time		2.0		2.0	2.0				2.0			
Ext. eff. green		2.0		2.0	2.0				2.0			
Arrival type		5		5	5				3			
Unit Extension		3.0		3.0	3.0				3.0			
Ped/Bike/RTOR Volume	10	5	0				10		0			
Lane Width		12.0		12.0	12.0				12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0				0			
Unit Extension		3.0		3.0	3.0				3.0			

Phasing	WB Only	WB Only	Thru & RT	04	05	06	07	08
Timing	G = 30.0	G = 15.0	G = 62.0	G =	G =	G =	G =	G =
	Y = 4	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		3453		1053	1684				368			
Lane group cap.		2472		797	5189				1061			
v/c ratio		1.40		1.32	0.32				0.35			
Green ratio		0.52		0.25	1.00				0.41			
Unif. delay d1		29.0		45.0	0.0				24.5			
Delay factor k		0.50		0.50	0.11				0.11			
Increm. delay d2		181.1		153.3	0.0				0.2			
PF factor		0.662		0.778	0.950				1.000			
Control delay		200.3		188.3	0.0				24.7			
Lane group LOS		F		F	A				C			
Apprch. delay	200.3			72.5			24.7					
Approach LOS	F			E			C					
Intersec. delay	137.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B-WITH LA MEDIA PM PEAK HOUR*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*TR*		*L*	*T*				*R*			
Init. queue/lane		*0.0*		*0.0*	*0.0*				*0.0*			
Flow rate/lane		*3453*		*1053*	*1684*				*368*			
Satflow per lane		*1756*		*1641*	*1904*				*1468*			
Capacity/lane		*2472*		*797*	*5189*				*1061*			
Flow ratio		*0.72*		*0.33*	*0.32*				*0.14*			
v/c ratio		*1.40*		*1.32*	*0.32*				*0.35*			
I factor		*1.000*		*1.000*	*1.000*			*1.000*	*1.000*			
Arrival type		*5*		*5*	*5*				*3*			
Platoon ratio		*1.32*		*1.67*	*1.00*				*1.00*			
PF factor		*1.00*		*1.00*					*1.00*			
Q_1		*42.2*		*18.1*					*4.8*			
k_B		*0.8*		*0.5*	*1.2*				*0.6*			
Q_2		*47.6*		*18.3*	*0.6*				*0.3*			
Q avg.		*89.8*		*36.3*					*5.1*			

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$		*1.5*		*1.6*					*2.0*			
BOQ, $Q_{\%}$		*135*		*57.4*					*9.9*			

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing		*25.0*		*25.0*	*25.0*				*25.0*			
Q storage		*0*		*0*	*0*				*0*			
Avg. R_Q												
95% $R_{Q\%}$												

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Agency/Co.	USAI	Jurisdiction	905SBSIEMPAM3BWLM
Date Performed	05/14/12	Analysis Year	2030 3B WITH LA MEDIA /NO MIT.
Analysis Time Period	AM PEAK HOUR		

Project Description 3B WITH LA MEDIA/ NO MIT.
East/West Street: SIEMPRE VIVA RD. North/South Street: SR-905 SB TO WB OFF RAMP
Intersection Orientation: East-West Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	1100	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	1157	0
Proportion of heavy vehicles, P_{HV}	10	--	--	10	--	--
Median type	Raised curb					
RT Channelized?			0			0
Lanes	0	0	0	0	2	0
Configuration					T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	0	3000
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	0	3157
Proportion of heavy vehicles, P_{HV}	10	10	0	10	10	10
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								R
Volume, v (vph)								3157
Capacity, c_m (vph)								480
v/c ratio								6.58
Queue length (95%)								338.13

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Control Delay (s/veh)								*2531*
LOS								*F*
Approach delay (s/veh)	--	--				*2531*		
Approach LOS	--	--				*F*		

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WMIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/26/11	Jurisdiction	SR905SBWBAM3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	3	0	0	0	0	0	0	2
Lane group					T							R
Volume (vph)					1650							3000
% Heavy veh					10							10
PHF					0.95							0.95
Actuated (P/A)					A							A
Startup lost time					2.0							2.0
Ext. eff. green					2.0							2.0
Arrival type					5							3
Unit Extension					3.0							3.0
Ped/Bike/RTOR Volume										10		285
Lane Width					12.0							12.0
Parking/Grade/Parking	N		N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr					0							0
Unit Extension					3.0							3.0

Phasing	WB Only	02	03	04	SB Only	06	07	08
Timing	G = 60.0	G =	G =	G =	G = 70.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					1737							2858
Lane group cap.					2123							1300
v/c ratio					0.82							2.20
Green ratio					0.43							0.50
Unif. delay d1					35.2							35.0
Delay factor k					0.36							0.50
Increm. delay d2					2.6							541.8
PF factor					0.500							1.000
Control delay					20.2							576.8
Lane group LOS					C							F
Apprch. delay				20.2						576.8		
Approach LOS				C						F		
Intersec. delay	366.4			Intersection LOS						F		

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AM
WMIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B AM WITH LA MEDIA / SR-905 SB TO WB OFF-RAMP*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					*T*							*R*
Init. queue/lane					*0.0*							*0.0*
Flow rate/lane					*1737*							*2858*
Satflow per lane					*1818*							*1468*
Capacity/lane					*2123*							*1300*
Flow ratio					*0.35*							*1.10*
v/c ratio					*0.82*							*2.20*
I factor					*1.000*						*1.000*	*1.000*
Arrival type					*5*							*3*
Platoon ratio					*1.67*							*1.00*
PF factor					*0.78*							*1.00*
Q_1					*17.0*							*62.8*
k_B					*0.8*							*0.7*
Q_2					*3.0*							*111.4*
Q avg.					*20.0*							*174.1*

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$					*1.7*							*1.5*
BOQ, $Q_{\%}$					*33.9*							*261*

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing					*25.0*							*25.0*
Q storage					*0*							*0*
Avg. R_Q												
95% $R_{Q\%}$												

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	USAI
Agency/Co.	USAI
Date Performed	05/14/12
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Jurisdiction	905SBSIEMPPM3BWLM
Analysis Year	2030 3B WITH LA MEDIA /NO MIT.

Project Description 3B WITH LA MEDIA/ NO MIT.

East/West Street: SIEMPRE VIVA RD. | North/South Street: SR-905 SB TO WB OFF RAMP

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	1400	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	1473	0
Proportion of heavy vehicles, P_{HV}	10	--	--	10	--	--
Median type	Raised curb					
RT Channelized?			0			0
Lanes	0	0	0	0	2	0
Configuration					T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	0	500
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	0	526
Proportion of heavy vehicles, P_{HV}	10	10	0	10	10	10
Percent grade (%)		0			0	
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								R
Volume, v (vph)								526
Capacity, c_m (vph)								388
v/c ratio								1.36
Queue length (95%)								25.11

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Control Delay (s/veh)								204.1
LOS								F
Approach delay (s/veh)	--	--			204.1			
Approach LOS	--	--			F			

3(A)
PM
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/26/11	Jurisdiction	SR905SBWBPM3BWLM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B-WITH LA MEDIA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	3	0	0	0	0	0	0	2
Lane group					T							R
Volume (vph)					2100							500
% Heavy veh					10							10
PHF					0.95							0.95
Actuated (P/A)					A							A
Startup lost time					2.0							2.0
Ext. eff. green					2.0							2.0
Arrival type					5							3
Unit Extension					3.0							3.0
Ped/Bike/RTOR Volume										10		250
Lane Width					12.0							12.0
Parking/Grade/Parking	N		N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr					0							0
Unit Extension					3.0							3.0

Phasing	WB Only	02	03	04	SB Only	06	07	08
Timing	G = 70.0	G =	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					2211							263
Lane group cap.					2477							1114
v/c ratio					0.89							0.24
Green ratio					0.50							0.43
Unif. delay d1					31.6							25.4
Delay factor k					0.42							0.11
Increm. delay d2					4.6							0.1
PF factor					0.333							1.000
Control delay					15.1							25.5
Lane group LOS					B							C
Apprch. delay				15.1						25.5		
Approach LOS				B						C		
Intersec. delay	16.2			Intersection LOS						B		

36(A)
PM
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *3B WITH LA MEDIA / SR-905 SB TO WB OFF-RAMP*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					*T*							*R*
Init. queue/lane					0.0							0.0
Flow rate/lane					2211							263
Satflow per lane					1818							1468
Capacity/lane					2477							1114
Flow ratio					0.45							0.10
v/c ratio					0.89							0.24
I factor					1.000						1.000	1.000
Arrival type					5							3
Platoon ratio					1.67							1.00
PF factor					0.72							1.00
Q_1					20.5							3.7
k_B					0.8							0.7
Q_2					5.0							0.2
Q avg.					25.5							3.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.6							2.0
BOQ, $Q_{\%}$					41.9							7.7
Queue Storage Ratio												
Q spacing					25.0							25.0
Q storage					0							0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	1	0	1	2	0	0	0
Lane group	L	T			TR	R		LT	R			
Volume (vph)	570	2160			1080	610	570	1	1000			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10	5	0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 26.0	G = 51.0	G =	G =	G = 52.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 142.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	600	2274			1201	578		601	1053			
Lane group cap.	584	2825			1761	507		634	930			
v/c ratio	1.03	0.80			0.68	1.14		0.95	1.13			
Green ratio	0.18	0.57			0.36	0.36		0.37	0.37			
Unif. delay d1	58.0	24.2			38.6	45.5		43.7	45.0			
Delay factor k	0.50	0.35			0.25	0.50		0.46	0.50			
Increm. delay d2	44.4	1.8			1.1	84.6		23.6	73.0			
PF factor	0.851	0.116			0.626	0.626		0.615	0.615			
Control delay	93.7	4.6			25.3	113.1		50.5	100.7			
Lane group LOS	F	A			C	F		D	F			
Apprch. delay	23.2			53.8			82.5					
Approach LOS	C			D			F					
Intersec. delay	47.4			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			TR	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	600	2274			1201	578		601	1053			
Satflow per lane	1641	1818			1799	1412		1732	1434			
Capacity/lane	584	2825			1761	507		634	930			
Flow ratio	0.19	0.46			0.24	0.41		0.35	0.41			
v/c ratio	1.03	0.80			0.68	1.14		0.95	1.13			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.67			1.67	1.67		1.67	1.67			
PF factor	1.00	0.27			0.80	1.00		0.95	1.00			
Q_1	12.1	7.0			11.8	22.8		21.9	23.4			
k_B	0.4	0.9			0.7	0.6		0.7	0.6			
Q_2	4.6	3.4			1.4	12.4		5.4	12.3			
Q avg.	16.8	10.3			13.2	35.2		27.3	35.8			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.8			1.8	1.6		1.6	1.6			
BOQ, $Q_{\%}$	29.2	19.0			23.6	55.8		44.6	56.6			
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	570	2160			1080	610	570	1	1000			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10	5	0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 26.0	G = 51.0	G =	G =	G = 52.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 142.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	600	2274			1137	642		601	1053			
Lane group cap.	584	2825			1779	898		634	930			
v/c ratio	1.03	0.80			0.64	0.71		0.95	1.13			
Green ratio	0.18	0.57			0.36	0.36		0.37	0.37			
Unif. delay d1	58.0	24.2			37.8	39.2		43.7	45.0			
Delay factor k	0.50	0.35			0.22	0.28		0.46	0.50			
Increm. delay d2	44.4	1.8			0.8	2.7		23.6	73.0			
PF factor	0.851	0.116			0.626	0.626		0.615	0.615			
Control delay	93.7	4.6			24.5	27.3		50.5	100.7			
Lane group LOS	F	A			C	C		D	F			
Apprch. delay	23.2			25.5			82.5					
Approach LOS	C			C			F					
Intersec. delay	39.4			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	600	2274			1137	642		601	1053			
Satflow per lane	1641	1818			1818	1412		1732	1434			
Capacity/lane	584	2825			1779	898		634	930			
Flow ratio	0.19	0.46			0.23	0.26		0.35	0.41			
v/c ratio	1.03	0.80			0.64	0.71		0.95	1.13			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.67			1.67	1.67		1.67	1.67			
PF factor	1.00	0.27			0.78	0.81		0.95	1.00			
Q_1	12.1	7.0			10.7	10.0		21.9	23.4			
k_B	0.4	0.9			0.7	0.6		0.7	0.6			
Q_2	4.6	3.4			1.2	1.4		5.4	12.3			
Q avg.	16.8	10.3			11.9	11.4		27.3	35.8			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.8			1.8	1.8		1.6	1.6			
BOQ, $Q_{\%}$	29.2	19.0			21.5	20.7		44.6	56.6			

Queue Storage Ratio

Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SR905NBSIEMPP3BWLMNOMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	1	0	1	2	0	0	0
Lane group	L	T			TR	R		LT	R			
Volume (vph)	1870	1100			1755	1570	345	1	600			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10	5	0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 40.0	G = 65.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1968	1158			2673	827		364	632			
Lane group cap.	879	3723			2094	635		323	468			
v/c ratio	2.24	0.31			1.28	1.30		1.13	1.35			
Green ratio	0.28	0.75			0.45	0.45		0.19	0.19			
Unif. delay d1	52.5	5.8			40.0	40.0		59.0	59.0			
Delay factor k	0.50	0.11			0.50	0.50		0.50	0.50			
Increm. delay d2	561.2	0.0			128.3	147.3		88.9	171.3			
PF factor	0.795	0.201			0.463	0.490		0.847	0.847			
Control delay	602.9	1.2			146.8	166.9		138.9	221.3			
Lane group LOS	F	A			F	F		F	F			
Apprch. delay	380.0			151.6			191.2					
Approach LOS	F			F			F					
Intersec. delay	250.4			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			TR	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	1968	1158			2673	827		364	632			
Satflow per lane	1641	1818			1715	1417		1732	1419			
Capacity/lane	879	3723			2094	635		323	468			
Flow ratio	0.62	0.23			0.57	0.58		0.21	0.25			
v/c ratio	2.24	0.31			1.28	1.30		1.13	1.35			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.54	1.26			1.66	1.63		1.67	1.67			
PF factor	1.00	0.22			1.00	1.00		1.00	1.00			
Q_1	40.8	1.2			39.5	33.3		14.7	14.4			
k_B	0.6	1.1			0.8	0.7		0.5	0.4			
Q_2	71.1	0.5			29.8	26.7		7.8	13.0			
Q avg.	111.9	1.7			69.4	60.0		22.5	27.4			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	2.0			1.5	1.5		1.7	1.6			
BOQ, $Q_{\%}$	168	3.5			105	91.3		37.6	44.7			
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	SR905NBSIEMPP3BWLMWITHMIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B-WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	1870	1100			1755	1570	345	1	600			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10	5	0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 40.0	G = 65.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1968	1158			1847	1653		364	632			
Lane group cap.	879	3723			2220	1124		323	468			
v/c ratio	2.24	0.31			0.83	1.47		1.13	1.35			
Green ratio	0.28	0.75			0.45	0.45		0.19	0.19			
Unif. delay d1	52.5	5.8			35.2	40.0		59.0	59.0			
Delay factor k	0.50	0.11			0.37	0.50		0.50	0.50			
Increm. delay d2	561.2	0.0			2.9	216.7		88.9	171.3			
PF factor	0.795	0.201			0.458	0.640		0.847	0.847			
Control delay	602.9	1.2			19.0	242.3		138.9	221.3			
Lane group LOS	F	A			B	F		F	F			
Apprch. delay	380.0			124.4			191.2					
Approach LOS	F			F			F					
Intersec. delay	238.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*T*			*T*	*R*		*LT*	*R*			
Init. queue/lane	*0.0*	*0.0*			*0.0*	*0.0*		*0.0*	*0.0*			
Flow rate/lane	*1968*	*1158*			*1847*	*1653*		*364*	*632*			
Satflow per lane	*1641*	*1818*			*1818*	*1417*		*1732*	*1419*			
Capacity/lane	*879*	*3723*			*2220*	*1124*		*323*	*468*			
Flow ratio	*0.62*	*0.23*			*0.37*	*0.66*		*0.21*	*0.25*			
v/c ratio	*2.24*	*0.31*			*0.83*	*1.47*		*1.13*	*1.35*			
I factor	*1.000*	*1.000*			*1.000*	*1.000*		*1.000*	*1.000*			
Arrival type	*5*	*5*			*5*	*5*		*5*	*5*			
Platoon ratio	*1.54*	*1.26*			*1.67*	*1.44*		*1.67*	*1.67*			
PF factor	*1.00*	*0.22*			*0.76*	*1.00*		*1.00*	*1.00*			
Q_1	*40.8*	*1.2*			*18.3*	*37.6*		*14.7*	*14.4*			
k_B	*0.6*	*1.1*			*0.8*	*0.7*		*0.5*	*0.4*			
Q_2	*71.1*	*0.5*			*3.4*	*39.3*		*7.8*	*13.0*			
Q avg.	*111.9*	*1.7*			*21.6*	*76.9*		*22.5*	*27.4*			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*2.0*			*1.7*	*1.5*		*1.7*	*1.6*			
BOQ, $Q_{\%}$	*168*	*3.5*			*36.4*	*116*		*37.6*	*44.7*			

Queue Storage Ratio

Q spacing	*25.0*	*25.0*			*25.0*	*25.0*		*25.0*	*25.0*			
Q storage	*0*	*0*			*0*	*0*		*0*	*0*			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./PSEO AMERICAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/21/12	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	2	0	1	2	0	1	2	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	900	1255	820	90	715	95	465	50	50	55	100	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	200
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 38.0	G = 35.0	G =	G =	G = 30.0	G = 19.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	1321	863	95	853		489	106		58	431	
Lane group cap.	445	1238	715	445	848		352	676		223	403	
v/c ratio	2.13	1.07	1.21	0.21	1.01		1.39	0.16		0.26	1.07	
Green ratio	0.27	0.25	0.50	0.27	0.25		0.21	0.21		0.14	0.14	
Unif. delay d1	51.0	52.5	35.0	39.4	52.5		55.0	44.7		54.2	60.5	
Delay factor k	0.50	0.50	0.50	0.11	0.50		0.50	0.11		0.11	0.50	
Increm. delay d2	515.2	45.5	106.0	0.2	32.4		191.8	0.1		0.6	64.6	
PF factor	0.759	0.778	0.426	0.752	0.778		0.818	0.818		0.895	0.895	
Control delay	553.9	86.3	120.9	29.9	73.2		236.8	36.7		49.2	118.7	
Lane group LOS	F	F	F	C	E		F	D		D	F	
Apprch. delay	237.3			68.8			201.2			110.5		
Approach LOS	F			E			F			F		
Intersec. delay	190.2			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information												
Project Description	*ALT.-3B WITH LA MEDIA AM PEAK HOUR/NO MITIGATION*											
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*T*	*R*	*L*	*TR*		*L*	*TR*		*L*	*TR*	
Init. queue/lane	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*		*0.0*	*0.0*		*0.0*	*0.0*	
Flow rate/lane	*947*	*1321*	*863*	*95*	*853*		*489*	*106*		*58*	*431*	
Satflow per lane	*1641*	*1818*	*1430*	*1641*	*1780*		*1641*	*1655*		*1641*	*1561*	
Capacity/lane	*445*	*1238*	*715*	*445*	*848*		*352*	*676*		*223*	*403*	
Flow ratio	*0.58*	*0.27*	*0.60*	*0.06*	*0.25*		*0.30*	*0.03*		*0.04*	0.14	
v/c ratio	*2.13*	*1.07*	*1.21*	*0.21*	*1.01*		*1.39*	*0.16*		*0.26*	*1.07*	
I factor	*1.000*	*1.000*	*1.000*	*1.000*	*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	
Arrival type	*5*	*5*	*5*	*5*	*5*		*5*	*5*		*5*	*5*	
Platoon ratio	*1.65*	*1.67*	*1.57*	*1.67*	*1.67*		*1.67*	*1.67*		*1.67*	*1.67*	
PF factor	*1.00*	*1.00*	*1.00*	*0.78*	*1.00*		*1.00*	*0.84*		*0.92*	*1.00*	
Q_1	*36.8*	*18.8*	*33.6*	*2.2*	*17.4*		*19.0*	*1.5*		*1.9*	*8.8*	
k_B	*0.6*	*0.6*	*0.7*	*0.6*	*0.6*		*0.5*	*0.5*		*0.4*	*0.4*	
Q_2	*63.8*	*8.0*	*22.1*	*0.1*	*5.8*		*18.7*	*0.1*		*0.1*	*4.2*	
Q avg.	*100.6*	*26.8*	*55.7*	*2.4*	*23.2*		*37.7*	*1.5*		*2.0*	*13.0*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*	*1.5*	*2.0*	*1.7*		*1.6*	*2.1*		*2.0*	*1.8*	
BOQ, $Q_{\%}$	*151*	*43.8*	*85.0*	*4.8*	*38.6*		*59.4*	*3.2*		*4.0*	*23.3*	
Queue Storage Ratio												
Q spacing	*25.0*	*25.0*	*25.0*	*25.0*	*25.0*		*25.0*	*25.0*		*25.0*	*25.0*	
Q storage	*0*	*0*	*0*	*0*	*0*		*0*	*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./PSEO AMERICAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/21/12	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	1	2	1	1	1	1	1	1	2
Lane group	L	T	R	L	T	R	L	LT	R	L	T	R
Volume (vph)	900	1255	820	90	715	95	465	50	50	55	100	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 38.0	G = 35.0	G =	G =	G = 30.0	G = 19.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	1321	863	95	753	100	367	175	53	58	105	537
Lane group cap.	865	1238	703	445	866	551	352	377	694	223	247	1082
v/c ratio	1.09	1.07	1.23	0.21	0.87	0.18	1.04	0.46	0.08	0.26	0.43	0.50
Green ratio	0.27	0.25	0.50	0.27	0.25	0.39	0.21	0.21	0.49	0.14	0.14	0.44
Unif. delay d1	51.0	52.5	35.0	39.4	50.3	28.4	55.0	48.0	19.2	54.2	55.5	27.8
Delay factor k	0.50	0.50	0.50	0.11	0.40	0.11	0.50	0.11	0.11	0.11	0.11	0.11
Increm. delay d2	59.8	45.5	114.7	0.2	9.5	0.2	59.5	0.9	0.0	0.6	1.2	0.4
PF factor	0.752	0.778	0.453	0.752	0.778	0.581	0.818	0.818	0.370	0.895	0.895	0.470
Control delay	98.1	86.3	130.6	29.9	48.6	16.7	104.5	40.2	7.2	49.2	50.9	13.5
Lane group LOS	F	F	F	C	D	B	F	D	A	D	D	B
Apprch. delay	102.1			43.4			76.9			22.0		
Approach LOS	F			D			E			C		
Intersec. delay	78.5			Intersection LOS						E		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA AM PEAK HOUR/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	*L*	*T*	*R*	*L*	*T*	*R*	*L*	*LT*	*R*	*L*	*T*	*R*
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	947	1321	863	95	753	100	367	175	53	58	105	537
Satflow per lane	1641	1818	1405	1641	1818	1429	1641	1757	1428	1641	1818	1381
Capacity/lane	865	1238	703	445	866	551	352	377	694	223	247	1082
Flow ratio	0.30	0.27	0.61	0.06	0.22	0.07	0.22	0.10	0.04	0.04	0.06	0.22
v/c ratio	1.09	1.07	1.23	0.21	0.87	0.18	1.04	0.46	0.08	0.26	0.43	0.50
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.55	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	1.00	0.78	0.95	0.61	1.00	0.88	0.38	0.92	0.93	0.58
Q_1	18.9	18.8	33.6	2.2	14.1	1.6	14.3	5.2	0.4	1.9	3.5	4.9
k_B	0.6	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.7	0.4	0.4	0.7
Q_2	9.0	8.0	23.4	0.1	2.7	0.1	5.7	0.4	0.1	0.1	0.3	0.6
Q avg.	27.9	26.8	56.9	2.4	16.8	1.7	20.0	5.7	0.5	2.0	3.8	5.5

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.6	1.5	2.0	1.7	2.0	1.7	1.9	2.1	2.0	2.0	1.9
BOQ, $Q_\%$	45.5	43.8	86.8	4.8	29.1	3.5	33.9	11.0	1.0	4.0	7.5	10.7

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./PSEO AMERICAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/21/12	Jurisdiction	SIEMPASEO30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	2	0	1	2	0	1	2	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	530	735	480	235	1405	260	915	100	100	100	50	1005
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	275
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 22.0	G = 35.0	G =	G =	G = 32.0	G = 33.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	558	774	505	247	1753		963	210		105	821	
Lane group cap.	258	1238	735	258	842		375	721		387	683	
v/c ratio	2.16	0.63	0.69	0.96	2.08		2.57	0.29		0.27	1.20	
Green ratio	0.16	0.25	0.51	0.16	0.25		0.23	0.23		0.24	0.24	
Unif. delay d1	59.0	46.7	25.5	58.5	52.5		54.0	44.6		43.7	53.5	
Delay factor k	0.50	0.21	0.26	0.47	0.50		0.50	0.11		0.11	0.50	
Increm. delay d2	535.9	1.0	2.7	44.2	491.0		713.4	0.2		0.4	104.6	
PF factor	0.876	0.778	0.294	0.876	0.778		0.817	0.802		0.794	0.794	
Control delay	587.6	37.3	10.2	95.5	531.8		757.5	36.0		35.1	147.1	
Lane group LOS	F	D	B	F	F		F	D		D	F	
Apprch. delay	197.0			477.9			628.3			134.4		
Approach LOS	F			F			F			F		
Intersec. delay	367.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *ALT.-3B WITH LA MEDIA PM PEAK HOUR/NO MIT*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	558	774	505	247	1753		963	210		105	821	
Satflow per lane	1641	1818	1430	1641	1767		1641	1657		1641	1521	
Capacity/lane	258	1238	735	258	842		375	721		387	683	
Flow ratio	0.34	0.16	0.35	0.15	0.52		0.59	0.07		0.06	0.28	
v/c ratio	2.16	0.63	0.69	0.96	2.08		2.57	0.29		0.27	1.20	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5		5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67		1.62	1.67		1.67	1.67	
PF factor	1.00	0.89	0.46	0.99	1.00		1.00	0.84		0.83	1.00	
Q_1	21.7	8.7	6.8	9.5	35.8		37.5	3.0		2.8	16.8	
k_B	0.4	0.6	0.7	0.4	0.6		0.5	0.5		0.5	0.5	
Q_2	38.2	0.9	1.6	2.9	60.8		74.3	0.2		0.2	11.4	
Q avg.	59.9	9.6	8.4	12.4	96.6		111.8	3.2		3.0	28.2	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.9	1.9	1.8	1.5		1.5	2.0		2.0	1.6	
BOQ, $Q_{\%}$	91.2	17.8	15.7	22.3	145		168	6.4		6.0	45.8	
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0		0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./PSEO AMERICAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/21/12	Jurisdiction	SIEMPASEO30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	1	2	1	1	1	1	1	1	2
Lane group	L	T	R	L	T	R	L	LT	R	L	T	R
Volume (vph)	530	735	480	235	1405	260	915	100	100	100	50	1005
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	275
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 22.0	G = 35.0	G =	G =	G = 32.0	G = 33.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	558	774	505	247	1479	274	520	548	105	105	53	768
Lane group cap.	501	1238	723	258	866	695	375	400	326	387	429	1064
v/c ratio	1.11	0.63	0.70	0.96	1.71	0.39	1.39	1.37	0.32	0.27	0.12	0.72
Green ratio	0.16	0.25	0.51	0.16	0.25	0.49	0.23	0.23	0.23	0.24	0.24	0.43
Unif. delay d1	59.0	46.7	25.8	58.5	52.5	22.9	54.0	54.0	45.0	43.7	42.1	33.1
Delay factor k	0.50	0.21	0.26	0.47	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.28
Increm. delay d2	75.2	1.0	3.0	44.2	323.5	0.4	189.8	181.8	0.6	0.4	0.1	2.4
PF factor	0.876	0.778	0.294	0.876	0.778	0.370	0.802	0.802	0.802	0.794	0.794	0.500
Control delay	126.8	37.3	10.6	95.5	364.3	8.9	233.1	225.1	36.7	35.1	33.6	19.0
Lane group LOS	F	D	B	F	F	A	F	F	D	D	C	B
Apprch. delay	57.1			282.4			211.8			21.6		
Approach LOS	E			F			F			C		
Intersec. delay	158.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description ALT.-3B WITH LA MEDIA PM PEAK HOUR/WITH MIT

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	LT	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	558	774	505	247	1479	274	520	548	105	105	53	768
Satflow per lane	1641	1818	1405	1641	1818	1430	1641	1748	1425	1641	1818	1402
Capacity/lane	501	1238	723	258	866	695	375	400	326	387	429	1064
Flow ratio	0.17	0.16	0.36	0.15	0.43	0.19	0.32	0.31	0.07	0.06	0.03	0.31
v/c ratio	1.11	0.63	0.70	0.96	1.71	0.39	1.39	1.37	0.32	0.27	0.12	0.72
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	0.89	0.47	0.99	1.00	0.44	1.00	1.00	0.85	0.83	0.81	0.71
Q_1	11.2	8.7	7.0	9.5	30.2	3.0	20.2	21.3	2.9	2.8	1.3	9.9
k_B	0.4	0.6	0.7	0.4	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.7
Q_2	6.1	0.9	1.6	2.9	41.6	0.5	19.8	20.3	0.2	0.2	0.1	1.6
Q avg.	17.3	9.6	8.6	12.4	71.7	3.4	40.0	41.6	3.1	3.0	1.4	11.5

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.9	1.9	1.8	1.5	2.0	1.6	1.6	2.0	2.0	2.1	1.8
BOQ, $Q_{\%}$	29.9	17.8	16.1	22.3	108	6.9	62.6	64.8	6.2	6.0	2.9	20.9

Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	DEL SOL BLVD./DENNERY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	DELSOLDEN30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	0	0	0	0	1	0	1
Lane group	L	T			TR					L		R
Volume (vph)	450	220			300	600				430		400
% Heavy veh	5	5			5	5				5		5
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 40.0	G = 40.0	G =	G =	G = 33.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 125.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	474	232			948					453		421
Lane group cap.	550	2437			965					454		924
v/c ratio	0.86	0.10			0.98					1.00		0.46
Green ratio	0.32	0.67			0.32					0.26		0.62
Unif. delay d1	39.9	7.2			42.2					46.0		12.8
Delay factor k	0.39	0.11			0.49					0.50		0.11
Increm. delay d2	13.2	0.0			24.6					41.6		0.4
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	53.1	7.2			66.8					87.6		13.2
Lane group LOS	D	A			E					F		B
Apprch. delay	38.0			66.8						51.7		
Approach LOS	D			E						D		
Intersec. delay	53.6			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	DEL SOL BLVD./DENNERY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	DELSOLDEN30P3BWLM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	0	0	0	0	1	0	1
Lane group	L	T			TR					L		R
Volume (vph)	500	240			150	400				470		430
% Heavy veh	5	5			5	5				5		5
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0

Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 40.0	G = 40.0	G =	G =	G = 33.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	526	253			579					495		453
Lane group cap.	550	2437			953					454		924
v/c ratio	0.96	0.10			0.61					1.09		0.49
Green ratio	0.32	0.67			0.32					0.26		0.62
Unif. delay d1	41.6	7.2			35.9					46.0		13.2
Delay factor k	0.47	0.11			0.19					0.50		0.11
Increm. delay d2	27.7	0.0			1.1					68.9		0.4
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	69.4	7.2			37.0					114.9		13.6
Lane group LOS	E	A			D					F		B
Apprch. delay	49.2			37.0						66.5		
Approach LOS	D			D						E		
Intersec. delay	53.2			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OCEANDEL30A3BWLMNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	400	20	460	50	20	50	400	1000	20	20	855	350
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3	3	3	3		3	3		3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	100
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 28.0	G =	G =	G = 20.0	G = 49.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	421	21	484	53	74		421	1074		21	1163	
Lane group cap.	366	360	561	366	314		474	1708		244	1152	
v/c ratio	1.15	0.06	0.86	0.14	0.24		0.89	0.63		0.09	1.01	
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34	
Unif. delay d1	57.5	47.7	42.6	47.0	49.5		61.4	40.4		54.5	48.0	
Delay factor k	0.50	0.11	0.39	0.11	0.11		0.41	0.21		0.11	0.50	
Increm. delay d2	94.5	0.1	13.1	0.2	0.4		18.3	0.7		0.2	28.9	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	152.0	47.8	55.7	47.2	49.8		79.7	41.1		54.7	76.9	
Lane group LOS	F	D	E	D	D		E	D		D	E	
Apprch. delay	99.3			48.7			52.0			76.5		
Approach LOS	F			D			D			E		
Intersec. delay	71.4			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OCEANDEL30A3BWLMWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	1
Lane group	L	LT	R	L	TR		L	TR		L	T	R
Volume (vph)	400	20	460	50	20	50	400	1000	20	20	855	350
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	3	3	3	3	3		3	3		3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	100
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 28.0	G =	G =	G = 20.0	G = 49.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	211	231	484	53	74		421	1074		21	900	263
Lane group cap.	366	344	561	366	314		474	1708		244	1199	522
v/c ratio	0.58	0.67	0.86	0.14	0.24		0.89	0.63		0.09	0.75	0.50
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34	0.34
Unif. delay d1	51.8	54.2	42.6	47.0	49.5		61.4	40.4		54.5	42.6	38.3
Delay factor k	0.17	0.24	0.39	0.11	0.11		0.41	0.21		0.11	0.31	0.11
Increm. delay d2	2.2	5.0	13.1	0.2	0.4		18.3	0.7		0.2	2.7	0.8
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	1.000
Control delay	54.0	59.3	55.7	47.2	49.8		79.7	41.1		54.7	45.3	39.1
Lane group LOS	D	E	E	D	D		E	D		D	D	D
Apprch. delay	56.2			48.7			52.0			44.1		
Approach LOS	E			D			D			D		
Intersec. delay	50.4			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OCEANDEL30A3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	350	20	390	20	20	20	450	1235	50	50	1010	225
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3	3	3	3		4	4		4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	100
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 28.0	G =	G =	G = 20.0	G = 49.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	368	21	411	21	42		474	1353		53	1195	
Lane group cap.	366	360	561	366	327		474	1702		244	1176	
v/c ratio	1.01	0.06	0.73	0.06	0.13		1.00	0.79		0.22	1.02	
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34	
Unif. delay d1	57.5	47.7	39.9	46.2	48.4		62.5	43.5		55.5	48.0	
Delay factor k	0.50	0.11	0.29	0.11	0.11		0.50	0.34		0.11	0.50	
Increm. delay d2	48.4	0.1	4.9	0.1	0.2		41.3	2.7		0.4	30.3	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.954		1.000	0.954	
Control delay	105.9	47.8	44.8	46.2	48.6		103.8	44.2		56.0	76.1	
Lane group LOS	F	D	D	D	D		F	D		E	E	
Apprch. delay	73.0			47.8			59.7			75.3		
Approach LOS	E			D			E			E		
Intersec. delay	67.1			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/06/11	Jurisdiction	OCEANDEL30A3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	1
Lane group	L	LT	R	L	TR		L	TR		L	T	R
Volume (vph)	350	20	390	20	20	20	450	1235	50	50	1010	225
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	3	3	3	3	3		4	4		4	4	3
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	100
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 28.0	G =	G =	G = 20.0	G = 49.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	221	168	411	21	42		474	1353		53	1063	132
Lane group cap.	366	345	561	366	327		474	1702		244	1199	522
v/c ratio	0.60	0.49	0.73	0.06	0.13		1.00	0.79		0.22	0.89	0.25
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34	0.34
Unif. delay d1	52.1	52.1	39.9	46.2	48.4		62.5	43.5		55.5	45.4	34.7
Delay factor k	0.19	0.11	0.29	0.11	0.11		0.50	0.34		0.11	0.41	0.11
Increm. delay d2	2.8	1.1	4.9	0.1	0.2		41.3	2.7		0.4	8.3	0.3
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.954		1.000	0.954	1.000
Control delay	54.9	53.2	44.8	46.2	48.6		103.8	44.2		56.0	51.6	35.0
Lane group LOS	D	D	D	D	D		F	D		E	D	D
Apprch. delay	49.4			47.8			59.7			50.0		
Approach LOS	D			D			E			D		
Intersec. delay	54.3			Intersection LOS						D		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OCEANSTA303BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume (vph)	10	1100	255	85	900	20	500	45	65	40	50	20
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		4	4	4	4	4	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 47.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	1426		89	968		526	47	68	42	74	
Lane group cap.	197	1704		197	1759		524	207	167	524	195	
v/c ratio	0.06	0.84		0.45	0.55		1.00	0.23	0.41	0.08	0.38	
Green ratio	0.11	0.35		0.11	0.35		0.30	0.11	0.11	0.30	0.11	
Unif. delay d1	53.7	40.5		56.2	35.5		47.5	54.7	55.9	34.2	55.7	
Delay factor k	0.11	0.37		0.11	0.15		0.50	0.11	0.11	0.11	0.11	
Increm. delay d2	0.1	3.8		1.6	0.4		40.3	0.6	1.6	0.1	1.2	
PF factor	1.000	0.945		1.000	0.945		0.989	1.000	1.000	0.989	1.000	
Control delay	53.8	42.1		57.8	33.9		87.2	55.3	57.5	33.9	56.9	
Lane group LOS	D	D		E	C		F	E	E	C	E	
Apprch. delay	42.2			35.9			81.7			48.6		
Approach LOS	D			D			F			D		
Intersec. delay	48.2			Intersection LOS						D		

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A1-A W MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OCEANSTA303BWLM WITH
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	3	0	2	1	1	1	1	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	10	1100	255	85	900	20	500	45	65	40	50	20
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	3	4	4		4	4	4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 47.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 135.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	1158	268	89	968		526	47	68	42	74	
Lane group cap.	197	1767	530	197	1759		1018	207	167	524	195	
v/c ratio	0.06	0.66	0.51	0.45	0.55		0.52	0.23	0.41	0.08	0.38	
Green ratio	0.11	0.35	0.35	0.11	0.35		0.30	0.11	0.11	0.30	0.11	
Unif. delay d1	53.7	37.2	34.8	56.2	35.5		39.5	54.7	55.9	34.2	55.7	
Delay factor k	0.11	0.23	0.11	0.11	0.15		0.12	0.11	0.11	0.11	0.11	
Increm. delay d2	0.1	0.9	0.8	1.6	0.4		0.5	0.6	1.6	0.1	1.2	
PF factor	1.000	0.945	1.000	1.000	0.945		0.989	1.000	1.000	0.989	1.000	
Control delay	53.8	36.0	35.6	57.8	33.9		39.5	55.3	57.5	33.9	56.9	
Lane group LOS	D	D	D	E	C		D	E	E	C	E	
Apprch. delay	36.1			35.9			42.5			48.6		
Approach LOS	D			D			D			D		
Intersec. delay	37.7			Intersection LOS						D		

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AP
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OCEANSTP303BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume (vph)	20	700	660	75	1125	40	600	60	85	20	40	10
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		4	4	4	4	4	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 47.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 135.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	1432		79	1226		632	63	89	21	53	
Lane group cap.	197	1607		197	1755		524	207	167	524	199	
v/c ratio	0.11	0.89		0.40	0.70		1.21	0.30	0.53	0.04	0.27	
Green ratio	0.11	0.35		0.11	0.35		0.30	0.11	0.11	0.30	0.11	
Unif. delay d1	54.0	41.6		55.8	37.9		47.5	55.2	56.7	33.8	55.0	
Delay factor k	0.11	0.42		0.11	0.26		0.50	0.11	0.14	0.11	0.11	
Increm. delay d2	0.2	6.7		1.3	1.2		109.7	0.8	3.3	0.0	0.7	
PF factor	1.000	0.945		1.000	0.945		0.989	1.000	1.000	0.989	1.000	
Control delay	54.2	46.0		57.2	37.1		156.7	56.0	60.0	33.5	55.7	
Lane group LOS	D	D		E	D		F	E	E	C	E	
Apprch. delay	46.1			38.3			137.6			49.4		
Approach LOS	D			D			F			D		
Intersec. delay	63.2			Intersection LOS						E		

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AI-P W MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OCEANSTP303BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	3	0	2	1	1	1	1	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	20	700	660	75	1125	40	600	60	85	20	40	10
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	3	4	4		4	4	4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 47.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	737	695	79	1226		632	63	89	21	53	
Lane group cap.	197	1767	1040	197	1755		1018	207	167	524	199	
v/c ratio	0.11	0.42	0.67	0.40	0.70		0.62	0.30	0.53	0.04	0.27	
Green ratio	0.11	0.35	0.68	0.11	0.35		0.30	0.11	0.11	0.30	0.11	
Unif. delay d1	54.0	33.6	12.6	55.8	37.9		41.0	55.2	56.7	33.8	55.0	
Delay factor k	0.11	0.11	0.24	0.11	0.26		0.20	0.11	0.14	0.11	0.11	
Increm. delay d2	0.2	0.2	1.7	1.3	1.2		1.2	0.8	3.3	0.0	0.7	
PF factor	1.000	0.945	1.000	1.000	0.945		0.989	1.000	1.000	0.989	1.000	
Control delay	54.2	31.9	14.2	57.2	37.1		41.7	56.0	60.0	33.5	55.7	
Lane group LOS	D	C	B	E	D		D	E	E	C	E	
Apprch. delay	23.8			38.3			44.9			49.4		
Approach LOS	C			D			D			D		
Intersec. delay	34.1			Intersection LOS						C		

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42-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OLD OTAY MESA/BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OOMBEYER30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	1	0	1	1	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	300	1245	300	880	1200	15	300	100	600	10	200	600
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	3	4	4		4	4		4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 38.0	G =	G =	G = 39.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 155.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	316	1311	316	926	1279		316	737		11	843	
Lane group cap.	646	845	367	646	843		433	297		433	303	
v/c ratio	0.49	1.55	0.86	1.43	1.52		0.73	2.48		0.03	2.78	
Green ratio	0.19	0.25	0.25	0.19	0.25		0.25	0.19		0.25	0.19	
Unif. delay d1	55.7	58.5	56.0	62.5	58.5		53.2	62.5		43.7	62.5	
Delay factor k	0.11	0.50	0.39	0.50	0.50		0.29	0.50		0.11	0.50	
Increm. delay d2	0.6	254.0	18.4	203.9	238.8		6.2	676.7		0.0	811.1	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	56.3	312.5	74.4	266.4	297.3		59.4	739.2		43.7	873.6	
Lane group LOS	E	F	E	F	F		E	F		D	F	
Apprch. delay	232.1			284.3			535.2			863.0		
Approach LOS	F			F			F			F		
Intersec. delay	392.8			Intersection LOS						F		

HCS2000™

Version 4.1f

42-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OLD OTAY MESA/BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OOMBEYER30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	1	1	1	1	1
Lane group	L	T	R	L	TR		L	T	R	L	T	R
Volume (vph)	300	1245	300	880	1200	15	300	100	600	10	200	600
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	4	4	4	4	4		4	4	4	4	4	4
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 38.0	G =	G =	G = 39.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 155.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	316	1311	316	926	1279		316	105	632	11	211	632
Lane group cap.	646	845	793	646	843		433	350	626	433	350	626
v/c ratio	0.49	1.55	0.40	1.43	1.52		0.73	0.30	1.01	0.03	0.60	1.01
Green ratio	0.19	0.25	0.53	0.19	0.25		0.25	0.19	0.42	0.25	0.19	0.42
Unif. delay d1	55.7	58.5	21.8	62.5	58.5		53.2	53.5	45.0	43.7	57.1	45.0
Delay factor k	0.11	0.50	0.11	0.50	0.50		0.29	0.11	0.50	0.11	0.19	0.50
Increm. delay d2	0.6	254.0	0.3	203.9	238.8		6.2	0.5	38.4	0.0	2.9	38.4
PF factor	1.000	1.000	0.719	1.000	1.000		1.000	1.000	0.873	1.000	1.000	0.873
Control delay	56.3	312.5	16.0	266.4	297.3		59.4	54.0	77.7	43.7	60.0	77.7
Lane group LOS	E	F	B	F	F		E	D	E	D	E	E
Apprch. delay	222.6			284.3			69.8			72.9		
Approach LOS	F			F			E			E		
Intersec. delay	197.4			Intersection LOS						F		

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42-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OLD OTAY MESA/BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OOMBEYER30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	1	0	1	1	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	600	1200	300	600	1245	10	300	200	880	15	100	300
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	3	4	4		4	4		4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 38.0	G =	G =	G = 34.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	1263	316	632	1322		316	1137		16	421	
Lane group cap.	668	873	379	668	871		390	309		390	313	
v/c ratio	0.95	1.45	0.83	0.95	1.52		0.81	3.68		0.04	1.35	
Green ratio	0.20	0.25	0.25	0.20	0.25		0.23	0.20		0.23	0.20	
Unif. delay d1	59.2	56.0	53.0	59.2	56.0		54.9	60.0		45.3	60.0	
Delay factor k	0.46	0.50	0.37	0.46	0.50		0.35	0.50		0.11	0.50	
Increm. delay d2	22.5	207.5	14.7	22.5	238.9		12.1	1214		0.0	175.1	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	81.7	263.5	67.8	81.7	294.9		67.1	1274		45.3	235.1	
Lane group LOS	F	F	E	F	F		E	F		D	F	
Apprch. delay	183.6			225.9			1011			228.2		
Approach LOS	F			F			F			F		
Intersec. delay	399.1			Intersection LOS						F		

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42-P
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OLD OTAY MESA/BEYER BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OOMBEYER30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	1	1	1	1	1
Lane group	L	T	R	L	TR		L	T	R	L	T	R
Volume (vph)	600	1200	300	600	1245	10	300	200	880	15	100	300
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	4	4	3	4	4		4	4	3	4	4	3
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 38.0	G =	G =	G = 34.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	1263	316	632	1322		316	211	926	16	105	316
Lane group cap.	668	873	379	668	871		390	362	647	390	362	647
v/c ratio	0.95	1.45	0.83	0.95	1.52		0.81	0.58	1.43	0.04	0.29	0.49
Green ratio	0.20	0.25	0.25	0.20	0.25		0.23	0.20	0.43	0.23	0.20	0.43
Unif. delay d1	59.2	56.0	53.0	59.2	56.0		54.9	54.3	42.5	45.3	51.0	30.5
Delay factor k	0.46	0.50	0.37	0.46	0.50		0.35	0.17	0.50	0.11	0.11	0.11
Increm. delay d2	22.5	207.5	14.7	22.5	238.9		12.1	2.4	202.9	0.0	0.4	0.6
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000
Control delay	81.7	263.5	67.8	81.7	294.9		67.1	56.7	245.4	45.3	51.4	31.1
Lane group LOS	F	F	E	F	F		E	E	F	D	D	C
Apprch. delay	183.6			225.9			179.2			36.5		
Approach LOS	F			F			F			D		
Intersec. delay	185.6			Intersection LOS						F		

43A
NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CORPORATE CENTER
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OTAYCORP30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B W LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	725	2980	275	185	1050	525	120	50	80	275	115	375
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 18.0	G = 50.0	G =	G = 20.0	G = 19.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 140.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	763	3426		195	1105	553	126	137		289	212	304
Lane group cap.	728	2546		228	1769	769	223	416		234	227	303
v/c ratio	1.05	1.35		0.86	0.62	0.72	0.57	0.33		1.24	0.93	1.00
Green ratio	0.23	0.52		0.07	0.36	0.54	0.14	0.14		0.14	0.14	0.21
Unif. delay d1	54.0	33.5		64.3	37.2	24.5	56.6	54.7		60.0	59.3	55.0
Delay factor k	0.50	0.50		0.39	0.21	0.28	0.16	0.11		0.50	0.45	0.50
Increm. delay d2	46.6	158.2		25.9	0.7	3.3	3.3	0.5		137.0	41.8	52.5
PF factor	0.802	0.614		0.949	0.630	0.231	0.895	0.895		0.889	0.889	0.818
Control delay	90.0	178.8		86.8	24.1	8.9	54.0	49.5		190.3	94.5	97.5
Lane group LOS	F	F		F	C	A	D	D		F	F	F
Apprch. delay	162.6			26.2			51.6			130.1		
Approach LOS	F			C			D			F		
Intersec. delay	119.3			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CORPORATE CENTER
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OTAYCORP30A3BWLM/WITH MIT.
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B W LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	1	0	2	1	1
Lane group	L	T	R	L	T	R	L	TR		L	TR	R
Volume (vph)	725	2980	275	185	1050	525	120	50	80	275	115	375
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08
Timing	G = 10.0	G = 18.0	G = 50.0	G =	G = 20.0	G = 19.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	763	3137	289	195	1105	553	126	137		289	212	304
Lane group cap.	728	2583	946	228	1769	769	433	218		455	227	303
v/c ratio	1.05	1.21	0.31	0.86	0.62	0.72	0.29	0.63		0.64	0.93	1.00
Green ratio	0.23	0.52	0.66	0.07	0.36	0.54	0.14	0.14		0.14	0.14	0.21
Unif. delay d1	54.0	33.5	10.3	64.3	37.2	24.5	54.4	57.2		56.6	59.3	55.0
Delay factor k	0.50	0.50	0.11	0.39	0.21	0.28	0.11	0.21		0.22	0.45	0.50
Increm. delay d2	46.6	100.3	0.2	25.9	0.7	3.3	0.4	5.7		2.9	41.8	52.5
PF factor	0.802	0.455	0.146	0.949	0.630	0.231	0.895	0.895		0.889	0.889	0.818
Control delay	90.0	115.5	1.7	86.8	24.1	8.9	49.1	56.9		53.2	94.5	97.5
Lane group LOS	F	F	A	F	C	A	D	E		D	F	F
Apprch. delay	103.0			26.2			53.1			80.8		
Approach LOS	F			C			D			F		
Intersec. delay	78.6			Intersection LOS						E		

43 P

N M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CORPORATE CENTER
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	OTAYCORP30PA3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	375	1050	400	260	2690	275	515	215	340	525	135	725
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	100	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	SB Only	NB Only	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 30.0	G = 19.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	395	1526		274	2832	289	542	479		553	295	610
Lane group cap.	425	2014		425	2113	939	208	395		328	314	475
v/c ratio	0.93	0.76		0.64	1.34	0.31	2.61	1.21		1.69	0.94	1.28
Green ratio	0.13	0.43		0.13	0.43	0.65	0.13	0.13		0.20	0.20	0.33
Unif. delay d1	64.3	36.4		61.6	43.0	11.3	65.5	65.5		60.0	59.1	50.0
Delay factor k	0.44	0.31		0.22	0.50	0.11	0.50	0.50		0.50	0.45	0.50
Increm. delay d2	26.9	1.7		3.4	156.4	0.2	736.4	117.0		321.6	35.2	143.2
PF factor	0.897	0.504		0.897	0.507	0.144	0.903	0.903		0.833	0.833	0.667
Control delay	84.6	20.1		58.7	178.2	1.8	795.5	176.1		371.6	84.4	176.5
Lane group LOS	F	C		E	F	A	F	F		F	F	F
Apprch. delay	33.3			153.6			504.9			231.9		
Approach LOS	C			F			F			F		
Intersec. delay	184.6			Intersection LOS						F		

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ABP W M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CORPORATE CENTER
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	OTAYCORP30PA3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	1	0	2	1	1
Lane group	L	TR	R	L	T	R	L	TR		L	TR	R
Volume (vph)	375	1050	400	260	2690	275	515	215	340	525	135	725
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	100	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	SB Only	NB Only	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 25.0	G = 24.0	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	395	1105	421	274	2832	289	542	479		553	371	534
Lane group cap.	425	2113	831	425	2113	892	510	263		531	256	426
v/c ratio	0.93	0.52	0.51	0.64	1.34	0.32	1.06	1.82		1.04	1.45	1.25
Green ratio	0.13	0.43	0.59	0.13	0.43	0.62	0.16	0.16		0.17	0.17	0.30
Unif. delay d1	64.3	31.7	18.2	61.6	43.0	13.6	63.0	63.0		62.5	62.5	52.5
Delay factor k	0.44	0.13	0.12	0.22	0.50	0.11	0.50	0.50		0.50	0.50	0.50
Increm. delay d2	26.9	0.2	0.5	3.4	156.4	0.2	57.6	384.2		50.3	222.7	132.1
PF factor	0.897	0.504	0.121	0.897	0.507	0.132	0.873	0.873		0.867	0.867	0.714
Control delay	84.6	16.2	2.7	58.7	178.2	2.0	112.6	439.2		104.4	276.9	169.6
Lane group LOS	F	B	A	E	F	A	F	F		F	F	F
Apprch. delay	27.3			153.6			265.8			172.2		
Approach LOS	C			F			F			F		
Intersec. delay	140.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./INNOVATIVE DR.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	OTAYINNOV30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	510	2735	90	60	1445	465	40	15	25	250	40	275
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 67.0	G =	G =	G = 30.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	537	2974		63	1521	489	42	42		263	42	289
Lane group cap.	425	2200		425	2212	979	328	160		328	173	365
v/c ratio	1.26	1.35		0.15	0.69	0.50	0.13	0.26		0.80	0.24	0.79
Green ratio	0.13	0.45		0.13	0.45	0.68	0.20	0.10		0.20	0.10	0.26
Unif. delay d1	65.0	41.5		57.5	33.1	11.6	49.3	62.4		57.2	62.3	51.7
Delay factor k	0.50	0.50		0.11	0.26	0.11	0.11	0.11		0.35	0.11	0.34
Increm. delay d2	136.3	161.4		0.2	0.9	0.4	0.2	0.9		13.3	0.7	11.3
PF factor	0.897	0.536		0.897	0.462	0.156	0.833	0.926		0.833	0.926	0.766
Control delay	194.6	183.7		51.7	16.2	2.2	41.2	58.6		61.0	58.4	50.9
Lane group LOS	F	F		D	B	A	D	E		E	E	D
Apprch. delay	185.3			14.0			49.9			55.9		
Approach LOS	F			B			D			E		
Intersec. delay	114.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./INNOVATIVE DR.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	OTAYINNOV30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	2	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	510	2735	90	60	1445	465	40	15	25	250	40	275
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 67.0	G =	G =	G = 30.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	537	2974		63	1521	489	42	42		263	42	289
Lane group cap.	425	2200		425	2212	979	328	160		637	173	365
v/c ratio	1.26	1.35		0.15	0.69	0.50	0.13	0.26		0.41	0.24	0.79
Green ratio	0.13	0.45		0.13	0.45	0.68	0.20	0.10		0.20	0.10	0.26
Unif. delay d1	65.0	41.5		57.5	33.1	11.6	49.3	62.4		52.3	62.3	51.7
Delay factor k	0.50	0.50		0.11	0.26	0.11	0.11	0.11		0.11	0.11	0.34
Increm. delay d2	136.3	161.4		0.2	0.9	0.4	0.2	0.9		0.4	0.7	11.3
PF factor	0.897	0.536		0.897	0.462	0.156	0.833	0.926		0.833	0.926	0.766
Control delay	194.6	183.7		51.7	16.2	2.2	41.2	58.6		44.0	58.4	50.9
Lane group LOS	F	F		D	B	A	D	E		D	E	D
Apprch. delay	185.3			14.0			49.9			48.4		
Approach LOS	F			B			D			D		
Intersec. delay	113.8			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./INNOVATIVE DR.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	OTAYINNOV30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	275	1510	130	85	2545	250	170	70	115	465	90	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 19.0	G = 29.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	289	1726		89	2679	263	179	195		489	202	430
Lane group cap.	425	2084		425	2113	892	317	203		317	197	367
v/c ratio	0.68	0.83		0.21	1.27	0.29	0.56	0.96		1.54	1.03	1.17
Green ratio	0.13	0.43		0.13	0.43	0.62	0.19	0.13		0.19	0.13	0.26
Unif. delay d1	62.0	38.1		58.0	43.0	13.3	54.8	65.1		60.5	65.5	55.5
Delay factor k	0.25	0.37		0.11	0.50	0.11	0.16	0.47		0.50	0.50	0.50
Increm. delay d2	4.4	2.9		0.2	124.4	0.2	2.3	51.8		259.4	70.9	102.5
PF factor	0.897	0.504		0.897	0.504	0.132	0.840	0.903		0.840	0.903	0.766
Control delay	60.0	22.1		52.3	146.1	1.9	48.4	110.6		310.2	130.1	145.0
Lane group LOS	E	C		D	F	A	D	F		F	F	F
Apprch. delay	27.6			130.8			80.8			214.4		
Approach LOS	C			F			F			F		
Intersec. delay	110.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./INNOVATIVE DR.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	OTAYINNOV30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	2	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	275	1510	130	85	2545	250	170	70	115	465	90	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 19.0	G = 29.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	289	1726		89	2679	263	179	195		489	202	430
Lane group cap.	425	2084		425	2113	892	317	203		616	197	367
v/c ratio	0.68	0.83		0.21	1.27	0.29	0.56	0.96		0.79	1.03	1.17
Green ratio	0.13	0.43		0.13	0.43	0.62	0.19	0.13		0.19	0.13	0.26
Unif. delay d1	62.0	38.1		58.0	43.0	13.3	54.8	65.1		57.7	65.5	55.5
Delay factor k	0.25	0.37		0.11	0.50	0.11	0.16	0.47		0.34	0.50	0.50
Increm. delay d2	4.4	2.9		0.2	124.4	0.2	2.3	51.8		7.1	70.9	102.5
PF factor	0.897	0.504		0.897	0.504	0.132	0.840	0.903		0.840	0.903	0.766
Control delay	60.0	22.1		52.3	146.1	1.9	48.4	110.6		55.5	130.1	145.0
Lane group LOS	E	C		D	F	A	D	F		E	F	F
Apprch. delay	27.6			130.8			80.8			103.3		
Approach LOS	C			F			F			F		
Intersec. delay	91.4			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	AIRHARV30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	0	2	2	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		1810	365	470	485		320		415			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A	A	A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 37.0	G = 70.0	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2289		495	511		337		437			
Lane group cap.		1682		842	1731		455		617			
v/c ratio		1.36		0.59	0.30		0.74		0.71			
Green ratio		0.50		0.26	0.50		0.14		0.44			
Unif. delay d1		35.0		44.9	20.5		57.5		32.2			
Delay factor k		0.50		0.18	0.11		0.30		0.27			
Increm. delay d2		166.3		1.1	0.1		6.4		3.8			
PF factor		0.604		0.761	0.333		0.889		0.485			
Control delay		187.5		35.2	6.9		57.5		19.4			
Lane group LOS		F		D	A		E		B			
Apprch. delay	187.5			20.8			36.0					
Approach LOS	F			C			D					
Intersec. delay	117.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	AIRHARV30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		1810	365	470	485		320		415			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A	A	A		A			
Startup lost time		2.0	2.0	2.0	2.0		2.0		2.0			
Ext. eff. green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival type		5	5	5	5		5		5			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0	0	0		0		0			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 37.0	G = 70.0	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1905	384	495	511		337		437			
Lane group cap.		1731	720	842	1731		455		617			
v/c ratio		1.10	0.53	0.59	0.30		0.74		0.71			
Green ratio		0.50	0.50	0.26	0.50		0.14		0.44			
Unif. delay d1		35.0	23.9	44.9	20.5		57.5		32.2			
Delay factor k		0.50	0.14	0.18	0.11		0.30		0.27			
Increm. delay d2		54.7	0.8	1.1	0.1		6.4		3.8			
PF factor		0.333	0.333	0.761	0.333		0.889		0.485			
Control delay		66.3	8.7	35.2	6.9		57.5		19.4			
Lane group LOS		E	A	D	A		E		B			
Apprch. delay	56.7			20.8			36.0					
Approach LOS	E			C			D					
Intersec. delay	43.9			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	AIRHARV30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	0	2	2	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		485	320	415	1810		365		470			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 37.0	G = 60.0	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		848		437	1905		384		495			
Lane group cap.		1490		907	2690		490		666			
v/c ratio		0.57		0.48	0.71		0.78		0.74			
Green ratio		0.46		0.28	0.78		0.15		0.47			
Unif. delay d1		25.6		38.6	7.2		52.9		28.1			
Delay factor k		0.16		0.11	0.27		0.33		0.30			
Increm. delay d2		0.5		0.4	0.9		8.1		4.5			
PF factor		0.429		0.735	0.224		0.879		0.411			
Control delay		11.5		28.7	2.5		54.6		16.1			
Lane group LOS		B		C	A		D		B			
Apprch. delay	11.5			7.4			32.9					
Approach LOS	B			A			C					
Intersec. delay	13.8			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	AIRHARV30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 3B WITH LM WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		485	320	415	1810		365		470			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0	2.0	2.0	2.0		2.0		2.0			
Ext. eff. green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival type		5	5	5	5		5		5			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0	0	0		0		0			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			

Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 37.0	G = 60.0	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		511	337	437	1905		384		495			
Lane group cap.		1598	664	907	2690		490		666			
v/c ratio		0.32	0.51	0.48	0.71		0.78		0.74			
Green ratio		0.46	0.46	0.28	0.78		0.15		0.47			
Unif. delay d1		22.1	24.6	38.6	7.2		52.9		28.1			
Delay factor k		0.11	0.12	0.11	0.27		0.33		0.30			
Increm. delay d2		0.1	0.6	0.4	0.9		8.1		4.5			
PF factor		0.429	0.429	0.735	0.224		0.879		0.411			
Control delay		9.6	11.2	28.7	2.5		54.6		16.1			
Lane group LOS		A	B	C	A		D		B			
Apprch. delay	10.2			7.4			32.9					
Approach LOS	B			A			C					
Intersec. delay	13.5			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	SIEMPHARV30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	455	1665	110	90	2580	465	40	5	35	95	20	140
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 15.0	G = 75.0	G =	G =	G = 10.0	G = 10.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	479	1869		95	3205		42	42		100	168	
Lane group cap.	368	2827		368	2784		126	218		126	218	
v/c ratio	1.30	0.66		0.26	1.15		0.33	0.19		0.79	0.77	
Green ratio	0.12	0.58		0.12	0.58		0.08	0.08		0.08	0.08	
Unif. delay d1	57.5	18.8		52.4	27.5		56.8	56.2		59.0	58.9	
Delay factor k	0.50	0.24		0.11	0.50		0.11	0.11		0.34	0.32	
Increm. delay d2	154.3	0.6		0.4	72.7		1.6	0.4		28.5	15.5	
PF factor	0.913	0.118		0.913	0.413		0.944	0.944		0.944	0.944	
Control delay	206.8	2.8		48.2	84.0		55.2	53.5		84.2	71.1	
Lane group LOS	F	A		D	F		E	D		F	E	
Apprch. delay	44.4			83.0			54.4			76.0		
Approach LOS	D			F			D			E		
Intersec. delay	67.2			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	SIEMPHARV30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM WIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	2	2	1
Lane group	L	TR		L	T	R	L	TR		L	T	R
Volume (vph)	455	1665	110	90	2580	465	40	5	35	95	20	140
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 15.0	G = 75.0	G =	G =	G = 10.0	G = 10.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	479	1869		95	2716	489	42	42		100	21	147
Lane group cap.	368	2827		368	2857	831	126	218		245	266	106
v/c ratio	1.30	0.66		0.26	0.95	0.59	0.33	0.19		0.41	0.08	1.39
Green ratio	0.12	0.58		0.12	0.58	0.58	0.08	0.08		0.08	0.08	0.08
Unif. delay d1	57.5	18.8		52.4	25.8	17.6	56.8	56.2		57.2	55.7	60.0
Delay factor k	0.50	0.24		0.11	0.46	0.18	0.11	0.11		0.11	0.11	0.50
Increm. delay d2	154.3	0.6		0.4	8.2	1.1	1.6	0.4		1.1	0.1	221.8
PF factor	0.913	0.118		0.913	0.118	0.118	0.944	0.944		0.944	0.944	0.944
Control delay	206.8	2.8		48.2	11.2	3.2	55.2	53.5		55.1	52.8	278.5
Lane group LOS	F	A		D	B	A	E	D		E	D	F
Apprch. delay	44.4			11.1			54.4			177.5		
Approach LOS	D			B			D			F		
Intersec. delay	32.2			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	SIEMPHARV30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	125	1530	95	80	1665	120	175	30	145	470	30	455
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 10.0	G = 45.0	G =	G =	G = 20.0	G = 25.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	132	1711		84	1879		184	185		495	511	
Lane group cap.	266	1839		266	1836		342	490		342	479	
v/c ratio	0.50	0.93		0.32	1.02		0.54	0.38		1.45	1.07	
Green ratio	0.08	0.38		0.08	0.38		0.21	0.17		0.21	0.17	
Unif. delay d1	52.6	36.0		51.8	37.5		42.4	44.5		47.5	50.0	
Delay factor k	0.11	0.45		0.11	0.50		0.14	0.11		0.50	0.50	
Increm. delay d2	1.5	9.0		0.7	27.2		1.7	0.5		217.1	60.1	
PF factor	0.939	0.600		0.939	0.600		0.825	0.867		0.825	0.867	
Control delay	50.9	30.6		49.3	49.7		36.6	39.0		256.3	103.4	
Lane group LOS	D	C		D	D		D	D		F	F	
Apprch. delay	32.1			49.6			37.8			178.6		
Approach LOS	C			D			D			F		
Intersec. delay	67.6			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	SIEMPHARV30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//ALT.-3B WITH LM WIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	2	2	1
Lane group	L	TR		L	T	R	L	TR		L	T	R
Volume (vph)	125	1530	95	80	1665	120	175	30	145	470	30	455
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 10.0	G = 45.0	G =	G =	G = 20.0	G = 25.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	132	1711		84	1753	126	184	185		495	32	479
Lane group cap.	266	1839		266	1857	838	342	490		664	577	355
v/c ratio	0.50	0.93		0.32	0.94	0.15	0.54	0.38		0.75	0.06	1.35
Green ratio	0.08	0.38		0.08	0.38	0.58	0.21	0.17		0.21	0.17	0.25
Unif. delay d1	52.6	36.0		51.8	36.3	11.4	42.4	44.5		44.5	42.1	45.0
Delay factor k	0.11	0.45		0.11	0.46	0.11	0.14	0.11		0.30	0.11	0.50
Increm. delay d2	1.5	9.0		0.7	10.5	0.1	1.7	0.5		4.6	0.0	174.8
PF factor	0.939	0.600		0.939	0.600	0.120	0.825	0.867		0.825	0.867	0.778
Control delay	50.9	30.6		49.3	32.3	1.5	36.6	39.0		41.3	36.5	209.8
Lane group LOS	D	C		D	C	A	D	D		D	D	F
Apprch. delay	32.1			31.0			37.8			121.4		
Approach LOS	C			C			D			F		
Intersec. delay	49.4			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYSANYO30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	700	355	1180	90	200	10	655	310	100	75	205	390
% Heavy veh	10	10	10	5	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 35.0	G = 25.0	G =	G =	G = 32.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 135.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	1616		95	222		689	431		79	627	
Lane group cap.	826	790		865	909		389	613		389	565	
v/c ratio	0.89	2.05		0.11	0.24		1.77	0.70		0.20	1.11	
Green ratio	0.26	0.19		0.26	0.19		0.24	0.19		0.24	0.19	
Unif. delay d1	48.2	55.0		38.1	46.9		51.5	51.5		41.3	55.0	
Delay factor k	0.42	0.50		0.11	0.11		0.50	0.27		0.11	0.50	
Increm. delay d2	12.0	474.9		0.1	0.1		357.4	3.6		0.3	71.6	
PF factor	0.767	0.848		0.767	0.848		1.000	1.000		1.000	1.000	
Control delay	49.0	521.6		29.3	40.0		408.9	55.2		41.5	126.6	
Lane group LOS	D	F		C	D		F	E		D	F	
Apprch. delay	373.6			36.8			272.8			117.1		
Approach LOS	F			D			F			F		
Intersec. delay	284.4			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYSANYO30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	2	2	3	1	2	1	1	1	1	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	700	355	1180	90	200	10	655	310	100	75	205	390
% Heavy veh	10	10	10	5	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	5	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 32.0	G = 50.0	G =	G =	G = 30.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	374	1242	95	211	11	689	326	105	79	216	411
Lane group cap.	703	1708	1466	737	1708	494	659	188	504	340	188	504
v/c ratio	1.05	0.22	0.85	0.13	0.12	0.02	1.05	1.73	0.21	0.23	1.15	0.82
Green ratio	0.22	0.34	0.59	0.22	0.34	0.34	0.21	0.10	0.36	0.21	0.10	0.36
Unif. delay d1	56.5	33.7	24.7	45.3	32.5	31.4	57.5	65.0	32.2	47.9	65.0	42.2
Delay factor k	0.50	0.11	0.38	0.11	0.11	0.11	0.50	0.50	0.11	0.11	0.50	0.36
Increm. delay d2	47.3	0.1	4.8	0.1	0.0	0.0	47.5	351.6	0.2	0.4	111.4	10.0
PF factor	0.811	0.649	0.121	0.811	0.649	0.649	1.000	1.000	0.627	1.000	1.000	1.000
Control delay	93.1	21.9	7.8	36.8	21.1	20.4	105.0	416.6	20.4	48.3	176.4	52.2
Lane group LOS	F	C	A	D	C	C	F	F	C	D	F	D
Apprch. delay	36.8			25.8			187.8			89.8		
Approach LOS	D			C			F			F		
Intersec. delay	81.9			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYSANYO30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	290	215	750	100	315	75	1045	205	25	10	310	620
% Heavy veh	10	10	10	5	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 25.0	G =	G =	G = 45.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	305	1015		105	411		1100	242		11	979	
Lane group cap.	417	820		437	919		568	653		568	599	
v/c ratio	0.73	1.24		0.24	0.45		1.94	0.37		0.02	1.63	
Green ratio	0.13	0.19		0.13	0.19		0.35	0.19		0.35	0.19	
Unif. delay d1	54.3	52.5		50.7	46.4		42.5	45.7		28.0	52.5	
Delay factor k	0.29	0.50		0.11	0.11		0.50	0.11		0.11	0.50	
Increm. delay d2	6.5	117.4		0.3	0.3		427.9	0.4		0.0	293.0	
PF factor	0.900	0.841		0.900	0.841		1.000	1.000		1.000	1.000	
Control delay	55.3	161.6		45.9	39.4		470.4	46.0		28.0	345.5	
Lane group LOS	E	F		D	D		F	D		C	F	
Apprch. delay	137.0			40.7			393.9			342.0		
Approach LOS	F			D			F			F		
Intersec. delay	256.5			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	OTAYSANYO30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	2	2	3	1	2	1	1	1	1	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	290	215	750	100	315	75	1045	205	25	10	310	620
% Heavy veh	10	10	10	5	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	3	3	5	3	3	3
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10		0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 17.0	G = 25.0	G =	G =	G = 45.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	305	226	789	105	332	79	1100	216	26	11	326	653
Lane group cap.	417	953	1426	437	953	822	1103	350	515	568	350	531
v/c ratio	0.73	0.24	0.55	0.24	0.35	0.10	1.00	0.62	0.05	0.02	0.93	1.23
Green ratio	0.13	0.19	0.58	0.13	0.19	0.58	0.35	0.19	0.36	0.35	0.19	0.36
Unif. delay d1	54.3	44.4	17.1	50.7	45.4	12.3	42.4	48.1	27.0	28.0	51.7	41.5
Delay factor k	0.29	0.11	0.15	0.11	0.11	0.11	0.50	0.20	0.11	0.11	0.45	0.50
Increm. delay d2	6.5	0.1	0.5	0.3	0.2	0.1	26.4	3.3	0.0	0.0	31.1	119.1
PF factor	0.900	0.841	0.118	0.900	0.841	0.118	1.000	1.000	0.622	1.000	1.000	1.000
Control delay	55.3	37.5	2.5	45.9	38.5	1.5	68.8	51.4	16.8	28.0	82.7	160.6
Lane group LOS	E	D	A	D	D	A	E	D	B	C	F	F
Apprch. delay	20.7			34.3			65.0			133.5		
Approach LOS	C			C			E			F		
Intersec. delay	63.5			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/27/11	Jurisdiction	AIRSANYO30A3BWLM NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1200	490	535	110	210	50	230	120	50	315	260	515
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 50.0	G = 25.0	G =	G =	G = 22.0	G = 25.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1263	1079		116	274		242	179		332	816	
Lane group cap.	1138	559		1138	596		258	585		258	544	
v/c ratio	1.11	1.93		0.10	0.46		0.94	0.31		1.29	1.50	
Green ratio	0.36	0.18		0.36	0.18		0.16	0.18		0.16	0.18	
Unif. delay d1	45.0	57.5		30.0	51.5		58.3	50.0		59.0	57.5	
Delay factor k	0.50	0.50		0.11	0.11		0.45	0.11		0.50	0.50	
Increm. delay d2	62.1	425.2		0.0	0.6		39.5	0.3		155.1	234.5	
PF factor	0.630	0.855		0.630	0.855		0.876	0.855		0.876	0.855	
Control delay	90.5	474.3		18.9	44.6		90.6	43.0		206.8	283.7	
Lane group LOS	F	F		B	D		F	D		F	F	
Apprch. delay	267.3			36.9			70.3			261.4		
Approach LOS	F			D			E			F		
Intersec. delay	225.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/25/11	Jurisdiction	AIRSANYO30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	2	2	2	1	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1200	490	535	110	210	50	230	120	50	315	260	515
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 50.0	G = 25.0	G =	G =	G = 27.0	G = 20.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1263	516	563	116	221	53	242	126	53	332	274	542
Lane group cap.	1138	618	1003	1138	618	579	615	495	760	615	495	1312
v/c ratio	1.11	0.83	0.56	0.10	0.36	0.09	0.39	0.25	0.07	0.54	0.55	0.41
Green ratio	0.36	0.18	0.41	0.36	0.18	0.41	0.19	0.14	0.54	0.19	0.14	0.54
Unif. delay d1	45.0	55.5	31.9	30.0	50.5	25.6	49.3	53.4	15.7	50.9	55.8	19.4
Delay factor k	0.50	0.37	0.16	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.15	0.11
Increm. delay d2	62.1	9.7	0.7	0.0	0.4	0.1	0.4	0.3	0.0	1.0	1.4	0.2
PF factor	0.630	0.855	0.542	0.630	0.855	0.542	0.841	0.889	0.231	0.841	0.889	0.231
Control delay	90.5	57.1	18.0	18.9	43.5	13.9	41.9	47.7	3.7	43.8	51.0	4.7
Lane group LOS	F	E	B	B	D	B	D	D	A	D	D	A
Apprch. delay	65.7			32.2			38.8			27.0		
Approach LOS	E			C			D			C		
Intersec. delay	49.7			Intersection LOS						D		

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N/M

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	AIRSANYO30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	515	210	230	50	490	315	535	260	110	50	120	1200
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 20.0	G =	G =	G = 22.0	G = 55.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	542	463		53	848		563	390		53	1389	
Lane group cap.	569	446		569	458		258	1291		258	1151	
v/c ratio	0.95	1.04		0.09	1.85		2.18	0.30		0.21	1.21	
Green ratio	0.18	0.14		0.18	0.14		0.16	0.39		0.16	0.39	
Unif. delay d1	56.9	60.0		48.0	60.0		59.0	29.3		51.4	42.5	
Delay factor k	0.46	0.50		0.11	0.50		0.50	0.11		0.11	0.50	
Increm. delay d2	26.3	52.8		0.1	391.6		544.6	0.1		0.4	101.4	
PF factor	0.855	0.889		0.855	0.889		0.876	0.569		0.876	0.569	
Control delay	75.0	106.2		41.1	444.9		596.2	16.8		45.4	125.6	
Lane group LOS	E	F		D	F		F	B		D	F	
Apprch. delay	89.4			421.1			359.1			122.6		
Approach LOS	F			F			F			F		
Intersec. delay	229.8			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO AVE.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/11	Jurisdiction	AIRSANYO30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	2	2	2	1	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	515	210	230	50	490	315	535	260	110	50	120	1200
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 25.0	G =	G =	G = 27.0	G = 45.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	542	221	242	53	516	332	563	274	116	53	126	1263
Lane group cap.	569	618	1003	569	618	579	615	1113	768	615	1113	1339
v/c ratio	0.95	0.36	0.24	0.09	0.83	0.57	0.92	0.25	0.15	0.09	0.11	0.94
Green ratio	0.18	0.18	0.41	0.18	0.18	0.41	0.19	0.32	0.54	0.19	0.32	0.54
Unif. delay d1	56.9	50.5	27.3	48.0	55.5	32.1	55.4	35.0	16.4	46.4	33.4	30.5
Delay factor k	0.46	0.11	0.11	0.11	0.37	0.17	0.43	0.11	0.11	0.11	0.11	0.46
Increm. delay d2	26.3	0.4	0.1	0.1	9.7	1.4	18.5	0.1	0.1	0.1	0.0	13.4
PF factor	0.855	0.855	0.542	0.855	0.855	0.542	0.841	0.684	0.231	0.841	0.684	0.231
Control delay	75.0	43.5	14.9	41.1	57.1	18.8	65.1	24.1	3.9	39.0	22.9	20.4
Lane group LOS	E	D	B	D	E	B	E	C	A	D	C	C
Apprch. delay	53.6			42.1			45.8			21.3		
Approach LOS	D			D			D			C		
Intersec. delay	38.6			Intersection LOS						D		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	H. HERTZ DR./PAS. D L AMERICAS
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	3/08/2011	Analysis Year	2030 3B WITH LA MEDIA /NO MIT.
Analysis Time Period	AM PEAK HOUR		

Project Description	3B WITH LA MEDIA/ NO MIT.		
East/West Street:	HEINRICH HERTZ DR.	North/South Street:	PASEO DE LAS AMERICAS
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	720	435	0	0	305	80
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	757	457	0	0	321	84
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	1
Configuration	L	T			T	R
Upstream Signal		0			0	
Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	20	0	360
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	21	0	378
Percent Heavy Vehicles	10	10	10	10	10	10
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (vph)	757					21		378
C (m) (vph)	1076					12		794
v/c	0.70					1.75		0.48
95% queue length	6.17					3.42		2.60
Control Delay	15.9					988.3		13.6
LOS	C					F		B
Approach Delay	--	--				64.9		
Approach LOS	--	--				F		

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERTZ DR./PASEO DE LAS AMERICA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HERTZ AMERIC30A3BWLM WITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	0	0	0	2	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	20		360				720	435			305	80
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 13.0	G = 20.0	G =	G =	G = 39.0	G = 40.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21		379				758	458			405	
Lane group cap.	164		699				956	1065			1027	
v/c ratio	0.13		0.54				0.79	0.43			0.39	
Green ratio	0.10		0.49				0.30	0.31			0.31	
Unif. delay d1	53.3		22.9				41.8	35.9			35.5	
Delay factor k	0.11		0.14				0.34	0.11			0.11	
Increm. delay d2	0.4		0.9				4.6	0.3			0.3	
PF factor	0.926		0.354				0.714	0.704			0.704	
Control delay	49.7		8.9				34.5	25.5			25.2	
Lane group LOS	D		A				C	C			C	
Apprch. delay	11.1						31.1			25.2		
Approach LOS	B						C			C		
Intersec. delay	26.0			Intersection LOS						C		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	H. HERTZ DR./PAS. D L AMERICAS
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	3/08/2011	Analysis Year	2030 3B WITH LA MEDIA /NO MIT.
Analysis Time Period	PM PEAK HOUR		

Project Description	3B WITH LA MEDIA/ NO MIT.		
East/West Street:	HEINRICH HERTZ DR.	North/South Street:	PASEO DE LAS AMERICAS
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	360	310	0	0	435	20
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	378	326	0	0	457	21
Percent Heavy Vehicles	10	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	1
Configuration	L	T			T	R
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	80	0	720
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	0	0	84	0	757
Percent Heavy Vehicles	10	10	10	10	10	10
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (vph)	378					84		757
C (m) (vph)	1009					76		716
v/c	0.37					1.11		1.06
95% queue length	1.76					6.13		19.60
Control Delay	10.7					231.4		73.5
LOS	B					F		F
Approach Delay	--	--					89.3	
Approach LOS	--	--					F	

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERTZ DR./PASEO DE LAS AMERICA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HERTZ AMERIC30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	0	0	0	2	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	80		720				360	310			435	20
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 34.0	G = 16.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 93.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	84		758				379	326			479	
Lane group cap.	529		1049				1165	2010			591	
v/c ratio	0.16		0.72				0.33	0.16			0.81	
Green ratio	0.32		0.73				0.37	0.58			0.17	
Unif. delay d1	22.5		7.1				21.2	9.0			37.0	
Delay factor k	0.11		0.28				0.11	0.11			0.35	
Increm. delay d2	0.1		2.5				0.2	0.0			8.4	
PF factor	0.683		0.186				0.616	0.119			0.861	
Control delay	15.5		3.8				13.2	1.1			40.3	
Lane group LOS	B		A				B	A			D	
Apprch. delay	5.0						7.6			40.3		
Approach LOS	A						A			D		
Intersec. delay	14.2			Intersection LOS						B		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	PASEO DE LAS AMERICAS/MARCONI
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	3/08/2011	Analysis Year	2030 3B W LA MED/NO MITIGATION
Analysis Time Period	AM PEAK HOUR		

Project Description	2030 3B WITH LA MEDIA/NO MITIGATION		
East/West Street:	MARCONI DR.	North/South Street:	PASEO DE LAS AMERICAS
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	385	65	720	290	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	405	68	757	305	0
Percent Heavy Vehicles	0	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	15	0	180	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	15	0	189	0	0	0
Percent Heavy Vehicles	10	0	10	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
v (vph)		757	15		189			
C (m) (vph)		1013	10		707			
v/c		0.75	1.50		0.27			
95% queue length		7.24	2.70		1.08			
Control Delay		18.2	983.1		11.9			
LOS		C	F		B			
Approach Delay	--	--	83.4					
Approach LOS	--	--	F					

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EXCESSIVE DELAY / LOS F

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PASEO DE LAS AMERICAS/MARCONI
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	PASEOMARCONI30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	1	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				15		180		385	65	720	290	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10	5	0	5	10	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 25.0	G =	G =	G =	G = 42.0	G = 15.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 95.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				16		189		473		758	305	
Lane group cap.				432		1070		532		1409	2223	
v/c ratio				0.04		0.18		0.89		0.54	0.14	
Green ratio				0.26		0.75		0.16		0.44	0.64	
Unif. delay d1				26.0		3.5		39.2		19.4	6.7	
Delay factor k				0.11		0.11		0.41		0.14	0.11	
Increm. delay d2				0.0		0.1		16.8		0.4	0.0	
PF factor				0.762		0.198		0.875		0.472	0.140	
Control delay				19.9		0.8		51.1		9.6	1.0	
Lane group LOS				B		A		D		A	A	
Apprch. delay				2.3			51.1			7.1		
Approach LOS				A			D			A		
Intersec. delay	18.5			Intersection LOS						B		

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MIT

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	USAI
Agency/Co.	USAI
Date Performed	3/08/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	PASEO DE LAS AMERICAS/MARCONI
Jurisdiction	SAN DIEGO
Analysis Year	2030 3B W LA MED/NO MITIGATION

Project Description 2030 3B WITH LA MEDIA/NO MITIGATION
East/West Street: MARCONI DR.
North/South Street: PASEO DE LAS AMERICAS
Intersection Orientation: North-South
Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	400	15	360	305	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	421	15	378	321	0
Percent Heavy Vehicles	0	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	65	0	715	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	68	0	752	0	0	0
Percent Heavy Vehicles	10	0	10	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		R			
v (vph)		378	68		752			
C (m) (vph)		1047	81		727			
v/c		0.36	0.84		1.03			
95% queue length		1.66	4.30		18.43			
Control Delay		10.4	147.8		66.3			
LOS		B	F		F			
Approach Delay	--	--	73.1					
Approach LOS	--	--	F					

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EXCESSIVE DELAY//LOS F

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PASEO DE LAS AMERICAS/MARCONI
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	PASEOMARCONI30P3BWLM WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	1	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				65		715		400	15	360	305	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10	5	0	10	5	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 25.0	G = 15.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 113.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				68		753		437		379	321	
Lane group cap.				871		1135		456		705	1348	
v/c ratio				0.08		0.66		0.96		0.54	0.24	
Green ratio				0.53		0.79		0.13		0.22	0.39	
Unif. delay d1				13.0		5.3		48.7		38.9	23.2	
Delay factor k				0.11		0.24		0.47		0.14	0.11	
Increm. delay d2				0.0		1.5		31.6		0.8	0.1	
PF factor				0.245		0.235		0.898		0.811	0.575	
Control delay				3.2		2.7		75.3		32.3	13.4	
Lane group LOS				A		A		E		C	B	
Apprch. delay				2.8			75.3			23.7		
Approach LOS				A			E			C		
Intersec. delay	26.4			Intersection LOS						C		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./OTAY VALLEY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HEROVALLEY30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	560	100	430	300	40	400	700	1490	400	760	2435	1595
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 30.0	G =	G =	G = 30.0	G = 57.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	589	558		316	463		737	1989		800	4242	
Lane group cap.	256	555		256	544		598	1700		598	1644	
v/c ratio	2.30	1.01		1.23	0.85		1.23	1.17		1.34	2.58	
Green ratio	0.16	0.19		0.16	0.19		0.19	0.36		0.19	0.36	
Unif. delay d1	67.5	65.0		67.5	62.8		65.0	51.5		65.0	51.5	
Delay factor k	0.50	0.50		0.50	0.38		0.50	0.50		0.50	0.50	
Increm. delay d2	597.5	39.5		134.5	12.3		118.7	83.2		163.1	712.9	
PF factor	0.877	0.846		0.877	0.846		0.846	0.631		0.846	0.981	
Control delay	656.7	94.5		193.7	65.4		173.7	115.7		218.1	763.5	
Lane group LOS	F	F		F	E		F	F		F	F	
Apprch. delay	383.2			117.5			131.4			676.9		
Approach LOS	F			F			F			F		
Intersec. delay	443.8			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./OTAY VALLEY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HEROVALLEY30A3BWLM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B/WITH

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	560	100	430	300	40	400	700	1490	400	760	2435	1595
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 30.0	G =	G =	G = 30.0	G = 57.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	589	105	453	316	42	421	737	1568	421	800	2563	1679
Lane group cap.	498	649	579	498	649	579	598	1765	781	598	1765	1361
v/c ratio	1.18	0.16	0.78	0.63	0.06	0.73	1.23	0.89	0.54	1.34	1.45	1.23
Green ratio	0.16	0.19	0.41	0.16	0.19	0.41	0.19	0.36	0.54	0.19	0.36	0.54
Unif. delay d1	67.5	54.5	41.3	63.2	53.5	40.0	65.0	48.5	23.6	65.0	51.5	36.5
Delay factor k	0.50	0.11	0.33	0.21	0.11	0.29	0.50	0.41	0.14	0.50	0.50	0.50
Increm. delay d2	101.2	0.1	6.9	2.7	0.0	4.6	118.7	6.0	0.8	163.1	206.7	111.7
PF factor	0.877	0.846	0.544	0.877	0.846	0.544	0.846	0.631	0.205	0.846	0.631	0.503
Control delay	160.4	46.2	29.4	58.1	45.3	26.4	173.7	36.6	5.6	218.1	239.2	130.1
Lane group LOS	F	D	C	E	D	C	F	D	A	F	F	F
Apprch. delay	98.2			40.2			68.9			199.5		
Approach LOS	F			D			E			F		
Intersec. delay	138.0			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./OTAY VALLEY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HEROVALLEY30P3BWLM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B/NO MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1765	40	715	400	100	700	285	2065	300	460	1345	585
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 20.0	G =	G =	G = 25.0	G = 50.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1858	795		421	842		300	2490		484	2032	
Lane group cap.	405	380		405	386		531	1615		531	1564	
v/c ratio	4.59	2.09		1.04	2.18		0.56	1.54		0.91	1.30	
Green ratio	0.25	0.13		0.25	0.13		0.17	0.33		0.17	0.33	
Unif. delay d1	56.5	65.0		56.5	65.0		57.5	50.0		61.4	50.0	
Delay factor k	0.50	0.50		0.50	0.50		0.16	0.50		0.43	0.50	
Increm. delay d2	1620	500.4		55.3	540.1		1.4	246.9		20.0	139.5	
PF factor	1.000	0.897		0.782	0.897		0.867	0.667		0.867	0.667	
Control delay	1677	558.7		99.5	598.4		51.2	280.3		73.2	172.8	
Lane group LOS	F	F		F	F		D	F		E	F	
Apprch. delay	1342			432.1			255.6			153.7		
Approach LOS	F			F			F			F		
Intersec. delay	564.4			Intersection LOS						F		

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./OTAY VALLEY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	HEROVALLEY30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B/WITH MIT

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1765	40	715	400	100	700	285	2065	300	460	1345	585
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 37.0	G = 20.0	G =	G =	G = 25.0	G = 50.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1858	42	753	421	105	737	300	2174	316	484	1416	616
Lane group cap.	786	462	471	786	462	471	531	1651	880	531	1651	1534
v/c ratio	2.36	0.09	1.60	0.54	0.23	1.56	0.56	1.32	0.36	0.91	0.86	0.40
Green ratio	0.25	0.13	0.33	0.25	0.13	0.33	0.17	0.33	0.61	0.17	0.33	0.61
Unif. delay d1	56.5	57.0	50.0	49.0	58.1	50.0	57.5	50.0	14.4	61.4	46.7	14.9
Delay factor k	0.50	0.11	0.50	0.14	0.11	0.50	0.16	0.50	0.11	0.43	0.39	0.11
Increm. delay d2	617.7	0.1	279.3	0.7	0.3	264.3	1.4	146.9	0.3	20.0	4.8	0.2
PF factor	0.793	0.897	0.667	0.782	0.897	0.667	0.867	0.667	0.129	0.867	0.667	0.129
Control delay	662.5	51.3	312.6	39.1	52.4	297.7	51.2	180.3	2.1	73.2	35.9	2.1
Lane group LOS	F	D	F	D	D	F	D	F	A	E	D	A
Apprch. delay	553.5			191.1			146.2			34.8		
Approach LOS	F			F			F			C		
Intersec. delay	239.1			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AVIATOR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	LAMEDAVIAT30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	2	3	0	0	3	0
Lane group	L		R				L	T			TR	
Volume (vph)	280		280				320	1855			2550	320
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 30.0	G = 67.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	295		295				337	1953			3021	
Lane group cap.	490		589				735	3848			2504	
v/c ratio	0.60		0.50				0.46	0.51			1.21	
Green ratio	0.15		0.42				0.23	0.78			0.52	
Unif. delay d1	51.3		28.1				43.0	5.3			31.5	
Delay factor k	0.19		0.11				0.11	0.12			0.50	
Increm. delay d2	2.1		0.7				0.5	0.1			96.9	
PF factor	0.879		0.526				0.800	0.224			0.439	
Control delay	47.2		15.4				34.9	1.3			110.8	
Lane group LOS	D		B				C	A			F	
Apprch. delay	31.3						6.2			110.8		
Approach LOS	C						A			F		
Intersec. delay	62.3			Intersection LOS						E		

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52A w/ MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AVIATOR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	LAMEDAVIAT30A3BWLM/NWITH MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	280		280				320	1855			2550	320
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	5		5				5	5			5	3
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 30.0	G = 67.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	295		295				337	1953			2684	337
Lane group cap.	490		589				735	3848			2553	742
v/c ratio	0.60		0.50				0.46	0.51			1.05	0.45
Green ratio	0.15		0.42				0.23	0.78			0.52	0.52
Unif. delay d1	51.3		28.1				43.0	5.3			31.5	19.9
Delay factor k	0.19		0.11				0.11	0.12			0.50	0.11
Increm. delay d2	2.1		0.7				0.5	0.1			33.2	0.4
PF factor	0.879		0.526				0.800	0.224			0.291	1.000
Control delay	47.2		15.4				34.9	1.3			42.3	20.4
Lane group LOS	D		B				C	A			D	C
Apprch. delay	31.3						6.2			39.9		
Approach LOS	C						A			D		
Intersec. delay	26.0			Intersection LOS						C		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AVIATOR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	LAMEDAVIAT30P3BWLM/NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	2	3	0	0	3	0
Lane group	L		R				L	T			TR	
Volume (vph)	320		320				280	2550			1855	280
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 35.0	G = 52.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB	
Adj. flow rate	337		337				295	2684			2248
Lane group cap.	531		699				930	3756			2098
v/c ratio	0.63		0.48				0.32	0.71			1.07
Green ratio	0.17		0.49				0.29	0.76			0.43
Unif. delay d1	46.6		20.3				33.2	7.6			34.0
Delay factor k	0.22		0.11				0.11	0.28			0.50
Increm. delay d2	2.5		0.5				0.2	0.7			42.0
PF factor	0.867		0.355				0.725	0.207			0.490
Control delay	42.9		7.7				24.3	2.2			58.7
Lane group LOS	D		A				C	A			E
Apprch. delay	25.3						4.4				58.7
Approach LOS	C						A				E
Intersec. delay	27.5			Intersection LOS							C

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./AVIATOR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	LAMEDAVIAT30P3BWLM/WITH MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	320		320				280	2550			1855	280
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	5		5				5	5			5	3
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0

Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 35.0	G = 52.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	337		337				295	2684			1953	295
Lane group cap.	531		699				930	3756			2146	623
v/c ratio	0.63		0.48				0.32	0.71			0.91	0.47
Green ratio	0.17		0.49				0.29	0.76			0.43	0.43
Unif. delay d1	46.6		20.3				33.2	7.6			31.8	24.2
Delay factor k	0.22		0.11				0.11	0.28			0.43	0.11
Increm. delay d2	2.5		0.5				0.2	0.7			6.3	0.6
PF factor	0.867		0.355				0.725	0.207			0.490	1.000
Control delay	42.9		7.7				24.3	2.2			21.9	24.8
Lane group LOS	D		A				C	A			C	C
Apprch. delay	25.3						4.4			22.3		
Approach LOS	C						A			C		
Intersec. delay	13.6			Intersection LOS						B		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY VALLEY./AV. DE LAS VISTAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	OVAVDLV30A3BWLM/NO MIT
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	300	10	275	60	5	65	70	2480	140	360	4995	75
% Heavy veh	2	2	2	10	2	10	2	10	10	10	10	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 30.0	G =	G =	G = 30.0	G = 57.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	316	300		63	5	68	74	2758		379	5337	
Lane group cap.	277	304		256	368	266	332	1747		308	1761	
v/c ratio	1.14	0.99		0.25	0.01	0.26	0.22	1.58		1.23	3.03	
Green ratio	0.16	0.19		0.16	0.19	0.19	0.19	0.36		0.19	0.36	
Unif. delay d1	67.5	64.8		59.2	52.9	55.5	55.1	51.5		65.0	51.5	
Delay factor k	0.50	0.49		0.11	0.11	0.11	0.11	0.50		0.50	0.50	
Increm. delay d2	97.6	47.9		0.5	0.0	0.5	0.3	263.2		128.8	915.3	
PF factor	0.877	0.846		0.877	0.846	0.846	0.846	0.631		0.846	1.000	
Control delay	156.7	102.7		52.4	44.8	47.4	47.0	295.7		183.8	966.8	
Lane group LOS	F	F		D	D	D	D	F		F	F	
Apprch. delay	130.4			49.7			289.2			914.9		
Approach LOS	F			D			F			F		
Intersec. delay	659.8			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY VALLEY./AV. DE LAS VISTAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/08/11	Jurisdiction	OVAVDLV30P3BWLM NO MIT
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B WITH LM

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	75	5	70	140	10	360	275	4565	60	65	2675	300
% Heavy veh	2	2	2	10	2	10	2	10	10	10	10	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	

Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 15.0	G =	G =	G = 20.0	G = 82.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	79	79		147	11	379	289	4868		68	3132	
Lane group cap.	177	160		164	196	139	236	2701		219	2678	
v/c ratio	0.45	0.49		0.90	0.06	2.73	1.22	1.80		0.31	1.17	
Green ratio	0.10	0.10		0.10	0.10	0.10	0.13	0.55		0.13	0.55	
Unif. delay d1	63.6	63.9		66.7	61.1	67.5	65.0	34.0		58.8	34.0	
Delay factor k	0.11	0.11		0.42	0.11	0.50	0.50	0.50		0.11	0.50	
Increm. delay d2	1.8	2.4		41.9	0.1	796.9	132.7	362.5		0.8	80.7	
PF factor	0.926	0.926		0.926	0.926	0.926	0.897	1.000		0.897	0.413	
Control delay	60.7	61.6		103.7	56.7	859.4	191.1	396.5		53.6	94.7	
Lane group LOS	E	E		F	E	F	F	F		D	F	
Apprch. delay	61.1			636.1			385.0			93.8		
Approach LOS	E			F			F			F		
Intersec. delay	291.3			Intersection LOS						F		

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